TRANSCRIPT OF PROCEEDINGS

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2015/16 HAZELWOOD MINE FIRE INQUIRY

TRARALGON

FRIDAY, 18 DECEMBER 2015

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1 CHAIRMAN: Mr Rozen.

2 MR ROZEN: Morning, Mr Chairman, and morning Professor Catford.

3 The evidence that the Board has heard in relation to terms

4 of reference 8, 9 and 10, presents the Board with, at a

5 high level, if I can use an expression that we've heard a

6 lot over the last two weeks, with a choice essentially

7 between a pessimistic and an optimistic view of the future

8 so far as the rehabilitation of the three Latrobe Valley

9 coal mines are concerned. As will be apparent from the

10 submissions of counsel assisting, ultimately we urge the

11 Board to take what might be described as a cautiously

12 optimist view about the future, that is a view conditioned

13 by a realistic assessment of the challenges that lie ahead,

14 but not a view that leads to a perception that the

15 challenges are so overwhelming that the tasks, significant

16 as they are, cannot be achieved.

17 The question of how to successfully rehabilitate the

18 three open cut brown coal mines in Victoria is, on the

19 basis of the evidence the Board has heard, an incredibly

20 complex one. The Board has had the benefit of eminent

21 experts and their advice is that filling each void with

22 water, either fully or partially, appears to be the only

23 viable rehabilitation option, at least at this time.

24 However, there is presently no scientific answer about how

25 exactly this may be done in order to ensure pit stability

26 and water quality at closure and into the future.

27 Further, as is apparent from the evidence, a serious

28 question exists of whether or not one, or even all of the

29 mines, will be able to access the quantity of water they

30 require to create and sustain a pit lake. Some of the

31 complexity arises because there's no standard definition of

1 what "final" and "progressive rehabilitation" does and does

2 not include. It is a theme we'll return to, but in many

3 respects the current legislative scheme is not an entirely

4 comfortable fit to these three coal mines. If one looks at

5 Part 7 of the Act that deals with rehabilitation, it seems

6 to assume smaller mines where the bulk of rehabilitation

7 work is actually completed by the end of the licence life -

8 that is what s.80 refers to - and that seems a very odd fit

9 for these mines and the types of rehabilitation plans they

10 have and it is a theme we'll return to at the conclusion of

11 our submissions, that there needs to be a number of areas

12 of reform of the existing regulatory mechanism to address

13 the evidence that the Board has heard.

14 Significant research and coordination and

15 consultation between interested parties and government

16 departments is required before the pit lake concept can be

17 confirmed to be in fact viable. The research will take

18 many years. The evidence before the Board strongly

19 suggests that this has been known for some considerable

20 time. It has been known by the mines and by the

21 government. Both mines and government have received expert

22 advice over many years to alert them that much more must be

23 done if the questions are to be solved and, although there

24 have been some recent positive steps forward, the evidence

25 demonstrates, we submit, a tendency by the mines and the

26 government to put consideration of these issues off for

27 another day.

28 As the Technical Review Board noted in its most

29 recent annual report, it was the fire at Hazelwood last

30 year that's actually put the rehabilitation question on the

31 map; it is really what led to the creation of this Inquiry.

1 One is left wondering how long matters would have been

2 allowed to sit without these fundamental questions being

3 properly addressed but for the fire at Hazelwood last year.

4 Answering the questions in relation to closure is in

5 itself a costly process. The answers will inform the

6 ultimate cost of the pit lake option. Rehabilitating each

7 mine is likely, on the evidence before the Board, to cost

8 hundreds of millions of dollars. Now, it may cost

9 significantly less; it may only take years or decades after

10 closure, but potentially it may take centuries, on the

11 evidence.

12 In light of these uncertainties, the present bonds of

13 $15 million for Hazelwood and Loy Yang and 11.46 million

14 for the Yallourn mine, intended, as they are, to ensure the

15 state does not end up bearing the cost of rehabilitating

16 the mines itself, must be seen, we submit, as manifestly

17 inadequate. The failure by the regulator to review the

18 bond levels in the 20 years since privatisation, despite

19 the enormous growth in the mines during that time, is, we

20 submit, an egregious failure of regulation which must be

21 addressed. This Inquiry must, as mine closure expert

22 Corinne Unger urged, mark a step-change in the planning

23 process for closure. The Board will recall Ms Unger's

24 evidence about the importance of the Inquiry and the

25 importance of the time we find ourselves at in terms of the

26 regulation of these mines preparing, as they must, for

27 closure and bearing in mind that the end of licence period

28 for the Hazelwood and the Yallourn Mine is only just over

29 10 years away.

30 Action is required now in order to ensure that by the

31 time of closure, rehabilitation can be achieved. The

1 system requires redesign to embed the coordination, tighter

2 regulatory control, transparency and incentivising of

3 research that is required to achieve this goal. We'll

4 ultimately submit that a person or entity independent of

5 government is required to monitor this change. With such

6 redesign, we submit that there is course for cautious

7 optimism. We know from the German experience what can be

8 done. We have all seen it on the slides. However, without

9 redesign of the existing system, there is a danger that

10 either the mines or, as is more likely, the state, will be

11 left in perpetuity with huge, dangerous, unsightly and

12 expensive voids to look after and that the communities of

13 the Latrobe Valley will suffer the result.

14 We set out in our submissions terms of reference 8, 9

15 and 10. They have been read out on a number of occasions

16 during the course of the hearing and I won't do that, but I

17 do want to draw attention to term of reference 12, which is

18 on page 4 of our submissions, and we note, and it is of

19 particular importance in the context of this aspect of the

20 second Hazelwood Mine Fire Inquiry, that the Board has a

21 broad, unfettered, reasonably incidental power in term of

22 reference 12, or paragraph 12 of the terms of reference:

23 "Any other matter that is reasonably incidental to those

24 set out in paragraphs 8 and 10."

25 A number of the submissions we make and the findings

26 we urge the Board to make could properly be said to have

27 their legal basis under paragraph 12 of the terms of

28 reference.

29 If I could briefly talk about some key terms in the

30 terms of reference, themselves. There are two that I want

31 to make reference to. First, it was noted that the Board

1 is required to inquire into and report upon short, medium

2 and long-term options for rehabilitation of the coal mines.

3 They're terms that are not defined in the terms of

4 reference. The Board has an expert report from Jacobs,

5 which has been the subject of considerable evidence in the

6 hearing days, and Jacobs proposed the following definitions

7 of those terms: short-term - between now and the end of

8 mining life, so a long period but, nonetheless, short-term,

9 according to Jacobs, in the context of the issues the Board

10 is looking at; medium term - a period after the cessation

11 of mining operations running for 15 years; and then

12 long-term - the period beyond 15 years after the cessation

13 of mining operations.

14 It must be conceded that there is no basis in the

15 report to explain how they got to those figures, they are

16 somewhat arbitrary, but, nonetheless, they provide a useful

17 framework for the Board's consideration. They are also

18 consistent with the other evidence before the Board about

19 relevant applicable timeframes in this setting.

20 The other matter that needs to be mentioned briefly

21 is the reference in term of reference 10 to "the outcome of

22 the rehabilitation bond review project". That phrase is

23 defined in paragraph 18 of the terms of reference by

24 reference to some evidence that was given by Ms Kylie White

25 at the first Hazelwood Inquiry. She was, at that time,

26 heading up the mining regulator, the position that

27 Mr McGowan now holds, albeit with a different title.

28 Cutting through the evidence about projects starting

29 in 2010, being stalled, being re-enlivened, being re-badged

30 and, finally, emerging in April of this year as the

31 Rehabilitation Bond Review project, we submit at 16 that,

1 for practical purposes, the review that commenced this year

2 is to be taken as the same one that Ms White referred to in

3 her evidence last year. That is the easy bit. The more

4 difficult bit is what is the outcome of that project

5 because that is what the Board is mandated to have regard

6 to. The evidence before the Board in the form of a project

7 plan for that project is that the final step, the outcome,

8 is "finalise bond levels for each coal mine". It was

9 originally scheduled to have occurred two weeks ago, in

10 which case the Board could have had regard to it, but for

11 reasons explained in the evidence which I don't need to go

12 into, the evidence before the Board is that the best time

13 estimate for completion of the bond review project is

14 ongoing. Mr Wilson's estimate was that it would certainly

15 be the other side of Christmas, by which I assumed he meant

16 Christmas this year.

17 The evidence before the Board about the progress of

18 that project is that it has produced results to date. It

19 has produced results in the form of the AECOM reports.

20 There are four of them. In summary, that is where we're up

21 to in the project. The reports have been provided to the

22 government. The next step is for the government to consult

23 with the mines about the reports and then ultimately to

24 revise the bond levels, or at least that's what the project

25 review envisages.

26 Interestingly, and the evidence before the Board,

27 even that step might not have been completed. The board

28 may recall Mr Wilson saying that there may well be further

29 discussions with the mines, so the final reports might not

30 be as final as had initially been assumed.

31 In these circumstances, as we say at 20, the Board

1 has really two options. The first is what I might call the

2 legalistic option, to report that it can't complete term of

3 reference 10 because a condition precedent, that is the

4 completion of a project, hasn't occurred and is not likely

5 to occur in time for it either to be considered, and

6 certainly not to be fairly considered in the sense of being

7 the subject of evidence and submissions. The second option

8 is what I call the pragmatic option, although we would

9 submit with a basis in law, and that is to address the

10 requirements of terms of reference 10 on the basis of so

11 much of the report as has been completed and is in the

12 evidence before the Board. We submit that in all the

13 circumstances, especially having regard to the importance

14 of the issues that are thrown up by these terms of

15 reference, that the more attractive and better option is

16 option 2 and we make our submissions to the Board on the

17 basis that that will be accepted.

18 We summarise, on page 6, the evidence that is before

19 the Board. It is worth just recapping how much material is

20 before the Board, how much the Board has heard in such a

21 short period of time. It has received 25 public

22 submissions, reams of documents that have been produced by

23 the mines and the state, pursuant to notices to produce

24 issued under the Inquiries Act. It facilitated five

25 community consultation sessions in August of this year in

26 the Valley, with a total of 72 participants. Various

27 meetings have occurred between the Board and government

28 agencies and departments and also the mines.

29 In relation specifically to terms of reference 8 and

30 9, the Board received two expert reports from Jacobs

31 Australia Group, firstly providing advice about options

1 and, secondly, providing advice about coordination and

2 planning models. We note the instructions to Jacobs are

3 necessarily at a high level and required it to do

4 comparative work across all three mines, rather than

5 looking at them individually. The Board has also received

6 six other expert reports and statements from witnesses who

7 are clearly amongst the most eminent in their field in

8 Australia. I refer specifically to Emeritus Professor

9 Galvin; Mrs Unger, of the Technical Review Board; Professor

10 McKay from Federation University and the Technical Review

11 Board; Professor Sullivan, formerly of the Technical Review

12 Board, now Pells Sullivan Meynink, retained by AGL, and Drs

13 Haberfield and McCollough, from Golder Associates, who were

14 retained by GDF Suez.

15 Importantly, the Inquiry processes involved a

16 facilitated meeting between the experts that I've just

17 identified, with the addition of Mr Hoxley from Jacobs.

18 That meeting took place on 3 December. It resulted in a

19 joint expert report which is in evidence before the Board,

20 a very important document to which we will refer on a

21 number of occasions.

22 In relation to terms of reference 10, two expert

23 reports about alternative mechanisms, one from Accent and

24 one provided to the Board by AGL Loy Yang from an expert

25 that that company retained, Dr Gillespie. Across the two

26 terms of reference, 19 witness statements from 13

27 witnesses; we've had six days of public hearings here in

28 Traralgon; examination of a total of 25 lay and expert

29 witnesses by the six parties and also 66 exhibits. There

30 is a great deal of material before the Board.

31 We make the important observation at 23 that although

1 the Board does have a great deal of material before it,

2 this is a Board of Inquiry that, perhaps more than most,

3 has worked under serious constraints in terms of resources

4 and time and it has completed - not completed, but it has

5 embarked on four separate inquiries in the period of seven

6 months. This is the fourth of them, and it needs to be

7 understood by all, including members of the public, that

8 this is not the only task the Board has been engaged on and

9 the quite small staff of the Board have, even whilst

10 running this hearing, been involved in work on other terms

11 of reference, so the ultimate work that the Board has done

12 has required a balancing between competing obligations with

13 its other terms of reference.

14 Turning then to options for rehabilitation, terms of

15 reference 8 and 9. The evidence before the Board is that

16 there are six options identified in the Jacobs report. We

17 set them out at paragraph 25 and I won't go through them

18 because importantly, at 26, from the preliminary options,

19 Jacobs's opinion was that only two are viable: a pit lake

20 or a partial backfill below the water table. These were

21 viable based on a consideration of low fire risk, the

22 ability to form a weight balance in the land form and the

23 likely availability of material for undertaking the option.

24 Significantly, we note at 27 that the joint expert

25 report, including Mr Hoxley from Jacobs, concluded that

26 really the two models are variants on the one outcome:

27 putting a lot of water in the void - either a lot of water

28 or slightly less water. They're the options. The experts

29 noted that the water levels for the three mines will

30 necessarily differ. The expert group also opined that the

31 risk assessment undertaken by Jacobs was at a high level

1 broad-brush approach, consistent with its brief from the

2 Inquiry.

3 There was a difference in opinion among the experts

4 about one particular alternative option, that is whether

5 the existing pumping process that is engaged in by the

6 mines, pumping water from the aquifer to enable mining to

7 occur, whether that could just continue in perpetuity as an

8 alternative. It was an option raised by Professor Galvin.

9 From his evidence and the response from his colleagues, it

10 is not the first time that he's raised it in their

11 presence. It seems they remain unconvinced about its

12 viability. Professor Sullivan and others considered it was

13 not a viable option. They drew attention to the fact that

14 the aquifers are part of what Professor Sullivan referred

15 to as a global system, and one can tamper with that for

16 decades but perhaps not in perpetuity, seems to be the

17 evidence.

18 Based on his extensive experience, Dr McCollough

19 opined that dry voids would not lend themselves to as many

20 opportunities for community use as wet voids. It is just

21 worth pausing there for a moment to recall Dr McCollough's

22 evidence about that. He made a point which is significant,

23 and that is that one can focus on risk or one can focus on

24 opportunity in this area, as in so much in life, and he

25 said he preferred to focus on opportunity, to see the

26 challenges as presenting future opportunities rather than

27 leading to a pessimistic view. It was that that led to the

28 half full-half empty conversation, and the Board will

29 remember Dr Haberfield's retort, which is that, "We're

30 engineers, we can do anything." I'll return to that theme.

31 Because of this broad consensus in the evidence of

1 the experts, the focus of the hearings was, and in these

2 submissions is, evaluating the viability of the option of

3 filling the voids, either partially or fully, with water -

4 what is referred to as the "pit lake option". This has

5 been the preferred option or concept for years, back to the

6 SEC days. It has been agreed by the experts to be the only

7 viable option because it seems, while there are presently

8 significant uncertainties as to how it may be achieved,

9 alternative options appear far less achievable, and that's

10 really what it comes down to. It is the least-worst

11 alternative, if I can coin a phrase.

12 In these circumstances, it is submitted the starting

13 point for the Board is to assess the viability of the pit

14 lake option as against the questions in terms of reference

15 9. That analysis - and this is really a key finding we

16 urge the Board to make - the top of page 9 - the analysis

17 will highlight the degree of uncertainty which presently

18 limits the Board, or anyone, being able to answer almost

19 all of the questions raised in term of reference 9 and

20 ultimately to determine that this option will, at closure,

21 be viable for one or more of the mines.

22 We then set out the legislative scheme, starting at

23 paragraph 31. It will be a relief to the listeners that I

24 won't laboriously work my way through that, but it is

25 important to understand the regulatory context, which is

26 complex. It has obviously developed over time. As with so

27 many Acts of parliament, bits have been added, there

28 doesn't seem to have been a root and branch review of this

29 Act since it was enacted in 1990, and that is significant.

30 Take one example. Section 7C was added in the late 2000s -

31 2009, 2010 - to enable a declaration that certain mines are

1 declared mines, and what flows from being a declared mine,

2 and it is only to be declared if there are considerable

3 stability and other issues there, what flows from that is

4 the obligation to pay a stability levy under the

5 regulations and do other things and the levy, as the Board

6 heard, is in the vicinity of $400,000 per mine. It is just

7 one example in which over time there's been a recognition

8 on a gradual basis that these three mines are different.

9 They are different to other mines in Victoria; they are

10 different to other mines anywhere in the world in truth,

11 and it really leads one to ask the question, if it is

12 accepted that they're so different and they throw up such

13 different issues, then maybe at least a discrete part of

14 the Act dealing with the issues concerning these three

15 mines might be an appropriate approach. The material

16 before the Board doesn't enable the Board to come down with

17 a hard and fast recommendation to that end, but as will be

18 seen, there is an existing legislative review ongoing

19 within government and we submit the best the Board can do

20 is identify some aspects of the evidence it has heard that

21 should inform that review, and I'll return to that theme.

22 The part of the Act I do want to refer to briefly,

23 though, is Part 7, which we deal with at paragraph 37.

24 We've endeavoured to summarise, rather than set out, its

25 contents. It is worth briefly referring to them because,

26 to the extent that we have a regulatory scheme in Victoria

27 dealing with the issues that this board has been asked to

28 consider, it is in Part 7.

29 Firstly, a licensee must rehabilitate land in

30 accordance with an approved plan, so it is that approved

31 plan that is really at the heart of the scheme, as we'll

1 see. The plan must take into account the matters set out

2 in s.79, which I won't detail. The third dot point, and

3 this is another provision which is little used that we will

4 return to in our submissions: the Minister may require a

5 licensee to undertake a rehabilitation liability assessment

6 in the manner and form specified by the Minister, that is

7 to assess its liability under its plan.

