Additional Budget Estimates February 2018

Environment and Energy Portfolio – Monday 26 February 2018

Question No	Program: Division or Agency	Senator	Title	Question	Proof Hansard Page & Hearing Date or In Writing	Comment
1	Corporate: PAAI	Moore	Sustainable development goals - indicators	Senator MOORE: Can you give me any indication from your division—international—whether you are involved in any more activities around the essential processes of coming up with agreed international benchmarks? Dr Bacon: Yes, absolutely. There are a range of ways that we're engaging— Senator MOORE: Rather than talk through it all at the moment, can you give me a little bit and then I'll put it on notice as well. I'm really trying to get it quantified in my mind exactly what we're doing where. There have been a number of documents there. Can you give me the highlights and then give me a more detailed response in writing. Dr Bacon: We'll run through the detail on notice, but probably the highlight would be in answer to your question that went to the indicators and what we're doing there. We've been talking to some of our counterpart countries, particularly the United Kingdom and the United States, and we've been looking at how they have approached assessing their data and doing their baseline data around the environment and energy indicators. We've had a look at their voluntary national reviews and how those countries have approached those, but in particular we've been looking at how they've approached their baseline data. The UK reported on 12 of the energy and environment indicators—that was probably the number they were well placed to	Page 6	SQ18-000021

				report on—and the US reported on nine of the indicators in relation to those goals. Senator MOORE: And they both reported very early too. Dr Bacon: They're reporting early, as are we. It's relatively early in the life of the SDGs. We're anticipating at this point that we'll probably be well placed to report on a similar number, but we haven't finished doing the analysis to be able to pinpoint that yet. Senator MOORE: This is ongoing work—this interaction with other nations around the process? Dr Bacon: That's right, yes. And we can provide more detail on notice.		
2	Corporate: CSD	Urquhart	Budget for environment programs	Senator URQUHART: Mr Pratt, I want to talk about some of the areas around the budget and particularly the budget for the environment programs and the department. We know that's been decreasing over a period of time, but are there any areas of the department or the environment programs that have been expanded? Mr Pratt: I believe so. I'll look again to Dr Bacon. Senator URQUHART: And have they had a budget increase since the Labor government? Dr Bacon: If you'd like me to respond in the first instance—there are a range of areas across the portfolio where the government is making a significant investment. They would include things like over \$1 billion for the National Landcare Program— Senator URQUHART: Sorry, Dr Bacon—are these programs that have been expanded? You've said the government's making an investment, but is it actually an expansion? Dr Bacon: I'd probably have to take that on notice in terms of the nature of the information.	Page 7	SQ18-000022
3	Corporate: CSD	Urquhart	Expansion of environmental programs	Ms Goodwin: The department's total budget appropriation for 2017-18 is \$446.1 million. This includes updates from the portfolio additional estimates statement of \$4.1 million	Pages 7–	SQ18-000023

since the PBS— Senator URQUHART: Is that an increase since the Labor government? Ms Goodwin: I'll have to take that on notice because I'm only referring to the last financial year. **Mr Cahill:** We'd have to take that on notice because there have been some machinery-of-government changes since then. That would create a bit of noise— **Senator URQUHART:** That's what I'm after. I'm specifically after whether there are any areas of the department or any environmental programs that have been expanded. **Ms Goodwin:** That's probably a question to take on notice because it's such a broad category. To answer that accurately, as you're asking, it's best for us to take it on notice. **Senator URQUHART:** You don't know? **Ms Goodwin:** I can go through a list of increases over the last year: the Australian Domestic Gas Security Mechanism, \$4.51 million; Energy for the Future, \$0.47 million—these are the changes in our appropriation. **Senator URQUHART:** Are they additional or are they just changes? Ms Goodwin: They're additional. **Mr Pratt:** If you go to our portfolio additional estimates statement, you'll see that there have been some modest increases. The last statement on page 14 sets out the things which Ms Goodwin was just talking through. In terms of your question about expansions since the last government, that is quite a complicated thing to work through because there would be ons and offs across a range of measures and programs, and it is complicated also by the fact that we have had a number of machinery-of-government changes during that time. I think we'd have to take that on notice. Senator URQUHART: You can't tell me whether or not there have been expansions of the department or the environment programs?

				Mr Pratt: Generally, there have been expansions in some areas and contractions in others. Senator URQUHART: But you don't have that detail on hand? Mr Pratt: No. Senator URQUHART: Why would you not have that on hand? Senator Birmingham: Because these are the 2018 estimates. It would not be usual for officials to bring budget papers from five years ago with them. Senator URQUHART: But you would know whether or not there had been expansions to programs. Senator Birmingham: Well, officials did, in general terms, start to answer your question, and you asked them for specifics. If you'd like them to go back to the general terms, they can do that. But, unsurprisingly, they don't have the 2012-13 budget papers with them. Mr Pratt: We have that information in the department, but we would have to take it on notice to give it to you. Senator URQUHART: If you can take that on notice and give us some more verification, I'll ask some other specific questions later.		
4	Corporate: CSD	Keneally	Budget – highest amount of funding to the Department between 2013-14 and 2017-18	Senator KENEALLY: Mr Pratt, which budget has dedicated the highest amount of funding to the department between 2013-14 and 2017-18? Mr Pratt: I'll have to take that on notice for you.	Page 8	SQ18-000024
5	Corporate: CSD	Keneally	Budget – lowest amount of funding to the Department between 2013-14 and 2017-18	Senator KENEALLY: Thank you. Which budget has dedicated the lowest amount of funding to the department between 2013-14 and 2017-18? Mr Pratt: Again, I'll have to take that on notice.	Page 8	SQ18-000025
6	Corporate: CSD	Keneally	Permanent employees	Senator KENEALLY: Can you provide figures on the difference between the current number of permanent employees and those that were in the department in 2013?	Page 8	SQ18-000026

				Ms Goodwin: I'm afraid my numbers don't go back to 2013, so I will take that on notice.		
7	Corporate: CSD	Keneally	Environmental spending	Senator KENEALLY: Thank you. Mr Pratt, going back to the budget, would it be accurate to say, that despite the general increases to the federal budget, environmental spending on the department has decreased since 2013? Mr Pratt: I have to apologise, Senator; I can't give you that history. I've been with the department for four months, so I have only seen its performance this year and its budget this year. Again, we'll have to take that on notice.	Page 8	SQ18-000027
8	Corporate: CSD	Keneally	Staffing in divisions – data since 2013	Ms Goodwin: Also, in terms of the numbers, there have been a number of MOGs, machinery-of-government changes, both in and out of the department, which change our numbers around quite significantly. Senator KENEALLY: Okay. We can take that one on notice—thank you. In terms of the data on the employees, can you also take on notice, Ms Goodwin, that the department provide data on changes in staffing in each division then, since 2013? Ms Goodwin: We can take that on notice, noting that there would've been a number of structural changes across that period, and probably multiple structural changes across that period, so divisions will have existed. They will have been disbanded et cetera, so in terms of accuracy, the comparison from 2013 to today— Mr Pratt: We will see what we can give you, but I would hate for us to over promise and under deliver here. That is pretty challenging, because those divisions will have changed in many ways over that time. They're not the same entities throughout that period. We'll have a look at it. Without wanting to be pessimistic going into the exercise, I suspect we're not going to be very helpful. Senator KENEALLY: That's disappointing, but thank you.	Page 9	SQ18-000028

9	Corporate: CSD	Keneally	Staffing reductions	Ms Goodwin: I will reclarify that for you. The department is 1,986, the ASL, and the Director of National Parks is 326, which is a total of 2,312. It's 1,982 for next year and the Director of National Parks, I think, remains the same, but I'll clarify that for you if it's different. It's only a minor reduction. It depends on any lapse in programs, so where there's a lapse in programs that will equate to a staffing reduction. Senator KENEALLY: Can you tell us what divisions and programs those are? Mr Cahill: We will take that on notice. We work through our budget process. We're going through the internal budgeting process for next year, and that's working out where the resources will focus. We'll take that on notice and get that back to you.	Page 9	SQ18-000029
10	Corporate: CSD	Urquhart	Ministerial functions	In relation to any functions or official receptions hosted by Ministers or Assistant Ministers in the portfolio in calendar year 2017, can the following please be provided: • List of functions; • List of attendees including departmental officials and members of the Minister's family or personal staff; • Function venue; • Itemised list of costs (GST inclusive); • Details of any food served; • Details of any wines or champagnes served including brand and vintage; and • Details of any entertainment provided.	Written	SQ18-000205
11	Corporate: CSD	Urquhart	Departmental functions	In relation to expenditure on any functions or official receptions etc hosted by the Department or agencies in the portfolio in calendar year 2017, can the following please be provided: • List of functions; • List of attendees;	Written	SQ18-000206

				 Function venue; Itemised list of costs (GST inclusive); Details of any food served; Details of any wines or champagnes served including brand and vintage; and Details of any entertainment provided. 		
12	Corporate: CSD	Urquhart	Executive office upgrades	Were the furniture, fixtures or fittings of the Secretary's office, or the offices of any Deputy Secretaries, upgraded in calendar year 2017? If so, can an itemised list of costs please be provided (GST inclusive)?	Written	SQ18-000207
13	Corporate: CSD	Urquhart	Facilities upgrades	Were the facilities of any of the Department's premises upgraded in calendar year 2017, for example, staff room refurbishments, kitchen refurbishments, bathroom refurbishments, the purchase of any new fridges, coffee machines, or other kitchen equipment? a. If so, can a detailed description of the relevant facilities upgrade please be provided together with an itemised list of costs (GST inclusive)? Can any photographs of the upgraded facilities please be provided?	Written	SQ18-000208
14	Corporate: CSD	Urquhart	Staff travel	What was the total cost of staff travel for departmental employees in calendar year 2017?	Written	SQ18-000209
15	Corporate: CSD	Urquhart	Media monitoring	What was the Department's total expenditure on media monitoring in calendar year 2017?	Written	SQ18-000210
16	Corporate: CSD	Urquhart	Advertising and information campaigns	What was the Department's total expenditure on advertising and information campaigns in calendar year 2017?	Written	SQ18-000211
17	Corporate: CSD	Urquhart	Promotional merchandise	What was the Department's total expenditure on promotional merchandise in calendar year 2017?	Written	SQ18-000212
18	Corporate: PAID	Urquhart	Ministerial overseas travel	Can a copy of all correspondence exchanged between Ministers or Assistant Ministers in the portfolio and the	Written	SQ18-000213

				Prime Minister in relation to approval for overseas travel in calendar year 2017 please be provided?		
19	1.1: BCD	Chisholm	FOI Requests	Senator CHISHOLM: <i>The Guardian</i> Australia requested FOI documents relating to the internal audits for a number of projects of questionable threatened species benefit but only received one document. Why couldn't the other FOI requests be met, and can the department provide advice to the committee on these documents? Ms Jonasson: We don't have the details but, as you'd understand, under the Freedom of Information Act there are various exemptions that will be given effect to if the total document wasn't provided. But we'd be happy to provide that information on notice. I just don't have the detailed response to that FOI here with me today.	Page 58	SQ18-000030
20	1.1: BCD	Chisholm	Threatened Species project funding	Senator CHISHOLM: I'll push on with the specifics, but you might have to take them on notice. In regard to the threatened species projects from the original \$80 million that the government listed in the 2015, the first, threatened species strategy, they put an FOI in around projects that were part of that first strategy but weren't given any documents. Is there anyone who can provide any information as to why that was the case? Ms Jonasson: Again, I'm afraid I'll have to take that on notice. I'm sorry; I don't have that detail with me.	Page 58	SQ18-000031
21	1.1: BCD	Chisholm	Threatened Species Commissioner funding	Senator CHISHOLM: I presume there are other departmental programs that would fund similar work to what the Threatened Species Commissioner does? Ms Jonasson: Yes. I guess the work under the Threatened Species Commissioner is funded under a number of different programs. We have mentioned the Green Army and we have mentioned 20 Million Trees. There is an environmental small grants round open now—\$5 million small grants. If eligible projects are selected, they may go to threatened species opportunities. We also fund science and	Page 60	SQ18-000032

				research under the NESP program which my colleague in another outcome can talk in much greater detail about than I can. But, yes, we provide funding for threatened species purposes through many programs in the department. Senator CHISHOLM: Just to be specific on that—I asked in an obtuse way—is that a thorough list of programs that would be used by the department to tackle the extinction crisis or threatened species crisis? Ms Jonasson: That's not a comprehensive list. But I can provide on notice, if you like, some further information for you.		
22	1.1: BCD	Chisholm	Threatened Species Commissioner Private funding	Senator CHISHOLM: Sure. Dr Box, Mr Andrews used to talk glowingly about his work in trying to raise money out of corporates to spend on threatened species. I was just wondering if you could give us an update about how much money has been raised from the corporate sector in this important fight? Dr Box: I don't have a total figure about how much has been raised from the corporate sector, but you're aware that we have a Threatened Species Prospectus, which includes 51 projects valued at over \$50 million. It is there, essentially, as a tool for mobilising the business sector's investment in threatened species projects. To date, the prospectus has helped mobilise more than \$5 million for 19 projects that are benefitting Australia's plants and animals. This \$5 million is a combination of Australian government investment and external investment—that's in the first approximate year of the Threatened Species Prospectus. We have secured funding for 19 of those projects. Senator CHISHOLM: You said that \$5 million was some federal money and some private? Dr Box: Yes. Senator CHISHOLM: What's the actual private figure? Dr Box: I would have to take that on notice. Senator CHISHOLM: Thanks.	Page 62	SQ18-000033

23	1.1: BCD	Rice	Recovery Plans	Senator RICE: I'll begin with a continuation of those general questions about recovery plans. Was that 712 recovery plans that exist or have been undertaken?	Page 62	SQ18-000034
				Mr Richardson: The number I've got in front of me is 746, but that covers threatened species and threatened ecological communities, so your colleague might well be		
				right about the species. Senator RICE: And you said that there's no systemic evaluation of the effectiveness of these recovery plans, other than when the recovery plans are reviewed?		
				Mr Richardson: Yes, and when the status of the species is reviewed. Senator RICE: Yes. How many of those 746 recovery		
				plans have been reviewed—they're into their second or greater iteration? Mr Richardson: I'd have to take that on notice. I couldn't		
				tell you off the top of my head. Senator RICE: Would it be a small proportion of them? Mr Richardson: Relatively small—I'd have to take it on		
				notice.		
24	1.1: BCD	Rice	Greater Glider	Senator RICE: In the conservation advice you identified logging forestry practices as being one of the threatening processes for the greater glider. Do any of these projects relate to the impacts of logging operations? Dr Box: I'm not aware of whether they do.	Page 63	SQ18-000035
				Ms Jonasson: We can take that on notice.		
25	1.1: BCD	Rice	The Greater Glider and The Green	Senator RICE: Thank you. I want to continue on the discussion about the actions regarding greater gliders,	Pages 63–64	SQ18-000036
			Army Project	which were listed as vulnerable in May 2016. What actions, if any, have been triggered since that listing?		
				Dr Box: I can provide a summary of departmental funding for projects that could support outcomes for the greater glider. There are a number of projects to the approximate		
				value of \$1.8 million that are supporting outcomes for a number of species, including the greater glider. It includes		

				Green Army projects, some research support through the National Environmental Science Program and also a targeted threatened species project, which is a project that's occurring across three national parks and includes fire management and weed control activities, which are activities identified in the greater glider recover plan. Senator RICE: I understand there isn't yet a greater glider recovery plan. Dr Box: Sorry; it was the conservation advice. So I guess this project is occurring across habitats where the greater glider is known or likely to occur. Senator RICE: In the conservation advice you identified logging forestry practices as being one of the threatening processes for the greater glider. Do any of these projects relate to the impacts of logging operations? Dr Box: I'm not aware of whether they do. Ms Jonasson: We can take that on notice. Senator RICE: In brief, can you expand a bit more on, for example, the Green Army project? What are the details of that? Dr Box: I don't have that information in front of me. I'd have to take that on notice. Senator RICE: If you could take on notice the details of those projects, that would be good. Dr Box: Certainly.		
26	1.1: BCD	Whish- Wilson	Raking of the Tamar River	Senator WHISH-WILSON: Did we ever find out whether we got any bang for our buck out of the federal funding that went into raking the river? Was there ever a report produced to support or otherwise that expenditure? Mr Costello: Every project has a final report. There was a \$3 million project that ran from 2014 to 2017, and we are still waiting on the final analysis and report of that. Of course, the impact of the raking needs to be considered in light of the very significant flood event that occurred. There was clearly a significant scouring of the sediment. There would be some attribution of that to the sediment raking	Page 66	SQ18-000037

				that was undertaken in the lead up to that flood and at the tail end of it, but obviously the flood itself was the major contributor to the scouring that took place. Senator WHISH-WILSON: Could you take on notice when that report might be released and how might I get a copy of it? Mr Costello: I can.		
27	1.1: BCD	Whish- Wilson	Tamar Canal Project	Senator WHISH-WILSON: Yes, like the Tamar Lake proposal. Would that come to you guys for assessment, if it were prioritised as a project for state or federal Liberal governments? Mr Costello: The first port of call would be the local authority, so either the local government or the state government. Our primary responsibility for the management of the river system is there if it came to the Commonwealth and if we were asked to advise on it, then we would take a look at it. We don't have any other-than funding that is allocated to the project to date—to date we don't have a process or a program that would fund any further works. Senator WHISH-WILSON: You wouldn't know if that type of project would need EPBC approval? Mr Costello: I don't have a view on that. That would be up to the proponent to identify whether they needed to refer it. Senator WHISH-WILSON: Was there anything on a Tamar canal project? To run a canal from Tailrace down to the yacht club and still water. Mr Costello: I think that was raised in some of the public meetings or public submissions but I would have to take any report on notice. Senator WHISH-WILSON: If you could take it on notice, that would be greatly appreciated.	Page 66	SQ18-000038
28	1.1: BCD	Patrick	Threatened Ecological Community	2017 was the first year that a Threatened Ecological Community was not included on the schedules of the EPBC Act, despite Minister Frydenberg being provided with	Written	SQ18-000003

			decisions	supportive Threatened Species Scientific Committee advice for at least two communities. The next Threatened Ecological Community decision that the Minister is due to make is on World Wildlife Day (March 3) for <i>Poplar/bimble box grassy woodland on alluvial plains</i> . Is the Department confident that the Minister has been provided with adequate information to make a listing decision by this date?		
29	1.1: BCD	Patrick	Ministerial use of S194Q and the Threatened Ecological Community	How many times in the EPBC Act's history has a Minister for the Environment used S194Q to defer their decision to list a Threatened Ecological Community?	Written	SQ18-000004
30	1.1: BCD	Patrick	Threatened Ecological Community listings - Staffing allocations	How many staff are employed in the section that prepares assessment documentation for potential Threatened Ecological Community listings? How does this compare to staff levels within the same section five and 10 years ago?	Written	SQ18-000005
31	1.1: BCD	Keneally	Monitoring of prices of Tuna sold at Tokyo's Tsukiji market	Do any staff in the Environment portfolio (or an associated Minister's office) monitor the prices of Tuna sold at Tokyo's Tsukiji market? Why/why not? a. Do any staff in the Environment portfolio (or an associated Minister's office) monitor the prices of Australian Southern Bluefin Tuna sold at Tokyo's Tsukiji market? Why/why not? b. What is the average annual price for an Australian Southern Bluefin Tuna sold at Tokyo's Tsukiji market? c. Can you please provide annual price data for the last ten years? d. What is the average annual volume of Australian Southern Bluefin Tuna sold at Tokyo's Tsukiji market? e. Can you please provide annual volume data for the last ten years?	Written	SQ18-000118

				f. What is the average (per fish) weight of Australian Southern Bluefin Tuna sold at Tokyo's Tsukiji market? g. Can you please provide annual average weight per fish data for the last ten years? h. What is the record price for an Australian Southern Bluefin Tuna sold at Tokyo's Tsukiji market?		
32	1.1: BCD	Keneally	Price of tuna at Tokyo's Tsukiji market	Does the price of Tuna at Tokyo's Tsukiji market influence any staff in the Environment portfolio (or an associated Minister's office) decisions on commercial fisheries management? a. Does the price of Australian Southern Bluefin Tuna at Tokyo's Tsukiji market influence any staff in the Environment portfolio (or an associated Minister's office) decisions on commercial fisheries management?	Written	SQ18-000119
33	1.1: BCD	Keneally	Tuna industry – annual export value	What is the current annual export value of the Australian Tuna industry? a. What is the current annual export value of Australian Southern Bluefin?	Written	SQ18-000294
34	1.1: BCD	Keneally	Australian tuna industry –jobs	What is the estimates current annual value of the Australian Tuna industry? a. How many full time jobs does the Australian Tuna industry support directly? b. How many full time jobs does the Australian Tuna industry support indirectly?	Written	SQ18-000295
35	1.1: BCD	Keneally	Australian Southern Bluefin industry – jobs	What is the estimated current annual value of Australian Southern Bluefin industry? a. How many full time jobs does the Australian Southern Bluefin Tuna industry support directly? b. How many full time jobs does the Australian Southern Bluefin Tuna industry support indirectly?	Written	SQ18-000296

36	1.1: BCD	Keneally	Tuna industry – export value of last ten financial years	Can you please provide the annual (worldwide) export value of the Australian Tuna industry for the last ten financial years? (from 2007-08 to 2016-17) a. Can you please provide the annual (worldwide) export value of the Australian Southern Bluefin Tuna industry for the last ten financial years? (from 2007-08 to 2016-17)	Written	SQ18-000297
37	1.1: BCD	Keneally	Tuna industry – value exported to Japan	What is the annual value of all Australian Tuna exported to Japan? a. What is the annual value of all Australian Southern Bluefin Tuna exported to Japan?	Written	SQ18-000298
38	1.1: BCD	Keneally	Tuna industry – value exported to Japan over the last ten financial years	Can you please provide the annual value of Australian Tuna exported to Japan over the last ten financial years? (from 2007-08 to 2016-17) a. Can you please provide the annual value of Australian Southern Bluefin Tuna exported to Japan over the last ten financial years? (from 2007-08 to 2016-17)	Written	SQ18-000299
39	1.1: BCD	Keneally	Australian tuna stocks - monitoring	How are (all) Australian Tuna stocks monitored and evaluated? How much money is allocated to monitoring and evaluating Australian Tuna stocks? How are Australian Southern Bluefin Tuna stocks monitored and evaluated? How much money is allocated to monitoring and evaluating Australian Southern Bluefin Tuna stocks?	Written	SQ18-000300
40	1.1: BCD	Keneally	Australian tuna stocks - data	Can you please provide data on (or estimates of) Australian Tuna stocks over the last ten years? Can you please provide data on (or estimates of) Australian Blue Fin Tuna stocks over the last ten years?	Written	SQ18-000301
41	1.1: BCD	Keneally	Australian tuna - licenses	Please provide a list of companies or individuals that have been granted licenses to export Australian Tuna? Can you provide details on the length of the licence?	Written	SQ18-000302

				Can you provide details on any restrictions on the volume or number of fish?		
42	1.1: BCD	Keneally	Southern Blue Fin tuna - licenses	Please provide a list of companies or individuals that have been granted licenses to export Southern Blue Fin Tuna? Can you provide details on the length of the license? Can you provide details on any restrictions on the volume or number of fish?	Written	SQ18-000303
43	1.1: BCD	Rice	Novel biota - threat	What specific actions have been taken to mitigate the threat from the EPBC Act listed key threatening process 'novel biota'?	Written	SQ18-000215
44	1.1: BCD	Rice	Novel biota - structures	What structures are in place to measure performance on reducing the risks from novel biota?	Written	SQ18-000216
45	1.1: BCD	Rice	Novel biota - risks	What gaps exist in efforts to reduce the risks from novel biota?	Written	SQ18-000217
46	1.1: BCD	Rice	Novel biota - resources	What resources are allocated over the last three year and for the next three years to address the risk from novel biota?	Written	SQ18-000218
47	1.1: BCD	Rice	Staff resources allocated to environmental biosecurity	The Department of Agricultural and Water Resources and the Department of Environment and Energy recently completed a stocktake of effort on environmental biosecurity. Would the Department please provide a list of the full time equivalent Department of Environment and Energy staff resources allocated directly to environmental biosecurity?	Written	SQ18-000219
48	1.1: BCD	Rice	Environmental biosecurity - executive officer	The Department of Agricultural and Water Resources and the Department of Environment and Energy recently completed a stocktake of effort on environmental biosecurity.	Written	SQ18-000220
				Which senior executive officer in the department is responsible for environmental biosecurity?		

49	1.1: BCD	Rice	Consultation on environmental biosecurity	Could the Department please provide a list of formal mechanisms and consultative committees established for consulting with the community and non-government environmental interests about environmental biosecurity?	Written	SQ18-000221
50	1.1: BCD	Rice	Cost of Office of Threatened Species Commissioner	What is the total cost of maintaining the office of the Threatened Species Commissioner each year for the last three years?	Written	SQ18-000222
51	1.1: BCD	Rice	Myrtle rust	What actions has the Department of Environment and Energy taken to reduce the spread of myrtle rust in Australia, and specifically to ensure that myrtle rust does not reach south west Western Australia?	Written	SQ18-000223
52	1.1: BCD	Urquhart	Threatened species	Does the Department have any initiatives or policies, in addition to the \$237 million is says is allocated to the threatened species program, to stem the extinction crisis – particularly focusing on habitat loss?	Written	SQ18-000236
53	1.1: BCD	Urquhart	National Recovery Plans and Conservation Advices	Can the Department indicate which national recovery plans are currently being implemented? What proportion do these represent of all currently operative national recovery plans?	Written	SQ18-000237
54	1.1: BCD	Rhiannon	KIAA and the Australian Government	Does the KIAA represent wildlife management services in coordination with the Australian Government?	Written	SQ18-000293
55	1.1: HRM	Urquhart	Protection of the Great Barrier Reef	How is the Federal Government ensuring that investment in the protection of the Great Barrier Reef is protecting its values, which have been estimated as \$56 billion?	Written	SQ18-000239
56	1.2: KTD	Keneally	CAUL Hub Project 4	Senator KENEALLY: Let me ask about some of those future priorities. Specifically looking at the hub project for urban systems for liveability, under that activity 4.2.5 Turn down the heat—understanding where green planting can go	Page 67	SQ18-000039

				to reduce heat in Australia's metropolitan areas, how much are we spending on CAUL Hub project 4? Mr Whitfort: There is \$1.19 million for that project. Senator KENEALLY: At 4.2.5, it says: a key task will be to test the integration of hotspot data into a cities performance framework. In other words, a hot spot indicator and associated metrics will be developed, including exploring how cities can make decisions about heat. And presumably where trees can be planted. Have I understood that project correctly? It's essentially looking at where hot spots are and where trees should be planted to reduce heat. Mr Whitfort: Sorry, I don't have a detailed description of the program here. There are 220 projects under the National Environmental Science Program, so I don't have a detailed description. Mr Cahill: We'll take that on notice, Senator. Senator KENEALLY: It also says: To further this project additional funds are being sought from the Federal Smart Cities Program Could you also take on notice how much money they're seeking from the Federal Smart Cities Program? Mr Cahill: We'll take that on notice, recognising that some of that comes out of another portfolio.		
57	1.2: KTD	Keneally	Greater Sydney projects	Senator KENEALLY: I note that on 9 June 2017, the head of the Greater Sydney Commission said: If you do a map of the -temperature differential across Greater Sydney, where there is a deficiency of trees there is almost a perfect match. It would seem that the Greater Sydney Commission and the New South Wales government have already got plans in place to determine where trees should go to drive down heat. I'm interested in knowing how much money the federal government is spending to do work that it seems the Greater Sydney Commission and the New South Wales government already have in place.	Page 67	SQ18-000040

				Mr Whitfort: Again, we can take that on notice.		
58	1,2: KTD	Keneally	Western Air-shed and Particulate Study	Senator KENEALLY: Thank you. I have one more question about a CAUL hub project. This one is the Western Air-shed and Particulate Study for Sydney. I know this is particularly looking at the air quality within Western Sydney. There are a range of projects going on here—extending air quality measurement and monitoring capacity, implementing state-of-the-art, or state-of-the-science, air quality modelling. Are any of these projects modelling the impact of the Western Sydney Airport or the associated traffic movements from that? Mr Cahill: I will take that on notice. Senator KENEALLY: Thank you. That's it.	Page 68	SQ18-000041
59	1.2: KTD	Whish- Wilson	Western Australia white shark population	Senator WHISH-WILSON: Are you aware that Minister Frydenberg put out a media release a couple of days before Christmas with the exact numbers of the Western Australian white shark population? Mr Whitfort: Yes. Senator WHISH-WILSON: Just in time to scare people for Christmas. How did the minister get that information if you only received the report on 8 February? Mr Whitfort: We received that report, under the National Environmental Science Program, in February. In December the minister was provided a briefing by CSIRO on the key findings of the report. That was a briefing provided under embargo because the findings were still going through peer review. Senator WHISH-WILSON: So the details that the minister put out then hadn't been verified by peer review? Mr Whitfort: And the minister's media release said that they were still subject to peer review. Senator WHISH-WILSON: It is interesting that the committee was not able to get access to that report. We released our report only a week or so before that. Do you remember what day the briefing was, by CSIRO to the	Page 68	SQ18-000042

				minister's office? Mr Whitfort: It was around mid-December. I don't have the exact date, sorry. Senator WHISH-WILSON: Could you take that on notice? We tried very hard to get that report incorporated into a 15-month Senate inquiry. No matter how many times we asked for it, we weren't able to get it. It seems mysterious that the information was given to the minister a week after which we released our Senate report. Mr Whitfort: We will take that on notice.		
60	1,4: BCD	Rhiannon	Hairy-nosed wombat	Senator RHIANNON: I understand that the current IUCN listing for southern hairy-nosed wombats was changed in 2016 from 'least concern' to 'near-threatened'. That has partly prompted me to ask the question, because it would seem the IUCN sees a potential problem here. In South Australia I understand it is legal for their warrens or their burrows to be bulldozed as a method of controlling and killing the animals. I am interested in what work you're doing in this area and how you see the current status of the animal. Mr Richardson: The current status of the animal hasn't been reassessed under the EPBC Act. Senator RHIANNON: Since when? Mr Richardson: I'm not aware that it has ever been, but I can correct that on notice if I need to. There are two species: a Bass Strait islands subspecies of the common wombat is listed as vulnerable, and the northern hairy-nosed wombat, where there's quite a focus, has been listed as critically endangered for some time. I'm not aware that any assessment of the southern hairy-nosed wombat has been conducted. I don't believe it's under assessment. I'm not aware of any activity by the federal government to monitor that species because its IUCN listing has been upgraded to 'near-threatened'. Senator RHIANNON: Coming back to the southern	Page 34 and 35	SQ18-000043

				hairy-nosed wombat: is there any research work, any monitoring—anything that's been done—with regard to this species? Mr Richardson: Not that I'm aware of. I'd have to take that on notice.		
61	1.4: BCD	Rhiannon	Platypus Conservation Initiative	Senator RHIANNON: There is a Platypus Conservation Initiative. That's not something that comes under any of you? Senator Birmingham: It's a broad-ranging title. Senator RHIANNON: They're actually capitals. It is actually a program that Taronga Zoo et cetera have something to do with, and I come across it in different areas. I'm literally trying to understand, but I'm gathering that it's not— Ms Jonasson: It's not an initiative that is run on the side of government. Mr Knudson: You may wish to ask the question on notice, and then we can try and provide what information we may have on it.	Page 36	SQ18-000317
62	1.4: BCD	Rhiannon	Platypus	Senator RHIANNON: Have you put any resources into determining whether the platypus should be listed as threatened under the EPBC list? Mr Richardson: It's not currently under assessment. I don't have the information with me at the moment. I believe it may have been assessed sometime in the past and found not to be eligible. I'll correct that on notice if that's not the case. Senator RHIANNON: Thank you for that.	Page 36	SQ18-000044
63	1.4: BCD	Rhiannon	Platypus – San Diego Zoo	Senator RHIANNON: Thank you very much for that clarification. We've got a platypus—or maybe more than one platypus. Firstly, is it just one? Ms Jonasson: It is one project, yes. Senator RHIANNON: That is to go to San Diego Zoo. Mr Murphy: I'm not sure. I'd have to take that on notice.	Page 38	SQ18-000045

64	1.4: BCD	Urquhart	Senate report, Toxic tide	Senator URQUHART: You gave me a rough overview. Are you able to provide a bit more detail on notice as to the direct questions around what's happening with all of those recommendations? Mr Murphy: I'm cognisant that the response to the report is being prepared by the government. Senator URQUHART: Do you have a time frame on that? Mr Murphy: It's well progressed. That response will show exactly the progress against each recommendation. Senator URQUHART: You say 'well progressed'—is it 80 per cent completed? Mr Murphy: There's a final draft completed of the government response. But all interested ministers have to have an opportunity to consider that draft. Senator URQUHART: How many ministers are involved in having to look at that draft? Mr Murphy: I would have to take that on notice.	Page 39	SQ18-000046
65	1.4: BCD	Bartlett	Threatened species listing – extension of the flying fox	Senator BARTLETT: I think this is the right section. I'm sure you'll tell me if it's not. It's to do with threatened species listings. Minister Frydenberg recently used section 194Q in part 4 of the EPBC Act to extend for a second time his decision on changing the status of the spectacled flying fox—originally from July last year to 9 February, and now again until 8 June. Can you give an indication of why it's taking so long for that decision to be made? Mr Richardson: Both those extensions were put on the department's website, with the reasons that are included there. Just to very quickly recap, the first time the minister asked for additional information from the Threatened Species Scientific Committee. The committee considered that, I believe at their November 2017 meeting. When that information was finalised, they put together some material and then we iterated it intersessionally. When that material finally did go to the minister, it was very shortly before the deadline for a decision to be made. So the minister has	Pages 40–41 and 42	SQ18-000047

given himself some more time to consider the advice from the committee. That's the reason for the extension. **Senator BARTLETT:** With this extension, assuming it's not extended again, I think it will be about 14 months that the minister will want to consider this listing. Is it the longest amount of time a listing advice has been with a minister before a decision has been made, in the history of the act? **Mr Richardson:** I think the dates you just quoted were correct, which was a shift from February this year to June this year, which is a four-month extension. No, that's not the longest extension. **Senator BARTLETT:** With the original—from the first extension? Mr Richardson: I believe the first extension was for about 4½ months. It's on our website, as I said. I just don't have those dates in front of me. **Senator BARTLETT:** Perhaps, in general—it does seem like a fairly long time compared to usual. Is this the longest length of time, cumulatively, since the advice originally came in? **Mr Richardson:** I would have to take that on notice. Senator BARTLETT: That would be good, if you could do that. This might also be one on notice. I'm not sure how many times this section of the act has been used to extend the time frame of 90 business days, to make a threatened species listing decision, after advice has been provided. **Mr Richardson:** Since the inception of the act? **Senator BARTLETT:** Yes. Perhaps a breakdown by years. I'm just trying to get an idea of whether it's happening more frequently. Mr Richardson: I'll take that on notice. **Senator BARTLETT:** That would be good. **Senator BARTLETT:** I think this will be on notice as well, probably for you, Mr Richardson. I had an extra question over the page I didn't see, but just on that flying

				fox matter: it would possibly be covered in what I'd asked, but could you just give details about how many times the minister has requested further information from the Threatened Species Scientific Committee regarding their advice to list or change a species, as the minister has done with the flying fox—how many times that has happened perhaps just over the last few years. Mr Richardson: Certainly. I'll include that in the answer to the question on notice.		
66	1.4: BCD	Rice	Listing process	Senator RICE: To clarify, the data that is being looked at, this new data, is Victorian government data. There's no other external source of data that's being considered by the committee? Mr Richardson: There have certainly been more peerreviewed publications since that time, and from academic researchers as well. That will also form part of this. Essentially in the reassessment we'll look at all the information that's been made available since—well, since forever, but certainly since the last time this species was assessed, which I think was in 2015. Senator RICE: Probably you'll need to take this on notice: what are the peer-reviewed publications and the additional data that's being considered? Mr Richardson: I will have to take that on notice. Senator RICE: My understanding is that largely that peerreviewed data is—yes, take that on notice. In terms of the Victorian data, it was the Victorian data that prompted the reassessment and the potential down-listing. Mr Richardson: It prompted the public nomination, which flowed into the addition of this species on the assessment list and the start of the assessment process. Senator RICE: This Victorian government data—who undertook those surveys? Mr Richardson: Some of it was undertaken, to my understanding, by VicForests. They may contract that work; I'm not sure. Certainly VicForests data was part of the	Pages 43–44	SQ18-000048

				forestry prescriptions. My understanding is that in that Victorian forest estate—in the Central Highlands RFA area at least—before a coupe is identified for harvesting and before they can go in and harvest that coupe, they're required under their prescriptions to go and survey. I'm not sure if it's just for possums or if it's for all threatened species. That data then feeds into the Victorian government holdings of data. But there was also some cross-tenure. On both the forest estate and the reserve estate there were some surveys conducted by the Arthur Rylah Institute. Again, they may have contracted some of that work out and done some of it themselves. They've also published survey outcomes from their survey work as well. Senator RICE: Has any of that new research and new data been peer reviewed? Mr Richardson: I would have to take that on notice. It will be included in part of my answer to the last question on notice. Senator RICE: My understanding is that it hasn't—that it's internal VicForests data. Is that your understanding of it? Mr Richardson: The Arthur Rylah Institute is part of DELWP, the Department of Environment, Land, Water and Planning. They're not part of the VicForests side of the Victorian government. I stress that their data is also included in this new data that's been made available. Senator RICE: Has it been peer reviewed? Mr Richardson: I would have to take that on notice.		
67	1.4: BCD	Rice	Recovery plan – Greater glider	Senator RICE: So we might get some information from the Threatened Species Commissioner, but you're not aware of any other action that's been triggered by the greater glider having been listed? Mr Richardson: At the time this species was listed, there was a decision made to commence preparation of a recovery plan. I don't have close line of sight on how that's going or what discussions have taken place, but there would be a group of people who are essentially inputting into that	Page 46	SQ18-000050

recovery plan. There may well be actions by participants in that process, but I'm not— **Senator RICE:** That's run by the department of agriculture under an RFA? **Mr Richardson:** No, Senator. Preparation of a recovery plan is under the Department of the Environment and Energy, but we engage with our state colleagues. Of course, for this species we're talking about at least three states maybe four—and local communities, on-the-ground actors, community groups et cetera. **Senator RICE:** Share with me where things are at with the development of a recovery plan. **Mr Richardson:** I'd have to take that on notice. It was only listed in 2016. There's a three-year window to prepare a recovery plan, with the possibility of an extension. I don't have in front of me where that plan is up to. **Mr Knudson:** There's a potential that this deals with the possibility that projects have been triggered. The greater glider is one of the things that's assessed under the EPBC Act. There are questions also around whether we provided funding for the greater glider and, finally, the other regulatory actions, like the development of a recovery plan. Just to give you as comprehensive an answer as possible, it does sound like we need to come back on notice on all three of those categories: spending, regulatory measures and other measures that we're trying to put in place on the greater glider. We'll certainly try to answer what we can when the Threatened Species Commissioner is here, in terms of the spending side of things, but it does sound like you're looking for the full suite of actions. Senator RICE: Yes. It's been going on for two years. I note that there are three years to put a recovery plan in place, but I want to know what actions have been triggered in the department of the environment in the almost two years since the species was listed. Mr Knudson: That's understood. **Senator RICE:** Thank you