8 Fourthly, the Minister may require a licensee to

9 enter into a rehabilitation bond in an amount determined by

10 the Minister and the amount may be varied by the Minister

11 if he or she is of the opinion that the amount is

12 insufficient. A condition of the bond, the only condition

13 of the bond, is that the licensee rehabilitates its land as

14 required by s.70A, so, in other words, the bond is linked

15 to the plan. And that is an important matter that we can't

16 emphasise enough, and that is even though term of reference

17 10 sits separately from 8 and 9 and even though, for

18 practical reasons, we separated the evidence as between 8

19 and 9 in the first week and 10 in the second week, we don't

20 want to be giving anyone the impression that we see them as

21 discrete issues. They are all part of the one regulatory

22 scheme. The only purpose for the bond is to get the

23 rehabilitation done. So it cannot be seen as some end in

24 itself, some punitive thing to make big companies give the

25 government lots of money; it is all about getting

26 rehabilitation done. It is either getting it done by the

27 mines or, if it has to be done by the government, the mines

28 still foot the bill. That's the scheme, and that's very

29 important.

30 A licensee is required, as far as practicable, to

31 rehabilitate the land before the licence expires and, if

1 this has not been done, then to do it as expeditiously as

2 possible afterwards. That is s.81, to which I alluded

3 earlier. That is the provision which seems to be a very

4 odd fit with the evidence that the Board has heard. Yes,

5 it is true that some rehabilitation of these mines can be

6 done before the licence expires, but if the final

7 rehabilitation option is to fill it with water, then it has

8 obvious limitations in what can be done in the short-term,

9 quite apart from questions of the location of

10 infrastructure and other matters that impinge on the

11 practical ability to do a great deal in advance of mining

12 concluding.

13 Section 81 is the provision that seems to be what

14 people refer to when they talk about an obligation to do

15 progressive rehabilitation. Interestingly, that expression

16 doesn't appear in s.81 - it doesn't appear anywhere in the

17 Act, for that matter - and we'll return to the significance

18 of that.

19 The second-last dot point on page 11, the Minister

20 may require a licensee to engage an auditor to certify the

21 land has been rehabilitated as required by s.78 for the

22 purposes of deciding whether to return any bond. That is

23 obviously a protection for the Minister before the bond is

24 returned that there won't be further money that needs to be

25 spent on rehabilitating land. The Minister must return a

26 bond, but only if satisfied the land has been rehabilitated

27 under s.78 and the rehabilitation is likely to be

28 successful.

29 Now, once again, that is a very significant provision

30 here because at what point does that occur? Is that when

31 the pit is full of water or is it when ongoing water

1 quality can be maintained or at what point? And obviously

2 that is very significant because we're talking decades,

3 maybe many decades on the evidence before the Board. So

4 what does that mean in terms of cost, for example, is one

5 implication.

6 The top of page 12, if the Minister is not satisfied

7 the land has been rehabilitated as required by s.78 and

8 that further rehabilitation is required, the Minister may

9 take any necessary action to rehabilitate the land. That

10 throws up a question which has been referred to in evidence

11 and that is, if it is privately owned land, then how does

12 that work? Does "necessary action" include entering

13 private land without the consent of the occupier? One

14 would assume, applying general principles, that the answer

15 to that would be no, and if that's right, then what does

16 that mean for finalising rehabilitation?

17 Finally, the Minister may recover as a debt due to

18 the Crown any amount by which the cost incurred in doing

19 the rehabilitation work exceeds the bond. Now, in

20 circumstances where the rehabilitation is not completed

21 because of insolvency, for example, then there are real

22 practical issues about the ability to recover funds.

23 Equally, if assets are offshore, there is a whole range of

24 difficulties thrown up by that.

25 Dealing then with the specifics of term of reference

26 9 - we have done it under headings rather than under

27 paragraphs, so there are themes that run through 9, the

28 first of which we identify is fire. Term of reference 9(a)

29 asks whether, and to what extent, the option would decrease

30 the risk of a fire that could impact the mine and, if so,

31 the cost of the option relative to the cost of other fire

1 prevention measures. It clearly refers back to the

2 evidence that the Board heard in the first Inquiry.

3 The Inquiry into the fire of 2014, of course, starkly

4 demonstrated that uncovered coal is a serious fire hazard.

5 One of the very pleasing things, I must say, from the

6 perspective of counsel assisting, is the extent to which

7 there has been a very quick recognition of that in the year

8 or so since 2014, a recognition of the role that

9 rehabilitation can play, both progressive and final, in

10 reducing fire risk. The Board may recall Kylie White's

11 evidence when asked that question last May, in the first

12 Inquiry, her initial response - I think it was a question

13 asked of her by my learned friend Ms Nichols at that time.

14 Her response was, "They're different things. One has got

15 nothing to do with the other. We've never thought about

16 progressive rehabilitation as being about mitigating fire

17 risk. We've always thought about progressive

18 rehabilitation as covering exposed coal with soil and

19 planting trees and bushes - in fact, it is usually

20 increasing the fire risk rather than decreasing it." So it

21 is very interesting to note, and that is a pleasing outcome

22 of the first Hazelwood Inquiry and we have seen that in the

23 evidence of Mr Lapsley, but also in a great deal of the

24 evidence that the mines have put before the Board, and that

25 evidence very strongly suggests the great length the mines

26 have been going to and are going to to reduce fire risk.

27 Clearly covering the coal with water eliminates the

28 hazard, and we can say that with some certainty, and in

29 that sense the pit lake option can be presently evaluated

30 as an option which would significantly decrease, perhaps

31 even remove, the risk of fire, at least where the coal is

1 covered, but that really is limited to the long-term and we

2 know the long-term here might be, as we've already said, at

3 least decades.

4 None of the mines propose or even can cover every

5 part of every coalface with water, of course. To a greater

6 or lesser extent, they each propose to have a portion of

7 the batters above the final water level covered with

8 overburden and vegetation, and we see when we compare

9 Loy Yang's 97 plan with a pit lake at plus 60 metres, from

10 recollection, we compare that to the 2015 plan, where it is

11 at minus 22 metres, that is 80 metres of additional exposed

12 coal and we can see the implications both in their costings

13 and also in the costings that AECOM carried out for just

14 that difference in terms of the rehabilitation option.

15 It really raises the question of how these various

16 facets of rehabilitation interconnect fire protection with

17 stability, fire protection and stability with cost and so

18 on. One can't look at these matters in isolation. It

19 raises a first question, and that is what depth of

20 overburden is required in order to reduce to an acceptable

21 level the risk of the ignition of the coal? No witness was

22 able to direct the Board's attention to research which

23 answers this question. I'll just pause for a moment. That

24 was the case in the first Hazelwood Inquiry. It was also

25 the case during the Anglesea term of reference, which we

26 heard in June of this year. The work just hasn't been

27 done. Mr Faithful, of GDF Suez, gave evidence that coal

28 covered by a metre of overburden didn't catch fire during

29 the Hazelwood Mine Fire of 2014. From recollection, he was

30 a bit coy about referring to why he was confident that a

31 metre of overburden was enough, and it was in answer to a

1 question from my learned friend Ms Doyle that led him to

2 explain that it was based on that real life practical test.

3 By contrast, Jacobs considered two metres was

4 appropriate. There was some questioning of Mr Spiers and

5 Mr Hoxley about that. Mr Spiers in particular answered

6 some questions asked of him also by Ms Doyle on this

7 question, and drawing on his 30 years of practical

8 experience running the Loy Yang Mine, not to be sniffed at,

9 he explained the rationale behind choosing two metres was

10 that in this situation we're talking about treatment of

11 batters that has got to last hundreds of years and he

12 added, "We don't really know the right answer, so we went

13 for a conservative depth that we thought was safe to

14 achieve the outcome and wouldn't be overly costly."

15 If I could just pause there a moment. There is an

16 interesting tension in the evidence the Board has heard

17 between people taking a conservative or pessimistic view

18 about matters and taking an optimistic view about other

19 matters, such as the ability to access water, for example,

20 so there is a real mixture in the evidence before the

21 Board.

22 Further, planning towards a pit lake option means

23 that on each mine's current plans, the coalfaces under the

24 proposed final water level will be uncovered and therefore

25 exposed until the water level is reached. On some modelled

26 scenarios, this could be for a period of up to 500 years,

27 for example, with Hazelwood, but, of course, it might be

28 far less. The time to fill the Yallourn Mine is estimated

29 by the mine at 17 years and Loy Yang 70 years. Whichever

30 of those estimates turns out to be right, we're talking

31 about a long period of time during which coal will be

1 uncovered, and there's no proposal to cover it other than

2 with water.

3 Leaving to one side for the moment whether this

4 approach would be suitable from a safety and/or water

5 quality perspective, and we come to those issues presently,

6 it is plainly a matter relevant to fire risk. Presently

7 fire risk appears to be managed well by each mine. That is

8 clearly the evidence of Mr Lapsley. He described the

9 mines' involvement in the Coal Mine Emergency Management

10 Taskforce as "exceptionally good". The Board can rely on

11 that evidence, particularly having regard to the number of

12 meetings, most of which Mr Lapsley was at, as disclosed by

13 the minutes that are attached to his witness statement.

14 Further, we don't just have to take Mr Lapsley's word

15 for it, we've got Mr Comrie, the implementation monitor,

16 who looked specifically at what GDF Suez have done in

17 relation to addressing fire risk. He notes that they've

18 completed most of the implementation actions. Those

19 remaining are progressing in a satisfactory manner. There

20 has been a high degree of cooperation.

21 We note at 46 that these things are not cheap. They

22 are expensive to install, expensive to maintain. Some of

23 the equipment is located on the pit floors, understandably

24 enough, and that has implications for rehabilitation. It

25 is not clear what the cost or practicalities are of

26 maintaining those systems during the unknown period of time

27 whilst the pits are being flooded. It may be that

28 overburden is required to be placed on each part of the

29 batters as a fire prevention measure post-closure, and the

30 cost of undertaking that work and the degree to which it

31 may require overburden to be obtained from outside the

1 mines, potentially at significant cost, is also unknown.

2 Mr Lapsley, pleasingly, indicated a willingness on

3 his part to continue to work with the mines and the

4 regulator on these issues. He indicated a desire for some

5 further discussion about covering the coal as a short to

6 medium term option to reduce risk.

7 I'll just interpolate there that that is a very

8 important matter which, on our reading of the risk

9 assessments conducted by the mines - and we've only really

10 examined the GDF Suez one in any detail - seems not to be

11 addressed in any detail, that is, the short-term

12 possibilities for covering the coal. The Board will recall

13 the evidence last year from, among others, Mr Incoll and

14 Professor Cliff that there may be other ways of covering

15 coal in the short-term. There was references to shotcrete

16 and other such evidence, and it is the one disappointing

17 aspect of the risk assessments in relation to fire that

18 those matters do not seem to have been examined. It is

19 something we'll return to, but it is inherent in the risk

20 assessment process that by bringing together a workshop of

21 people who actually do the work, that you limit yourself in

22 the range of potential control measures that are discussed.

23 So if you examine the workshop material in the GDF Suez

24 risk assessment, for example, the discussion is mainly

25 confined to what we do now in terms of fire risk rather

26 than what we might potentially do by having regard to what

27 is known in the world about these issues, and it is

28 important because as DEDJTR moves to a risk

29 assessment-based model of regulation, which certainly has

30 its attractions, it is very important that there is a

31 rigour associated by those risk assessments so they don't

1 just repeat that, "This is what we're doing and, therefore,

2 this is how we're going to continue to control this risk."

3 There must be a mechanism that requires looking outside of

4 the enterprise, especially about these sorts of issues, to

5 inform a consideration of what other control measures there

6 might be there, and covering the coal is just one example

7 of that.

8 Pleasingly, DEDJTR has recently established a mine

9 fire safety unit, which will assist in answering some of

10 these questions. The role of the unit will be, as we note

11 at 48, to lead regulatory compliance and education

12 activities related to fire safety in mines and to provide

13 advice to regulatory staff, industry and the public. It is

14 to have a staff of six and a budget of 1.6 million, on the

15 evidence, and the unit will contribute to the regulator's

16 assessment of fire risk in relation to the risk assessments

17 that I've just spoken about. Mr Lapsley agreed that the

18 unit provided opportunity for what he described as

19 "practical understanding" and "the setting of standards",

20 and just on this point we note that the action plan, which

21 is Exhibit 37, the regulator's action plan, explains that

22 it is presently recruiting to fill the unit. The work of

23 the unit will be supported by risk and fire experts,

24 according to that plan, and they will provide a conduit

25 between the regulator and best practice in other Australian

26 jurisdictions and these initiatives arising, as they do,

27 out of the first report of this Board of Inquiry, are to be

28 commended.

29 Turning then to questions of stability, which have

30 occupied a great deal of the evidence before the Board.

31 Term of reference 9(b) requires the Board to consider

1 whether and to what extent the option would affect the

2 stability of the mine. Term of reference 9(c) directs

3 attention to whether and to what extent the option would

4 create a stable land form. The two are not identical but

5 we refer to them together because they raise a number of

6 related issues.

7 Professor Sullivan told the Board that in

8 geotechnical engineering, there is no definition of either

9 "safe" or "stable" and that they often require personal

10 value judgments. In the joint expert report, all of the

11 experts, including, obviously, Professor Sullivan, agreed

12 there is no universal definition of "safe" and "stable" and

13 therefore there's no clear acceptance criteria against

14 which judgments can be made about levels of stability.

15 Professor Galvin informed the Board that mine

16 stability is particularly important in the Latrobe Valley

17 because of the closeness to mine crests of key

18 infrastructure, such as highways, railway lines, power

19 transmission lines, telecommunication systems, rivers and

20 drains. He noted that there's been a history of ground

21 movement in the vicinity of the mines. These issues are

22 far from theoretical. We have, in the last decade alone,

23 seen several significant examples of batter instability and

24 the proximity to infrastructure, and probably the best

25 example, the one we see every time we drive to Traralgon,

26 is the proximity of the freeway to the northern batters of

27 the Hazelwood Mine. It brings that issue home to anyone.

28 You don't need to be a geologist to appreciate the

29 proximity issues.

30 The science presently doesn't allow for an evaluation

31 of the viability of the pit lake option from a stability

1 perspective. That is a conclusion we say the evidence

2 inexorably leads the Board to. According to Mr Mether, the

3 mine manager of the Yallourn Mine, "Stability is a major

4 consideration for our mine when we move to that final

5 rehabilitation stage." Similarly, Mr Rieniets made like

6 observations.

7 Part of the complexity lies in the unique properties

8 of the Latrobe Valley and particularly Latrobe Valley coal.

9 Professor Sullivan told us it is a complex system. The

10 coal is light and very sensitive to movement as a result of

11 interaction with water. Professor Galvin, as so often,

12 described it in a way that is readily understood, and I

13 quote: "As groundwater and coal are extracted, the unmined

14 coal relaxes and moves, allowing natural join or cracks to

15 open up. If a crack then fills up with water, the water

16 pressure in the crack can cause a whole block of coal to be

17 pushed and slide outwards."

18 Each of the mines has water pressure behind its

19 batter walls and the pit floor, although this is far less

20 of an issue at Yallourn, as the evidence discloses. There

21 are particular stability concerns relating to particular

22 batters. I have already referred to the northern batter at

23 Hazelwood. And the solution to those concerns is currently

24 unknown, although the evidence does indicate that it is not

25 unaddressed; there is ongoing measurement, at least, of

26 batter stability. The process of filling a mine with water

27 may itself create undue risks, including potentially

28 reactivating what's referred to in the evidence as the

29 "Lewis anomaly", an anomaly which involves the bending of

30 gas pipes in Morwell towards the mine. It is another

31 example, and Professors Galvin and McKay told us, that

1 these things have been known about for decades and they

2 referred, concerningly, to a loss of corporate knowledge

3 about many of these issues and that that corporate

4 knowledge is so important now in informing future decisions

5 about rehabilitation.

6 How quickly or slowly a void is able to be filled may

7 impact on stability. The Board will recall Dr von

8 Bismarck, in response to a question I think from my learned

9 friend Dr Collins, telling the Board that a filled void is

10 easier to stabilise and so it is desirable to fill the

11 voids as quickly as possible. The use of dirt or

12 overburden may be one way to assist. According to

13 Professor Sullivan, it is the one physical thing that can

14 probably withstand the sort of critical loading events that

15 will happen in the very long-term, which is what we're

16 talking about here. However, what level of overburden may

17 be required to achieve stability in a pit lake is not

18 known. It may be that different layer levels are required

19 in different parts of each pit. This could end up

20 consuming quite a large amount of the available overburden,

21 once again with implications for other issues, like the

22 ability to use the overburden for mitigating against fire

23 risk. I think it was Mr Mether who told us that - it might

24 have been Mr Faithful - that overburden is a scarce

25 resource in the mines because of the coal-to-overburden

26 ratio that exists in the Latrobe Valley. Now, of course,

27 in Germany that is very different and it is important to

28 remember that the coal-to-overburden ratio in Germany is

29 far worse from the point of view of a miner but far better

30 from the point of view of a rehabilitator, if I can put it

31 that way.

1 Similarly, the requirement to ensure pit walls above

2 the proposed final water level are safely drained may

3 result in more than the presently proposed one metre

4 coverage being required. According to Professor Sullivan,

5 it is too early to talk about layer thickness - once again,

6 an area that needs to be researched and to which answers

7 need to be found. As I have noted, overburden is scarce

8 and therefore any use of it in a particular area means it

9 might not be available for another cause, possibly

10 impacting on the cost of a given rehabilitation option.

11 The extent to which it impacts is presently unknown, has

12 presently not been estimated by the mines, or anyone else,

13 for that matter, in a way that provides the Board with

14 reliable information.

15 A further unknown is what impact erosion may have on

16 a pit lake during filling and after the proposed water

17 level has been reached and what, if anything, will be

18 required to ensure any such erosion does not destabilise

19 the lake. It leads to a discussion of something I

20 certainly hadn't heard of a fortnight ago, but I feel I now

21 understand well, and that is rip rap. There are

22 significant cost implications if a measure such as rip rap

23 is determined to be required. The AECOM report about

24 Hazelwood tells us that in very stark terms. I think the

25 figure was some $90 million allocated just for rip rap over

26 a period of five centuries.