68	1.4: BCD	Rhiannon	Pet food approval	Senator RHIANNON: I go to kangaroos. How many	Page 91	SQ18-000053
			for exportation	kangaroos have been shot in Victoria under the so-called		
			_	Kangaroo Pet Food Trial?		
				Mr Knudson: Unfortunately, I think that would have been		
				for our colleagues earlier today.		
				Senator RHIANNON: I'll keep going. We haven't got		
				numbers?		
				Mr Tregurtha: I've just confirmed with my colleague that		
				the Commonwealth has not received any referral from		
				Victoria in relation to any culling of kangaroos.		
				Senator RHIANNON: This is about the pet food trial. It's		
				not culling; it's killing for commercial reasons.		
				Mr Tregurtha: Under the EPBC Act, there's been no		
				referral from the state of Victoria in relation to anything to		
				do with kangaroo pet food trials.		
				Senator RHIANNON: But I understand that the minister		
				signed off in 2015 and then earlier this year. In 2015—		
				Mr Knudson: After talking to one of my colleagues, if this		
				is about the export of kangaroo meat, in effect, that would		
				be dealt with by a different section of the department—one		
				that was here earlier today. Unfortunately, all I can offer at		
				this point, in terms of making sure you get the answers to		
				your questions, would be to take those on notice and come		
				back to you on those.		
				Senator RHIANNON: Can I just persist because of where		
				these questions go? They also go to kangaroo skins and		
				how this has all been regulated. Can I just try and see—		
				Mr Knudson: I suspect it's still about the export—		
				correct—of those kangaroo skins?		
				Senator RHIANNON: I'm actually talking about		
				regulation. The 2015 approval—and that was under		
				environment minister Greg Hunt—approved the		
				international export of skins from kangaroos shot under the		
				auspices of the Victorian so-called pet food trial. I'm trying		
				to understand how the regulations work. The approval is		
			1	given for pet food, but what's being exported is the skins.	İ	ĺ

				Mr Knudson: I understand the question that you're asking, but unfortunately— Senator RHIANNON: You can't do it? Mr Knudson: the officers aren't here. As I understand it— just to make sure I have the correct intention—you're asking about a pet food approval for exportation, but how does that also include kangaroo skins? Senator RHIANNON: Yes, because I understood it was a pet food trial and not a skin export trial, but all the skins have been stockpiled. Mr Knudson: We're very happy to come back on notice on that. Senator RHIANNON: Thank you, Chair.		
69	1.4: BCD	Rhiannon	Commercial kangaroo shooting trial	I was previously advised by the department that the commercial kangaroo shooting trial had been approved in 2014 with no population surveys to inform that decision or provide baseline data. Please provide: a. a copy of the surveys since carried out by the Victorian government b. any preliminary or indicative data or advice regarding kangaroo population numbers in Victoria prior to or since approval to commercially shoot kangaroos was given. c. A copy of any draft or finalised management plan for the commercially shooting of kangaroos in Victoria.	Written	SQ18-000225
70	1.4: BCD	Rhiannon	Kangaroo population	The department previously indicated that in the absence of population surveys of kangaroos in Victoria, the number of shooting tags issued to landowners was accepted as a proxy for population numbers in the absence of survey or indeed actual shooting data. a. Please provide: i. the number of shooting tags that was accepted by the department as a proxy for kangaroo numbers in the Victoria kangaroo petfood trials. ii. numbers of kangaroos actually shot (Take) under those	Written	SQ18-000226

				tags – recognising that the Take of wildlife is an accepted proxy for population trendlines. iii. the science that shows landowner licenses or tags to shoot kangaroos can be used as a scientific proxy for kangaroo populations in the absence of any other data.		
71	1.4: BCD	Rhiannon	Export of commercially shot kangaroo parts	Is it correct that the export of skins, meat or body parts of commercially shot kangaroos must come from a program approved by the Minister – such as a wildlife trade management plan? a. What is the requirement in such plans for factors such as baseline survey data, monitoring and reporting? b. Why was permission given to export body parts from commercially shot Victorian kangaroos in 2015? Was this legal in the absence of any surveys or data? What part of the EPBC Act allows this with regards to our native species?	Written	SQ18-000227
72	1.4: BCD	Rhiannon	Kangaroo stockpiling of skins	The stockpiling of skins from the so-called pet-food trial confirms the trial was always the thin edge of the wedge for the industry to access Victoria's remaining kangaroos as their Take declines in the old shooting zones in other states: a. How does the federal government justify allowing the export of skins from kangaroos that were shot for a pet-food trial and not a skin-export "trial". b. Are the stockpilers legally allowed to stockpile those skins for commercial gain under the licensing held at the time of stockpiling? c. Did the stockpilers of the skins require government license to hold those wildlife items? (for example in NSW you need a license to hold wildlife body parts) d. Did the stockpilers hold such license if it is a legal requirement?	Written	SQ18-000228
73	1.4: BCD	Rhiannon	Data of kangaroo species shot VIC	Please provide in an excel spreadsheet how many kangaroos of each species have been shot in Victoria per	Written	SQ18-000229

				year under the so-called kangaroo pet-food trial, including: a. Male:Female per species in each of the trial areas, and their weights if recorded.		
74	1.4: BCD	Rhiannon	Kangaroo skins and meat products	Please provide details of Victorian kangaroo skins and meat products: a. That have been exported or processed for domestic consumption, and b. In what quantities or weights per product classification.	Written	SQ18-000230
75	1.4: BCD	Rhiannon	International export of skins from kangaroos shot	In 2015 the then Environment Minister Greg Hunt approved the international export of skins from kangaroos shot under the auspices of the Victorian so-called pet food trial: a) Was this permission done under any approved Wildlife Trade Plan for Victoria? Please provide a copy of that plan from 2015. b) If no, was this illegal? How not?	Written	SQ18-000231
76	1.4: BCD	Rhiannon	Kangaroos pet-food trial	How does the federal government justify allowing the export of skins from kangaroos that were shot for a pet-food trial and not a skin-export "trial"? a) Are the stockpilers legally allowed to have stockpiled those skins for commercial gain under the licensing held at the time of stockpiling?	Written	SQ18-000232
77	1.4: BCD	Rhiannon	Legal permission to export kangaroo skins	Has the commercial shooting industry had legal permission to export commercially export kangaroo skins prior to 2015?	Written	SQ18-000233
78	1.4: BCD	Rhiannon	ABS export data	Is the government aware that over 2.7 million skins of kangaroos have been exported overseas from Victoria between 2012 and 2016 – based on ABS export data? a. How is this legal given commercial shooting – and particularly for skins - has been banned in Victoria?	Written	SQ18-000234

				b. What is the explanation for this anomaly. c. The department has previously advised it used Victorian shooting tag/licenses issued as a proxy for kangaroos numbers in Victoria in the absence of survey or shooting (take) data? How does more than 2.7 million skins correlate with the numbers of Tags the Victorian Government issues to farmers to shoot kangaroos in Victoria from 2012-2016?		
79	1.4: BCD	Rhiannon	Wildlife Trade Operation Plan	This year Minister Frydenberg approved Victoria's pet food trial as a Wildlife Trade Operation Plan and is now allowing the commercial export of shot kangaroos from Victoria for pet food. d) Acknowledging that decades ago studies recognised serious decline in Victorian kangaroo populations, how many kangaroos of each species are there left in Victoria? e) Are baseline surveys one of the requirements for an approved wildlife trade management plan, given baseline data plays a foundational role in monitoring of wildlife population trends? f) Did the current and previous minister approve the commercial export of shot kangaroo body parts without reference to any kangaroo population surveys? If yes, on what basis?	Written	SQ18-000235
80	1.4: BCD	Urquhart	Fruit Bats – budget allocations	Given the difficult issues many Queensland communities face, particularly in the north of the State, due to large populations of fruit bats, can the Minister advise whether existing budget allocations address this issue.	Written	SQ18-000240
81	1.4: BCD	Urquhart	Flying Fox – working groups	Further, can the Minister advise of any consultative committee or working group tasked with examining the challenges around large flying fox populations?	Written	SQ18-000241

82	1.4: HRM	Whish-	Report - state of	Mr Oxley: There are two things. Firstly, there haven't been	Page 31	SQ18-000051
		Wilson	conservation of the	any discussions with the World Heritage Centre or advisers	C	
			Great Barrier Reef	in relation to the Great Barrier Reef since the last estimates		
				hearing, other than perhaps in the margins of the General		
				Assembly of State Parties to the World Heritage		
				Convention last year, where Australia was elected to the		
				World Heritage Committee.		
				Also, I just want to be clear that the World Heritage		
				Committee is not considering an endangered listing of the		
				Great Barrier Reef. The Great Barrier Reef is in the state-		
				of-conservation reporting cycle for the World Heritage		
				Committee, and our next report on the state of conservation		
				of the Great Barrier Reef is due to be submitted by 1		
				December 2019. It will be reviewed by the World Heritage		
				Committee in 2020.		
				Senator WHISH-WILSON: Yes, that was going to be my		
				next question. Perhaps you could let us know when the next		
				process is being put in place? So, you will present a report		
				and the World Heritage Committee will look at that. I		
				presume they are looking at other coral reefs around the		
				world as well? It's not just the Great Barrier Reef? Is it part		
				of an international assessment of other reefs, or is it just for		
				the Great Barrier Reef?		
				Mr Oxley: There have been a couple of things playing out		
				over the last while—the last 12 months or so. Last year, the		
				World Heritage Committee received a report from		
				UNESCO on the status of all of the world heritage places		
				that have coral reefs as part of their outstanding universal		
				value, of which there are 29. It was looking at the impact of		
				the mass global coral bleaching event of 2016-17 on those		
				reefs. Separately from that, the World Heritage Committee		ļ
				has a regular program assessing the state of conservation of		
				World Heritage places. My understanding, from questions		
				on notice answered after the last estimates hearing, was that		
				this year there are six World Heritage properties with coral		
				reefs that are in the state of conservation reporting cycle for		
				the coming meeting in Bahrain, and there are then two more		

				that are subject to state of conservation assessments the following year. I've asked for the names of them, so I can't yet give them to you. But I'd be happy to take that on notice if you do want that information. Senator WHISH-WILSON: If you could, that'd be great. Just to be clear: you won't be handing over your assessment of the Barrier Reef for 1 December 2019? Mr Oxley: That's correct. Senator WHISH-WILSON: Could you take on notice who's going to be involved in putting that assessment together? Presumably it's going to be various groups and a number of institutions. Could you let me know who I need to keep an eye on? Mr Oxley: Sure, certainly. We'll outline that process for you.		
83	1.4: HRM	Chisholm	Olive Vale Station	Senator CHISHOLM: Obviously there's a focus on land clearing in terms of Olive Vale station, which I've asked questions on at previous estimates. I'm just trying to get a sense of whether that is a factor in the assessment of national heritage listing for the country. Mr Williams: Land clearing is not part of our assessment. Whether there are EPBC Act decisions in place is not a matter for us. It's, again, for program 1.5. Compliance activities which relate to EPBC Act decisions also relate to 1.5. A subsequent listing, if there were to be one, of that area would not affect previous EPBC Act decisions where appropriate. Senator CHISHOLM: Has anyone requested that Olive Vale station be excluded from the proposed area? Mr Williams: I'm certainly not aware that we've had any such requests made of us. I can confirm that on notice. Senator CHISHOLM: Thanks.	Page 40	SQ18-000052
84	1.4: HRM	Rhiannon	Commonwealth Heritage Listing – Lake Burley Griffin	Lake Burley Griffin and Adjacent Lands is waiting finalising of its assessment for the Commonwealth Heritage List. The assessment was not provided with an extension on	Written	SQ18-000291

				25 May 2017 when the Hon Josh Frydenberg MP provided extensions to other place assessments with the same status. The place is also within the Designated Area of the National Capital plan which means it has 'national significance'. a. Why was an extension to the Commonwealth Heritage Listing assessment for Lake Burley Griffin and Adjacent Lands not granted? b. What is the status of the heritage assessment of Lake Burley Griffin and Adjacent Lands?		
85	1.4: HRM	Rhiannon	Commonwealth Heritage Listing – Lake Burley Griffin emergency listing	Lake Burley Griffin Guardians lodged Emergency Listing nominations for Lake Burley Griffin and Lakeshore Landscape for both the National Heritage List and the Commonwealth Heritage List. The Hon Josh Frydenberg MP notified Lake Burley Griffin Guardians that the nominations have been passed to the Heritage Division for assessment. a. Why haven't the emergency nominations been lodged in the Heritage Public Notices Database? b. Where is the process up to?	Written	SQ18-000292
86	1.5: ESD	Rice	Hooded Plovers - draft management plan	Senator RICE: They're vulnerable where they live. How is the department engaging with the draft management plan that the Victorian government has released? Mr Richardson: When the species was listed, which I believe was in 2014, the conservation advice prepared at the time of listing set out what the threats were to the species across its range and, as you point out, its range includes Victoria but also South Australia and, I believe, Tasmania. The threats are different in different areas. Some of the more common threats are around dogs off leashes on beaches disturbing nesting and chicks, and foxes predating	Page 47	SQ18-000314

87	1.5: ESD	Keneally	Adani – Approval of Conditions	on eggs et cetera. The response needs to be tailored to the particular area; hence, we very much encourage state governments, but also local communities and the local government, to come up with their own management plans for the given beaches. This species is not getting a recovery plan. I make that point. I don't have a lot of detail in front of me about individual actions at individual beaches—I can take that on notice—but we look at the species as one of the threatened species strategy species. So in that sense it is a target, again, for investment programs, research et cetera. There are research needs we have around this species and about how threats can be ameliorated, so we're encouraging those investments, as well. Of course, its being a listed species, it kicks into the environmental impact assessment process. Senator KENEALLY: Is it possible to receive a list of the conditions that have not yet been approved? Mr Manning: Yes, I think we could provide you with a table of the various conditions that are required and their status. I'll take that on notice.	Page 76	SQ18-000054
88	1.5: ESD	Keneally	Adani – Groundwater Management	Senator KENEALLY: Sure. The groundwater management and monitoring program: are you specifically working with the Queensland government on that approval? Mr Manning: We haven't yet—I think as I indicated—received that one yet, so we wouldn't be at the current time. But we would, once we received that, look at its requirements and the need to discuss it with Queensland or anyone else as part of our consideration. Senator KENEALLY: Are there any issues on which the department's seeking more information from the Queensland government in terms of this approval—this project? Mr Manning: Not that I could say definitively at this point in time. I could take on notice to check whether there is anything we are specifically seeking from them at the	Page 77	SQ18-000055

			moment, but I'm not aware of anything top of mind.		
89	1.5: ESD Keneall	ly Adani – Groundwater Management Issues	Senator KENEALLY: I'm trying to understand what some of the issues might be in the back and forth between the department and Adani. Mr Manning: Specifically in relation to the groundwater management monitoring plan? Senator KENEALLY: Yes. Mr Manning: I would have to take that on notice. I'm sorry, I don't have the details of what's gone back and forth on that, but it's most likely to relate to technical aspects of the groundwater modelling, the approach that's being used and issues of that nature, I would presume. Senator KENEALLY: Has the department sought independent advice on groundwater issues independent of Adani or the Queensland government? Mr Manning: In relation to consideration of the plans specifically? Senator KENEALLY: On the groundwater plan and the issues associated with the plan. Mr Manning: I would have to take on notice if we have sought independent advice thus far in our consideration of the groundwater. I don't have that information before me. Mr Knudson: When the project was originally coming forward for approval, it would have gone to the independent expert scientific committee for their advice on what would be appropriate in terms of the modelling and also the intended controls. That absolutely was done. In our assessment team, we have a range of hydrologists et cetera that will provide advice. Sometimes, though, we have to go beyond our existing staff and go to other parts of the department to get water-related advice. I wanted to give you assurance that, anywhere where we need specific advice, we will go get it. We'll come back on notice with the specifics around this. Senator KENEALLY: Thank you.	Page 78	SQ18-00005

90	1.5: ESD	Urquhart	Adani – Groundwater Management Review	Senator URQUHART: Did that committee review specifically what Mr Knudson just outlined? Mr Manning: Has the independent expert scientific committee reviewed the groundwater management plan as it's been submitted to us thus far? Senator URQUHART: Yes. Mr Manning: I'd have to check specifically. I don't believe that is the case, but I would need to take that on notice just to confirm that for you. Mr Tregurtha: Generally, the independent expert scientific committee, as Mr Knudson has outlined, provide advice during the assessment and approval of the project. In this case, the groundwater management plan would be a response to that advice and would cover off any issues or any things that are raised in that advice that need to be covered off. That is generally the way the process operates. Senator URQUHART: You will take on notice whether they reviewed the groundwater plan. Mr Manning: That's right. I don't think so, but I will just clarify that on notice. Senator URQUHART: Thank you.	Page 78	SQ18-000057
91	1.5: ESD	Bartlett	Adverse Environmental Histories	Senator BARTLETT: Has the department ever recommended against approval on the basis of adverse environmental history, do you know? Mr Knudson: I can take that on notice to make sure we provide you with an accurate report on it.	Page 79	SQ18-000058
92	1.5: ESD	Bartlett	Toondah Harbour Development	Senator BARTLETT: Finally, are you able to give a list of other Commonwealth agencies that you've corresponded with directly, in relation to this development? Mr Barker: There were a number of agencies that provided—really, it was internal advice within the portfolio when the matter was referred to the department. I'd have to take it on notice. There were also state agencies that provided advice to the department about the assessment processes that may be applied at the state level. So we can	Page 80	SQ18-000060

				provide more detail about exactly which agencies and when they provided that input. Senator BARTLETT: That'd be appreciated.		
93	1.5: ESD	Reynolds	Exemptions under the EPBC Act	Senator REYNOLDS: Can you explain the process for granting national interest exemptions to the EPBC and any special considerations there might be for sharks, particularly great whites? Mr Tregurtha: A national interest exemption can be considered when a party makes an application for a national interest exemption. When the department receives an application for a national interest exemption— Senator REYNOLDS: Who can apply for that exemption? Mr Tregurtha: Anyone can put forward a request for a national interest exemption from the EPBC Act. The department then makes a recommendation to the minister, who would be the determining authority for that national interest exemption, and they would then make a decision around that. The reasons for that national interest exemption also must be published following the determination of the exemption. Senator REYNOLDS: How many exemptions, if any, have been granted already in Australia? Mr Knudson: Just one quick clarification on your question about who can apply for a national interest exemption: it's got to be someone who wants to take a certain action. It can't be just an average citizen who decides, 'I'd like a national interest exemption.' Senator REYNOLDS: So, someone with a demonstrable interest in— Mr Knudson: And who wants to take a particular action. Senator REYNOLDS: A course of action. Thank you. Mr Tregurtha: I'm not sure whether I've got the numbers. You were asking for the total number of national interest exemptions? Senator REYNOLDS: New South Wales, for example, has I think sought and got some exemptions in the past	Pages 81–82	SQ18-000061

				from the federal government. Mr Tregurtha: That's correct. Well, not the New South Wales government; there have been national interest exemptions provided in New South Wales. And so the New South Wales government, in relation to the issue of great white sharks, has certainly applied for two national interest exemptions, both of which have been granted. But overall I would have to take on notice the total number of national interest exemptions. Senator REYNOLDS: Yes, if you could take that on notice, thank you, and just give a little bit of detail about when and where and who actually applied for them.		
94	1.5: ESD	Siewert	Shark Study	Senator SIEWERT: I want to ask about the shark study that was mentioned. Ms Farrant, you said that there were a number of EPBC species that were affected as part of that second trial. Did I hear you correctly? I thought you said there was a number. Can I just check how many there were and whether they were fatal interactions or whether those species survived? Ms Farrant: If I don't have precisely what you're after we can give it to you on notice. Can I just clarify: are you asking about the first or the second trial? Senator SIEWERT: The second trial, which is what I understood you were referring to. Ms Farrant: Yes, that's right. I said earlier that 54 animals have been caught, including 17 EPBC Act listed species. I don't have the breakdown of that with me. Senator SIEWERT: Were those species killed? Were animals killed? Ms Farrant: I don't have that with me either. Senator SIEWERT: Can you take that on notice? Ms Farrant: I'll take that on notice.	Page 88	SQ18-000064
95	1.5: ESD	Siewert	Yeelirrie	Mr Manning: Yes, I think so. At the time of the last estimates I think we were going on a field trip to visit the Yeelirrie site with the proponent, which we did in	Pages 88–89	SQ18-000067

November last year. The proponent presented a range of information in relation to the assessment. **Senator SIEWERT:** Is that information going to be made publicly available? **Mr Manning:** The information that they provided as part of the assessment? **Senator SIEWERT:** The additional new information. **Mr Manning:** We are using that to draw upon and to conclude our assessment. The outcome of that assessment will be published in due course, as Mr Tregurtha was talking about previously. **Senator SIEWERT:** I understand that. My question was about whether that new information would be made publicly available, and whether that would be before or after the assessment. **Mr Manning:** I don't know that we would specifically release the information the proponent is providing to us to support our assessment. **Senator SIEWERT:** Why not? **Mr Manning:** Unless there was a specific need to do so. it's information that we seek from the proponent to inform our views of the project and its acceptability under the act. **Senator SIEWERT:** The other information they provide is publicly available. Why isn't new information made publicly available? **Mr Manning:** It's not a standard part of our procedures to release that back-and-forth of information that we go through with proponents to get the information we feel we need to inform our assessments. **Mr Knudson:** At the end of the assessment, as I think my colleagues have talked about before, all of the conditions and the rationale for the decision will be expressed in a statement of reasons. All of that will be in the public domain. We've talked a couple of times about the proponent having two different points where they publicly release information; that's at the thorough stage and, also, when their assessment documentation is completed.