27 In questioning by counsel for GDF Suez, Mr Chadwick

28 of AECOM explained the basis for the inclusion of those

29 costs and, in particular, why they are higher for GDF Suez

30 than for other mine, and it is to do with the length of

31 time of filling. That is the assumption that provides the

1 basis of the estimate. The use of rip rap was based on

2 AECOM's conservative opinion that it would be necessary in

3 the absence of other information suggesting it is not

4 needed. Hazelwood, through Mr Faithful, indicated to the

5 Board that further work on wave erosion will be undertaken.

6 We note that Dr McCollough, Hazelwood's consultant,

7 recommended studies to be done. It was one of his 17

8 studies that he identified in Part 4, I think it is, of his

9 report.

10 What equates to a stable final batter slope angle is

11 also presently unknown. The experts record in their joint

12 report that there's no scientific and engineering evidence

13 to support the three horizontal to one vertical ratio as

14 being the generally accepted or generally adopted long-term

15 slope angle for all slopes once rehabilitated in the

16 Latrobe Valley. Answering this question may impact

17 significantly on the cost of labour and potentially paying

18 for the sourcing of external overburden. We note that that

19 ratio, 3H:1V, appears in most, if not all, of the approved

20 rehabilitation plans, despite the fact that the evidence

21 would suggest that it is not that simple. One can't just

22 make that assumption, and yet the mines make it; the

23 regulator seems to accept it, at least at the level of

24 approval of the plans, but the experts say, "No, there

25 needs to be mine-by-mine, batter-by-batter consideration of

26 the safe final slope angle." It is just another example of

27 the complexity and the potential impact on costs and other

28 matters.

29 Perhaps the greatest unknown, as it relates to

30 stability, is the question of how long the pit lakes will

31 require monitoring after filling. Professor McKay stated

1 that the research is simply not strong enough to give a

2 clear indication of how quickly we can expert to see

3 stability reached and that it may be decades after the

4 proposed water level is reached.

5 I just pause there for a moment. There's two

6 potentially related issues about monitoring, and that is

7 monitoring the water quality, itself, but also waiting to

8 see what effect the water and that quantity of water has on

9 stability, and that's the reference that is being made

10 there. In addition to monitoring, there may, of course, be

11 the need for maintenance. That will be determined by the

12 outcome of the monitoring. Professor McKay noted that any

13 maintenance required will be a significant expense itself.

14 Mr Rieniets acknowledged that Loy Yang's current

15 presumption that maintenance requirements taper off as

16 flooding occurs assumes stable land form. Now, he might be

17 right. We don't know. No guarantees in life, as

18 Mr Rieniets has told us a couple of times.

19 Significant research is required to attempt to solve

20 the present conundrums. How can each pit lake be made

21 stable and what will that cost? The research itself will

22 be time consuming and expensive. Two studies are shortly

23 to commence to progress knowledge in this area. This is a

24 very pleasing development. The batter stability project

25 will take place at Yallourn. The government has provided

26 seed funding of $2.2 million. I just pause there. There

27 are aspects of the evidence concerning the batter stability

28 project which are disturbing. It seems it has been delayed

29 for at least two years. The Board will recall Professor

30 McKay's frustration about that and his observation that

31 perhaps government is not best placed to oversee such

1 research, and that is another matter that we will return

2 to.

3 The second study is the one at AGL Loy Yang, to take

4 place at the Loy Yang Mine. While commendable, Professor

5 Galvin has referred to these studies as being the tip of

6 the iceberg. That could almost be the quote of the

7 hearings to give us all an understanding of the amount of

8 work that needs to be done. He notes that a significant

9 amount of further research directed towards achieving mine

10 stability in the long-term is required. Addressing what he

11 refers to as this legacy issue will require significant

12 funding.

13 Turning then to the question of water quality, which

14 although not expressed in terms in the terms of reference,

15 is clearly thrown up by term of reference 9(c), which

16 requires the Board to consider whether and to what extent

17 the option would minimise long-term environmental

18 degradation. It is not presently clear how water quality

19 will be maintained in each of the proposed pit lakes, nor

20 what the costs of answering this question and maintaining

21 safe quality will be. The complexities include whether or

22 not flow through - that is connection to river systems - is

23 possible or even desirable. If I could just pause there.

24 At a conceptual level, and intuitively, one thinks, "Yes,

25 connect it to the rivers, provide flow through. That might

26 well improve water quality," but as Dr McCollough told us,

27 flow through can create a number of dangers, both for the

28 lake itself and also for the river and the users of both of

29 those entities. In part, this is because of the

30 potentially unsafe interaction between any coal, overburden

31 and/or ash dumps, on the one hand, and the water systems on

1 the other. These interactions, particularly when

2 evaporation also occurs, thus concentrating anything in the

3 water that is a pollutant, may result in environmentally

4 unsafe water. We probably all recall that slide that

5 Dr von Bismarck showed us of the polluted water at one of

6 the mines and that is a graphic example of what Dr

7 McCollough is talking about.

8 It is possible these issues can be solved by the

9 treatment of the water or by sealing the pit floors and

10 walls or a combination of these measures. A lot of work

11 must occur in order to determine how and if the pit lakes

12 can be made safe from a water quality perspective.

13 According to Southern Rural Water in that letter that was

14 the subject of so much attention during the hearings of

15 August of this year, "There are significant risks related

16 to ground water management inherent in the Loy Yang

17 intended pit lake."

18 It is likely that the prospects for Yallourn in

19 successfully resolving these questions is greater than for

20 the other mines. Professor McKay told the Board, "I would

21 not expect either Hazelwood or Loy Yang to have water

22 levels which would allow a direct movement of water over

23 land back into the river system. They will be enclosed

24 lakes and their primary discharge, if left to nature, will

25 be evaporation."

26 That is a very significant part of the evidence

27 before the Board from an eminent hydrologist who is making

28 a real-life - not, "What might happen?"; not, "How could

29 this turn out in the best of all possible worlds?", but

30 real-life no rivers connected to either the Loy Yang or the

31 Hazelwood lake.

1 Evidence provided by Hazelwood and Loy Yang to the

2 Board was that, despite their final voids being

3 significantly larger than the Yallourn void, that the

4 amount of water each intends to fill is about the same, and

5 on simple mathematics, that suggests that the final

6 intended pit lakes at those two mines will be well below

7 ground level. The implications of this are concerning.

8 Any questions of public access and amenity need to be

9 understood in the context of lakes which one will need to

10 peer over the cliffs to see towards the bottom of the lake.

11 Dr von Bismarck gave evidence regarding the

12 difficulties faced in Germany of predicting water quality

13 when connecting pit lakes to river systems. This is in the

14 context of his evidence that, "Yes, a lot has gone right,

15 but quite a bit has gone wrong along the way as well." He

16 made reference to the modelling that they had done for each

17 mine in terms of water quality and he said the models

18 weren't quite precise enough and required improvement over

19 time. Measures have now improved to reduce the iron

20 hydroxide content in the groundwater and river systems.

21 The take-out message from all of that is, as with

22 stability, the cost of monitoring water quality in the pit

23 lakes is unknown, it represents an uncertainty in the

24 assessment of rehabilitation liability for each mine, it

25 represents a limitation on the Board's ability to deal with

26 that term of reference.

27 Water sourcing is another matter about which the

28 Board has heard a great deal. It goes directly to the

29 question of viability. 9(f) in the terms of reference

30 draws our attention to the viability of the options and any

31 associated limitations and also to whether the option is

1 otherwise sustainable, practicable and effective. On any

2 view of the evidence, an enormous amount of water is

3 required by each mine to fill its pit. As we can all

4 recall - I think my learned junior might have given this

5 evidence from the Bar table initially, but now confirmed by

6 a footnote - Sydney Harbour contains 500 gigalitres of

7 water. Each mine says it requires between 700 and 750

8 gigalitres, a combined total of more than four times the

9 water in Sydney Harbour. It is possible that due to

10 evaporation, ongoing top-up will be required. In other

11 words, that is the water you need to fill them to the

12 desired level, but there may well need to be more water to

13 maintain that level, depending on whether there is flow

14 through from other water sources, and whether or not such

15 flow through is possible is unknown. We've just alluded to

16 that.

17 Presently, the mines have access to water through

18 licences, either the mines or the power stations, and we

19 have set out the quantities of water that the mines have

20 access to under paragraph 80. Particularly in relation to

21 the bulk entitlements, it is a lot of water, but it is

22 water that only the power station licence holder has a

23 right to use and only presently and only on the terms of

24 the existing licences. The evidence is not at all clear

25 that that water will be available to any of the mines for

26 the purpose of rehabilitation. That is probably an

27 understatement. The state of the evidence at the moment is

28 that is just not known at all. This is firstly because, in

29 relation to the groundwater licences, the licences expire

30 in 2025 and, importantly, the purpose for which access to

31 water is granted may not extend to rehabilitation. We note

1 at footnote 94 that condition 2 of the licences is that the

2 water is made available to facilitate mining for coal and

3 generation of electrical energy - "and purposes incidental

4 thereto". Of course, the final two words, "incidental

5 thereto", are the key there and one could see how one could

6 mount an argument that rehabilitating mines is incidental

7 to mining coal, but equally one could see how someone could

8 resist that proposition. The point is the Board doesn't

9 know. More importantly, the mines don't know; the

10 regulator doesn't know.

11 The bulk entitlements do not expire, but are issued

12 to the relevant power generation company associated with

13 the three mines and tied to the purpose of operating the

14 power station. Whatever the argument is about whether the

15 other entitlement, the groundwater entitlement, whatever

16 the argument there about its availability, it is a lot

17 weaker in relation to the bulk water entitlements, we would

18 submit. Filling a mine with water seems far removed from

19 operating a power station.

20 The various water authorities have confirmed in

21 evidence - and this is obviously far more important than

22 whatever counsel assisting might think about a construction

23 of the licences - have confirmed in evidence to the Board

24 that it is not clear to them, and they have not determined,

25 whether any or all the mines would be able to acquire the

26 water they need to fill the pits. Even if the bulk

27 entitlements could be accessed, one issue is how much a

28 percentage share will mean in terms of water in 20 or 40

29 years' time. I think it was Professor Catford's

30 questioning of Dr Davis from DELWP about, "What impact is

31 climate change going to have on these issues? We're

1 talking about something decades in the future. Has the

2 modelling been done?" The answer is, "To some extent," but

3 obviously there's more work to do.

4 There is before the Board a document entitled the

5 Gippsland Regional Sustainable Water Strategy, rejoicing

6 under the acronym of the SWS, a state policy document

7 developed by experts over two and a half years' of work.

8 It states, "Current rehabilitation plans for open cut coal

9 mines involve flooding them to create artificial lakes.

10 However, this is not considered to be an entirely viable

11 option any longer because there is insufficient water to

12 fill most of the mines." That was written in 2011. The

13 warning signs are there.

14 Similar concerns have been raised elsewhere,

15 including by the Technical Review Board, itself, in a

16 letter dated 2 February 2011, signed by Professor Sullivan

17 as the incumbent first chairman of the Board. In that

18 letter, Professor Sullivan wrote - and concerningly, this

19 is in relation to Yallourn - "The current Yallourn

20 rehabilitation strategy of flooding the mine has been shown

21 not to be feasible because of insufficient water." Yet

22 again, and as recently as August of this year, a letter

23 from Southern Rural Water, when asked to examine the

24 Loy Yang work plan variation, Southern Rural Water, well

25 placed, no doubt, to make these sorts of comments, said,

26 "There are a significant number of risks related to the

27 long-term availability of water for mine void filling and

28 potential consequent impacts on regional water resources to

29 achieve the proposed mine rehabilitation which are not

30 addressed in the plan."

31 Loy Yang's own expert consultant, GHD, in a report

1 relied upon by AGL in support of its recent work plan

2 variation, accepted, "The likelihood of accessing full bulk

3 entitlements post mine closure is unknown at this stage and

4 could potentially be affected by actual climate sequences,

5 in particular during drought periods, so there's some

6 uncertainty associated with relying on this allocation for

7 mine closure planning." Mr Rieniets, of Loy Yang, accepted

8 that the level of proposed water in the Loy Yang pit may

9 alter in the future depending on the answers to questions

10 about water sourcing.

11 The present unknown does not require research in

12 order to solve it. I just pause there. That is a very

13 important issue. Everything else requires, it seems, a

14 great deal of research. This issue requires conversations

15 and potentially applications or contract negotiations to

16 occur. The ramifications are significant. We cannot

17 emphasise this enough. If the water is not available, the

18 proposed pit lakes may not be viable at all. If it is

19 available, but at a cost or only over a significant period

20 of time, then this may impact the viability of the option

21 as compared with others. It really brings us back to where

22 we started, and that is that the pit lake option is the

23 most achievable because the others are considered not to be

24 achievable or not to be viable. But if it turns out that

25 it is so expensive to fill the lakes because of water

26 access, then the other options may have to come back on the

27 table. That is a very important unknown at this time. It

28 is an answerable matter. That is what is so concerning

29 about it.

30 We conclude in relation to this topic, and this is a

31 matter that we must underline and emphasise for the Board's

1 benefit, the failure over 20 years for this issue to even

2 be the subject of a discussion between the affected parties

3 is perhaps the most disturbing aspect of the evidence the

4 Board has heard. It reflects poorly on all concerned,

5 government and the mines, and we will return to this issue.

6 CHAIRMAN: While you're drawing breath, Mr Rozen, can I mention

7 that you've got to just over one-third. It will take you

8 three hours to get through it if you go at the same rate.

9 Because I'm assuming that all other parties are going to be

10 using up their time, I'm going to have to insist that

11 people stick to it unless I get some indication now that

12 people are going to be very much shorter than the hour that

13 they've been allowed.

14 MR ROZEN: I can be the conduit, if I may.

15 CHAIRMAN: Sorry?

16 MR ROZEN: I can be the conduit via the parties to you about

17 that because I have raised it with them. I'm told the

18 estimates are 45, 45 and 45, so - - -

19 CHAIRMAN: Okay. I don't need to exert as much pressure now

20 that you're relieved to some extent.

21 MR ROZEN: I'm still cautiously optimistic of getting in within

22 two hours.

23 CHAIRMAN: Okay. I'll let you go.

24 MR ROZEN: Turning to timeframe, term of reference 9(e) requires

25 the Board to consider the estimated timeframe for

26 implementing the option. In their report, Jacobs state it

27 is possible the Yallourn Mine could achieve a partial

28 backfill below the water table in the medium term.

29 Hazelwood and Loy Yang are not expected to achieve pit lake

30 land form in the medium term, in part because of volume of

31 water. Jacobs note that based on current indications of

1 closure dates, the Latrobe Valley mines are likely to be

2 filling the final mine voids at the same time, leading to

3 possible concerns about impact on groundwater, access to

4 water and backfill and so on. That is particularly the

5 case with Hazelwood and Yallourn, it should be said. That

6 throws up the question which we will return to, and that is

7 of the need for an integrated planning process for closure

8 of the mines.

9 We've already noted that one initial difficulty in

10 considering timeframe is to know when it is over. It was

11 Ms Unger who told us that it is not over when it is over,

12 in the context of mine closure, and that seems particularly

13 relevant here. In the case of a pit lake, questions are

14 raised about when that is, and it is important because it

15 impacts on how long one needs to monitor and therefore when

16 it can properly be said the mines are fully rehabilitated.

17 As we note at 94, resolving the question about where

18 water can be sourced from will dramatically affect

19 estimated timeframes and the cost of implementing the

20 option will be very different, depending on the period of

21 time it takes to flood the voids.

22 9(h) requires the Board to consider future beneficial

23 use; whether, and to what extent, the option would impact

24 the future beneficial use of land areas impacted by the

25 mines. As above, there is presently a lack of clarity

26 about whether or not the pit lake option will impact the

27 future beneficial use of the land. It is tied to stability

28 questions and the water quality complexities we have

29 discussed. At present, Yallourn's pit lake option is to

30 provide for beneficial use of the community, both through

31 allowing direct access by them to the lake for recreational

1 purposes and also providing a flood, drought and fire

2 resource if and when required. We will all recall

3 Mr Mether's vision of there being homes with lake views one

4 day at the Yallourn Mine.

5 This aim depends, of course, on a number of the

6 uncertainties that we've already talked about - that is the

7 ability to connect to the river system, the impact on

8 quality, the impact on stability.

9 Loy Yang has recently determined that at least at

10 this stage, it does not intend to allow public access to

11 its partially-filled pit lake. This was a significant

12 departure from its earlier approved plan, 1997.

13 Dr Sullivan, Loy Yang's consultant, explained that this is

14 because of safety and that more detailed engineering may

15 well show that can come back into public access of some

16 more limited form, but he had no idea when that might be

17 done. Mr Faithful told us that Hazelwood is still working

18 through whether or not it intends, as part of its work plan

19 variation next year, to allow public access after closure.

20 Turning to the question of progressive

21 rehabilitation, term of reference 9(d) requires the Board

22 to consider whether and to what extent the option would

23 ensure that progressive rehabilitation is carried out as

24 required by the Act. The starting point is what

25 "progressive rehabilitation" means. We've noted that it is

26 not defined. There are not even any criteria by which

27 progress in this area can be generally measured. There

28 appears to be a general presumption by the mines that

29 progressive rehabilitation is essentially about adjusting

30 slope angles, moving overburden and planting vegetation.

31 On this narrow definition, and we consider it to be a

1 narrow definition, operational constraints in the mines

2 significantly reduce their ability to do that in a number

3 of parts of the mine.

4 Further, it is submitted that an option, whether it

5 is a pit lake or anything else, can't ensure progressive

6 rehabilitation is carried out. In other words, it is the

7 wrong question, really. It's regulation commitment,

8 financial incentives, or a combination of those things,

9 that ensure progressive rehabilitation.

10 Turning to cost, term of reference 9(f) requires the

11 Board to consider the estimated cost of the option. The

12 Board has before it the current estimates by the mines in

13 their most recent Schedule 19 reports submitted under the

14 regulations. The Board also has independent cost estimates

15 produced for DEDJTR by its consultant, AECOM, and we come

16 back to this in term of reference 10, and we note at the

17 present time that the costs carried out by AECOM are on a

18 different basis to the cost estimates as carried out by the

19 mines. Putting it simply, the mines have carried out the

20 first-party cost, what it will cost them, they estimate, to

21 do the rehabilitation. AECOM is answering a very different

22 question, what it will cost the state to do it in the event

23 that the mine licensees are not there at the time the work

24 needs to be done, or what is called third-party costing in

25 the literature.

26 With that caveat in mind, the figures that AECOM have

27 produced are very different, orders of magnitude different

28 to the ones the mines have produced. They have produced

29 ranges of figures: Yallourn, 167-262; Hazelwood, 264-357;

30 Loy Yang, 221-319. We submit that costs should

31 realistically include trials and research and it is not at

1 all clear that any of the estimates before the Board

2 adequately include estimates for such matters. It is

3 submitted that Ms Unger's definition of "progressive

4 rehabilitation" is far better suited to achieving the aims

5 of the legislative regime, that is to ensure final

6 rehabilitation is achieved safely and as close as possible

7 to the date of closure, or to do acts which work towards

8 achieving those ends. Ms Unger's definition includes

9 trialling final rehabilitation concepts and building

10 community and regulatory confidence. As she told the

11 Board, anyone can push out a slope and throw some seed out

12 - it might just be understating that issue a little.

13 Professor Galvin appears to agree with this type of

14 expanded definition. Rehabilitation, for him, is very

15 broad. It is not just putting a dozer down a slope and

16 flattening it and putting a bit of grass on it.

17 In summary, there are no guarantees in life. In

18 light of the above, we submit it is simply not possible to

19 evaluate rehabilitation options against the criteria set

20 out in term of reference 9. As even the mines themselves

21 concede, resolution of some of these uncertainties may

22 change the final intended to design. According to

23 Dr McCollough, it is possible, although he told us not very

24 likely, that the results of the various studies that need

25 to be done into stability, water quality and so on will

26 show that a pit lake is not desirable, and he told us

27 there's no reason then to take the pumping in perpetuity

28 option off the table. He joined with Professor Galvin, but

29 only with that caveat.

30 Mr Hoxley, from Jacobs, who set the parameters of the

31 debate, in a sense, by their initial report, considered

1 that "lining the voids and leaving them open has been ruled

2 out through our study because of some of the technical

3 difficulties, but it could well be that in the course of

4 understanding why a pit lake may not work, that some type

5 of lowered land form - that we will then see a solution to

6 that." In his opinion, "Often a lot of those constraints

7 come down to the cost that people will bear."

8 It would, we submit, be remiss of the Board not to

9 consider, by a reference to the incidental power in 12,

10 whether the current system is well placed to ensure these

11 uncertainties are resolved well prior to the estimated date

12 of mine closure. The Board can't answer the questions, we

13 submit, in term of reference 9, not with any certainty at

14 all in relation to some of them and not at all in relation

15 to others, on the evidence, but what the Board can do is

16 address whether the existing system, the existing

17 mechanism, is likely, in its current form, to lead to those

18 answers being provided. We say it is important to consider

19 that question because finding the answers will take some

20 time, but the closer to closure we get, the more narrow the

21 options will become if, for example, progressive

22 rehabilitation has been undertaken with a specific and

23 possibly flawed concept in mind. This appears to accord

24 with Dr McCollough's memorable reference to a Rubicon

25 moment in mine closing planning, where an option is

26 irretrievably lost due to mining design or other

27 achievements, and it calls to mind the evidence given on

28 the very first day by Mr Langmore of what he described as

29 his "fairly major concerns" that, "If flooding the mines

30 doesn't work, have we blown the chances of getting

31 rehabilitation done properly?"

1 All of that explains, in a way that I didn't really

2 appreciate when I first read it in the Technical Review

3 Board's report from 2011, about why these answers must be

4 provided immediately, as addressing them will require "a

5 lot more research and money than people have been

6 anticipating to get on top of the problem". The mines

7 could close earlier than presently intended. That is a

8 reality that it seems even the mines seem to accept, with

9 the possible exception of Loy Yang.

10 Both Mr Faithful and Mr Mether indicated that they

11 were not in a position to guarantee that the mines may not

12 continue to operate until the expected closure dates, and

13 of course they aren't. Dr von Bismarck informed the Board

14 that the experience in Germany was unexpected. It was the

15 largest producer of brown coal in the world 25 years ago,

16 so in the space of a generation, the coal mine industry has

17 effectively been shutdown. Why? Because of a government

18 decision to do so in line with a concern about

19 environmental standards.

20 As indicated by Mr Byrne of AECOM, the costs relating

21 to rehabilitation for early closure are more expensive than

22 at the end of mine life, for the reasons we've just

23 explained about third party costing. It is submitted that

24 for the reasons developed below, the current system, though

25 it shows some signs of improvement, and we do concede that,

26 is ill-suited to ensuring these questions are answered in a

27 timely and accountable manner. The issues have been

28 neglected and ignored. The SEC ignored the issue of mine

29 rehabilitation during its management of the mines.

30 Rehabilitation was considered an issue for future

31 consideration, although there was a presumption that the

1 mine pits would ultimately be flooded at the end of mine

2 life. However, the State of Victoria was presented with a

3 real opportunity when the mines were privatised in the

4 mid-90s to grapple with some of these issues. It was an

5 opportunity which wasn't sufficiently taken. The

6 regulatory regime that was set up required very little of

7 the mines in terms of details on how rehabilitation may be

8 achieved. We submit that represented a second lost

9 opportunity to enable a closure planning process suited for

10 addressing the complexities involved in closure.

11 Unhindered by any requirement to provide timelines and

12 detail regarding rehabilitation historically, very little

13 information about how, in practical terms, each mine's

14 intended pit lake option was to be achieved has been

15 included in either the original work plans or the

16 variations to them. Despite this lack of detail - and we

17 cannot emphasise the importance of this enough - the

18 regulator has approved each original plan and a number of

19 variations. That throws up a very important matter, and it

20 is this: we do not submit to the Board that the mines have

21 failed to meet their legal obligations in relation to this

22 area. In fact, they have, and that's the problem: the

23 legal obligations are so minimal. It is a minimal

24 compliance regulatory scheme under which the mines do what

25 they have to do. Take a simple example. Each of them was

26 asked, "Have you had a discussion with the water

27 authorities about getting access to your existing

28 entitlements for rehabilitation?" And the answer in each

29 case was the same: "No." "Why not?" "We haven't had to.

30 We'll do it if the regulator tells us we have to do it."

31 That's paraphrasing, obviously, but that's really

1 symptomatic of the entire regulatory scheme. It is a

2 minimal compliance scheme, under which the mines,

3 understandably enough, as private companies, do what they

4 have to do. It stands in stark contrast to other

5 regulatory regimes - Occupational Health & Safety is an

6 example that comes to mind - under which a person has to do

7 what is reasonably practicable, has to proactively manage

8 risk rather than just doing what the regulator tells them

9 they have to do. This is a very important aspect of the

10 existing scheme. It shows that the scheme is quite out of

11 date when measured against current and sound best practice

12 regulatory approaches.

13 While flexibility may well be required in light of

14 the uncertainties as to how these complex issues can be

15 resolved, it is startling, we submit, that the documents

16 have not contained details regarding the matters that we've

17 spoken about. The issues identified above about water

18 access, water quality and batter stability, it was conceded

19 by Mr Wilson of the regulator, a very senior officer at

20 DEDJTR, he conceded that they're not new issues; they've

21 been around for a number of years. One stark example on

22 the evidence of that is a licence condition that was

23 imposed on Yallourn in 2011 to provide a review of its

24 rehabilitation master plan regarding the feasibility of the

25 pit lake scenario as compared to other alternatives, so the

26 very matters that we're talking about were the subject, in

27 2011, of a condition imposed on Yallourn in relation to its

28 licence. The purpose of the condition was, from the

29 department's perspective, a laudable attempt to answer some

30 of these longstanding issues. Yallourn complied. It

31 provided the report, the condition 7 report. It is in

1 evidence. The report affirmed that there were clear

2 advantages of the flooded option compared to the

3 non-flooding option, but there were issues that required

4 resolution, such as stability, water access and water

5 quality. The document concluded with an invitation to the

6 regulator to engage with Yallourn about these issues. I

7 should pause there. That is, we would concede, an example

8 of a mine being, to an extent, proactive about trying to

9 resolve the issue. Mr Wilson of the regulator conceded

10 that Yallourn was, through this document, looking to the

11 department for some certainty, for example about access to

12 water, in order for them to continue to work answering

13 these technical issues. Despite what the letter said,

14 despite Mr Wilson's evidence about what it clearly was

15 inviting the department to do, Mr Wilson's evidence was the

16 department did not provide any formal response to Yallourn.

17 You only have to read the letter to appreciate quite how

18 surprising that is. We submit this represented another

19 missed opportunity by the regulator, one of many, to begin

20 to tackle some of these important and intractable issues.

21 What is so perplexing about this particular story

22 concerning the condition 7 report is the process was

23 initiated by the department, so the department required

24 Yallourn to get the report. One suspects the report wasn't

25 cheap, but nothing flowed from it. Nothing tangible

26 happened. It is just another report available to produce

27 to an inquiry four years later. And whilst Yallourn was,

28 to some extent, proactive, the evidence of Mr Mether was

29 that they have monthly visits from DEDJTR inspectors, but

30 there is no evidence that this issue was ever raised with

31 any of them. No-one was ever asked, "By the way, did you

1 get that letter? Are we going to get a response? Can we

2 have a meeting?" There is nothing stopping Yallourn doing

3 those things. It is not appropriate, in relation to these

4 matters, to just sit back and say, "We sent in the report,

5 we asked for a meeting, we heard nothing." Both Yallourn

6 and the department, we submit, are at fault in the context

7 of that situation. But Yallourn is not breaking the law;

8 Yallourn is just doing what it was required to do. It was

9 required to produce a report, so it did. But the report

10 doesn't answer anything; it merely initiates it, or should

11 initiate a process.

12 Another example is the SWS that we've already spoken

13 about, the Sustainable Water Strategy 2011. We noted

14 earlier that it raised the spectre of a lack of viability

15 of the option of filling any of the lakes because of water.

16 Dr Davis, a senior officer from DELWP, gave evidence that

17 she agreed with that observation, so it was in the SWS in

18 2011 and the Board heard in 2015 Dr Davis agreed about

19 concerns about viability.

20 On the same page of the document there is an action,

21 6.8 - it was referred to in the evidence. It required what

22 is now DEDJTR to review mine rehabilitation strategies in

23 consultation with what is now DELWP, the EPA and the

24 companies. Mine closure and restoration strategies will

25 consider impacts on Gippsland water and surface water

26 resources. Yet again there was no action - no action by

27 DEDJTR; no action by DELWP; no action by the mines. This

28 is despite there being a statutory obligation in the Water

29 Act imposing on DELWP a requirement to report annually on

30 measures taken to implement the SWS and to identify

31 priorities that apply to actions required by the

1 implementation plan.

2 There is no doubt, on the evidence before the Board,

3 that DEDJTR knows about action 6.8 because it is referred

4 to in the conditions that have been imposed on AGL Loy Yang

5 very recently, December of this year. Condition 7.1

6 requires AGL to perform a water resources risk assessment

7 in accordance with action 6.8. I'll just pause there for a

8 moment. So what started off as an obligation on the

9 government departments to do something involving the mines

10 has morphed now, four years later, into an obligation

11 solely imposed on the mines.

12 Despite Mr Wilson's evidence that that is not how we

13 should read it, it is not a delegation by DEDJTR of its

14 responsibilities, it appears to us to be exactly that. We

15 submit that is an abrogation of the regulator's

16 responsibility. It is not a trivial matter, of course.

17 The department have also ignored expert advice

18 indicating the need for a rehabilitation framework and

19 strategic plan to solve these problems. In June 2009 a GHD

20 report was provided to the department which identified

21 these needs. There are in evidence other reports that say

22 much the same thing. The Board heard from Ms Burton, the

23 director of Coal Resources Victoria, a unit within DEDJTR

24 dedicated to long-term planning about Victoria's coal

25 resources, really the very issues that the Inquiry is

26 concerned about. She told us there's no plan. In response

27 to a question from Ms Doyle, in which the following

28 proposition was put, between June 2009 and 2012, all that's

29 happened is there's been a restatement of the fact that

30 there is a need for an overarching plan. Ms Burton agreed.

31 If those examples are not concerning enough, perhaps

1 the most significant example, we submit, is the lack of

2 DEDJTR response over many years to the advice provided to

3 it by its own expert advisory board, the Technical Review

4 Board. If I could just pause there for a moment, we submit

5 that the Board can glean from the work the TRB has done,

6 both in its annual reports and in the evidence that has

7 been presented by Professors Galvin and McKay, and also Ms

8 Unger, the TRB, to use a colloquial expression, are the

9 truth tellers in this entire sorry saga. They're the ones

10 who've been raising the need for action, the need for

11 consideration of these issues. The first example is that

12 the TRB, established in 2009 really to address many of the

13 very issues the Inquiry is concerned about, in its annual

14 report in 2011 advised the department that the

15 rehabilitation plans the department had approved are

16 inadequate and based on presumptions. In particular, the

17 Board identified significant uncertainties about stability

18 in the work plans and highlighted, "The considerable study

19 assessment, evaluation, implementation and ongoing

20 monitoring with action plans are required." They advise

21 that it will take time to develop, it will be a costly

22 process. They said there was a need for steps to be taken

23 immediately to begin an assessment of these issues.

24 Subsequent TRB reports have repeated these

25 observations with an increasing tone of frustration. You

26 can trace through the 2012, 2013, 2014 reports and we have

27 set out the references to them in the footnotes. This

28 year, in a report provided to the department only a month

29 or two ago, the Board repeated those concerns, said that it

30 had been raising these matters since 2012. It noted the

31 elevated importance of rehabilitation as reflected in the

1 expanded terms of reference to the Board, and that was a

2 reference to Ms Unger being reported.

3 The mines, too, have failed historically to address

4 these issues. Detail has not been included in work plans

5 that set out concrete steps the mines intend to take to

6 solve the problems. For example, the current Loy Yang work

7 plan variation, rather than set out criteria for dealing

8 with water quality issues, instead indicates that AGL will

9 develop water quality objectives and water level criteria

10 prior to lake filling. When?

11 Significantly, each of the mines has submitted work

12 plans and variations which rely on modelling for filling

13 the pit lakes and include models which assume access to

14 bulk water entitlements and ground water, and yet, as we

15 have noted, none of the mines have indicated any formal

16 conversations with the authorities to obtain an assurance

17 that water can be accessed. As I noted earlier, the

18 response to that essentially was, "We've never been

19 required to, but if we're required to, we'll do it." This

20 is most starkly seen in the evidence of Mr Rieniets, who

21 acknowledged that AGL assumed it would have access to both

22 its bulk water entitlements and ground water licence

23 allocation, but the assumption is not based on any

24 assurances from anyone in control of that water and that

25 AGL had not sought to have discussed with government about

26 that.

27 Further, the mines have traditionally operated in a

28 competitive and siloed approach to research and knowledge

29 which has negatively affected progression in knowledge

30 development in this area. We note subsequently in our

31 submissions that there are changes, pleasing changes.

1 Some positive signs of improvement. In 2015 there

2 have been some commendable improvements in the way in which

3 the department and the mines are addressing these issues.

4 It appears, and we emphasise this, that all are genuinely

5 committed to finding solutions. The Board can't conclude

6 on the evidence that people are actively opposing a process

7 of finding solutions. However, as discussed below, the

8 good intentions are not being promoted and enhanced by the

9 current system. The Board has before it Exhibit 37, a

10 document entitled Earth Resources Regulation 2015-16 Action

11 Plan. It is surprising that document was not provided with

12 the various statements that came from DEDJTR but only

13 appeared very late in the piece in the Inquiry. The

14 document is an important one. It sets out a series of

15 commitments to reform and improvement to the governance and

16 performance of the regulator and also to legislative

17 reform. The contents of this document and the degree to

18 which implementation of its commitments ought to be viewed

19 as likely to address various deficiencies is discussed in

20 more detail below. For present purposes, it is sufficient

21 to say the document clearly seeks to address many of the

22 problems that besiege this area. The government should be

23 commended for this reform process and - and this is another

24 matter we emphasise - the Board should take any steps open

25 to it to ensure that the commitments in the document result

26 in actual reform, not just another action plan that some

27 barrister is going to ask awkward questions about in five

28 years' time.

29 It is plain from the way in which the recent Loy Yang

30 Work Plan Variation of 2015 has been processed by the

31 department that such reform is sorely needed. I just pause

1 there. It is not as if the examples that cause concern

2 occurred a decade or two ago. We have current-day

3 examples, particularly in relation to this application,

4 that raise these concerns.

5 In approving the plan, which took over a year, the

6 department imposed a set of conditions upon AGL aimed at

7 addressing shortcomings in the plan. This, Mr Wilson

8 explained, was part of a move of what the regulator

9 referred to as requiring risk-based work plans, whereby the

10 mine operator is required to identify risks and report them

11 to the department. Under the conditions to which the

12 approval is subject, timeframes, although broad and for the

13 most part approximate, are set. However, these conditions

14 do not, it is submitted, indicate a sufficient improvement

15 to the regulatory system that is likely to ensure the

16 answers to the significant questions we discuss above are

17 achieved prior to closure. Firstly, as identified by

18 Professor Galvin, the conditions are convoluted and lack

19 clarity. You only have to read them to see why he said

20 that. Secondly, there are no criteria to determine the

21 robustness of the various risk assessments which are

22 required. In other words, producing the risk assessment,

23 sending in a document, is the outcome that is required by

24 the condition in many respects. Nor are there any criteria

25 to assist AGL to determine how it may satisfy the regulator

26 that it has complied with certain conditions. A lot is

27 left to the discretion of the department's secretary and

28 the conditions.