96	1.5: ESD	Rice	EPBC Referrals	Senator SIEWERT: If a request was made, would you provide that new information? If this committee requests it, can you table that new information? Mr Manning: I don't want to convey the idea that there's anything secretive going on in relation to the information we have. That's not the case. It's just that we don't ordinarily publish the back-and-forth we have with the proponent. Could we release it? We would certainly consider and look at that response, if the request was made. Senator SIEWERT: Can I request a copy of that information, then, to be really clear? Mr Manning: Certainly. Senator SIEWERT: I'm being really clear: as soon as possible, before you finish the assessment. Mr Manning: We'll look at that, certainly. The Victorian Department of Economic Development, Jobs, Transport and Resources submitted a referral under the EPBC Act for the proposed North East Link toll road. The validity date listed on the EPBC Notices website managed by the Department of Environment is 17 January 2018. The 10 business day period for public comment closed by 2 February. More than 20 business days have elapsed since then, which is the timeframe is due for the decision by the Minister or his delegate on the proposed action. What is the status of the decision on this referral?	Written	SQ18-000214
97	1.5: ESD	Abetz	Phosphate Resources Ltd	Has Phosphate Resources Ltd (PRL) sought approval for exploration clearing of 0.07km ² ?	Written	SQ18-000010
98	1.5: ESD	Abetz	Christmas Island Frigatebird population	Is it correct that the Christmas Island Frigatebird population breeds in 3 discrete areas? Are any of these 3 areas near the proposed exploration area?	Written	SQ18-000011

				Does the Abbotts Booby occupy some 80km² on Christmas Island? Is the species classified as stable? Does its population primarily nest in the National Park? Has PRL undertaken extensive environmental surveys of the species? If the exploration approval is granted will it result in any damage to the species nest trees? Is the species threatened by phosphate mining? Has research confirmed the tracks that are 5m wide do not have the potential to create turbulence which might impact the species' nests?		
99	1.5: ESD	Abetz	Phosphate Resources - Mining application	Has PRL applied to extend their existing lease areas? Is there a mining application for approval before the government?	Written	SQ18-000014
100	1.5: ESD	Abetz	Phosphate Resources - Mining application - public submissions	In relation to the environmental assessment relating to the application were assessment documents published in accordance with the EPBC Act? How many public comments were received in response to the application? How many were in favour and how many opposed?	Written	SQ18-000015
101	1.5: ESD	Abetz	Phosphate Resources - Exploration application approval	Will the exploration application if granted have any interaction or impact on Frigatebirds or Abbott's Booby nesting trees?	Written	SQ18-000016
102	1.5: ESD	Bartlett	Adani - Department's recommendation	Given that this information, and the omission, did not change the recommendation to provide an approval, can the Department please outline what kind of information or omission regarding environmental history would be required to change the Department's recommendation? Has a recommendation not to approve on this basis ever	Written	SQ18-000008

				been given by the Department?		
103	1.5: OoC	Bartlett	Prosecutions	Senator BARTLETT: Have you ever prosecuted anyone for negligence in providing false information or prosecuted them, in general—or something worse than caution? Mr Tregurtha: Not that I'm aware of. Again, we'd take that on notice to make sure we're giving you the correct information. Ms Collins: I can answer that, in part, in terms of general prosecutions. Is that what you're referring to? Senator BARTLETT: Yes. Ms Collins: Recently, the department has had five successful criminal prosecutions across a range of different outcomes. Some related to wildlife crime; one related to grant fraud, in particular. Senator BARTLETT: If it wasn't too much of a hassle, if you could give us a list of those on notice that would be handy. Ms Collins: Yes, I can do that. Senator BARTLETT: That doesn't include any for providing false information, as far as you know? Ms Collins: Not recently, but we can take that question on notice as well.	Page 79	SQ18-000059
104	1.5: OoC	Moore	Land Clearing – Olive Vale Fairview	Senator MOORE: I just have a couple of questions on land clearing. I think these are continuing questions over a number of estimates. Can the department outline what the compliance status is for the Olive Vale Fairview station on Cape York? Ms Collins: In general, the management of native vegetation is a state or territory issue. The Commonwealth has a very limited role, and that is where proposed clearing activity might have an impact on matters of national environmental significance and that impact is found to be significant. Senator MOORE: Does this one come underneath that heading?	Page 83	SQ18-000062

				Ms Collins: We made inquiries into the Olive Vale clearing as part of Queensland's issued high-value agriculture permits. Importantly, in the issuing of the permits by Queensland, that assessment process didn't take into consideration whether there were matters of national environmental significance, and that's where the Commonwealth did step in and have a look. We also received allegations in 2015 that the activity at Olive Vale was having an impact on matters of national environmental significance. So we conducted a site inspection to form our own view, and at the completion of that the department determined that further clearing at Olive Vale appeared likely to have impacts on the Great Barrier Reef and listed threatened species. Following that inspection, the owner at Olive Vale voluntarily ceased clearing activity. Therefore, further compliance action wasn't taken, although the department wrote to the owner to outline the requirements of the act—make sure they were well aware. In September 2017 the department re-inspected and found that additional minor clearing had occurred at Olive Vale. The department determined— Senator MOORE: Was that stimulated by a complaint, or was that just a normal follow-up? Ms Collins: I'll have to take that specifically on notice. Senator MOORE: Please do. Thank you.		
105	1.5: OoC	Whish- Wilson	Macquarie Harbour	Senator WHISH-WILSON: You may need to take this on notice, Mr Cahill. In May last year I asked you and Ms Collins about Macquarie Harbour down in Tasmania. Mr Cahill: Yes. Senator WHISH-WILSON: You had gone down there and done a routine inspection and you were doing an investigation. I'm just wondering if that investigation had been completed? Mr Cahill: I'll have to take it on notice. I have been out of that role for several months now. None of the relevant officers are here any more, so we'll have to take it on notice.	Page 91	SQ18-000071

106	1.5: OoC	Bartlett	Adani Correspondence	Has the Department publicly released Adani's letter explaining its "misunderstanding" about whether its CEO Mr Janakaraj was an executive officer at KCM in Zambia? If so, where? If not, why not? What is the nature of the information contained in that letter that is not contained in the information the Department has released publicly?	Written	SQ18-000006
107	1.5: OoC	Bartlett	Adani - Mr Janakaraj	Can you please confirm that Adani told the Department Mr Janakaraj had "previously held executive officer roles [including] CEO, at KCM plc Zambia, from 2008 to 2013" Given this, why did the Department accept Adani's explanation that they had misunderstood if he was an executive officer at the company when the company was charged with environmental offences in 2010? Mr Janakaraj was in fact Director of Operations in 2010. Notwithstanding this earlier error, Adani's subsequent explanation of the omission is not merely an error of omission, but contradicts its earlier evidence. Did the Department note this contradiction during review of the evidence relating to the omission? If not, why not? If so, why is it not mentioned at all in the Department's Compliance Report? Why did the Department not take this to indicate negligence?	Written	SQ18-000007
108	1.5: OoC	Rice	Stocking of non- indigenous fish	Noting that there are 5 EPBC listed species in Rocklands Reservoir and downstream in the Glenelg River in western Victoria, and reports that there has been recently stocking of native non-indigenous fish (cod and yellow belly) in the Reservoir: a. Has the Department been in contact with the proponent to discuss the action? b. Given the potential impact on listed aquatic species, does the Department	Written	SQ18-000261

				consider that a referral for EPBC considerations should have been made by the proponent? c. Has the Department received reports from people other than the proponents on this matter? If so, was this reported action investigated and what were the outcomes or actions taken? If no action was taken, why not? d. What, if any, action has been taken by the Department in the matter of the stocking of non-indigenous fish (e.g. Cod and Murray cod are large bodied predatory fish) to Rocklands Reservoir to date?		
109	1.6: ESD	Moore	Waste industry	Senator MOORE: I'm interested to know what percentage of the current waste industry in Australia is dependent on the Chinese market? You jumped in with an answer to Senator Urquhart to say there's a number of countries with a viable industry. I'm just wanting to get an idea of how much the industry in Australia relies on China, as opposed to others. I'm happy to get that on notice. Ms Farrant: I can answer it. The data around this is still in the preliminary stages of analysis, but our early figure is about 17 per cent of the total recyclable material that is exported goes to China. Senator MOORE: Seventeen. Do you have a table that makes up the rest of it, even with data that's not perfect? Ms Farrant: No, I don't have a table. That means the other 83 per cent goes to other countries. Senator MOORE: That's a lot. Ms Farrant: We export to over 100 other countries. I don't have a breakdown of exactly how much goes to— Senator MOORE: Is that something that could be available? Ms Farrant: I'll have to check on that. Senator MOORE: If you've got it, could we have a look	Pages 120–121	SQ18-000075

				at it? If not, we'll go to the library. Ms Farrant: We have very preliminary data. Senator MOORE: This discussion is around the volume and the impacts. Mr Tregurtha: We can certainly have a look on notice.		
110	1.6: ESD	Urquhart	China waste	What is the Federal Government doing about the impact of China's ban on the importation of foreign waste on local governments around Australia?	Written	SQ18-000265
111	1.6: ESD	Urquhart	Environmental impact of Snowy Hydro 2.0	Is the Department of Environment and Energy assessing the environmental impact? (If so) When will the Department be providing the Minister with its conclusions on the environmental impact of Snowy Hydro 2.0?	Written	SQ18-000270
112	2.1: CCD	Moore	Education process – prior to import offence on uncertified products	Senator MOORE: When you gave the answers about this particular time until the actual regulation changes, you said the department is in education mode. Just on notice, because I don't want to take time up tonight, could you give on notice details of the kinds of processes you use in that education, because this is a very confusing area, with people who may not have a lot of technical knowledge when they're getting in there? I'm interested in seeing the format for the education and the message of the education, particularly as there are concerns. I'm just worried that in the next few months, before it actually changes, there's going to be a real spike in a lot of people getting through this loophole. So, if we could get that on notice that, would be fabulous. Mr O'Connor-Cox: Certainly.	Page 118	SQ18-000077
113	2.1: CCD	Keneally	National Emissions Standards Act – definition on 'new'	Senator KENEALLY: Very briefly I want to go back to the National Emissions Standards Act, and this can be taken on notice. That's fine. When I asked about the definition of 'new', you referred to the standard dictionary definition. Have you had an consideration of a definition where 'new' means 'not previously owned and used in Australia'? I'm	Page 121	SQ18-000078

				happy for you to take that on notice and come back to us. Mr O'Connor-Cox: I do recall that was put forward during consultations and there is a complication in there around 'not previously used' in Australia—was it? Senator KENEALLY: New means not previously owned and used in Australia. Mr O'Connor-Cox: We can take that on notice, if you like. Senator KENEALLY: Thank you.		
114	2.1: CCD	Urquhart	Emission levels in 2030	Senator URQUHART: Is it the case that the emissions in 2030 are projected to be 140 megatonnes above the level consistent with a 28 per cent cut on the 2005 levels? Ms H Wilson: I will have to take that on notice, but I think I've made the point that the government's policies do position them to meet the 2030 target.	Page 127	SQ18-000079
115	2.1: CCD	Urquhart	Vehicle emissions standards	Senator Birmingham: Senator Urquhart, Australia has existing vehicle emissions standards. The review, of course, countenances further changes that could occur to vehicle emissions standards, I imagine to the point of five-yearly reviews, but in five years time there may be changes in global technology and the like that would allow us to consider even further changes to vehicle emissions standards. If instead we have it static, as Senator Chisholm seems to want, perhaps we'd never actually look at that. This puts in place the capability to have such an orderly process. Senator URQUHART: The government have never said that they will implement any vehicle emissions standards in any document or statement that I'm aware of, so you can't claim that as a policy. You are talking about a discussion. It's not a policy. Ms H Wilson: I might seek clarification from a colleague of mine, but I think that, when the government did announce the establishment of the ministerial forum, they were clear that they were looking at vehicle emissions	Page 131	SQ18-000081

				standards and putting those in place. But I will take that on notice or seek clarification from a colleague.		
116	2.1: CCD	Urquhart	Vehicle emissions standards	Senator URQUHART: I just want one more to finish off. Minister, you said that we do have vehicle emissions standards. What are they? Senator Birmingham: Australia has emissions standards. Senator URQUHART: Can you tell me what they are? Senator Birmingham: This countenances a different level or nature of emissions standards. Senator URQUHART: Can you tell me what they are? Senator Birmingham: I can happily take on notice and provide you with the— Senator URQUHART: No, I'm asking you to tell me what they are. Senator Birmingham: I'm happy to provide you with the standards in relation to emissions around noxious substances and so on that Australia has. I'll take that on notice and provide you that info for sure.	Page 131	SQ18-000082
117	2.1: CCD	Rice	Green Vehicle Guide	Senator RICE: So Mr Kelly was incorrect in his reference to the Green Vehicle Guide supporting his statement. Ms H Wilson: It depends on whether you're looking at, as I said, apples and apples. It also depends on the estimate you use for the emissions intensity of the grid. I understand that the Green Vehicle Guide when Mr Kelly might have been looking at it—but I'll take this on notice—didn't have the most up-to-date data when it comes to the emissions intensity of the grid. Ms Milnes made the point that, as the grid transitions over time to lower-emissions technologies, of course electric vehicles are going to continue to produce much less emissions than their petrol counterparts.	Page 132	SQ18-000083
118	2.1: CCD	Rice	Projection of new light vehicle sales	Senator RICE: The other question regarding electric vehicles is: in the 2017 review of Australia's climate change policies, published by the department in December, there was the projection of 15 per cent of new light vehicle sales	Page 132	SQ18-000084

				being electric vehicles by 2030. What role did the department play in coming up with that number of 15 per cent? Ms H Wilson: That number came from consultancy work we did with the CSIRO to look at the percentage of new vehicle sales that would be electric vehicles in 2030. Senator RICE: Right. Is the rationale for that figure public, in terms of how CSIRO came up with that number? Ms H Wilson: Yes, I think that is, but I'll take that on notice.		
119	2.1: CCD	Rice	Modelling of the take-up rate – new light vehicle sales	Senator RICE: I have some other questions to probably take on notice. How did the department or, in fact, the CSIRO model that take-up rate? If that's not in the study, I'd like to get that information. Ms H Wilson: Absolutely. Senator RICE: What price point did the modelling presume for electric vehicles in 2025 and in 2030, and what was the comparative cost they estimated for an internal combustion engine for those years? Ms H Wilson: Absolutely. Senator RICE: Okay, good. Thank you.	Page 132	SQ18-000085
120	2.1: CCD	Urqhuart	Emissions projections	Senator URQUHART: Okay. Given the emissions projections include the impact of existing policies, can you tell me what is contained in them that will lower emissions in the land sector, the industrial sector and the transport sector? Ms H Wilson: Certainly, Senator. Let's start with the land sector. When it comes to the emissions projections, the emissions reduction fund is projected to contribute 74 million tonnes to 2020 and 243 million tonnes over the period 2021 to 2030. Senator URQUHART: Sorry? Ms H Wilson: It is 243 million tonnes to the 2030 target. Industrial—at the moment we have the safeguard mechanism, and that's a little harder. We don't estimate	Page 133	SQ18-000086

				emissions facility by facility. We don't do that bottom-up approach, if you like. We do more a top-down approach when it comes to estimating emissions out to 2030 from those facilities in the industrial sector. At the moment— Senator URQUHART: What does that mean? Just explain the top-down versus the bottom-up approach. Ms H Wilson: Sorry; because I'm an economist I've reverted to dreadful language. We don't estimate emissions at a facility level. So, at every single company level, we don't estimate the emissions from those companies. We actually step back and we take a sector, if you like—the manufacturing sector or the waste sector or the industrial sector—and we look at that sector in aggregate and we say, 'What does it look like in terms of demand?' and we take the forecasts from a range of other people in looking at that sector in aggregate. That's the top-down approach. Senator URQUHART: How many different sectors are there? Ms H Wilson: When it comes to the emissions projections, we forecast emissions based on what are called 'emissions sources' that are set by the UNFCCC. We have electricity, direct combustion, transport, fugitives, industrial processes, agriculture, waste, and land use change and forestry. So that's eight. Senator URQUHART: And they're all dealt with in a similar fashion? Ms H Wilson: Yes, Senator, pretty much. There are some nuances, but I'm happy to take that question on notice.		
121	2.1: CCD	Keneally	Fuel efficiency standards	Senator KENEALLY: On vehicle emission standards, Ms Wilson, the minister just made the statement that we do have vehicle emission standards, and he is correct on that: we do have vehicle emission standards for nitrogen oxides and sulphur oxides. But do we have vehicle emission standards when it comes to CO2 or greenhouse gas emissions? Ms H Wilson: I might pass to my colleague Ms Milne.	Page 133	SQ18-000087

				Ms Milnes: Senator, you're correct: we have in place noxious emissions standards for vehicles. What the government is considering as part of its work on vehicle emissions is the introduction of a fuel efficiency standard. Senator KENEALLY: We don't currently have those standards in place in Australia? Ms Milnes: No, we don't currently have those in place in Australia. Ms Evans: There have been voluntary standards in place for that industry. I'd have to check how recently they were agreed and when they came up to, but there have been voluntary arrangements in place on emissions, and on greenhouse and fuel efficiency as well.		
122	2.1: CCD	Urquhart	Product Emissions Standards Act 2017	Under the PES Act, engines can meet the standards by being certified in the USA, EU, Canada or California. Alternatively, they can be certified in Australia. In the USA, a system of Averaging Banking and Trading (ABT) allows for a manufacturer to have some models with emissions levels above the standards, as long as the entire fleet below the standard. Industry asked for an ABT in Australia but were ignored. Australian manufacturers must meet the world toughest standard, USA EPA, but without access to ABT. Does this not discriminate against Australian Manufacturers?	Written	SQ18-000245
123	2.1: CCD	Urquhart	CoastAdapt tool	Can the Minister advise what funding has been allocated for the CoastAdapt tool and what the outcomes are from this funding?	Written	SQ18-000248
124	2.1: ICCEI	Urquhart	Coral bleaching	Clearly coral bleaching is the prime threat to the GBR. a. As Australia is the custodian of the World Heritage GBRMP, what actions is the Department taking globally to urge other countries and the global community to work towards limiting global warming to less than a 1.5 deg C increase?	Written	SQ18-000254

				b. In arguing the global emission mitigation case what is the argument used by the Department to assure other countries that Australia is playing its proportionate part to curb Greenhouse gas emissions?		
125	2.1: ICCEI	Urquhart	Coral bleaching – Paris targets	In relation to Dr Reichelt's comments at the October 2017 Supplementary Estimates on the need to achieve the Paris targets if the Reef is to be saved, what is the Government's assessment of the chance of not exceeding the 2 degree target (particularly in view of the findings of the 31 October 2017 UN Environment's Emissions Gap report? a. Is it the view that the National Energy Guarantee will make a globally fair and proportionate contribution to meeting the Paris target? If so, please describe how.	Written	SQ18-000256
126	3.1: AAD	Keneally	AAD Staffing	Senator KENEALLY: Can the department provide figures on the difference between the current number of permanent employees and those who were in the department in 2013? Dr Gales: Yes, ideally on notice, if that's acceptable to you. Senator KENEALLY: On notice is fine. Thank you. Can the department provide data on changes in staffing in each division since 2013? Dr Gales: In each of our branches within the Australian Antarctic Division, yes we can, and we'll also do that on notice. Senator KENEALLY: Thank you.	Page 49	SQ18-000088
127	3.1: AAD	Patrick	Icebreaker vessel – milestone dates	Senator PATRICK: In your answers to former Senator Xenophon, you also laid out 20 milestones that the project had, and you ticked off five of them as having been completed. I'm happy for you to do this on notice, but could you please look at question No. 169 and update that from a	Page 54	SQ18-000313

				milestone perspective? And, noting milestones are one way for an outsider to see where a project is sitting, I note that you've said that these milestones contain a certain level of commercial-in-confidence. I understand milestone scopes and that payments can do that. But dates are not normally something that would be commercial-in-confidence, so I wonder if you can't put a date on each of these milestones? That would allow the parliament, in this instance, to come back every once in a while and ask, 'Are you hitting schedule?' Mr Bryson: I will take that one about the confidentiality of the dates on notice. Do you want me to give you a quick update of where we are?		
128	3.1: AAD	Patrick	Project contingency - Icebreaker	Noting the answer provided to the Committee in response to QON 164 of 05 June 2017, stating "The Department's own current project contingency of approximately AUD\$8.2 million is factored within the AUD\$529 million which the Australian Government has allocated for the Department to manage the procurement of the research supply icebreaker", can the Department please update project contingency value?	Written	SQ18-000318
129	4.1: Energy	Leyonhjelm	Small technology certificates – advice to Minister	Does the Department advise the Minister each year of the option to reduce the cap on the price of small technology certificates?	Written	SQ18-000272
130	4.1: Energy	Leyonhjelm	Small technology certificates - reasoning	Does the Department outline the reasoning behind the Gillard Government's introduction of this option?	Written	SQ18-000273
131	4.1: Energy	Leyonhjelm	Small technology certificates - \$240 million threshold	Does the Department outline how the option is only available when the total value of small technology certificates exceeds \$240 million? What is the reasoning behind this \$240 million threshold?	Written	SQ18-000274
132	4.1: Energy	Leyonhjelm	Small technology	Does an increase in the total value of small technology	Written	SQ18-000275

			certificates – retail price	certificates serve to increase or reduce the retail price of electricity purchased from the grid?		
133	4.1: Energy	Burston	Electricity Smart Meters	Minister I would like to ask questions about a topic that constituents have raised with my office and that is sensitive for thousands of people across Australia – electricity Smart Meters. Hopefully you will be able to either clarify issues and allay people's fears or address constituents' needs. Firstly though, can you acknowledge that for many decades across Australia until 2007, families and businesses enjoyed coal-fired electricity that was cheap, highly reliable, secure and synchronous?	Written	SQ18-000276
				Do you understand that for the last 170 years since the start of the industrial revolution the most significant factor enabling human progress and hugely increased environmental care has been the ever-falling real prices of energy?		
				Do you agree that has been reversed since 2007 and in the last decade electricity prices have doubled as a result of regulation, forced adoption of intermittent asynchronous solar and wind generation, privatisation of some states' electricity infrastructure and the practice of states such as Queensland's Labor government turning electricity generators into a way for states to tax people?		
				If you do not agree please explain why.		
				Do you acknowledge that in recent years electricity consumers face shortages that inconvenience families, disrupt industry and jeopardise health services and jobs?		
				As our electricity supply changes from an abundance of cheap coal-fired electricity to one wracked with shortages		

and high prices we have seen the introduction in some states of Smart Meters. According to a letter dated 7 February 2013 from the then Queensland Premier, the federal government has pushed for Smart Meters to be used across Australia. Are Smart Meter rollouts funded by the federal Department of Energy as has been publicly claimed? Could you please explain the reasons for introducing Smart Meters? Specifically, have they been introduced as a means of fine-tuning supply to manage electricity shortages? Especially as part of so-called Demand Management systems that are really ways of cutting electricity usage at times of peak load? Have Smart Meters been introduced to monitor electricity usage? Across which states are Smart Meters being introduced? Can these meters be used for surveillance of individual electricity users? Can electricity suppliers use the meters to raise prices at times of high usage, thereby maximising profits for electricity retailers? Can electricity providers use Smart Meters to cut electricity supply to a consumer? Could you please explain what features make an electricity meter a Smart Meter? Is it the ability to monitor electricity usage in a family household and send data on the consumer back to the retailer using Radio Frequency radiation? Can Smart Meters be used to send data to a central body

such as a government? What types of data can Smart Meters collect and store? What type of data can they send back to electricity suppliers and central agencies? Are you aware of health concerns from Victorians as reported in mainstream legacy media such as the Herald Sun? Specifically, are people reporting ill health due to exposure to high levels of electro-magnetic radiation from Smart Meters. Are you aware that this echoes health impacts from wind turbines with such effects initially being denied by turbine installers yet now proven by medical science? Are you aware that doctors are now reportedly attributing patients' constant headaches to Smart Meters installed on the patients' property or on neighbours' houses? Do you know that people are reportedly complaining of tinnitus (ringing in the ears), heart palpitations, chest pain, lethargy, dizziness, nausea, shortness of breath, fainting and loss of sleep? What long-term scientific and medical investigations has the department made into the health impacts of Smart Meters? Is it true that the World Health Organisation classifies radiofrequency electromagnetic fields as possibly carcinogenic? Is it true that European standards for electromagnetic radiation from Smart Meters are lower than Australian standards? According to a quote in the Herald Sun in 2012 5-6 per cent of people are sensitive to the radiation. Is it true that some people are more sensitive to electromagnetic radiation? In 2012 one source, whose reliability was not specified claimed one hundred fifty five (155) new papers that report on neurological effects of Radio Frequency Radiation published between 2007 and mid-2012 with almost two thirds showing effects on humans. Are you aware of these studies? One person reportedly had a great job and was healthy only to now be on a disability pension due to the effects of Smart Meters. Is it true that many Victorians spent over \$4,000 each to have their Smart meters relocated to their boundary fences, with one case reportedly costing a householder \$5,000? Are you aware there are now businesses providing protection against radiation from Smart Meters at a cost to residents? Some constituents advise that it is possible for residents in some states to opt out of having Smart Meters installed in their homes but only after extensive and difficult processes that deter opting out. Is it possible for residents to opt-out of Smart Meters? Is it possible though for residents to stop the use of Smart Meters in a neighbour's property if such Meters are affecting their health? Has supply to some electricity users been disconnected, as reported in the media, after consumers refused to use Smart Meters? Is it true that there were a significant number of home fires attributed to Smart Meters?

				Are you aware that Victoria's then Privacy Commissioner informed the Victorian Parliament on 17 May 2010 that Smart Meters breached Victoria's privacy regulations and quote: "Smart Meters have the potential to impact severely upon the privacy of individuals who have Smart Meters installed"? Is it true that as of September 2015 Victorians have paid more than \$2 billion for the roll out of Smart Meters yet according to an auditor-general's report have received few benefits? Is it true that after Victoria's compulsory rollout of Smart Meters, AGL is now installing them in Queensland and avoiding the term Smart Meter, using the term "upgrade" instead? Is it true that for now consumers can opt-out yet AGL apparently hopes to make it compulsory by the end of this year? Remembering the Pink Bats fiasco, has there been a rush to roll out Smart Meters without addressing people's health concerns and privacy concerns?		
				What action has been taken to investigate people's health concerns? If any action has been taken please itemise actions taken and the results of such actions.		
134	4.1: ESED	Urquhart	Protection of Catchment for Snowy 2.0	Is the Department aware of the article authored by a number of senior resource scientists from the ANU in the 'Conversation' of 23 March 2017 entitled: 'Snowy hydro scheme will be left high and dry unless we look after the mountains'?	Written	SQ18-000246
				Has the Department considered the issues raised in the		

135	Australian Renewable Energy Agency (ARENA)	Chisholm	Renewable generation in the NEM	article in relation to the protection of the catchment of the Hydro Scheme? Will the Department consider Snowy Hydro 2.0 funding \$5-\$7mill per year from its revenue for catchment protection? If not, why not? Senator CHISHOLM: Can you provide the share of renewable generation in the NEM in 2030 with and without the Snowy 2.0 project, under both of the new renewable investment scenario models—so in the consultant's modelling report? Mr Kay: I would have to take that on notice, but you may well find that Snowy would be able to give you that	Page 75	SQ18-000063
136	Australian Renewable	Bartlett	Solar exports and	Can you please provide an overview of projects that have been completed, planned or are currently underway	Written	SQ18-000001
	Energy Agency (ARENA)		solar fuels - Projects	regarding solar exports?		
137	Australian Renewable Energy Agency (ARENA)	Bartlett	Solar exports and solar fuels - lessons learnt	What are the key things learnt to date in regards to solar exports, solar fuels, and fuel switching from gas to electricity?	Written	SQ18-000002
138	Bureau of Meteorology (BoM)	Urquhart	Briefings with the Minister	Senator URQUHART: Does the BOM regularly report to the minister? Dr Johnson: The BOM, certainly I as director, have many conversations with the minister in his office. Senator URQUHART: Is it a conversation based on a report? Is that what you do during those conversations? Dr Johnson: We provide the minister with visibility on our corporate plan every year and just through the normal—Senator URQUHART: How often would that happen?	Pages 9– 10	SQ18-000065

139	Bureau of Meteorology (BoM)	Urquhart	Briefings with the Minister – record temperatures Monitoring and	Dr Johnson: The corporate plan? Senator URQUHART: No. How many briefings? Dr Johnson: I wouldn't have a solid number here, but the minister receives many briefings from us during the year. If you want an exact number I'd have to take that on notice. Senator URQUHART: I'd be interested in them and how often. Dr Johnson: Yes, sure. Senator MOORE: We'd also want to follow up with the formal and informal process of briefings. If we can get that on notice—we would expect that there is quite a set formal briefing process. Dr Johnson: Yes. My staff catch up with the minister's office every week. I'm in regular contact with the minister. I'm in regular contact with the minister's office every week. I'm in regular contact with the bureau and the minister's office, and we work closely together. Senator URQUHART: When record temperatures were reported over the past few years was the minister briefed? Dr Johnson: The minister's office, certainly, is briefed on severe weather when we have it. The bureau also produces a very significant, comprehensive portfolio of public comments. We make sure that that material is also made available to not only the department but also the minister's office, so he has available to him what the public has available to them. Senator URQUHART: If you could provide the number of times and the details around that, that would be great. Could you get us a list of when the minister or the ministerial office has been briefed on record temperatures—on notice is fine. Dr Johnson: Yes, sure.	Page 10	SQ18-000066
170	Meteorology	Or quiiar t	research on likely	institutions undertaking increased monitoring and research	10–11	2610-000000

	(BoM)		climate change	on likely climate change enhanced drought scenarios for		
	(DOM)		enhanced drought	southern Australian cities and towns?		
			ı	Dr Johnson: We've been undertaking research on climate		
			scenarios	related issues for a long time, and—		
				Senator URQUHART: But specifically that type of		
				climate change?		
				Dr Johnson: I'd have to check within the specifics of your		
				question, but a broad answer would be that we've been		
				working very closely with our colleagues in the states, the		
				universities, CSIRO and so on to bring our understanding of		
				how the climate may change in the future to bear on a range		
				of sectors, including the water sector. I think that the short		
				answer is yes, but if you'd like some specific details I'd		
				need to get a more specific question.		
				Senator URQUHART: Could you provide some specific		
				details? And also if that information is being passed on to		
				the relevant government authorities?		
				Dr Johnson: Yes, absolutely.		
141	Bureau of	Di Natale	Advice to the	Senator DI NATALE:Do you provide more detailed	Page 13	SQ18-000069
	Meteorology		Murray-Darling	information about what the impacts of climate change will	C	
	(BoM)		Basin Authority	be on, for example, the Murray-Darling Basin, given that		
			v	climate change isn't part of the plan at the moment? What		
				level of detail do you—		
				Dr Johnson: We deploy our capability around climate		
				science and climate research very closely with a range of		
				agencies across a range of domains—water is an obvious		
				one, and agriculture—across a range of sectors, for		
				example, the resources sector. The bureau's climate		
				capability reaches into quite a significant cross-section of		
				the Australian community. Where our skills are relevant,		
				we make them available to those particular industries or		
				sectors.		
				Senator DI NATALE: And so you've specifically done		
				some work on the Murray-Darling Basin and spoken to		
				stakeholders in that space?		
1	1			Dr Johnson: We work closely with the Murray-Darling		İ

142	Bureau of Meteorology (BoM)	Di Natale	Advice regarding long-range rainfall forecasting related to climate change	Basin Authority across a range of issues. Again, I'd have to take it on notice if there's a specific amount of research that you're looking for. As a broad statement, the bureau collaborates closely with the basin authority on a range of issues that impact on water availability. Senator DI NATALE: You mentioned earlier the different factors impacting on water availability, but climate change is clearly one of those factors. What is the nature of the advice you're providing to the Murray-Darling Basin Authority? Dr Johnson: I would have to take that specific question on notice, but just to reaffirm, we provide a broad suite of advice to the authority on a range of issues. Senator DI NATALE: I'm asking you specifically about climate change. Dr Johnson: I'd have to take that on notice to give you an accurate answer. Senator DI NATALE: Can I ask about the 2017 statement which noted that rainfall was below average for much of eastern Australia, all of Tasmania and along the west coast of WA. In terms of the level of engagement with farmers and other related stakeholders, what sort of advice are you providing in terms of the impact that it may have on long-term forecasts? Dr Johnson: We have always worked very closely with the agricultural sector to try to provide that really important sector for our country with the best available advice, not just on short-term weather phenomena but also seasonal conditions and longer-term climate drivers. In fact, it's such an important part of our operations that we're increasing our investment. We've set up a new business unit just within the last year that has a specific focus on delivering— Senator DI NATALE: What's that called?	Page 13	SQ18-000070
				last year that has a specific focus on delivering—		

				Senator DI NATALE: Specifically relating to water and the impact on water? Dr Johnson: Across the board: the influence of weather and climate on economic practices, right through to value chain—for example, movement of livestock in northern Australia; the movement of road transport, which plays an important role in terms of the viability of that industry; and through to pasture management. It's right through the chain. Senator DI NATALE: I'm asking specifically about climate and the impact of climate change on long-term rainfall. Dr Johnson: We're absolutely working with agricultural colleagues on climate-related matters in an agricultural context. Senator DI NATALE: Can I just ask again—there might be information in the public domain I'm not aware of—for you to provide information about specifically what advice you're providing to those group with regard to long-range rainfall forecasting that is directly related to climate change. Dr Johnson: Sure.		
143	Bureau of Meteorology (BoM)	Di Natale	Nationwide House Energy Rating Scheme	Senator DI NATALE: Okay. On a related issue, but not emergency services, I'm interested in a piece that came out around minimum energy standards—in particular, the Nationwide House Energy Rating Scheme, where there was some concern that the scheme was based on climate data that was decades old. Has the bureau engaged specifically with the department on updating the data that informs its Nationwide House Energy Rating Scheme? Dr Johnson: Not to my knowledge, no. Senator DI NATALE: Is that something, Senator Birmingham, that you have any information on? Senator Birmingham: I'd have to take some advice on the particular scheme that you're talking about. We are dealing with energy matters in general later today, and that would probably include any energy efficiency and labelling or rating schemes. We would note that whilst the bureau is a	Page 14	SQ18-000072

				key adviser to government in terms of, particularly, weather analysis but also climate analysis. It's not the only adviser to government in that space or provider of scientific information. Clearly, CSIRO and others play a key role too. Senator DI NATALE: I understand that, but my understanding is that energy standards within the department are based on bureau data and that that bureau data is decades old. There has been some public discussion about updating that data to ensure that the energy rating schemes for households are based on accurate and current data. I'm interested to know whether the bureau has been involved in any discussion. It sounds like the answer to that is no. Dr Johnson: Not to my knowledge. Senator DI NATALE: Will you take on notice if there has been? Dr Johnson: Sure.		
144	Bureau of Meteorology (BoM)	Di Natale	Community correspondence	Senator DI NATALE: That's why I asked about correspondence, Minister, and it's why I also quoted him very specifically where he says, 'Every minute a BOM executive spends on this nonsense'. Clearly it's taking up the bureau's time— Senator Birmingham: I'm just drawing a distinction between responding to public attacks versus responding to community correspondence. Senator DI NATALE: You'll be able to take on notice whether there has been an increase? Dr Johnson: I'm not even sure whether we could track it. We could spend quite a lot of management time trying to go back through our record system to get you that information. I can't speak for my colleague Dr Vertessy; I can only speak from my own experience, in that I think very strongly it's important that the bureau is engaged in providing its expertise, its data and its science into the public domain. That inevitably will attract commentary, criticism, review and feedback. I think that's a very healthy thing for the	Pages 15-16	SQ18-000316

				bureau. In some ways, you could maybe think of it as the price of being relevant. We are relevant. We are important in terms of some of the most important issues the country faces. As I said before, my own perspective is that with that relevance comes an obligation to engage with those who have an interest in this space. That's what we do.		
145	Bureau of Meteorology (BoM)	Patrick	FOI requests - resources	Senator PATRICK: Dr Johnson, I have some questions relating to FOI. We've had some representations to my colleague's office that the responses to FOIs are typically outside the statutory time frame where you have to go and get an extension from the Information Commissioner—you may wish to comment on that. That's my first question: does the bureau feel it has enough resources to manage FOI requests? Dr Johnson: I might ask my colleague Ms Gale to respond to that. Part of her responsibility is handling those matters. Ms Gale: We have one dedicated resources to FOI, and to date we've managed them as best we can depending on the level of request of the FOI. Senator PATRICK: Have you had an increase in the number of FOIs that would cause someone to make representations that there is a backlog or that you're not processing them fast enough? Dr Johnson: The FOIs we get oscillate over time, as you can imagine. Sometimes we get a few and sometimes we have nothing for some period of time. I'm not aware that we haven't met out statutory obligations, so I'll follow that up. My understanding is that we've met them, so it is news to me that we haven't. I'm happy to ask our privacy officer and our FOI officers within the department to check that out.	Page 16	SQ18-000073
146	Bureau of Meteorology (BoM)	Patrick	Number of FOI requests	Senator PATRICK: That then goes to a number of questions that you may want to take on notice. Can you tell us, for the last three years, the number of FOI requests that you've had? Dr Johnson: We'd have to take that on notice.	Page 16	SQ18-000074

147	Bureau of Meteorology (BoM)	Patrick	Aviation forecasting - review of Pel-Air and Mildura incident	Senator PATRICK: Also, how many times has there been a total refusal of access? And how many have proceeded to an Information Commissioner review? Dr Johnson: Sure. I'm happy to take those on notice. I don't have that information in front of me at the moment. Senator PATRICK: Related to that, if you are requesting extensions of time, can you provide the details for the last three years of how many requests you've make to the Information Commissioner for extensions and the reason you are seeking those sorts of extensions, if there is a common reason? It really just comes down to whether or not the one person you've got assigned to this is enough or whether we are, as the minister is suggesting, dealing with a peak and a trough—a low pressure and a high pressure. Dr Johnson: I'm happy to take that on notice. Mr Webb: One of the realities of working with aviation forecasting is that we do work in probabilities. It's a steady stream of information that's used in our forecast to keep the latest information, and the way pilots work is that they refer to information en route as well to see how much it's changed. The absolute details of what wasn't on that forecast at the time I haven't got to the top of my mind, but often, for instance, for fog and thunderstorms we typically, as per international standards, don't start to mention them until there's a 30 per cent probability, as per working with our aviation colleagues. As for your earlier question about whether we are reviewing our services outside the ATSB: absolutely. We work with major airlines after incidents and do our own reviews and there are always lessons to be learnt. That's	Page 17	SQ18-000076
				As for your earlier question about whether we are reviewing our services outside the ATSB: absolutely. We		

				incident and one for the Mildura incident? Mr Webb: Absolutely. Senator PATRICK: Is it possible to get those independent reviews provided to the committee? Dr Johnson: I believe so. Mr Webb: I see no reason why not. Senator PATRICK: Thank you.		
148	Bureau of Meteorology (BoM)	Moore	Sustainable development goals	Senator MOORE: I have a question to put on notice. Dr Johnson, you may have heard my questions about the SDGs. I'm very interested in the engagement that the bureau has and also, in fact, your international responsibilities because I know you work in a number of international fora around this issue, so I'll put that on notice. Also, is there someone within the bureau who's actively involved in looking at the responses to the SDG process? Dr Johnson: Not to my knowledge, no. But, as you say, we have an extensive footprint internationally as part of our responsibilities.	Page 18	SQ18-000089
149	Bureau of Meteorology (BoM)	Whish- Wilson	Tasmania – ocean temperatures	Senator WHISH-WILSON: Before we get to North Queensland and the Barrier Reef, I am particularly interested in Tassie. We saw unprecedented ocean temperatures in November last year, incidentally only a month after this Senate committee reported on changes in ocean temperatures. Could you outline briefly that event; what caused it and whether the bureau has any kind of idea whether that's going to be a norm? Dr Johnson: It is probably best we take that particular event off Tassie last year on notice. It was a complex event. You are absolutely correct. There was a general warming right along the east coast last year. Senator WHISH-WILSON: And the west coast. Dr Johnson: And the west coast. As you know, ocean temperatures around Australia as a general trend have been warming over the last 100 years as well. If you would like a more detailed briefing on that particular event off	Pages 19–20	SQ18-000090