29 In answer to this last criticism, Mr Wilson's answer

30 was there would be conversations with the proponent to talk

31 through each condition and lay out what the expectations

1 are. We would work through points where it was unclear.

2 We submit that such a process lacks transparency,

3 accountability and consistency among the mines. It is not

4 a process that is well suited to assisting in the

5 resolution of such significant issues. What it leads to is

6 pragmatic compromise to meet the demands of the day. So,

7 for example, Mr Rieniets will say, "We can't quite do

8 condition 3 in the timeframe because of these other

9 commitments", and a commitment is given that, "You can have

10 a bit longer", but none of that occurs in a way that is

11 transparent or understandable or, more importantly, has

12 regard to the broader setting. It is a problem that is

13 inherent in regulation by risk assessment.

14 Professor Galvin highlighted the importance of a

15 strong regulatory process and structure. Each of the

16 issues, such as failure to communicate about water or

17 community engagement are, according to him, just symptoms

18 of the problem. Concerningly, given his extensive

19 knowledge about interstate practices, his advice to the

20 Board is Victoria is a decade behind practice in mine

21 approval processes. We note the transparency is

22 highlighted as a "compliance principle" in the Exhibit 37

23 action plan and the document recognises the need for

24 transparency guidelines and for publication of criteria,

25 applications, reports submitted by mines and regulatory

26 decisions. These commitments are long overdue but

27 nevertheless must be commended.

28 Further, the action plan indicates the regulator is

29 committed to drafting a guideline for providing clear

30 information to industry about requirements under risk-based

31 work plans. This is also overdue. We note that the

1 evidence discloses that there are interstate and overseas

2 experience of such documents. Ms Unger referred the Board

3 to them. It is important that, according to Ms Unger, you

4 get the right people in the room when risk assessments are

5 done.

6 Similarly, Professor Galvin provided the Board with

7 an example of a recent approval from New South Wales.

8 These examples, we note in 139, should inform the current

9 regulatory review process. The identification of their

10 merits by persons with the experience and standing of

11 Professor Galvin and Ms Unger suggest they ought to be used

12 at least as a starting point for the development of

13 Victorian guidelines. There is, as I think Dr McCollough

14 mentioned a couple of times, no need to re-invent the

15 wheel.

16 A further recent example of the deficiencies in the

17 current system is highlighted by the failure by the

18 department to appropriately utilise the expertise available

19 to it from the TRB in assessing the Loy Yang Work Plan

20 Variation. The Board will recall Professor Galvin's

21 evidence about being sent the application by email -

22 midnight in New Zealand, I think he told us, and he was

23 required to provide an immediate response. All that in the

24 context of an application process that took in excess of 12

25 months to respond to. It is concerning, to say the least,

26 that a regulator would use an expert of the eminence of

27 Professor Galvin in that way.

28 Ms Unger was not provided with a copy of the draft

29 conditions, despite having been appointed to the Board as a

30 rehabilitation expert, based on her experience in the

31 field.

1 Again, there seems to be some recognition of these

2 issues in the action plan. We note at paragraph 141 of our

3 submissions that page 4 of the action plan refers to a

4 commitment that the Technical Review Board will provide

5 more strategic advice to the government in response to

6 technical matters, that is more high-level strategic

7 advice, rather than dealing with day-to-day concerns. An

8 expert panel will provide operational technical capability

9 in areas such as mine stability and so on. I just pause

10 there a moment. Counsel assisting submit the Board ought

11 to be concerned about some evidence that was given by

12 Mr Wilson earlier this week about the possible conflating

13 of those two bodies, the possible conflating of the

14 Technical Review Board with an expert advisory panel. We

15 would commend the idea of an expert advisory panel. We

16 would caution against any suggestion that it could replace

17 or incorporate the work of the TRB. What is important

18 about the TRB is its independence from government and its

19 ability to report annually. For obvious reasons we

20 consider, as we've spelled out in the submissions, that the

21 existence of such a body on a continued basis is very

22 important. An expert panel reliant on government for the

23 next consulting job is in a very different position to the

24 TRB.

25 A further recent example, we say at 144, or recent

26 issue, is the demonstrated lack of communication between

27 government departments on key issues such as water. The

28 Board heard from a water panel of a DELWP representative

29 and two regional water authority representatives and they

30 told the Board that at no time had any of them been asked

31 formally on their views on whether the mines will be able

1 to use their present water entitlements or be able to

2 divert one or more rivers, so it is not just the mines

3 aren't talking to the authorities; the authorities aren't

4 talking to each other. Indeed, none of the water

5 authorities knew how much water the mines were seeking, and

6 despite recent correspondence and, for that matter, despite

7 this Inquiry highlighting the concerns of these issues, the

8 meeting that is referred to as "necessary" in that August

9 letter from the water authority hasn't occurred. It is not

10 even planned.

11 Mr McGowan, in response to questions about why the

12 Loy Yang Work Plan Variation was approved in light of the

13 concerns in the water authority letter, remembering that

14 the plan was sent to the water authority asking for its

15 input, the response comes back raising concerns about water

16 access and then the plan gets approved anyway. Mr Wilson

17 stated that, "Over time application of water from

18 particular water authorities and particular companies

19 changes, so at the end of mine life, I would have thought

20 there would have been conversations with respect to the use

21 of water and the use of entitlements and perhaps the use of

22 those entitlements for other matters, including mine

23 flooding." We submit that such a relaxed attitude

24 ill-befits a regulator in such an important and complex

25 area.

26 The Action Plan which we've referred to refers

27 specifically to establishing and enhancing collaborative

28 arrangements with other agencies such as DELWP. This is

29 clearly required and long overdue. It must be noted,

30 however, that these relationships already exist and the

31 previous action plan, the SWS from 2011, appears to have

1 been ignored, and this is once again a matter we cannot

2 emphasise enough. This government must ensure that the

3 present commitments don't end up suffering a similar fate.

4 The Board, of course, can help, albeit in a limited way, in

5 the report that it produces, but at the end of the day it

6 is the government that has to take heed, through its

7 various departments, of the need for action.

8 A further present deficiency highlighted in the

9 process of the recent Loy Yang Work Plan Variation is the

10 lack of community consultation or transparency before it

11 was approved. This has been a theme throughout each of the

12 four aspects of this second Board of Inquiry. It has been

13 the subject of a great deal of evidence, particularly in

14 the health context, but equally importantly here.

15 The lack of consultation and transparency in relation

16 to the change from a publicly accessible lake to one that

17 would be fenced off and public access prohibited occurred

18 despite it having altered that essential intention in

19 relation to beneficial use.

20 Stakeholder engagement, or what Ms Unger, in her

21 memorable phrase, described as "progressive rehabilitation

22 for people", is a requirement of successful rehabilitation.

23 The absence of it can result in final rehabilitation plans

24 that can't be implemented. As Ms Rhodes-Ward, from the

25 council, highlighted, "It is about us, you need to involve

26 us." The joint expert panel referred to the importance of

27 community consultation as a fundamental principle of

28 successful rehabilitation. There is no explanation before

29 the Board as to why this important change in the AGL plan

30 was not conveyed to the community by either the department

31 or by AGL before it occurred. Indeed - and we have to say

1 this - Mr Rieniets's response to questions on this,

2 particularly in light of AGL's commitments in its community

3 engagement plan and also in Mr Rieniets's third statement,

4 the response to this question in the evidence appears glib.

5 The lack of transparency is of concern. It needs to

6 change.

7 It is also worth noting that Mr Rieniets's statement

8 and oral evidence to the Board about the conditions

9 recently imposed upon AGL as part of its work plan

10 variation approval suggested a lack of transparency of

11 process. Mr Rieniets confirmed that AGL's view was that

12 the original work plan variation it submitted was adequate

13 and sufficient, including as to rehabilitation, and that

14 AGL will engage with the department to come to a resolution

15 on these issues. Closed-door negotiations about legal

16 conditions imposed by a regulator, particularly in light of

17 the advice provided by the TRB and the water authority, is,

18 we submit, inappropriate and not conducive to an

19 accountable regulatory regime in this important complex

20 area. It stands in stark contrast and calls to mind

21 Mr Langmore's description that processes should ensure that

22 a change of plans is part of a clear formal public process

23 and not a matter of, as he said it, "striking a deal

24 between a particular single department of a government and

25 a particular private company". We share those sentiments.

26 For too long such discussions have been shrouded in

27 secrecy.

28 When is it exactly the committee was going to be told

29 about the change to Loy Yang's work plan variation? But

30 for this Inquiry, it might have been years before that came

31 to light. There is no obligation for the community to be

1 told about such an important change.

2 The regulator's action plan includes a commitment to

3 establishing a community advocate to support informed

4 community participation in regulatory decisions. These

5 commitments must be translated to processes embedded in the

6 legislative regime and in guidelines in order to guard

7 against back-room deals being done or, equally importantly,

8 the perception that back-room deals are being done on

9 matters affecting community. The commitment by Mr Wilson

10 to at least provide some funding for the position is

11 supported.

12 One very significant positive sign is the improvement

13 in cooperation and knowledge shared by the three mines and

14 some recent research initiatives in the area of stability.

15 Professor McKay observed a demonstrated commitment by the

16 mines to examining a number of these issues. Such research

17 initiatives and increased cooperation is commendable.

18 However, more needs to be done by the mines. A significant

19 body of research is required to be undertaken. The results

20 of each study must be shared. Although each mine indicated

21 it is happy, at least conceptually, to work together and

22 have coordination, each placed caveats upon integration

23 based on the need for "elements to apply to us all" or

24 "where there is common issues". Reports are not shared as

25 a matter of course, despite a general recognition this

26 could be mutually advantageous. The research body GHERG is

27 not able to use information from the TRB without explicit

28 permission of the mines. For too long the mines have

29 placed too great an emphasis on commercial secrecy and

30 sensitivity over issues that are for the common good. The

31 evidence suggests a residual reluctance on behalf of the

1 mines to take the initiative in solving some of these

2 questions. We have already referred to the evidence, "We

3 haven't been asked to do that" or "We haven't been told to

4 do that, so we haven't done it". It is the same minimal

5 compliance concern.

6 Turning then to term of reference 10. Term of

7 reference 10 makes reference to "rehabilitation liability

8 assessments", a phrase which is not defined. We submit

9 that the Board ought to conclude that is a reference to the

10 schedule 19 assessments that are filed by the department.

11 Schedule 19, regulation 35, requires each mine to provide

12 on an annual basis an estimate of the current

13 rehabilitation liability for the licence holder, and the

14 Board will recall that in respect of each of the mines

15 there was some apparent difficulty in being able to answer

16 that question in the process over the last 18 months.

17 Ultimately the 2015 reports disclose the estimates that are

18 set out in paragraph 158 - that is Yallourn giving a range

19 of $48-91 million; Hazelwood 73.4 million; and Loy Yang

20 53.7. In each case the licensee has provided evidence to

21 the Inquiry about the manner in which it had calculated

22 that estimate. Yallourn referred to reports that had been

23 provided to it in 2001 and subsequently. Yallourn also

24 drew the Inquiry's attention to a letter from Mr Mether

25 explaining the range in the estimate, recalling that

26 Yallourn is the only mine that provides a range in its

27 estimate. We have set out an extract from the letter at

28 paragraph 161. We note that it was a laudable recognition

29 by Yallourn, in April of this year, that costing is

30 difficult because of the level of uncertainties. There is

31 only one uncertainty identified, and that is batter

1 stability, but just that one uncertainty pushes the range

2 out, as can be seen, a long way, from $48 to $91 million.

3 We note at 163 that the Yallourn rehabilitation plan

4 that is approved assumes the operator can access the bulk

5 water entitlements and assumes connection to existing

6 rivers. They are, of course, assumptions. As noted

7 earlier, they may turn out to be incorrect. Although an

8 allowance is made for possible expensive stability work,

9 none is made for the eventuality that water may have to be

10 purchased on the open market, and we submit that that alone

11 raises questions about the adequacy of the estimate.

12 The Hazelwood estimate of 73.4 is based on what

13 Mr Faithful described as detailed calculations and, indeed,

14 the Inquiry has been provided with a large number of

15 detailed spreadsheets in support of the calculations, but

16 in the course of his evidence about the estimates,

17 Mr Faithful made a number of important concessions. The

18 same assumption about access to water is specified.

19 Mr Faithful conceded that neither he nor GDF know if the

20 assumption is well founded. We note at footnote 221 a

21 concerning aspect of the evidence being the explanation

22 Mr Faithful gave to the Inquiry about why the assumption is

23 made that water will be available. He told the Board that

24 it is based on "a discussion that we had, or one of my

25 colleagues had, with Southern Rural Water which indicated

26 that you could roll those water licences over for a period

27 of 15 years". He explained in evidence he wasn't present

28 during that conversation and it is notable that at no point

29 has the Inquiry been told who this GDF employee was that

30 was involved in the conversation, nor the level within

31 Southern Rural Water of the person with whom the

1 conversation occurred.

2 Returning to Mr Faithful's concessions, he conceded

3 that no work had been done to cost alternative sources of

4 water and that work needed to be done. He told the Board

5 that, as with the other mines, the costings are not done on

6 a probabilistic basis but have included a contingency of

7 between 10-20 per cent to take into account unknowns. The

8 estimate does not specifically account for the risk of

9 batter failure, but that is also allowed for in the

10 contingency, and the current estimate makes no allowance

11 for the sorts of research projects that GDF consultant,

12 hydrologist Dr McCollough, prescribed in his report to GDF,

13 and we note Dr McCollough's evidence that at least some of

14 those costs ought to be properly accounted for as

15 rehabilitation costs.

16 The conclusion we reach at 167 about the GDF estimate

17 is that, in light of those concessions, there must be

18 concerns about the adequacy of the GDF estimate.

19 Turning to Loy Yang, we note the evidence of

20 Mr Rieniets that the estimate is based on modelling

21 undertaken in the Loy Yang Power Mine Rehabilitation Whole

22 of Life Cost Report - 2011 Update. That is attached to

23 Mr Rieniets' report. We note it is labelled "draft only".

24 Mr Rieniets couldn't explain to the Board why it had been

25 given a draft report as the basis for the estimate. One

26 only needs to look at it, and look particularly at the

27 footer on each page of Annexure Q, to reach the conclusion,

28 we submit, that it is a document of little worth in the

29 current context.

30 Further, as is the case with the other mines,

31 Loy Yang's cost estimate contains assumptions about water

1 availability which may prove to be unfounded. We submit in

2 the circumstances that the Board ought to be hesitant to

3 accept that the 2015 estimate submitted by AGL is adequate.

4 For completeness, we note the cost estimate that AGL

5 has prepared to accompany its recent approved work plan

6 variation is 112 million. It is based on a "close now"

7 scenario and we note that Mr Rieniets describes the work

8 that underlies this estimate as "indicative, based on a

9 series of assumptions that are yet to be validated".

10 Before we leave term of reference 10(a), it is

11 necessary to make some reference to s.79A of the Act. I

12 noted earlier that the section empowers the Minister to

13 require a licensee to undertake an assessment of the

14 licensee's rehabilitation liability under s.78 for the

15 purpose of determining the amount of a bond or reviewing

16 the amount of a rehabilitation bond. Can I just pause

17 there for a moment. It is a different process to the one

18 mandated by the regulations. The regulations merely

19 require the mine to indicate to the regulator what its

20 current rehabilitation liability estimate is. 79A puts

21 some teeth into that process by enabling, as we see from

22 sub s.(2), that the Minister can stipulate the manner and

23 form in which the work is to be done. The Minister can

24 also, importantly, impose an additional requirement on the

25 mine to engage an auditor to certify that the assessment

26 has been prepared in the manner and form required by the

27 Minister and that it is accurate. There is some rigour in

28 that process that is completely lacking in the Schedule 19

29 estimate process. The provision has been in the Act since

30 2006. The evidence before the Board is it has only been

31 used on one occasion, it has never been used in relation to

1 the Latrobe Valley mines. When asked why, Mr Pendrigh, of

2 DEDJTR, told the Inquiry that it hadn't been used "because

3 we couldn't specify the manner and form satisfactorily".

4 Be that as it may, that is a section that clearly has a

5 role to play, particularly in relation to providing the

6 department with reliable information upon which to evaluate

7 bond levels. We noted that as part of the current reforms,

8 the department will set up an expert panel and it is

9 looking at restaffing the regulator. The Board should

10 recommend that that process include looking for expertise

11 that will assist the department to set out the manner and

12 form of s.79A assessments. For the reasons we set out at

13 175, the s.79A process seems to be an ideal mechanism which

14 recognises that in truth the mines are best placed to

15 assess their liability, but they ought to do so on a

16 consistent basis as amongst themselves and they ought to do

17 it on a basis which is properly based in the learning about

18 doing such cost estimates, the manner and form

19 requirements.

20 We noted at the outset that AECOM have been engaged

21 in a process throughout 2015 in which it has been producing

22 its own estimates of the mine's rehabilitation liabilities

23 as part of the Rehabilitation Bond Review Project. We note

24 that the AECOM team consists of highly qualified and

25 experienced experts. We have set them out at paragraph 179

26 and their qualifications. They were asked by DEDJTR - this

27 is at 180 - to provide an independent estimate of cost for

28 closure for each mine based on the current approved work

29 plans and assumptions provided by the regulator. The work

30 was to be performed as a desk-top study and we summarise

31 the limitations that the report sets out about not having

1 conducted site visits, not doing water modelling, not

2 detailing closure data and so on. And we note that

3 Mr Byrne, of AECOM, accepted that those matters operate as

4 a realistic limitation on the work that was done.