				Tasmania, we are very happy to do that for you. It is complex. Senator WHISH-WILSON: I would. It was 50 per cent above long-term averages. Dr Johnson: Yes. Senator WHISH-WILSON: I understand it was to do with blocking highs in the Tasman, but I don't know— Dr Johnson: There's a range of oceanographic and meteorological drivers to that so I would rather we gave you a comprehensive answer. It was not just off Tasmania; it was into Port Phillip Bay and Bass Strait—record sea surface temperatures. Senator WHISH-WILSON: We have also seen the death of hundreds and thousands of salmon in Macquarie Harbour over that time period, as we saw a few years ago around warming oceans. If you give any advice to industry or if there is any process, could you take that on notice as well—how you might give indications or how you predict those kinds of things. Dr Johnson: I am absolutely happy to do that. I can give you some up-to-date information, if you'd like, on the Great Barrier Reef Marine Park. I know that's— Senator WHISH-WILSON: That would be great.		
150	Bureau of Meteorology (BoM)	Whish- Wilson	Great Barrier Reef Marine Park - temperatures	Senator WHISH-WILSON: I know everyone is interested in the Barrier Reef because there has been unprecedented bleaching. But, Dr Johnson, for the record, Tasmania is now seen as a global hotspot for warming oceans. It's having quite significant impacts on our economy as well as our biodiversity. Dr Johnson: Again, I'm happy to provide you with a more detailed briefing, but let me give an update for the committee on the marine park. We've seen above average sea surface temperatures there leading into this summer. Both December and January were slightly warmer than average; November was a little cooler. There was quite a bit of rain in North Queensland during November which	Page 20	SQ18-000091

151	Bureau of	Urquhart	5.6GHz spectrum	resulted in the sea surface temperatures there. The latest observations I have in front of me are for early February, and they show that the Marine Park is slightly warmer than normal, particularly in the northern two-thirds, and a little bit below normal in the south. Senator WHISH-WILSON: I'd like to stop you there for a second. Is that a long-term average? Can you tell us what that temperature is today versus— Dr Johnson: I can't tell you today, but I'm happy to take that on notice. Senator WHISH-WILSON: Then can you give me your most recent readings versus the last two years of back-to-back bleaching. Is it similar? Dr Johnson: Again, I'd be happy to provide that on notice, if you want that level of specificity. What does the Bureau of Meteorology use the 5.6GHz	Written	SQ18-000242
131	Meteorology (BoM)	Orqunart	5.0GHz spectrum	spectrum for?	witten	SQ18-000242
152	Bureau of Meteorology (BoM)	Urquhart	Consultation with ACMA	Has the BOM been consulted by the ACMA about the planned relocation of Wireless Internet Providers on to the 5.6GHz spectrum? If yes, what form has this consultation taken and on what dates did the ACMA consult with BOM?	Written	SQ18-000243
153	Bureau of Meteorology (BoM)	Urquhart	Sharing of the 5.6GHz spectrum	Does the BOM have any concerns about sharing the 5.6 GHz spectrum with Wireless Internet Providers? If yes, what are they.	Written	SQ18-000244
154	Clean Energy Finance Corporation (CEFC)	Chisholm	Renewable energy projects	Senator CHISHOLM: Okay. In terms of your own awareness, would you have data for gigawatts of utility-scale renewables being created in the last year? What sort of data would you have that would be relevant for us to look at—the last calendar year or the last financial year? Mr Learmonth: In terms of the transactions that we have invested in? Senator CHISHOLM: Yes.	Page 125	SQ18-000092

155	Clean Energy Regulator (CER)	Bartlett	Additional C02 added to the atmosphere from sites	Mr Learmonth: Certainly. In terms of a detailed response, I will take that on notice. Senator CHISHOLM: Yes. I just would like the last financial year or the last two calendar years or something— Mr Learmonth: Last two calendar years. We can take you up to 31 December 2017, if you like. Senator CHISHOLM: Yes. Mr Learmonth: We are very happy to do that. Senator BARTLETT: So if all of these 66 sites emit to meet their newly approved levels, how much additional CO2 will be added to the atmosphere each year? Ms M Wilson: I'm not sure I've got the most up-to-date information for that question. I might need to take that on notice.	Page 112	SQ18-000093
156	Clean Energy Regulator (CER)	Bartlett	Rejected applications	Senator BARTLETT: You mentioned before, I think, that 81 have applied and 66 have been approved. Have any companies had their applications to move from a historical baseline to a higher calculated emissions baseline rejected? Ms M Wilson: There has been one application that has been rejected. Senator BARTLETT: Why did that one fall short? It seems, on the basis of the numbers you've given, that most people make it through, so how come they didn't? Ms M Wilson: They weren't able to meet the criteria under the legislation. Senator BARTLETT: Any particular criteria? Ms M Wilson: I don't have the specific details for that particular application. I'm happy to provide further information on notice. Senator BARTLETT: Okay. Thank you.	Page 113	SQ18-000094
157	Clean Energy	Bartlett	News article ''Emissions	As referred to in my questioning at Estimates, can the CER please review the article (attached) by Adam Morton, published by the Guardian on 19 February 2018, entitled	Written	SQ18-000009

	Regulator (CER)		increases approved by regulator may wipe out \$260 of Direct Action cuts"	"Emissions increases approved by regulator may wipe out \$260 of Direct Action cuts" and indicate any factual errors contained within it.		
158	Climate Change Authority (CCA)	Keneally	Emissions Reduction Fund – contracts	Does the Climate Change Authority monitor emissions contracts by sector? a. Does the Climate Change Authority monitor emissions contracts in the energy sector? b. Does the Climate Change Authority monitor emissions contracts in the agriculture sector? c. Does the Climate Change Authority monitor emissions contracts in the transport sector?	Written	SQ18-000133
159	Climate Change Authority (CCA)	Keneally	Emissions Reduction Fund – meeting targets	Which sectors are performing as expected (meeting anticipated or objective targets)?	Written	SQ18-000134
160	Climate Change Authority (CCA)	Keneally	Emissions Reduction Fund – not meeting targets	Which sectors are not performing as expected (not meeting anticipated or objective targets)?	Written	SQ18-000135
161	Climate Change Authority (CCA)	Keneally	Emissions Reduction Fund – transport sector	Why is the transport sector underperforming?	Written	SQ18-000136
162	Climate Change Authority (CCA)	Keneally	Transport sector emissions	What advice has the climate change authority provided regarding reducing emissions of the transport sector?	Written	SQ18-000137
163	Climate Change Authority (CCA)	Keneally	CCA budget allocation 2017-18	What is the Climate Change Authority budget allocation for the 2017-18 financial year? a. How many equivalent full time staff are currently employed? b. How many staff left since 1 July 2017?	Written	SQ18-000138

				 c. What is the staff turnover rate? d. How many staff, if any, have been made redundant so far during the 2017-18 financial year? e. How many staff are expected to be made redundant in the remainder of the 2017-18 financial year? f. How many research projects funded by the Climate Change Authority have commenced so far during the 2017-18 financial year? g. How many research projects funded by the Climate Change Authority have been completed so far during the 2017-18 financial year? 		
164	Climate Change Authority (CCA)	Keneally	CCA budget allocation 2016-17	What was the Climate Change Authority budget allocation for the 2016-17 financial year? a. How many equivalent full time staff were employed at the time of the publication of the 2016-17 annual report? b. How many staff left between 1 July 2016 and 30 June 2017? c. What was the staff turnover rate between 1 July 2016 and 30 June 2017? d. How many research projects funded by the Climate Change Authority commenced during the 2016-17 financial year? e. How many research projects funded by the Climate Change Authority were completed during the 2016-17 financial year?	Written	SQ18-000139
165	Climate Change Authority (CCA)	Keneally	CCA budget allocation 2015-16	What was the Climate Change Authority budget allocation for the 2015-16 financial year? a. How many equivalent full time staff were	Written	SQ18-000140

				employed at the time of the publication of the 2015-16 annual report? b. How many staff left between 1 July 2015 and 30 June 2016? c. What was the staff turnover rate between 1 July 2015 and 30 June 2016? d. How many research projects funded by the Climate Change Authority commenced during the 2015-16 financial year? e. How many research projects funded by the Climate Change Authority were completed during the 2015-16 financial year?		
166	Climate Change Authority (CCA)	Keneally	CCA budget allocation 2014-15	What was the Climate Change Authority budget allocation for the 2014-15 financial year? a. How many equivalent full time staff were employed at the time of the publication of the 2014-15 annual report? b. How many staff left between 1 July 2014 and 30 June 2015? c. What was the staff turnover rate between 1 July 2014 and 30 June 2015? d. How many research projects funded by the Climate Change Authority commenced during the 2014-15 financial year? e. How many research projects funded by the Climate Change Authority were completed during the 2014-15 financial year?	Written	SQ18-000141
167	Climate Change Authority (CCA)	Keneally	CCA budget allocation 2013-14	What was the Climate Change Authority budget allocation for the 2013-14 financial year? a. How many equivalent full time staff were employed at the time of the publication of the 2013-14 annual report? b. How many staff left between 1 July 2013	Written	SQ18-000142

1(0)		v.		and 30 June 2014? c. What was the staff turnover rate between 1 July 2013 and 30 June 2014? d. How many research projects funded by the Climate Change Authority commenced during the 2013-14 financial year? e. How many research projects funded by the Climate Change Authority were completed during the 2013-14 financial year?	W	0010 000143
168	Climate Change Authority (CCA)	Keneally	CCA budget allocation 2012-13	What was the Climate Change Authority budget allocation for the 2012-13 financial year? a. How many equivalent full time staff were employed at the time of the publication of the 2012-13 annual report? b. How many staff left between 1 July 2012 and 30 June 2013? c. What was the staff turnover rate between 1 July 2012 and 30 June 2012? d. How many research projects funded by the Climate Change Authority commenced during the 2012-13 financial year? e. How many research projects funded by the Climate Change Authority were completed (if any) during the 2012-13 financial year?	Written	SQ18-000143
169	Climate Change Authority (CCA)	Keneally	CCA budget allocation 2018-19	What funding has the Climate Change Authority suggested in its budget submission for the 2018-19 financial year?	Written	SQ18-000144
170	Climate Change Authority (CCA)	Keneally	CCA research projects 2018-19	How many research projects is the Climate Change Authority expecting to commence during the 2018-19 financial year?	Written	SQ18-000145
171	Climate	Keneally	CCA research	How many research projects funded by the Climate Change	Written	SQ18-000312

	Change Authority (CCA)		projects completed 2018-19	Authority are expected to be completed during the 2018-19 financial year?		
172	Climate Change Authority (CCA)	Keneally	CCA staffing 2018- 19	How many staff are expected to be made redundant during the 2018-19 financial year?	Written	SQ18-000146
173	Climate Change Authority (CCA)	Keneally	CCA office lease	When does the Climate Change Authority's current office lease expire?	Written	SQ18-000147
174	Climate Change Authority (CCA)	Keneally	CCA expiry of members terms	When does the Climate Change Authority's current members terms expire?	Written	SQ18-000148
175	Climate Change Authority (CCA)	Keneally	Previous meetings with the Energy Security Board and CCA	Have any members of the Climate Change Authority met with the Energy Security Board in the past 12 months? (Either individually or collectively)?	Written	SQ18-000149
176	Climate Change Authority (CCA)	Keneally	Upcoming meetings with the Energy Security Board and CCA	Are there any upcoming meetings scheduled between members of the CCA and the Energy Security Board? When? What is the proposed subject of discussion?	Written	SQ18-000150
177	Climate Change Authority (CCA)	Keneally	CCA climate scientists	Are any members of the Climate Change Authority (including the CEO) climate scientists? If yes, please provide further information?	Written	SQ18-000151
178	Climate Change Authority (CCA)	Keneally	CCA experience as climate scientists	Do any members of the Climate Change Authority (including the CEO) have experience as climate scientists? If yes, please provide further information?	Written	SQ18-000152
179	Climate Change Authority (CCA)	Keneally	CCA academic/research experience as climate scientists	Do any members of the Climate Change Authority (including the CEO) have academic or research experience as climate scientists? If yes, please provide further information?	Written	SQ18-000153

180	Climate Change Authority (CCA)	Keneally	CCA Meteorology experience	Do any members of the Climate Change Authority (including the CEO) have academic or research experience in meteorology or any related disciplines? If yes, please provide further information?	Written	SQ18-000154
181	Climate Change Authority (CCA)	Keneally	CCA articles published on Climate Science	Have any members of the Climate Change Authority (including the CEO) published any academic, scientific, peer reviewed, or similar articles on climate science? If yes, please provide further information?	Written	SQ18-000155
182	Climate Change Authority (CCA)	Keneally	Experience in commercial risk assessment	Do any members of the Climate Change Authority (including the CEO) have experience in commercial risk assessment? If yes, please provide further information?	Written	SQ18-000156
183	Climate Change Authority (CCA)	Keneally	Experience in commercial risk assessment – ports and coastal infrastructure	Do any members of the Climate Change Authority (including the CEO) have experience in commercial risk assessment relating to ports and any related coastal infrastructure (such as freight links, railways, roads)? If yes, please provide further information?	Written	SQ18-000157
184	Climate Change Authority (CCA)	Keneally	Experience in commercial risk assessment – production of energy/electricity	Do any members of the Climate Change Authority (including the CEO) have experience in commercial risk assessment relating to the production of energy or electricity? If yes, please provide further information?	Written	SQ18-000158
185	Climate Change Authority (CCA)	Keneally	Experience in long term large scale investment decisions	Do any members of the Climate Change Authority (including the CEO) have experience in making or approving long term (15-30 year) large scale (more than \$100m) investment decisions? If yes, please provide further information (without revealing any matters that could be considered 'commercial in confidence')?	Written	SQ18-000159
186	Climate Change Authority	Keneally	Climate research experience	Do any members of the Climate Change Authority (including the CEO) have any climate research experience? If yes, please provide further information?	Written	SQ18-000160

	(CCA)					
187	Climate Change Authority (CCA)	Keneally	Climate science research experience	Do any members of the Climate Change Authority (including the CEO) have academic experience as studying climate science or any related matters? If yes, please provide further information?	Written	SQ18-000161
188	Climate Change Authority (CCA)	Keneally	Climate study experience	Do any members of the Climate Change Authority (including the CEO) have experience as studying the climate or any related matters? If yes, please provide further information?	Written	SQ18-000162
189	Climate Change Authority (CCA)	Keneally	Appointment of members with climate science experience 2018	Are any more members with climate science experience expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000163
190	Climate Change Authority (CCA)	Keneally	Appointment of members with academic climate science experience 2018	Are any more members with academic experience in climate science expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000164
191	Climate Change Authority (CCA)	Keneally	Appointment of members studying the climate 2018	Are any more members with experience studying the climate or any related matters expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000165
192	Climate Change Authority (CCA)	Keneally	Appointment of members experienced in long term large scale investment decisions 2018	Are any more members with experience in making or approving long term (15-30 year) large scale (more than \$100m) investment decisions expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000166
193	Climate Change Authority (CCA)	Keneally	Appointment of members experienced in commercial risk assessment –	Are any more members with experience in commercial risk assessment relating to the production of energy or electricity expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000167

			energy/electricity 2018			
194	Climate Change Authority (CCA)	Keneally	Appointment of members - commercial risk assessment ports and coastal infrastructure 2018	Are any more members experience in commercial risk assessment relating to ports and any related coastal infrastructure (such as freight links, railways, roads) expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000168
195	Climate Change Authority (CCA)	Keneally	Appointment of members - commercial risk assessment 2018	Are any more members with experience in commercial risk assessment expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000169
196	Climate Change Authority (CCA)	Keneally	Appointment of members – climate science articles	Are any more members who have published any academic, scientific, peer reviewed, or similar articles on climate science expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000170
197	Climate Change Authority (CCA)	Keneally	Appointment of members – meteorology	Are any more members with academic or research experience in meteorology or any related disciplines expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000171
198	Climate Change Authority (CCA)	Keneally	CCA member appointments 2018	Are any more members expected to be appointed to the Climate Change Authority in 2018?	Written	SQ18-000172
199	Climate Change Authority (CCA)	Keneally	Meetings with the Minister since 1 July 2017	How many times have any members of the Climate Change Authority (including the CEO) met with the Minister for Environment and Energy since 1 July 2017? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000173
200	Climate Change	Keneally	Meetings with the Minister between	How many times have any members of the Climate Change Authority (including the CEO) met with the Minister for	Written	SQ18-000174

	Authority (CCA)		19 July 2016 – 2 July 2017	Environment and Energy between 19 July 2016 and 2 July 2017? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?		
201	Climate Change Authority (CCA)	Keneally	Meetings with the Resources, Energy and Northern Australia	How many times have any members of the Climate Change Authority (including the CEO) met with the Resources, Energy and Northern Australia between 21 September 2015 and 19 July 2017? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000175
202	Climate Change Authority (CCA)	Keneally	CCA meetings with the Minister's staff since 1 July 2017	How many times have any members of the Climate Change Authority (including the CEO) met with staff of the Minister for Environment and Energy since 1 July 2017? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000176
203	Climate Change Authority (CCA)	Keneally	CCA meetings with the Minister's staff between 19 July 2016 – 2 July 2017	How many times have any members of the Climate Change Authority (including the CEO) met with staff of the Minister for Environment and Energy between 19 July 2016 and 2 July 2017? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000177
204	Climate Change Authority (CCA)	Keneally	CCA meetings with Resources, Energy and Northern Australia staff	How many times have any members of the Climate Change Authority (including the CEO) met with staff of the Resources, Energy and Northern Australia between 21 September 2015 and 19 July 2017? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000178
205	Climate Change Authority (CCA)	Keneally	CCA meetings with Turnbull Cabinet members since 21 September 2015	How many times have any members of the Climate Change Authority (including the CEO) met any member of the Turnbull Cabinet since 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000179

206	Climate Change Authority (CCA)	Keneally	CCA meetings with Turnbull Cabinet members staff since 21 September 2015	How many times have any members of the Climate Change Authority (including the CEO) met any member of the staff of the Turnbull Cabinet since 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000180
207	Climate Change Authority (CCA)	Keneally	CCA meetings with the Turnbull Outer Ministry since 21 September 2015	How many times have any members of the Climate Change Authority (including the CEO) met any member of the Turnbull Outer Ministry since 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000181
208	Climate Change Authority (CCA)	Keneally	CCA meetings with the Turnbull Outer Ministry staff since 21 September 2015	How many times have any members of the Climate Change Authority (including the CEO) met any member of the staff of Turnbull Outer Ministry since 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000182
209	Climate Change Authority (CCA)	Keneally	CCA meetings with the Abbot Cabinet members 18 September 2013 – 21 September 2015	How many times have any members of the Climate Change Authority (including the CEO) met any member of the Abbott Cabinet between 18 September 2013 and 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000183
210	Climate Change Authority (CCA)	Keneally	CCA meetings with the Abbot Cabinet staff 18 September 2013 – 21 September 2015	How many times have any members of the Climate Change Authority (including the CEO) met any member of staff of the Abbott Cabinet between 18 September 2013 and 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000184
211	Climate Change Authority (CCA)	Keneally	CCA meetings with the Abbot Cabinet Outer Ministry 18 September 2013 –	How many times have any members of the Climate Change Authority (including the CEO) met any member of the Abbott Outer Ministry between 18 September 2013 and 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of	Written	SQ18-000185