5 The other matter to be noted at this point in time is

6 that the AECOM costings are done, as I have indicated, on a

7 different, that is third party costing basis, to the mines,

8 and we set out an extract from the department's

9 rehabilitation guidelines at the top of page 43 which

10 provides a useful summary of that process and with which

11 the AECOM witnesses agreed is an accurate description.

12 The AECOM process considered both end of mine life

13 closure and early closure, as we note at 184. Importantly,

14 there are two aspects of the AECOM reports that have to be

15 borne in mind. At 186 we note that a range of assumptions

16 are made. Everyone, of course, has made assumptions in

17 doing these costings. That is so necessarily so. AECOM

18 have spelt out their assumptions. There are 12, of which

19 two are very important and we have noted them at 186.

20 Final pit slopes of one vertical to three horizontal will

21 have long-term geotechnical and erosional stability, and

22 current power station bulk water entitlements can be used

23 for void filling. The evidence is that they were

24 assumptions that the department, interestingly, told AECOM

25 to make. I say "interestingly" because of the uncertainty

26 about both of those matters, as we have noted in these

27 submissions.

28 In relation to water access, Mr Chadwick, of AECOM,

29 agreed that if the assumption proved incorrect, it would

30 have significant impact on cost. We would submit that the

31 impact would quite clearly only be an increase in the

1 estimate. So, too, batter stability.

2 There is evidence before the Board about the

3 methodology used by AECOM, the probabilistic costing model,

4 which incorporated a multi-colour simulation. The

5 advantage of that model, the Board, we submit, should find,

6 is that it recognises variables in costs and tries to

7 incorporate those variables.

8 Dr Bowden explained that the model is internationally

9 recognised and he said it is becoming pretty well a

10 standard approach to carrying out cost estimates. We note

11 that the evidence ought to be given considerable weight by

12 the Board in light of the matters set out at 192. However,

13 we do make the observation that, generally speaking, as

14 with all of these estimates, the assumptions in AECOM are

15 generally optimistic. That needs to be weighed against the

16 identification by AECOM in a, to some extent, transparent

17 process of key risks in relation to each mine. They are

18 identified in 4.6 and, as the reports explain, "If the

19 assumptions in 4.4 are not correct, then they represent

20 risks within the closure costing and have been incorporated

21 into our closure costing as risk events and estimates of

22 degrees of likelihood of occurrence and consequence." We

23 set out four of those risks which deal with matters that we

24 have referred to.

25 We submit the reality is that if any of those

26 manifested, that is one batter failure at one mine, for

27 example, this could have a very significant effect on the

28 overall costing. The way that the costs to be allocated to

29 the risks done in the AECOM reports is with a single

30 figure. So to take Yallourn as an example, it is a single

31 figure within a range from 18 million to 63 million,

1 depending on the confidence interval, and I'll return to

2 the confidence interval aspect in a moment.

3 We note at 196 the evidence about how the team

4 calculated the likelihood of each risk and the consequences

5 that would flow is not entirely satisfactory. Dr Bowden

6 explained that these assumptions were made by the team on

7 the basis of what he called "expert judgment". He expanded

8 on this theme when he referred to the team's reliance on a

9 lot of experience and understanding of the situation.

10 Unfortunately for the Board, the product of that experience

11 and understanding is not revealed in the reports, as the

12 AECOM team conceded. Mr Chadwick told us that the

13 information is available but they couldn't tell the Board

14 in relation to any particular risk what risk rating it was

15 given, nor in relation to any particular cost how that was

16 assessed.

17 We've noted earlier that there are confidence levels

18 incorporated into the AECOM costings, ranging from level

19 P50, optimistic, through to P95, which is described as very

20 conservative. The evidence is that P50 means there is a 50

21 per cent chance the actual figure in real life will be more

22 than the cost chosen by the model and a corresponding 50

23 per cent chance that it will be less. By contrast, if one

24 goes to the P80 level, the odds are better; there is an 80

25 per cent chance the actual cost will be less, only

26 20 per cent more, and so on.

27 Using those confidence intervals, AECOM has provided

28 in its reports for cost ranges for each of the three mines,

29 and in relation to Yallourn it has done the work based on

30 the current work plan variation as well. We set out those

31 figures. I note that in relation to Yallourn, the range -

1 this is cost plus risk - is from 167 million to 262

2 million; for Hazelwood, 264 million to 357 million;

3 Loy Yang, based on the now overtaken work plan from 1997,

4 the cost was 175 to 303 million. Those costs increase in

5 relation to the current work plan, from 221 to 319.

6 We note at 204 that the lack of transparency in these

7 reports about the risk matter is an obvious weakness.

8 However, even having regard to that caveat and recalling

9 that they're third party costings, compared to the mine's

10 first party costings, we submit that because they've used a

11 probabilistic methodology, and because of the evident

12 expertise of the team and the independence of the team from

13 the mines, that the cost ranges provided probably the best

14 evidence before the Board against which to make the

15 judgment required by term of reference 10(a), and we say

16 that the AECOM reports provide an added basis for

17 concluding that the mines' assessments are less than

18 adequate.

19 Turning to 10(b), the effectiveness of the current

20 bond system, we note that once again there's no definition

21 of "bond system" in the terms of reference, but it must

22 necessarily, we say, include a consideration of the current

23 bond levels. At present, as we've noted earlier, the bond

24 levels are 15 million for Hazelwood and Loy Yang and 11.4

25 million for Yallourn. We note that in each case the

26 evidence before the Board is that the bonds were set at the

27 time of privatisation on an interim basis. There is scant

28 evidence, somewhat surprisingly, about how the figures of

29 15 million were arrived at. The only evidence we really

30 have is the evidence concerning the Hazelwood bond and even

31 that is only really a single-page briefing note, but it

1 indicates that there was a current estimate at the time of

2 privatisation of a liability estimate of 20 million, but it

3 was discounted to 15 on the basis of an understanding that

4 progressive rehabilitation was being carried out at the

5 rate of a million a year. The licensee at the time put up

6 an argument to the regulator that the bond should be set at

7 the end of mine life cost. The briefing note records that

8 bonds are usually based on an estimate of the worst case

9 liability during the mine life, and that's been confirmed

10 in the evidence before the Board, particularly from AECOM.

11 We note that the Yallourn bond was reduced to 11.4

12 million in 2004. That was done on the basis of a letter

13 which has been produced to the Inquiry, dated 30 July -

14 that should be 2004 in line 2 of 211 of the submissions -

15 and the letter explained that the bond had been set on the

16 basis of the need for further research, interestingly, into

17 final land forms and hydrology and to address

18 uncertainties. The letter said the department would be

19 happy to initiate another rehabilitation bond review and to

20 reduce the contingency allowance once the research has been

21 undertaken and the uncertainties related to final

22 rehabilitation are resolved. We note that whilst there has

23 been no further review, despite the passage of 11 years, it

24 is an indication, or one example, a unique one on the

25 evidence, of the regulator attempting to use the bond to

26 reward past behaviour, encourage future good behaviour and

27 discourage future bad behaviour and they are, of course,

28 some of the principles which have been referred to in the

29 evidence as the 10 KPMG principles, almost elevated to

30 commandments, it would seem.

31 For this reason, we submit the approach is consistent

1 with good regulatory practice and we'll come back to that

2 in our proposed recommendations.

3 We note at 214 and 215 that DEDJTR has published

4 guidelines that set out the regulator's proposed method of

5 regulating the bond system under s.80. Interestingly, the

6 evidence before the Board is to the effect that the way in

7 which the bond system has been administered in relation to

8 the three Latrobe Valley mines is completely at odds with

9 the manner anticipated by the guidelines. We identify a

10 few features of the guidelines at 215 - I won't go through

11 each of them, but some are important - that is a commitment

12 to periodically review bonds to ensure they remain at

13 appropriate levels; to review bonds when a work plan

14 variation is submitted; to calculate bonds to address in

15 full the rehabilitation liability based on the work

16 specified in the plan; to review bonds on the basis of

17 existing rehabilitation liability at the time of the

18 review, and to note that the Minister can require a bond to

19 be reviewed at any time that the amount is considered to be

20 insufficient or where a site inspection indicates

21 insufficient progressive rehabilitation has been done.

22 We note at 216 that on the evidence before the Board,

23 it is entirely unclear why these simple and sensible

24 provisions have not been utilised in relation to the

25 Latrobe Valley mines. It is particularly perplexing given

26 that there have been significant work plan variations

27 submitted and approved during the 20 years since

28 privatisation and none of them have triggered bond reviews.

29 Such variations have been in relation to each of the mines

30 - Hazelwood in 2009, Yallourn 2011 and Loy Yang this year.

31 Further, it is difficult to understand why the

1 rehabilitation liability assessments, with all their

2 inadequacies, why they haven't trigger bond reviews. The

3 department is provided with a document that has side by

4 side the bond amount, 15 million, and the liability

5 assessment - in the case of Hazelwood, 73 million. That

6 alone, one would have thought, might trigger a bond review

7 in line with the guidelines. It hasn't. We submit the gap

8 between even those figures and the current bonds should

9 have been ringing alarm bells to DEDJTR, that the 100

10 per cent protection the current system is meant to provide

11 the state is entirely deficient.

12 One possible explanation before the Board as to this

13 complete failure of the regulator to implement the

14 guidelines is provided by an internal risk assessment

15 performed by the regulator in 2015 and, we note, featuring

16 on the front page of the Latrobe Valley Express yesterday.

17 The assessment considered the risk of a mine licensee

18 refusing to enter into an increased bond. The likelihood

19 of this occurring, that is the licensee refusing to comply

20 with s.80 of the Act, was rated as 50/50; as likely to

21 occur as not. The assessment is part of the project plan

22 which is attached to the first statement of Mr Wilson. We

23 note it was approved by Mr McGowan, who was the head of the

24 regulator, on 3 July this year, that is after the Inquiry's

25 terms of reference were promulgated. There could have been

26 no doubt, on 3 July 2015, that the project plan was likely

27 to be the subject of scrutiny before the Board.

28 In his evidence before the Inquiry, it should be

29 noted that Mr McGowan confirmed that he read the risk

30 assessment before he approved the plan. He pointed out

31 that he also took into account the mitigation measures. He

1 also told the Board, in answer to a question from my

2 learned friend, Mr Attiwill, for the state, that the risks

3 outlined in the document concern risks associated with this

4 project and not matters generally. With respect to

5 Mr McGowan, it is a difficult distinction to understand.

6 The document makes clear that what the regulator was

7 assessing were the risks associated with the implementation

8 of the project, that is, would the licensees cop an

9 increased bond, and the risk that they wouldn't is assessed

10 at 50/50.

11 The failure of the regulator to implement the bond

12 policy in respect of the Latrobe Valley mines in accordance

13 with its own guidelines is all the more perplexing given

14 the evidence before the Board about bond reviews and

15 increases generally in the mining industry. There is a

16 2012 report before the Board, a parliamentary Inquiry, in

17 which it is noted that bonds are periodically reviewed

18 based on risk and amended to match the current liability of

19 the site. The Inquiry goes on to note evidence before it

20 that bonds had been increased some 67 per cent across the

21 board per licence between 2000 and 2010 and we note that

22 during the same period the only adjustment to a bond at

23 three of Victoria's biggest mines was a decrease in the

24 case of Yallourn.

25 The guidelines provide that the department will

26 systematically audit a proportion of the rehabilitation

27 liability self-assessments for quality assurance. There is

28 other evidence before the Board about the importance of

29 audits. However, there is no evidence that there's ever

30 been an audit in relation to the three biggest mines in

31 Victoria.

1 Term of reference 10(b) requires the Board to make an

2 assessment of whether the current bond system is or is

3 likely to be effective, particularly having regard to being

4 one of the measures to promote progressive rehabilitation.

5 We submit, in summary, that it is really asking the wrong

6 question in a way. Bonds can play some role in relation to

7 promoting progressive rehabilitation, especially if one

8 considers that concept as trialling methods for final

9 rehabilitation.

10 And we note at 228 that understood in this way, a

11 properly administered bond system could play a part, among

12 other measures, in encouraging progressive rehabilitation.

13 We note that implementing the guidelines that are there at

14 the moment would be a good start.

15 We submit the Board should caution against the view

16 that a bond system alone can do a great deal to encourage

17 progressive rehabilitation. The evidence of Dr Gillespie

18 is important and one should not try and get a bond to do

19 everything and that different things require different

20 mechanisms.

21 In conclusion, we submit that a properly administered

22 bond system with periodic reviews of bond levels, where

23 they're based on accurate liability assessments prepared

24 under 79A of the Act, can be an effective means by which

25 the regulator encourages and incentivises progressive

26 rehabilitation in the broad sense explained by Ms Unger and

27 we conclude this part of the submissions with a reference

28 to a quote from Ms Unger about bonds and the role that they

29 can play. I won't read that.

30 Conscious of the time, I'll turn to 10(c),

31 Alternative Financial Assurance Mechanisms, which I can

1 deal with briefly. Our primary submission in this regard

2 is that it is premature to consider alternative mechanisms

3 in circumstances where the existing conventional bond

4 system hasn't been properly utilised and implemented, as

5 we've set out above. Having said that, there is one

6 alternative mechanism in the evidence before the Board

7 which is worthy of serious consideration - that is

8 implementing a trust fund which (a), extends beyond the Loy

9 Yang Mine and (b), is brought forward in time. At the

10 moment the Loy Yang complex agreement is a trust fund where

11 contributions are due to commence in 2023, and we have

12 dealt with that at paragraph 235. The advantages of trust

13 funds are set out in 233. I don't read those, but they

14 are, generally speaking, quite obvious, and we submit at

15 238 to the Board that, for the reasons explained in the

16 Accent report, a trust fund based on the Loy Yang complex

17 agreement model, but appropriately adapted so it would

18 apply to all three mines, should be implemented, extending

19 to the three mines and requiring contributions as and from

20 2018. We've chosen that date to bring forward the 2023

21 date, but also to provide some time for the very important

22 consultations that would need to occur between the

23 government and the mines about the precise details.

24 We don't rule out any consideration of alternative

25 mechanisms, but we do note that under the Environment

26 Protection Act, there are alternate mechanisms available

27 which, by and large, have not been used, for the reasons

28 Mr Webb explained, and in summary we caution against change

29 for change's sake.

30 Before leaving this topic, I should briefly note the

31 submissions that I anticipate the Board will hear from the

1 mines about a risk-based approach, that is an approach to

2 setting bonds that takes into account in a real sense the

3 risk of the state being left with the liability and doesn't

4 focus entirely on the amount of the liability, the risk

5 being focused on rather than just the consequence. The

6 approach finds favour in the evidence of Dr Gillespie and

7 we have noted what the relevant risk is. We point out to

8 the Board that there are a number of difficulties, on the

9 evidence, with the regulator implementing such an approach

10 and we've summarised what those problems are at 243 and we

11 say on the evidence before the Board, that the difficulties

12 of doing it outweigh any advantages. Certainly the

13 advantages would only seem to be advantages flowing to the

14 mines and there's not a great deal of advantage in such a

15 mechanism from the point of view of the regulator.

16 If I can turn then to the conclusions that we make,

17 starting at paragraph 244. For the reasons outlined above,

18 we submit the Board should make the following findings in

19 relation to terms of reference 8-10 and also 12. A. The

20 options are a pit lake, fullback fill; partial backfill

21 above the water table; partial backfill below the water

22 table; lined void and rehabilitated void. (B). Filling

23 each of the three mine voids with water to varying degrees

24 will be, based on what is known in 2015, the most viable

25 rehabilitation option for each mine. C. Whether filling

26 one or more of the mine voids with water will be in fact

27 viable at the time the mines close is currently unknown, as

28 it depends on whether solutions are able to be found to the

29 following complex questions and at what cost: (a) can each

30 site be made safe and stable, both during filling and after

31 the preferred water level is reached, (i) so that internal

1 and external site infrastructure and surrounding waterways

2 are not adversely affected and, (ii), so that beneficial

3 use of the pit lake may occur; (b), can the water quality

4 for each lake be ensured; (c), can the quantity of water

5 required for each lake be sourced?

6 In the absence of answers to these questions, the

7 Board is unable to determine, in relation to the pit lake

8 option, the questions asked of it under paragraph 9 of its

9 terms of reference. The Board is unable to take into

10 account the outcome of the Rehabilitation Bond Review

11 Project because the government has not yet completed it.

12 However, the Board is able to take into account the

13 information obtained from those parts of the project which

14 have been completed. F, the purpose of a bond or other

15 type of financial assurance is primarily to provide

16 security to the state in the event that rehabilitation is

17 not done and also to incentivise progressive

18 rehabilitation. G, the rehabilitation liability

19 assessments by the mines do not sufficiently account for

20 the cost of rehabilitation in light of the uncertainties

21 identified above at C, nor the cost of research to resolve

22 the uncertainties. In this sense, they are inadequate.

23 The bond system would be more effective if the regulator

24 conducted periodic reviews of the bond levels of the

25 Latrobe Valley coal mines as required by its published

26 guidelines. Those reviews will be more effective if they

27 are informed by accurate and reliable assessments of the

28 rehabilitation liabilities of each of the mines and to this

29 end we make recommendations about the use of s.79A as the

30 basis.

31 The glass may be half full. The Board has heard

1 evidence that a number of experts are optimistic that with

2 concerted and coordinated effort and advancement in

3 scientific studies, it will be possible in the future to

4 answer the questions the Board is, we presently submit,

5 unable to answer. The evidence included Professor Galvin,

6 who told the Board that we're well ahead of the game now to

7 where we were six to eight years ago in relation to

8 stability questions. He also opined you can engineer

9 anything if you throw enough money at it, and that is

10 reminiscent of Dr Haberfield's evidence. Professor McKay,

11 who said, "I'm confident we'll achieve a solution."

12 Professor Sullivan noted, in his opinion, AGL's started on

13 the journey to progress the state of knowledge and we make

14 reference to Dr Haberfield and Dr McCollough's optimistic

15 observations.

16 In order to maximise the likelihood of answers being

17 found, for the reasons set out above, the Board should find

18 that identifying solutions to these questions requires the

19 matters we have set out in 246, including research,

20 coordination, accountability, transparency, community

21 consultation. For the reasons already explained, the

22 current regulatory system is ill-equipped to solve these

23 complex problems. It is submitted the Board should find

24 that the issues surrounding rehabilitation have been

25 neglected and ignored by the regulator and the mines. The

26 Board should further find that there have been positive

27 signs of improvement, although these good intentions are

28 not being promoted and enhanced by the current system. It

29 is fundamentally important that the problems identified are

30 resolved so that the conceptual plans can, in due course,

31 become operational. This requires reform of existing

1 regulatory arrangements and it is here that the action plan

2 submitted to the Board by the regulator is important.

3 However - and this is a very important observation that we

4 make to the Board - in light of the regulator's past

5 performance, as illustrated in the examples we have set out

6 in these submissions, the commitments in the plan must

7 become embedded through a process of legislative reform,

8 guidelines, increased and improved staffing and cultural

9 change. The Board should recommend that the legislative

10 review referred to in the action plan should consider

11 whether the Act or the regulation should be amended to

12 address the matters that we set out at paragraph 250.

13 At 251 we summarise our recommendations about the use

14 of s.79A, including the timeframes in which the process

15 ought to occur. The starting point is for the regulator to

16 develop the methodology that the Minister can specify under

17 the manner and form requirements.

18 The last topic I want to address is the question of

19 oversight coordination. There is considerable evidence

20 before the Board about the need for some overarching or

21 coordinating mechanism to monitor, review and engage.

22 There is evidence in particular from Ms Cameron, on behalf

23 of Jacobs, about mechanisms that are in place elsewhere

24 that might be able to be adapted for the purposes of the

25 Latrobe Valley coal mines.

26 The Board has also heard of the extraordinary

27 achievements of the agency overseeing the rehabilitation

28 and closure of Germany's coal mines and we note that an

29 enormous engineering and environmental project has been

30 driven and overseen by a joint Federal and State body

31 dedicated to the task. It has spent 10 billion Euros in

1 the process. However, at least at the present time, we

2 submit there is no need for a Victorian equivalent of this

3 agency. This may change as we get closer to the time of

4 closure.

5 For the reasons explained in these submissions, we

6 submit the Board should find that there is a present need

7 for a coordinating structure to exist outside of government

8 which ensures the matters we have set out at 257, including

9 the development of an integrated rehabilitation plan for

10 each of the mines, all of the mines, a matter which we

11 perhaps haven't addressed enough but is identified in the

12 joint expert report as important. We note that there are

13 different models available. We try to summarise relevant

14 considerations. We refer in particular to the concept of

15 having a commissioner for the rehabilitation of Latrobe

16 Valley coal mines at 261. It may be that, just as we don't

17 need a bells and whistles agency, that it may be premature

18 to have a statutory officer of that type. That is a matter

19 for further consideration by the Board.

20 We note at 262 an alternative coordination and

21 oversight mechanism would be to recommend to the government

22 that the period for the Hazelwood Mine Fire Inquiry

23 implementation monitors' role, which is due to end in 2017,

24 be extended at least to 2020 so that Mr Comrie, or whatever

25 holds that role in the future, can oversee the

26 implementation and findings of this aspect of the Inquiry

27 and can adequately monitor them to the standard that has

28 occurred in relation to recommendations from the earlier

29 Inquiry.

30 We finish with a reference to the evidence Ms Unger

31 gave in response to a question from Professor Catford about

1 whether there is cause for optimism. She told the Inquiry

2 there is a place for these recommendations, that is the

3 recommendations through this Inquiry, to have a life.

4 "There is nothing worse than reading other inquiries if

5 something hasn't been followed through." Ms Unger

6 emphasised that, "It is everyone's responsibility to carry

7 this forward. Everyone has a part to play. The more that

8 do get engaged in the issue in a positive way, the more

9 likely you will have a good outcome."

10 This Inquiry is uniquely placed to make findings and

11 recommendations that promote those laudable objectives and

12 they are the submissions on behalf of counsel assisting.

13 CHAIRMAN: Thank you, Mr Rozen. Is it appropriate that we now

14 take a short break?

15 MR ROZEN: I would certainly appreciate it and I'm sure others

16 would, too.

17 (Short adjournment.)

18 MR ATTIWILL: Mr Chairman and Professor Catford, the state

19 acknowledges the Inquiry's important work in investigating

20 the complex issues surrounding rehabilitation of the

21 Latrobe Valley coal mines. The state reopened this Inquiry

22 to investigate the current and potential future options for

23 mine rehabilitation. This Inquiry is an important step in

24 exploring the options for more comprehensive rehabilitation

25 planning and policies. The Inquiry has heard the

26 community's concerns regarding mine regulation and given

27 the community a voice on mining rehabilitation. The state

28 has already begun addressing issues that have been

29 identified in the current mine rehabilitation policies and

30 processes. As you have already heard, the mine regulator,

31 Earth Resources Regulation, has an action plan which

1 outlines the state's vision for a more effective regulator

2 with a designated community advocate. The state is also

3 committed to improving the technical expertise of the

4 regulator. A mine fire safety unit is being established

5 within the regulator to provide advice on fire safety

6 within coal mines. The terms of reference for the

7 Technical Review Board have also been amended to include

8 rehabilitation and, as you have heard, Ms Corinne Unger, a

9 rehabilitation expert, has also been appointed.

10 An external technical expert panel is also being

11 established to provide operational technical advice on mine

12 stability, water and chemical risks. This expert panel

13 will deal with operational advice, allowing the Technical

14 Review Board, or TRB, as it has been referred to, to focus

15 on more strategic advice to the state. The state is also

16 committed to implementing all affirmations and

17 recommendations of the 2014 Hazelwood Mine Fire Inquiry

18 report. Several affirmations and recommendations

19 specifically concern the need to address the risk of mine

20 fire responding to community concerns about potential

21 future events. Government actions to implement these

22 affirmations and recommendations are part of a broader

23 reform policy to improve the regulations of coal mines.

24 In response to the 2014 Inquiry report, the state

25 recently amended the Mineral Resources Sustainable

26 Development Act 1990. One of the purposes of the amending

27 Act was to enable the Minister to set conditions on a

28 licence or extractive work authority for the purposes of

29 eliminating or minimising risks. A new licence condition

30 requires each mine in the Latrobe Valley to produce a risk

31 assessment and management plan, sometimes referred to as a

1 RAMP, which identifies risks to the environment and public

2 safety posed by the mine's operation and the work being

3 done to minimise those risks. The regulator is presently

4 working closely with the Latrobe Valley mines to finalise

5 those RAMPs. The new licence conditions and those RAMPs

6 will improve safety at the three coal mines in the Latrobe

7 Valley for the 2015-2016 summer season and provide

8 assurance to the state and the community, particularly the

9 Latrobe Valley community, that risks are identified and

10 managed in the future.

11 In further response to the 2014 mine fire Inquiry

12 report, the state has also established the Coal Mine

13 Emergency Management Taskforce, led by the Emergency

14 Management Commissioner. That has brought together

15 government departments and agencies with the operators of

16 the Latrobe Valley coal mines. The task force has

17 successfully provided a forum for the determination and

18 coordination of emergency management priorities for the

19 Latrobe Valley. This increased integration has allowed the

20 state to build strong networks between departments and

21 agencies and with the mine operators. The state has

22 recently announced that the task force will be extended

23 until September 2016, which will help provide assurance to

24 the Latrobe Valley communities that the government and the

25 mine operators will continue to work together to address

26 risks over the current summer season.

27 In conclusion, the state is committed to considering

28 all of the Inquiry's recommendations and establishing an

29 appropriate monitoring framework.

30 Mr Chairman and Professor Catford, those are the

31 submissions of the state.

1 CHAIRMAN: Thank you, Mr Attiwill.

2 MS NICHOLS: Mr Chairman and Professor Catford.

3 CHAIRMAN: Yes, Ms Nichols.

4 MS NICHOLS: Environment Victoria intends to provide detailed

5 written submissions, so there are matters of detail that I

6 don't need to go into today. A lot of what we will have to

7 say will echo what counsel assisting has said in their

8 written and oral submissions and I don't need to repeat

9 those, but I will indicate Environment Victoria's position

10 and the basis on which we say the key recommendations we

11 submit the Board ought to make is supported.

12 Before addressing some particular topics, I would

13 like to mention what we say are some overarching themes and

14 issues that ought to inform the Board's consideration of

15 the more technical issues. The first one is really an

16 obvious point, and that is what happens with the Latrobe

17 Valley brown coal mines is an inter-generational issue and

18 it is of very great importance to Victorians. The period

19 of time over which rehabilitation will occur is obviously a

20 very lengthy one, but the reality is that window within

21 which one can make sure that the policy settings are

22 correct and robust is in fact very short. Hazelwood Mine,

23 for example, will close in 11 years, or in 18 years if its

24 licence is extended.

25 The second theme is that in that context there are a

26 number of significant facts to which I will allude which

27 justify the Board making strong and indeed bold

28 recommendations, despite the fact that some of the key

29 issues raised in the Inquiry are complexed, nuanced and

30 highly technical.

31 The third theme is that because of the significant

1 adverse legacy mining operations will leave on the

2 community if rehabilitation is not managed properly, it is

3 appropriate, in our submission, to approach this issue

4 through a conceptual paradigm which accepts that a literal

5 legal licence to extract minerals carries with it a social

6 licence which permits the activity, on the condition that

7 the Victorian community is not left with the risk and

8 burden of rehabilitation at the end. That thinking is

9 evident in the Mineral Resources Sustainable Development

10 Act in the requirement for rehabilitation, including

11 progressively in the requirement for a bond and in the

12 requirement in s.39 for consultation.

13 The next theme is that community engagement has been

14 discussed extensively, including in questions raised by us.

15 We do not submit that the community should control any

16 aspect of the rehabilitation process or indeed that the

17 interests of the mine operator should be disregarded. We

18 do say, however, that what has been missing and what needs

19 to be injected into the process is a means of ensuring

20 equality between stakeholders. We don't mean to say by

21 that that all stakeholders have the same kind of role to

22 play or can make the same kind of contribution or have the

23 same function, but engagement on critical issues at

24 critical junctures must be real and not consist of a

25 one-way dispensing of information from mine to community,

26 and the critical mechanism for ensuring that that occurs

27 properly, we submit, is by the establishment of an

28 independent body. There are also numerous other mechanisms

29 through which that can occur which I will address.

30 The fifth theme is that strong regulation is

31 essential and has been lacking. There are some encouraging

1 indications but history teaches in this area that good

2 intentions and broad commitments are not enough to effect

3 change. They need to be supported by measures that will

4 inject independence, rigour and transparency in mine

5 regulation. We do make some concrete suggestions about

6 this.

7 Finally, there's been quite a lot of discussion in

8 this Inquiry about risk in different contexts and I just

9 want to say some words about that. Risk management

10 processes are now mandatory in regulation, which is to be

11 applauded, but it is instructive to recall the observations

12 of Professor Cliff made in the 2014 Inquiry, which appears

13 at transcript 2087, about the differences between processes

14 in documents and actual risk mitigation. Professor Cliff

15 said this, "Now, controls are actions, barriers that

16 prevent or mitigate the event. They're not things like a

17 piece of paper or a plan. They are a firefighting system,

18 automatic controls, they are evacuation self-contained

19 rescuers. They are things you can identify as being able

20 to control something." It is not submitted that the risk

21 management documents in evidence created by the mine

22 operators do not represent actions that are occurring in

23 the real world. However, it is particularly important for

24 the regulator who is embarking on a risk management-based

25 system of regulation, to be able to critically interrogate

26 what is actually happening with risk control and not to

27 limit itself to a paper system or desktop review process.

28 This calls to mind in a slightly different context the

29 observations of Professor Galvin in relation to the

30 Loy Yang work variation application that the proponent may

31 well have answered the regulator's questions correctly but

1 the questions were meaningless. Processes are, of course,

2 necessary but they are not a substitute for independent

3 scrutiny of rehabilitation work.

4 Next in relation to risk, it must be looked at

5 holistically. Setting the standard of what is an

6 acceptable risk is itself a value judgment. In the context

7 of the bond, we will make the submission that it is not

8 merely a question of economic efficiency and, to the extent

9 that it is, that is a much more complex issue than was

10 presented by the mines in this Inquiry.

11 There was a discussion about risk setting in the

12 context of the rehabilitation expert panel, and I'll just

13 remind the Board of an exchange that took place between

14 Mr Rozen and Dr Haberfield. Mr Rozen said, "At one point I

15 think, by analogy with the road toll setting, there was a

16 question of how much the public is prepared to pay for the

17 level of risk that is present. I suggest to you that in

18 the current setting it is not actually how much the public

19 is prepared to pay, it is how much the mines are prepared

20 to pay, isn't it, that determines the level of risk that

21 the public is exposed to?" Dr Haberfield said this: "For

22 operational it is up to the mines to assess the level of

23 risk but once you go beyond operation, and if this becomes

24 public land, it has to be the risk the public is willing to

25 accept. The mine has gone, so that level of risk to be set

26 some time now so that mine closure can work towards that.

27 It is not for the mine to decide that because the mine

28 might say, 'We are going to put up fences, no-one is

29 allowed in,' the level of risk, no-one is at risk;

30 therefore there is no risk. That might not be acceptable

31 to the final land use. The community might say, 'We want

1 to have access to that land.'" "Does that really point to

2 the importance again of engagement and involving the

3 community in these decisions?" Mr Rozen asked.

4 Dr Haberfield replied, "It points to the importance of

5 including all stakeholders and the community is one of

6 those."

7 The question who decides what is the tolerable level

8 of risk and how that is decided draws together some threads

9 in the evidence in this Inquiry. Carolyn Cameron of Jacobs

10 had this to say at page 15 of her report, "Collaborative

11 planning and research is needed to understand ... (reads)

12 ... and what are appropriate short, medium and long-term

13 risk controls."

14 That is a hard outcome to achieve and we submit the

15 key to it is that the risk question has to be asked

16 iteratively and often in the context of transparency and

17 collaboration.

18 Can I turn now to some specific topics. The first

19 one is regulation and Environment Victoria agrees with

20 counsel assisting that there have been some significant

21 regulatory failures, the most stunning example of which is

22 the failure to review the bond in the 20 years since

23 privatisation. A simple chronology of the events

24 concerning the bond reveals what counsel assisting, in our

25 respectful submission, correctly calls an "egregious

26 failure of regulation".

27 As counsel assisting also point out, there is a very

28 good and clear policy. It is set out simply in the 2010

29 DPI document. There is also a reasonably robust

30 legislative regime. The problem is it just has not been

31 used. It should be enforced. Other regulatory breakdowns

1 include the continued approval of work plans which maintain

2 a high level concept review of rehabilitation. Despite the

3 fact that it is demonstrable that this is an issue of

4 enormous significance which is very complex, it is

5 startling that it could have been ignored for so long by

6 the regulator.

7 On the question of work plans, the approach to the

8 Loy Yang plan is telling. Mr Rieniets thought the plan was

9 good without conditions and there's no reason to suggest

10 that that is not a genuinely-held view. Professor Galvin,

11 of the Technical Review Board, said it was "significantly

12 flawed", and so obviously in some respects that it ought

13 not to have passed a regional office review. It was sent

14 to the Board in a wholly unsatisfactory manner. The result

15 was the imposition of conditions that we accept embody good

16 intentions but leave yawning gaps in the process which has

17 not itself even been developed at this stage. It leaves

18 far too much in the hands of the mine and, as this

19 particular example demonstrates, the mine operators must

20 obviously be involved in the formulation of these plans but

21 they are not the entities who should make the decisions

22 about whether they are rigorous enough. The process must

23 thoroughly scrutinise what is developed by the mines.

24 A next very significant failure has been in relation

25 to water sourcing and I won't add to what counsel assisting

26 has said about that. The simple point is that in

27 regulation, the regulator has to lead. These failures

28 point to the need for independence, technical rigour and

29 transparency that needs to be embedded into the regulatory

30 process. An interesting point here is that whilst it is

31 clearly apparent that the Technical Review Board consists

1 of highly qualified, wise, experienced and truly

2 independent advisors, when plain advice from a body

3 consisting of people of that calibre is ignored, and

4 repeatedly so, one must conclude that there is something

5 about the regulatory process which must be fixed.

6 Counsel assisting have referred to negotiations

7 occurring behind closed doors and cite the example of the

8 change in end of life mine concept for the Loy Yang plant

9 obviously ought to have been the subject of public notice

10 and engagement. I will turn to this. It is not necessary

11 to resort to conspiracy theories or to suggest bad faith,

12 which we do not, to conclude that a regulator can become

13 captive to industry when the regulatory attitude remains

14 lax for a long time and when there are a small number of

15 players in the industry. A telling example of this is the

16 mine management risk analysis in the bond review project,

17 which indicated as a significant risk that the mines would

18 not agree to provide an increased bond. The real solution

19 to that was, of course, that there is power to require it.

20 Having said all of that, Environment Victoria

21 acknowledges that there have been some positive signs of

22 change and applauds the review of the Earth Resource

23 Regulation model and in particular the 2015-2016 action

24 plan. The appointment of a community advocate, an external

25 expert panel and the stakeholder engagement approaches are

26 all very positive developments. As we've said and as

27 counsel assisting has said, those plans and commitments

28 need to be embodied in very concrete processes.

29 What is required, as counsel assisting say, is a step

30 change.