			21 September 2015	meetings?		
212	Climate Change Authority (CCA)	Keneally	CCA meetings with the Abbot Cabinet Outer Ministry staff 18 September 2013 – 21 September 2015	How many times have any members of the Climate Change Authority (including the CEO) met any member of staff of the Abbott Outer Ministry between 18 September 2013 and 21 September 2015? Please provide dates, lengths of meetings, names of participants, and if possible, the subject of meetings?	Written	SQ18-000186
213	Climate Change Authority (CCA)	Keneally	Correspondence between the CCA and Office of the Minister of Environment and Energy	Please table any email or written correspondence provided between any members of the Climate Change Authority (including the CEO) to the Office of the Minister of Environment and Energy since 1 July 2017?	Written	SQ18-000187
214	Climate Change Authority (CCA)	Keneally	National Energy Guarantee	Has the Climate Change Authority provided any advice to government regarding the National Energy Guarantee since 1 July 2017?	Written	SQ18-000188
215	Climate Change Authority (CCA)	Keneally	Correspondence regarding the National Energy Guarantee	Please table any email or written correspondence provided between any members of the Climate Change Authority (including the CEO) to the Office of the Minister of Environment and Energy regarding the National Energy Guarantee since 1 July 2017?	Written	SQ18-000189
216	Climate Change Authority (CCA)	Keneally	Correspondence regarding climate change mitigation	Has the Climate Change Authority had any correspondence with the government regarding climate change mitigation since 19 July 2016?	Written	SQ18-000190
217	Climate Change Authority (CCA)	Keneally	Climate change mitigation correspondence between CCA and the Minister's Office	Please table any email or written correspondence provided between any members of the Climate Change Authority (including the CEO) to the Office of the Minister of Environment and Energy regarding climate change mitigation since 19 July 2016?	Written	SQ18-000191

218	Climate Change Authority (CCA)	Keneally	Climate change mitigation advice	Has the Climate Change Authority provided any advice to government regarding climate change mitigation since 19 July 2016?	Written	SQ18-000192
219	Climate Change Authority (CCA)	Keneally	Climate change mitigation advice correspondence	Please table any email or written correspondence provided between any members of the Climate Change Authority (including the CEO) to the Office of the Minister of Environment and Energy providing advice on climate change mitigation since 19 July 2016?	Written	SQ18-000193
220	Climate Change Authority (CCA)	Keneally	Review of the Emissions Reduction Fund	Has the Climate Change Authority provided any advice to government regarding the <i>Review of the Emissions Reduction Fund</i> since 19 July 2016?	Written	SQ18-000194
221	Climate Change Authority (CCA)	Keneally	Review of the Emissions Reduction Fund correspondence	Please table any email or written correspondence provided between any members of the Climate Change Authority (including the CEO) to the Office of the Minister of Environment and Energy regarding the <i>Review of the Emissions Reduction Fund</i> since 19 July 2016?	Written	SQ18-000195
222	Climate Change Authority (CCA)	Keneally	Climate change mitigation correspondence from the Minister's Office	Please table any email or written correspondence from the Office of the Minister of Environment and Energy to any members of the Climate Change Authority (including the CEO) regarding climate change mitigation since 19 July 2016?	Written	SQ18-000196
223	Climate Change Authority (CCA)	Keneally	Review of the Emissions Reduction Fund correspondence from the Minister's Office	Please table any email or written correspondence from the Office of the Minister of Environment and Energy to any members of the Climate Change Authority (including the CEO) regarding the <i>Review of the Emissions Reduction Fund</i> since 19 July 2016?	Written	SQ18-000197
224	Climate Change Authority	Keneally	Independent research on climate change 2018	What independent research or analysis into matters relating to climate change is the Climate Change Authority conducting in calendar year 2018?	Written	SQ18-000198

	(CCA)					
225	Climate Change Authority (CCA)	Keneally	Independent research on climate change 2017	What independent research or analysis into matters relating to climate change did the Climate Change Authority conducting in calendar year 2017?	Written	SQ18-000199
226	Climate Change Authority (CCA)	Keneally	Independent research on climate change 2016	What independent research or analysis into matters relating to climate change did the Climate Change Authority conducting in calendar year 2016?	Written	SQ18-000200
227	Climate Change Authority (CCA)	Keneally	Independent research on climate change 2015	What independent research or analysis into matters relating to climate change did the Climate Change Authority conducting in calendar year 2015?	Written	SQ18-000201
228	Climate Change Authority (CCA)	Keneally	Independent research on climate change 2014	What independent research or analysis into matters relating to climate change did the Climate Change Authority conducting in calendar year 2014?	Written	SQ18-000202
229	Climate Change Authority (CCA)	Keneally	Independent research on climate change 2013	What independent research or analysis into matters relating to climate change did the Climate Change Authority conducting in calendar year 2013?	Written	SQ18-000203
230	Climate Change Authority (CCA)	Keneally	Independent research on climate change 2012	What independent research or analysis into matters relating to climate change did the Climate Change Authority conducting in calendar year 2012?	Written	SQ18-000204
231	Director of National Parks	Urquhart	Tabling of new marine park management plan	Senator URQUHART: We understand that the government is close to finalising and tabling the new marine park management plan. That's correct, isn't it? You just talked about that. Mr Mundy: Yes. Senator URQUHART: There are concerns about the direction of those plans, including the degree to which last year's consultation draft stripped back marine national park green zones on what was declared in 2012. They proposed	Pages 92–93	SQ18-000095

to allow greater access for industrial activities in the reserves. They ignore community input and ignore the finding of the government's own independent sites review. To what degree is the government heeding these concerns in the plans that are now being finalised? **Senator Birmingham:** I don't necessarily agree with a lot of your commentary there, Senator Urquhart. **Senator URQUHART:** I'm sure you don't. **Senator Birmingham:** So far as there is a question there, Mr Mundy can attempt to answer the question. **Mr Mundy:** You'd be aware that we've had two rounds of public consultation leading into the finalisation of this set of management plans. The most recent was in the second half of 2017. We got 82,000 public submissions as an input to that. Of those, 80,000 or so were form submissions to the application, in a template, and the other 2,000-plus were individual submissions. They were, it's fair to say, very broadly based in terms of the range of interests that people raised. They came from a diversity of sectors, including the tourism industry, state governments, the conservation sector and the fishing sector. Possibly most interestingly and helpfully as well, we had the opportunity for some closer engagement with Indigenous communities in affected areas and in areas adjacent to that. **Senator URQUHART:** I was going to ask you about traditional owner consultation. **Mr Mundy:** Collectively, there's a lot of input that we've tried to take account of there. The process has been, as you know, a difficult and contentious one. It's not a trivial enterprise, trying to come up with management arrangements that are balanced and work for all Australians across 2.4 million square kilometres— **Senator UROUHART:** I will come back to get a bit more detail on that, but can I just ask when the government's planning to table the plans in both houses? **Mr Mundy:** It's a matter for the minister, when the plans come forward.

232	Director of National Parks	Urquhart	2012 management plans - Instrument	Senator URQUHART: Minister, are you able to enlighten us? Senator Birmingham: I'll have to take that on notice. I'm not aware that a decision's been made. Senator URQUHART: I asked when the instruments were tabled and whether they were in force. You said they were never in force. Is that legal advice that you received? Mr Mundy: If you would like legal confirmation, I can take that on notice to provide it. Senator URQUHART: Yes, that would be great.	Page 93	SQ18-000096
233	Director of National Parks	Urquhart	Draft plans – input from mining industry and resources portfolio	Senator URQUHART: What's the nature of the input that's been had by the mining industry and the resources portfolio with respect to the development of the draft plans? Mr Mundy: The nature of the input? Senator URQUHART: Yes. What's the nature of the input that the mining industry and the resources portfolio has had in respect to the development of the draft plans? Have they been seeking an increase? Senator Birmingham: I think Mr Mundy has been through the public consultation and submissions process. Mr Mundy: They have participated in the public—Senator URQUHART: The mining industry has? Mr Mundy: There were submissions from the resources sector. Senator URQUHART: Have they been seeking an increase, on what was declared in 2012, to the area within the marine reserves that is accessible to mining and exploration? Mr Mundy: It's not my recollection that we received any submissions to that effect. If you want a definite answer on that question we would need to check it. Senator URQUHART: Yes, if you could take that on notice, just so we've got the correct thing. Also, if that's the case, which marine reserves have they—either the industry or the portfolio—sought greater access to? I would be	Pages 93–94	SQ18-000097

				interested in that, if you could take that on notice. Mr Mundy: Based just on recollections, rather than having documents to hand, the interests expressed by the mining industry, as well as many other industries, were largely around certainty—certainty in terms of the desire to have the plans finalised and in place, and certainty in terms of wanting to have clarity around what regulatory regime would pertain to them in the future. Senator URQUHART: Certainty and regulatory. If you could just take on notice whether there was any request to have them expanded.		
234	Director of National Parks	Siewert	Buffalo farm – numbers	Senator SIEWERT: In terms of the numbers, is he proposing to run—to turn off a set number of buffalo? Mr Gibbs: He is. I would have to take it on notice—just the numbers. Senator SIEWERT: If you can take that on notice, that would be appreciated. Mr Gibbs: I will take that on notice.	Page 95	SQ18-000098
235	Director of National Parks	Whish- Wilson	Tuna fishing in marine reserves	Senator WHISH-WILSON: Before I get to the question: Dr West, can I ask a few more questions along the same theme as Senator Keneally? Can you tell us which marine reserves in the network will be opened up to tuna fishing in the management plans you're finalising now? Maybe you could use the 2012 declaration as your baseline. What's changed? Which reserves will have more area opened up to tuna longlining? Senator Birmingham: We can comment in terms of the relativities between the published 2017 drafts. Senator WHISH-WILSON: And the 2012 baseline that was set? Senator Birmingham: Yes. That's right, so what was already published last year we can comment on. Senator WHISH-WILSON: Specifically for the tuna longlining? Mr Mundy: I don't have a specific area, or haven't got it	Page 100	SQ18-000099

				broken down it that way. Senator WHISH-WILSON: Could you take that on notice?		
236	Director of National Parks	Whish- Wilson	Director of National Parks role in approving oil and gas explorations	Senator WHISH-WILSON: Is there any role for the National Parks director in the review in approving oil and gas explorations? That's where I'd like to go with this. Mr Mundy: I'm just trying to get my location straight. You might be aware that there's a former marine reserve—Senator WHISH-WILSON: Yes, that's right. Mr Mundy: The earlier 1998— Senator WHISH-WILSON: Which South Australians are very proud of as one of the first in the country. Mr Mundy: And within that previously proclaimed area, the director has responsibility for mining operations. In that area, under transitional arrangements, mining operations require authorisation by the director of National Parks and NOPSEMA. That's in the benthic protection zone of the former marine park, but what I'm not certain about is whether the particular licence that you're talking about is within that area or not. Senator WHISH-WILSON: I understand it is. Assume it is. Are you just confirming that the director will have a role in the final decision? Mr Mundy: Yes. I'll need to clarify exactly what—Senator WHISH-WILSON: If you could double-check—Senator Birmingham: I think it sounds like we'll need to take it on notice. I think, also, Senator, if there's a little more advice you can provide about the location—Senator WHISH-WILSON: We checked it. That permit, S18-1, overlaps the marine protected area. If you could double-check that—	Page 102	SQ18-000100
237	Director of National Parks	Whish- Wilson	Director of National Parks role – Great Australian	Senator WHISH-WILSON: Could I ask a few more quick questions in relation to this? What involvement did the director have under the previous management plan for marine parks in the Great Australian Bight?	Pages 102–103	SQ18-000101

			Bight	Mr Mundy: The one for the pre-existing Great Australian Bight Marine Park? Senator WHISH-WILSON: Yes. Mr Mundy: In authorising oil and gas activities, I understand. I'll need to take that on notice to get you some clear advice. It depends at what point you're talking about, because, from the point at which NOPSEMA became the one-stop shop for assessing oil and gas activities in Australian waters, they assumed that role, so if you are talking about periods before that, then— Senator WHISH-WILSON: What kind of overlap do you have with them on issues related directly to national parks or marine protected areas? Mr Mundy: You'll have seen, under the 2017 management plans, perhaps, that NOPSEMA's decision-making processes are proposed to be applied within marine parks. The NOPSEMA process would take into account the values that have been recognised through the marine park management plans and use them when they're assessing any application. Also, the director of National Parks is a relevant person for any company intending to undertake activities in marine parks, which means that there's an obligation to consult— Senator WHISH-WILSON: Only to consult? In granting an exploration approval there's consultation, but is there any other investigation you would do? What would enter in, at that point, if they came to consult with you? Mr Mundy: For exploration? I'll need to take it on notice. Senator WHISH-WILSON: Okay. I would be interested to know what factors you would consider in that decision and at what point the minister would be involved. Could you take that on notice as well? Mr Mundy: Sure.		
238	Director of National Parks	Whish- Wilson	Great Australian Bight – permit decisions	Senator WHISH-WILSON: If you don't know it, can the director indicate specifically how the decision was made to approve the permit areas previously held by BP and Statoil,	Page 103	SQ18-000102

				which were EPP 37 through to EPP 40, in the Great Australian Bight? Dr West: We'll have to take those on notice, yes.		
239	Director of National Parks	Urquhart	Submissions – Marine reserves	Mr Cahill: Senator, I might ask Mr Mundy to expand—but, when evaluating those submissions and looking through them, they're evaluated against the criteria they wanted for the marine park reserves. So the director of national parks would have looked at and considered those submissions and then evaluated and done an assessment and reviewed the documentation, making sense of all of those submissions—for the more substantive submissions. Is that the process that I understood, Mr Mundy, wanted to expand on? Mr Mundy: That's absolutely right. Senator URQUHART: So, Mr Mundy, you don't have the details of the percentage of the submissions? Mr Mundy: I don't have a breakdown by the proposition that you're putting to me, which is how many of them specifically asked for the 2012 plans to be reinstated. Mr Cahill: They were evaluated against the objectives of the marine park reserves. Senator KENEALLY: Can that information be gathered? Mr Mundy: Potentially. It's a question of—there are a lot of submissions, and crunching the numbers of them always involves some analysis. It could be gathered. Senator Birmingham: We can take that on notice.	Page 105	SQ18-000103
240	Director of National Parks	Keneally	Tuna fishing association – 2017 draft plans	Senator KENEALLY: As part of the plan that was released, the 2017 plan, there was a green zone, south of Port Lincoln, and there were proposals arguing to move that further inshore into important tuna fishing areas. I understand that has been rejected, is that the case? Senator Birmingham: Sorry, you are comparing to the proposed 2012 plan? Senator KENEALLY: No. I am actually referring to the 2017—okay, for clarity, I am actually citing an article in the	Page 106	SQ18-000104

				Port Lincoln Times, where the Australian Southern Bluefin Tuna Industry Association Chief Executive Officer Brian Jeffries welcomed the 2017 marine park plan put out by the government. Senator Birmingham: The draft plans? Senator KENEALLY: The draft plans, yes. Senator KENEALLY: He argues that it makes welcome concessions to the tuna industry. For example, he said a number of key groups who were opposed to fishing lobbied to move a large, green, closed, offshore zone south of Port Lincoln further inshore into important tuna-fishing areas. This has been rejected. Senator Birmingham: Are you wanting the accuracy as to whether there was such a proposal? Is that the question? Senator KENEALLY: I'm asking you to confirm what the tuna fishing association claims is accurate about your draft plan. Senator Birmingham: You're asking, I think: was there a proposal to make a move of the proposed lines in a certain direction and, if so, was that proposal rejected? Officials might have that level of granular detail about whether such a proposal was made by anybody, or they might have to		
241	Director of National Parks	Keneally	Commercial fishing – Kangaroo Island	Senator KENEALLY: The Australia Southern Bluefin Tuna Fishing Industry Association also cited that in another area, off Kangaroo Island, commercial fishing such as purse seining will be allowed in some parts, but only if special permits are granted to the operators. Is that the case? Mr Mundy: I'd need to check those zoning table rules of the 2017 plans. They're available online if you wish to check. Senator KENEALLY: They also welcome that under the new plans an important fishing area off Kangaroo Island remains closed to fishing but will now allow for towing tuna pontoons through the area. Can you confirm if that's the case?	Page 106	SQ18-000105

				Mr Mundy: Again, without the management tables we'd have to take those questions on notice. Senator KENEALLY: Fantastic. Thank you.		
242	Director of National Parks	Abetz	Flora and fauna on Christmas Island	What is the greatest threat to the flora and fauna of Christmas Island? Has the Government Expert Working Group made any findings in this regard? If so, what are the findings?	Written	SQ18-000012
243	Director of National Parks	Abetz	Christmas Island - Invasive species control	Is there an invasive species control programme on Christmas Island? If so, how is it funded? If so, which invasive species are being targeted and why?	Written	SQ18-000013
244	Director of National Parks	Abetz	Christmas Island - Rainforest rehabilitation	Is rainforest rehabilitation undertaken on Christmas Island? If so, by who is it funded?	Written	SQ18-000017
245	Director of National Parks	Hinch	Marine Parks - Coral Sea	Last year Parks Australia released draft management plans for Australia's Commonwealth Marine Parks. In the Coral Sea, the plans proposed to cut back green zones by more than 50% of what was declared in 2012. In September last year, it was revealed in the media that the number of protected turtles hooked by commercial fishers in the Eastern Tuna and Billfish Fishery has jumped tenfold over the past five years. How does the Department propose to allow such a destructive fishing operation to operate so extensively in one of Australia's premiere marine parks?	Written	SQ18-000018
246	Director of National Parks	Hinch	Limmen Marine Park	Limmen Bight in the Northern Territory is home to one of the world's largest dugong populations and the largest in the Northern Territory. The Government's own independent science Review recommended putting in place a green zone that would protect the unique marine life within Limmen Marine Park. Why do the Government's draft plans for	Written	SQ18-000019

				Limmen Marine Park propose such a radical departure from the Review's proposal?		
247	Director of National Parks	Hinch	Dugong and Turtle protection in Marine Parks	What percentage of dugong and turtle habitats are protected within the Governments current Commonwealth marine park zoning proposals?	Written	SQ18-000020
248	Director of National Parks	Siewert	Application to the Kakadu Board of Management	Please provide a copy of Dave Linder's application to the Kakadu Board of Management as well as the proposed conditions and the process for consultation the board will be asked to consider.	Written	SQ18-000111
249	Director of National Parks	Keneally	2017 Marine Park Management Plans	How will tuna fisheries be impacted by changes to the new (2017) Marine Park Management Plans, compared to the earlier (2012) Marine Park Management Plans? a. What changes have been introduced that would affect tuna fisheries?	Written	SQ18-000112
				b. Why have these changes been introduced?		
				c. What changes have been introduced that would affect Australian Southern Bluefin Tuna fisheries?		
				d. What changes have been introduced to allowable fishing depth that would affect tuna fisheries?		
				e. What changes have been introduced to allowable fishing depth that would affect Australian Southern Bluefin Tuna fisheries?		
				f. What changes have been introduced to allowable fishing areas that would affect tuna fisheries?		
				g. What changes have been introduced to allowable fishing areas that would affect Australian Southern Bluefin Tuna fisheries?		

				h. What changes have been introduced to allowable long line fishing that would affect tuna fisheries? i. What changes have been introduced to allowable long line fishing that would affect Australian Southern Bluefin Tuna fisheries?		
250	Director of National Parks	Keneally	2017 Marine Park Management Plans – peak bodies	Did any peak bodies associated with the Australian fishing industry make submissions on the new (2017) Marine Park Management Plans? a. Did any peak bodies associated with the Australian fishing industry attempt to meet with anyone in the Environment portfolio (or an associated Minister's office) in person regarding the new (2017) Marine Park Management Plans? b. Did any peak bodies associated with the Australian fishing industry meet with any staff in the Environment portfolio (or an associated Minister's office) in person regarding the new (2017) Marine Park Management Plans? When?	Written	SQ18-000113
251	Director of National Parks	Keneally	2017 Marine Park Management Plan – Australian fishing companies	Did any Australian fishing companies make submissions on the new (2017) Marine Park Management Plans? a. Did any Australian fishing companies attempt to meet with anyone in the Environment portfolio (or an associated Minister's office) in person on the new (2017) Marine Park Management Plans? b. Did any Australian fishing companies meet with any staff in the Environment portfolio (or an associated Minister's office) in person on the new (2017) Marine Park Management Plans? When?	Written	SQ18-000114

252	Director of National Parks	Keneally	2017 Marine Park Management Plan – Foreign fishing companies	Did any foreign fishing companies make submissions on the new (2017) Marine Park Management Plans? a. Did any foreign fishing companies attempt to meet with anyone in the Environment portfolio (or an associated Minister's office) in person on the new (2017) Marine Park Management Plans? b. Did any foreign fishing companies meet with any staff of in the Environment portfolio (or an associated Minister's office) in person on the new (2017) Marine Park Management Plans? When?	Written	SQ18-000115
253	Director of National Parks	Keneally	2017 Marine Park Management Plan - other representatives	Did any foreign diplomats, consulates, honorary consulates, foreign trade offices, diplomatic missions, or similar representatives of foreign states make submissions on the new (2017) Marine Park Management Plans? a. Did any foreign diplomats, consulates, honorary consulates, foreign trade offices, diplomatic missions, or similar representatives of foreign states attempt to meet with anyone in the Environment portfolio (or an associated Minister's office)in person on the new (2017) Marine Park Management Plans? b. Did any foreign diplomats, consulates, honorary consulates, foreign trade offices, diplomatic missions, or similar representatives of foreign states meet with any staff in the Environment portfolio (or an associated Minister's office) in person on the new (2017) Marine Park Management Plans? When?	Written	SQ18-000116
254	Director of National Parks	Keneally	2017 Marine Park Management Plans – Federal lobbying	Did any person or entity who identified as being on the federal lobbying register attempt to meet with anyone employed in the Environment portfolio (or an associated Minister's office) in person on the new (2017) Marine Park	Written	SQ18-000117

			register	Management Plans?		
				a. Did any person or entity who identified as being on the federal lobbying register meet with anyone employed in the Environment portfolio (or an associated Minister's office) in person on the new (2017) Marine Park Management Plans? When?		
255	Director of National Parks	Urquhart	Draft Management Plans	Can the Department confirm that, while the draft management plans for the Commonwealth marine reserve were not 'technically' operational when they were tabled, they were actually in force, due to take legal effect on their commencement dates, and in fact continue to be listed as in force by the Federal Register of Legislation.	Written	SQ18-000238
256	Great Barrier Reef Marine Park Authority	Moore	Plastics pollution in the Great Barrier Reef Marine Park	Senator MOORE: This question is particularly about the coral disease from contact with marine plastics pollution, which has recently received quite a bit of publicity. We have always known it is important, but the <i>American Journal of Science</i> of 26 January indicated that coral disease from contact with marine plastic pollution has recently been recognised as a developing problem, especially in coral reefs near developing countries. What is the situation from your perspective, Dr Reichelt? I know we have talked about this in the past in the Great Barrier Reef Marine Park. Dr Reichelt: We remain very concerned about plastics pollution in general in the Great Barrier Reef Marine Park. We see it at nano, micro and macro scales. On the macro scale we have had active programs with contracting Tangaroa Blue and Eco Barge, to give two examples of organisations that are well-placed to collect and document plastics pollution in various parts of the marine park, one in the Whitsundays and others in other places more remote. The amount of plastics is of concern. We have agreements with the 15 or 16 local authorities and we are encouraging them and recognise them as reef guardian councils if they	Page 26	SQ18-000106

				manage plastic flow—the kind of coastal run-off type problems, as well as the marine debris that drifts in, especially in the north, with ghost nets. The micro one in relation to coral, and nano, is that the particulate sizes can mimic the size of the plankton that the corals would interest. There are actual images of those. The extent of it on the reef is probably less well-known, but we know it is a process that can occur. There has been research from James Cook University and others on where coral disease seems to be more prevalent in places where there is a lot of discarded fishing gear, because the abrasiveness of fishing lines and things can lead to lesions and bacterial and viral infections, which is what coral disease is. The other one is that a lot of the turtles that come through our turtle hospital have ingested plastic, causing floating disease and other things. Senator MOORE: And balloons. Dr Reichelt: Yes. It's of generic concern. I'd have to take on notice if you wanted more specific scientific— Senator MOORE: Would you mind? Also, it is particularly pertinent to the government response to this report from 2016, because that was part of the key recommendations. But if you could take it on notice we would really like to get some more information from GBRMPA about plastics pollution and also the work you've been doing, because I know it has been over a long period of time. Dr Reichelt: We will identify currently available science and information we have as part of our management.		
257	Great Barrier Reef Marine Park Authority	Moore	The Guardian article of 9 January 2018	Senator MOORE: That's fine; Senator Urquhart will be all across it. Now, this is just leading on. This is the last one. It's about the green turtles that you raised, Dr Reichelt. The Guardian on 9 January reported on research that rising sea temperatures are turning almost all the green sea turtles in the Great Barrier Reef population into females. Can you give us any more information about that? It did receive a	Page 27	SQ18-000107

				fair bit of publicity at the time, and people were making comments. Can you advise that rising sea temperatures are turning—that this is fact, and what are the implications of that discovery, that research? Dr Reichelt: We can identify and take on notice the specific reports we have on that afterwards, but in general we would agree that sex determination in turtles is highly dependent on temperatures. Senator MOORE: Was any Great Barrier Reef Marine Park research taken into account in the information in The Guardian article of 9 January? Were you interviewed? Dr Reichelt: From memory, that's the result of a published scientific article. Senator MOORE: Yes, it is. Dr Reichelt: We take all of that into account, not only for our five-yearly outlook reports, where we rely primarily on peer-reviewed scientific papers. But anything like the one you've mentioned in The Guardian on the turtle sex determination—if they weren't already collaborators, which is quite possible—would immediately be used and potentially altering the designs of our work at some sites. Senator MOORE: I'm just always interested, with media commentary on something that you're doing so much work on in your part of the world, whether you were contacted to make comment. Dr Reichelt: I'd have to ask the media team, sorry. Senator MOORE: It's just interest. Thank you.		
258	Great Barrier Reef Marine Park Authority	Hinch	Dugongs and sea turtles – Queensland survey	Senator HINCH: Dr Reichelt, just following on Senator Moore's questions about sea turtles, have there been any recent surveys of the dwindling populations of dugongs and sea turtles in northern Queensland and the Northern Territory? Dr Reichelt: The dugong was surveyed as part of our integrated monitoring program, I think a year or so ago, and that report is now published. But it, I think, focused on the	Page 28	SQ18-000315

259	Great Barrier Reef Marine Park Authority	Whish- Wilson	Euthanasia of sharks	central and southern Great Barrier Reef. Your question extends into the Northern Territory or the whole range of these animals. It's probably more one for the department. Senator HINCH: Could you take it on notice just to let me know when the last survey was done? Dr Reichelt: Well, I think the department—you extended your question into the Northern Territory, which is outside the Great Barrier Reef Marine Park. Senator HINCH: Well, stick with Queensland. I'm more than happy to stick with Queensland. Senator Birmingham: Dr Reichelt might be able to provide an update in terms of the survey work they've done in relation to within the Great Barrier Reef Marine Park. Senator WHISH-WILSON: Well, I think we can all agree that it's not. In relation to sharks, Senator Urquhart asked some questions around hammerheads. You're probably aware that the Queensland Department of Agriculture and Fisheries has a policy of euthanasia for 26 species of sharks when they're centured on drawn lines in the	Page 32	SQ18-000108
260	Great Barrier	Whish- Wilson	Euthanasia of sharks – Legal	species of sharks when they're captured on drum lines in the Marine Park Authority. I just want to know if you know how that euthanasia is carried out and whether it involves firearms? Do you know if the contractors shoot the sharks, like the hammerheads, when they catch them on their drum lines? Dr Reichelt: If you're talking about policies of the Department of Agriculture and Fisheries in Queensland, we'd have to take that on notice, I think. Senator WHISH-WILSON: You manage that, though, don't you? They dictate— Dr Reichelt: They have permits for their drum lines for protection of bathers and so on. In terms of the details that you're asking, I would need to take it on notice. Senator WHISH-WILSON: Are you also aware that of the 26 species on the target list most are harmless to	Page 33	SQ18-000109
	Reef Marine	VV 115U11	Position	humans, yet they're still caught and euthanised?		

	Park Authority			Dr Reichelt: Dr Banks, can you comment on the species? We're getting into the permit issue that's in the AAT; that's the trouble we're running into here. Dr Banks: The matter of euthanasia, as Dr Reichelt said, is a matter that falls within any animal cruelty legislation administered by the Queensland government. Dr Reichelt: I am concerned that we're having a discussion here that would be disrespectful to the AAT process. We could take it on notice and ask for legal advice— Senator WHISH-WILSON: These are issues that have been raised in the AAT process, are they? Dr Reichelt: I'm not sure but I'd prefer if I could check the legal position, that's all. Senator WHISH-WILSON: All right. There are different kinds of hammerhead sharks and some, such as scalloped hammerhead sharks, are more protected than others. Can you also let us know how the contractors are trained to identify the differences between the hammerhead sharks when they're caught on the drum lines and they're euthanised. I'd be interested to know that as well—what kind of oversight there is in relation to that within the marine park. Dr Reichelt: Thanks. We'll pick those up as questions on notice.		
261	Great Barrier Reef Marine Park Authority	Whish- Wilson	Monitoring of mangroves	Senator WHISH-WILSON: In the last couple of years we've seen unprecedented mangrove dieback. Has the marine park authority got any role in monitoring for that? I know it has occurred in different parts of the northern reef. Dr Reichelt: To my knowledge there's been no mass dieback on the east coast. I could be wrong. But the big one that got a lot of attention— Senator WHISH-WILSON: Is in Arnhem Land? Dr Reichelt: Yes. It was in the Gulf of Carpentaria, along the coast. I have had scientific reports on that, because we wanted to know whether we would be susceptible along the Barrier Reef coast. It did have to do with local sea level	Page 33	SQ18-000110

				changes and the extreme drought that was underway. It was the same conditions that caused the coral bleaching—the extreme drought and that mangrove dieback. The extent to which it was sea level change, temperature—I think it is perhaps a combination of both. To my knowledge we haven't seen that kind of condition affecting the east coast mangroves. Senator WHISH-WILSON: What I am interested in is: following that event, is there any kind of program underway to monitor the mangroves—because apparently it was some months before it was actually reported, because it was so isolated—along the eastern side as well, in the northern areas. Dr Reichelt: I'd have to check the state of environment reporting. Also we're preparing now our outlook report for 2019. Can we take that one on notice and check out what's available? Senator WHISH-WILSON: Yes, please do.		
262	2.1: CCD	Bartlett	Spill over h Emissions reductions per capita to meet Paris targets	Senator BARTLETT: You mentioned in your earlier answer Australia's emissions declining, and I understand they have reduced to 22.6 tonnes per year per capita—per capita relating to population growth, of course. To what level per capita do emissions need to fall to meet our Paris targets—and, as part of that, I presume you factor in projections about our overall population? Ms Wilson: We'll have to take that question on notice. Senator BARTLETT: Okay, thank you.	Page 13	SQ18-000304
263	2.1: CCD	Bartlett	Emissions reductions per annum to meet Paris targets	Minister Frydenberg sometimes refers to the fact that Australia's emissions per capita are declining. I understand they have been reduced to 22.6 tonnes per year per capita, and that this decline is occurring because our population is growing strongly. To what level per capita do emissions need to fall to meet our Paris targets? What reduction per annum would this be?	Written	SQ18-000305

264	2.1. CCD	Dowtlot4	Emiggiong	Many awarts have commented that in order to most our	Whitton	5019 000206
264	2.1: CCD	Bartlett	Emissions reductions - economy	Many experts have commented that in order to meet our commitment at least cost, some sectors of the economy will need to do more than others, in particular, because emissions reductions in the electricity sector are available at a lower cost from other sectors. Does the Department concur?	Written	SQ18-000306
265	2.1: ICCEI	Bartlett	'Per capita emissions' metric	Does the 'per capita emissions' metric appear anywhere within our intended nationally determined contribution? [Likely answer no]. a. Given that our emissions are only decreasing on a per capita basis because our population is growing strongly, what is the relevant and utility of citing this statistic?	Written	SQ18-000307
266	2.1: ICCEI	Bartlett	Emissions reductions - mechanisms	In August 2015, Australia announced its nationally determined contribution target of economy-wide greenhouse gas emissions reduction by 26-28 per cent below 2005 levels by 2030. In the two financial years since, emissions have increased in the sectors of: stationary energy excluding electricity; transport; fugitive emissions; industrial processes and agriculture. What mechanisms are working to reduce emissions in these sectors and are they sufficient to meet our Paris commitments?	Written	SQ18-000308
267	4.1: Energy	Patrick	AEMO's demand forecasts	Senator PATRICK: Okay, thank you. That's helpful. In my reading of the consultation paper, it talks about AEMO predicting the demand. I presume that's on both gas and electricity, because gas does, in some sense, have an impact on electricity prices and, indeed, availability, as we discovered in South Australia. In terms of confidence in AEMO, it's been expressed to me in the past, particularly in relation to gas—I don't know what the values are or what the verdict is with respect to electricity—that AEMO has consistently got that wrong. I'm not trying to verbal you. I'm going to ask the question: is it possible—and you can perhaps take this on notice—to provide the committee with	Page 9	SQ18-000309

268	4.1: Energy	Keneally	Unplanned renewable energy shutdowns over 2017-18	some data that shows what its past estimates were and what the actuals were to see whether or not that's going to be a problem element of the NEG? Mr Heferen: I will just clarify that, when AEMO does its demand forecast, that's not a price. That's a requirement— Senator PATRICK: I understand that. I've shifted topics, sorry. Mr Heferen: Planners are always accused of being overly conservative. It's probably a good thing they are. But we will take that on notice to look at AEMO's previous demand forecasts and how that reconciles with actuals. Senator KENEALLY: Let me ask then about reliability with coal-fired power. We've had some 51 unplanned shutdowns of coal and gas units over the 2017-18 summer. I won't take time listing all of them. This also coincides with the December heatwave, reported by the Bureau of Meteorology. Are ageing coal units especially vulnerable during heatwaves? Mr Chisholm: All forms of generation are vulnerable to different things. Variable renewable energy, such as wind and solar, is also vulnerable to weather conditions. Generators also—including coal-fired generators—are vulnerable to weather conditions, particularly at times of peak demand. Senator KENEALLY: How many unplanned renewable energy shutdowns over 2017-18 is the department aware of?	Page 10	SQ18-000310
				Mr Chisholm: I'll take that on notice.		
269	Snowy Hydro Limited	Keneally	Modelling for 2030	Senator KENEALLY: The MJA modelling report, as we've been discussing, assessed the impact of Snowy 2.0 on the broader NEM under two scenarios: one that had moderate renewable energy growth—and I think the report refers to that as the LRET+VRET scenario—Mr Whitby: Correct. Senator KENEALLY: and one that had higher renewable	Page 6 and 7	

energy growth; the LT commitment scenario, it's called. Can you provide the share of renewable energy generation in the NEM in 2030 under the LRET+VRET scenario without Snowy 2.0, the LT commitment scenario without Snowy 2.0, the LRET+VRET scenario with Snowy 2.0 and the LT commitment scenario with Snowy 2.0. And I'm happy, Mr Whitby, if you'd like to take that question on notice.

Mr Whitby: Yes. Just to be clear: you're asking us to look at alternative scenarios?

Senator KENEALLY: I'm asking you to provide us the share of renewable energy generation in the NEM in 2030 under those two scenarios with and without Snowy 2.0. As I understand it, the MJA report provides projections for 2040. I'm asking for projections under those two scenarios, those two circumstances—with and without Snowy 2.0—for 2030.

Mr Whitby: We will take that on notice, but I will make the comment that it may or may not require—and I don't know at this point—additional work to determine it. I'll just make that comment.

Senator KENEALLY: I understand that. I suppose I'm operating on the assumption that if you can make projections to 2040 you must have data that can make projections to 2030.

Mr Whitby: That may be the case but I'm not sure, so I'm just making the point that it may require additional work. **Senator KENEALLY:** Okay. -

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Senator KENEALLY: Thank you, Mr Whitby. If I can make one clarification on the questions I've asked you to take on notice regarding these scenarios about which I've asked for modelling in 2030: I'm not asking you to do additional modelling. I'm asking you about the modelling that's already done, The MJA provides data for 2040. I'm asking for the 2030 figures.

Mr Whitby: Yes.

				Senator KENEALLY: Okay. Thank you.	
270	Snowy Hydro Limited	Keneally	Percentage of renewable energy that maximises the market benefits of Snowy 2.0	Senator KENEALLY: The MJA modelling report states that the market benefits provided by Snowy 2.0 are greater at higher levels of renewable generation, which is consistent with the advice you're giving us this morning. I do understand there comes a point where additional renewable generation will not see additional benefits from Snowy 2.0, because the scheme has large but finite capacity. What percentage of renewable energy penetration maximises the market benefits of Snowy 2.0? Mr Whitby: That's a question I would have to take on notice. Senator KENEALLY: Thank you.	Page 7
271	Snowy Hydro Limited	Rice	Rate of return in 2024	Senator RICE: So do you have an estimate of what the rate of return would be when it's first turned on in 2024? Mr Whitby: Not a point estimate as such, no. Senator RICE: But it would be less than your estimated rate of return. Mr Whitby: Yes. It varies over time, obviously. Senator RICE: Right. And ramping up later on? Mr Whitby: It changes over time. Senator RICE: Right. Would you be able to take on notice to give us that estimate of what the rate of return is likely to be over time? Mr Whitby: We can certainly have a look at that. Senator RICE: Thank you.	Page 7 and 8
272	Snowy Hydro Limited	Urquhart	Desposing of rock spoil in reservoirs – water quality	What mechanisms are in place to ensure the construction and operation of the Snowy Hydro scheme do not adversely impact on water quality in existing catchments, particularly from rock and other spoil from tunneling operations?	Written
273	Snowy Hydro	Urquhart	Desposing of rock spoil in reservoirs –	Why won't Snowy Hydro release its preliminary environmental risk assessment?	Written

	Limited		environmental risk assessment		
274	Snowy Hydro Limited	Urquhart	Desposing of rock spoil in reservoirs – environmental impact statement	When will the environmental impact statement be made public?	Written
275	Snowy Hydro Limited	Carr	MJA modelling report – coal plant closures	From the MJA modelling report: Under both 'with Snowy 2' scenarios, can you provide a list of coal plant closures by date.	Written
276	Snowy Hydro Limited	Carr	MJA modelling report – renewable energy share of total generation	From the MJA modelling report: Can you provide renewable energy share of total generation from 2020 to 2040 under all scenarios modelled.	Written
277	Snowy Hydro Limited	Carr	RIT-T regulated investment framework challenges	What are the challenges of ensuring necessary transmission investment for Snowy 2 that stem from the current design of the RIT-T regulated investment framework? How does Snowy hope to overcome these challenges?	Written
278	Snowy Hydro Limited	Carr	Financial modelling	Have you undertaken any financial modelling around potential extra returns from enhancements to transmission infrastructure? For example, additional interconnectors. Are you able to supply that modelling?	Written
279	Snowy Hydro Limited	Carr	Snowy Hydro operations – guiding principle	In the most recent Estimates, a representative for Snowy Hydro stated: the government's clear position—that the cost-benefit analysis to ensure that energy is delivered to consumers at the lowest possible price given the circumstances—has still	Written

	got to be the fundamental underpinning of the question of new investment.	
	Can you confirm that this will be the guiding principle for Snowy Hydro operations under its new single shareholder, the Commonwealth – "to ensure that energy is delivered to consumers at the lowest possible price"?	