31 Can I turn to the topic of work plans and the need

1 for clear criteria. There is, to state the obvious, a need

2 for work plans to develop clear objectives and criteria and

3 performance standards for regulation. Mr Wilson, for the

4 department, accepted it was a valid criticism by the

5 Technical Review Board that the government had failed to

6 set detailed performance criteria and rather the proponent

7 was left to set them. The evidence of the mine panel was

8 somewhat diverse on this point. Mr Mether said, "We would

9 be happy to have milestones," whereas Mr Faithful and

10 Mr Rieniets considered that they already did. I needn't

11 elaborate now, but in our submission, the milestones in the

12 existing work plans fall woefully short of what is

13 required. The evidence of Ms Unger was compelling on this

14 point, that there needs to be mechanisms, targets, very

15 measurable requirements which are transparent. It is

16 obviously an important point for progressive rehabilitation

17 and it has a connection to the bond. If that is ever to

18 provide a role, an incentivisation role, it can't work

19 unless there are very clear targets which are measurable

20 and the difficulty with the current system, if you take the

21 Loy Yang plant as an example, what is proposed and now

22 required for progressive rehabilitation is simply that a

23 certain number of hectares be rehabilitated by a certain

24 date. There is nothing in the plan about how that is to be

25 done and between dates that span eight years at a time,

26 there are no interim milestones, so that does not work as

27 an effective mechanism. The criteria, obviously, need to

28 be developed by government.

29 In relation to the final concept plan, there are

30 numerous things that need to be taken into account that I

31 needn't elaborate here - stability, water quality and so

1 on - but in relation to community engagement, as Ms Unger

2 said, one needs to get the science right, but one also

3 needs to engage the community, and that can result in a

4 chicken and egg situation because you cannot have the

5 community saying that they want something that is not

6 technically possible. Again, the answer to that is to have

7 an iterative process which is managed by an independent

8 body which ensures a quality of engagement.

9 Mine life concept has to be regularly reviewed once

10 the science has developed and questions asked and put to

11 the community in an engagement educative process so that

12 there can be input once the technical solutions have

13 advanced.

14 On the question of how conditions should actually be

15 managed, Professor Galvin provided the Board, at

16 Exhibit 26, with an example of some conditions imposed in

17 New South Wales under the Environmental Planning and

18 Assessment Act. I won't read those, but I will point out

19 the features of them which are important. They are clear

20 and easy to understand. One of the conditions provides a

21 requirement that the Rehabilitation Management Plan must

22 include a program to monitor, independently audit and

23 report on the effectiveness of measures and progress

24 against detailed performance criteria. Another condition

25 provides that the final void and mine closure plan must be

26 subject to independent review and verified by suitable

27 independent persons whose appointment has been approved by

28 the director-general and so on. I simply mention those to

29 echo the comments of Professor Galvin that regulation in

30 this area is quite considerably behind where it is in other

31 states.

1 On the question of notice of work plans, we are

2 giving consideration to the question of how regulation of

3 that topic might sit with other regulatory regimes in the

4 state. We agree with the observation made by counsel for

5 Loy Yang the other day that the way in which regulatory

6 regimes fit together needs to be considered. We don't

7 consider, however, that that is a topic which is too

8 technical or beyond the reach of this Board and we intend

9 to make some written submissions about it. I think the

10 short point is that where a planning permit is required,

11 which is not the case for these mines, or where there is an

12 environmental effect statement required, there is a process

13 which mandates notice to the public and the opportunity for

14 the public to object and participate and for a review to

15 happen by an independent panel.

16 Mr Wilson's evidence was at a level of generality but

17 it was to the effect that it was intended with the new

18 action plan to allow a process whereby the community would

19 have an input rather than just being told what would

20 happen. We'll make some submissions on how a structure

21 that allows that might sit with the existing regulations in

22 our written submissions.

23 Can I say just a few words about water. Environment

24 Victoria submits that the question of water availability is

25 so uncertain that it genuinely calls into question whether

26 the pit water body solutions are really the only viable end

27 concepts. We accept, as counsel assisting say, that one

28 must start somewhere but, unfortunately, that is of itself

29 a very unstable starting point. Dr Davis told the Board

30 that the issues to consider in relation to the provision of

31 such a large quantity of water relating to diversions

1 included social amenity and landscape values, environmental

2 impacts and the fact that the Latrobe Valley water system

3 is fully allocated. There would also be impacts on

4 off-site users to consider and Dr Davis agreed that

5 downstream users should be consulted.

6 Mr Rodda said that climate change was one of Southern

7 Rural Waters' top risks and that, as climate change impacts

8 further, Southern Regional Water expected that there would

9 be reduced water sources. All of these things are fairly

10 obvious statements and they're acknowledged in the SWS.

11 Mr Mether acknowledged that there would be a certain amount

12 of expectation that climate change would bring more severe

13 weather events and this may result in less water overall.

14 Environment Victoria submits that the Board should

15 make recommendations in relation to the availability of

16 water along these lines: first, action 6.8 of the

17 Gippsland regional sustainable water strategy be fully

18 implemented with annual public reporting that focuses

19 specifically on the progress made on this action. Next, as

20 an extension of the implementation action 6.8, Delfin

21 Regional Water Authority should carry out an assessment of

22 possible scenarios for filling the mine pits with water.

23 Next, that those scenarios should include different rates

24 for filling pits and using different sources of water.

25 Next, the assessments should include the impacts on water

26 quality and quantity as it affects the environment,

27 including ultimate outflow at the Gippsland lakes,

28 downstream consumptive users and the catchment generally.

29 Further, that the effects of climate change on water

30 availability should also be assessed in this context,

31 including possible changes in water demand within the

1 catchment as water availability changes in other parts of

2 the state. Part of that process should involve

3 consultation with affected parties, obviously, and relevant

4 stakeholders. The outcome of the assessment should, in our

5 submission, be included in the annual report on progress

6 towards completion of action 6.8.

7 There's been mention of the cost of acquiring water

8 on the open market. That is not a fact which is in

9 evidence, but that's obviously a consideration which needs

10 to be taken into account in future assessment of

11 rehabilitation costs. This is not a subject which was able

12 to be explored in great detail, given the limited time the

13 Board has, but this issue is not just a matter of rolling

14 over licences or even being able to pay for it. There are

15 significant environmental considerations which relate to

16 the very availability of water. We submit that the Board

17 should recommend that DELWP and the water authorities cost

18 each scenario on the basis of market rates for water

19 because that may become necessary if indeed it is possible.

20 Can I turn now to the question of the role of an

21 independent body. There is, of course, in our submission,

22 as counsel assisting submit, a need for an independent body

23 and we say the purpose of which is to inject independence,

24 transparency and accountability into the regulation of

25 rehabilitation, of course without duplicating the work of

26 the regulator, and its purpose should also be to facilitate

27 stakeholder engagement. We accept it may ultimately be the

28 case that that body is separate from and has different

29 functions from a technical advisory body, which, as counsel

30 assisting say, may be itself separate from the Technical

31 Review Board. I don't intend now to make detailed

1 submissions about what the structure should look like, we

2 simply say this: it is critical that the body be

3 independent of government. It is also critical, in our

4 submission, that it have clear legislative support. We

5 note the evidence of Carolyn Cameron that different

6 structures might be appropriate at different stages, but

7 the problem with a self-governing model is that very

8 quickly one will get to the position where different

9 stakeholders have very different views and there is a need

10 for very rigorous coordination which, we submit, a

11 self-governing body will not be able to undertake properly.

12 The new body should have, as a critical requirement,

13 expertise in facilitating effective community involvement.

14 It is clear from the evidence that proper community

15 engagement and stakeholder participation - which is a bit

16 of a different thing from consultation - it is not to say

17 that there is not a role for the mines to dispense

18 information or to consult, but what I started with was the

19 notion there should be a quality of participation and that

20 is going to require some expertise. It is also going to

21 require an understanding of the iterative process by which

22 the end of mine life concept is developed and it is

23 necessary to hold in tension a number of things, 1, that

24 science is developing and the understanding of what is

25 possible and appropriate will change and develop; 2, there

26 are needs that the mine operators have to accommodate; 3,

27 there is evolving and changing community expectations. It

28 is going to require some special skill to engage all of

29 those three and to do it on a continued basis, and that is

30 a role that the new body should take on in a very

31 substantial way, in our submission.

1 It is clear that a critical element in this is who is

2 in charge of it and the Board has seen some examples of

3 some particularly outstanding leadership and I don't really

4 need to mention who they are, but I think it is obvious.

5 If the right people are appointed to lead the body, it will

6 work out.

7 Can I make a submission about why we say Coal

8 Resources Victoria is not the appropriate body. The

9 evidence is clear that trust is needed and in particular

10 the trust of the community, and that will encounter

11 difficulty if Coal Resources Victoria is appointed because,

12 as the documents attached to the witness statements show,

13 Coal Resources Victoria's main objective is to develop the

14 coal resource, and that is not consistent with starting

15 from a neutral position and developing good rehabilitation

16 outcomes. Mr Wilson said in evidence that it would be

17 challenging for CRV to play an arm's length coordination

18 role because it was set up with the objective that relates

19 to coal development and has never had a mandate to do other

20 work.

21 Can I make some comments now in relation to the bond.

22 It is obvious that presently the state is exposed to the

23 massive shortfall between the level of the bonds and the

24 likely cost of rehabilitation, whatever that might be. The

25 current bonds do not comply with existing Victorian policy,

26 which has not been enforced. It was accepted without demur

27 by Mr Wilson the purpose of the bond policy is to protect

28 the state from liability in the event of default and that

29 the best way - sorry, I'll restate that. That was accepted

30 by Mr Wilson and that is to be calculated on a worst case

31 basis under the existing policy. To put this policy in

1 context, Mr Cramer points out at p.15 of his report that in

2 the other states in Australia, with one notable exception,

3 financial assurance to 100 per cent is required in the form

4 of an unconditional guarantee or cash. That applies in the

5 Northern Territory, in New South Wales, in South Australia

6 and Tasmania. Western Australia has a very different

7 system, which is discussed by Mr Cramer and it has a number

8 of flaws which I needn't go to. It really involves

9 cross-subsidies and that has the issues that Mr Cramer

10 adverts to.

11 Queensland is a different model. It does require 100

12 per cent financial assurance in the form of an

13 unconditional guarantee, but it has a discount system of up

14 to 30 per cent on meeting financial compliance and

15 rehabilitation criteria. Mr Cramer points out at page 18

16 of his report that in 2013 the Queensland audit office

17 prepared a report on the environmental regulation of the

18 resources sector and found that financial assurance was

19 often insufficient to cover the costs of rehabilitation.

20 Where it was insufficient, the regulator was reluctant to

21 take action. There was little evidence of progressive

22 rehabilitation occurring in Queensland and, as a result,

23 successful environmental rehabilitation was not occurring

24 and the state remained exposed to unnecessary and

25 unacceptable financial risks.

26 We would submit that the fact that the Northern

27 Territory, New South Wales, South Australia and Tasmania

28 have in place the requirement that there be 100 per cent

29 financial assurance is an important consideration for this

30 board.

31 On this issue there is the question of values, which

1 was explored in evidence with Dr Gillespie. The current

2 policy reflects a value which, in my submission, may be

3 related to the idea of a social licence, that the cost of

4 mining licence is that the state not be left with any risk,

5 or minimal risk, and that would be the case if the bond

6 policy was enforced.

7 What has been put by the mine operators is that risks

8 should be assessed in relation to the question of whether

9 in fact the state will be left holding the risk at the end

10 of the day by reference to economic efficiency

11 considerations. We say at the outset, and it is an obvious

12 point, that economic efficiency is only one criterion. It

13 is common place in public policy analysis for that to

14 dominate, but it is only one consideration.

15 Another value is the one I have mentioned, that there

16 should be a very high standard of protection that the state

17 has as a requirement for granting the licence, and it is

18 interesting to note that the requirement to have a very

19 high standard of protection can be evidenced in a couple of

20 areas. One may be the lack of interest in inviting a

21 risk-based assessment process at all. It might also be

22 seen in the kind of certainty that the state requires in

23 relation to the assessment of rehabilitation costs.

24 Accepting a probabilistic assessment with a P-value of 95

25 might reflect a values-driven policy which is that the

26 state should not be left with any significant degree of

27 risk. Our submission is that the Board should not

28 uncritically accept the submission that economic efficiency

29 considerations are paramount or dominant.

30 A good deal of reference has been made to the KPMG

31 paper, which is a useful document. We simply note that

1 that was a document prepared after some consultation

2 between a handful of department and government

3 representatives consulting over a few days with a private

4 consultant, with no disrespect to KPMG, which is a

5 reputable consultant, but as the document shows, there were

6 no community representatives at that forum expressing a

7 different set of values or any concerns that economic

8 efficiency values should not dominate. That is not to say

9 that those considerations are always irrelevant, but the

10 real problem here is that risk assessment, if it is to

11 figure in any revised policy, one, needs to be holistic

12 and, two, is a lot more nuanced and complex than was

13 suggested by the evidence proposed by the mines.

14 Mr Wilson agreed that, in the context of bonds, it is

15 difficult to employ a risk management framework because it

16 is difficult to calculate the risk with any degree of

17 certainty, and that is a real threshold issue for this

18 question. Mr Wilson said that treasury would be interested

19 in the question about what kind of exposure the state was

20 taking on in relation to entities that have overseas parent

21 companies. There is certainly a need for transparency

22 around any mechanisms that would require the state to rely

23 on the assets of other entities, and even when the assets

24 put forward are held by the operator there is a need for

25 transparency and there is a need for continued monitoring

26 of that and, as Mr Wilson acknowledged, the state would

27 have to take on or have access to relevant expertise and

28 that adds transaction costs.

29 In our submission the lack of transparency, the

30 opacity of some of the financial structures which are in

31 evidence, the need for the state to become an expert in

1 monitoring this and transaction costs all point to the

2 undesirability of the risk-based model.

3 It has also been accepted in evidence by Mr Wilson

4 and also by Dr Gillespie that external risk factors may

5 well affect either the profitability or the lifespan of the

6 mines, and we have made reference in the evidence to

7 climate change policies, renewable energy targets and the

8 like. This evidence is at a fairly general level, but in

9 my submission it is sufficient for the Board to take note

10 that it has been accepted that policies of that kind may

11 well change settings in a way that is quite dramatic and in

12 a short period of time.

13 It was suggested in Dr Gillespie's evidence, and in a

14 question put to him by Ms Doyle, that planned and managed

15 closure might avoid those risks altogether, but the simple

16 point is the regulators cannot know with any certainty,

17 when predicting what that risk might mean to the state,

18 exactly how those policy settings might apply. True it is

19 that one branch of government might inform another, but

20 that doesn't always occur and changes might happen at the

21 Commonwealth level which will impact the way the state

22 proceeds. It would be much simpler and certainly, as

23 Mr Cramer's evidence points out, significantly more secure

24 and removing of risk if the existing system was maintained,

25 and I'll say a word about structure in a moment.

26 What was proposed in Dr Gillespie's evidence, and

27 that of Mr Rieniets', which was proffered to support it,

28 was an economic efficiency model which took into account

29 benefits accruing to the state in a very narrow way and

30 costs occurring to the mines and, as Dr Gillespie agreed

31 and is obvious, the two things that are taken in opposition

1 in that model are public benefits and private costs. As

2 Dr Gillespie agreed, the calculations that one would have

3 to engage in are in fact more numerous and more complex.

4 He acknowledged that opportunity costs need to be taken

5 into account on both sides, as do transaction costs. What

6 was put forward as, in my suggestion, intended to convey at

7 least the notion that there is little risk to the state in

8 the current arrangement simply can't be accepted as

9 evidence of that proposition, and Mr Gillespie accepted

10 that, including because all of the numbers in that model

11 were, in his words, artificial, and because the assumptions

12 input into that calculation were not demonstrably

13 justified.

14 Furthermore, the type of calculation leading to a

15 consequence outcome that Dr Gillespie did was simply not

16 correct. In this connection, the question of moral hazard

17 is a really important one. If the Board is to engage in a

18 consideration of economic efficiency as an aspect of policy

19 development, moral hazard obviously figures because if

20 there is a very low level bond or a low level bond that is

21 less than or considerably less than the potential

22 rehabilitation liability, then there is an incentive on the

23 mine operators to take the risk of not complying, and that

24 is a fairly basic economic proposition and it is important

25 in policy making and it should be considered here and one

26 need only look at the figures in Dr Gillespie or

27 Mr Rieniets' chart, even though they've accepted that

28 they're only illustrative, to look at the great disparity

29 between bond liability and rehabilitation cost to see that

30 there is a very fundamental problem with lack of incentive

31 to comply, and this is raised as an important issue where

1 the other elements of regulation are likely to be lax.

2 We're submitting that there needs to be all manner of

3 improvements to make regulation more vigorous, but where in

4 this state there is a history of, frankly, lax regulation,

5 it would be bad policy, in our submission, to allow an

6 economic efficiency argument to set the bond at a low level

7 because incentivisation to comply is very significantly

8 important when the regulator has demonstrated a lack of

9 willingness to enforce the law strictly or in a timely

10 manner.

11 Any risk-based model would obviously need to take

12 account of the potential for early closure, for all the

13 reasons we have mentioned; the nature of the structures

14 involved, the opacity involved in them; the need to

15 consider public opportunity costs, and transaction costs,

16 all of which are very uncertain as we speak.

17 In relation to whether discounts for progressive

18 rehabilitation should be allowed in the bond model, that

19 should be approached cautiously in the current environment

20 of the nature of the work plans and the way they're

21 enforced. It is an obvious (indistinct) Mr Wilson agreed,

22 that you need very clear milestones, they have to be

23 transparent and they have to be rigorously and

24 independently assessed in order to provide a proper basis

25 for any discount. Looking at it from another perspective,

26 to the extent that the Board is considering the extent of

27 risk involved in the current system or the lack of

28 enforcement of the current system, it can't reasonably be

29 said that one can come to a conclusion about a low level of

30 risk because one can be sure that the mines will

31 progressively rehabilitate. That is not a reliable

1 assumption in the present climate because the targets and

2 the requirements are too vague.

3 In relation to the mechanism for the bond, obviously

4 it should be reviewed regularly in light of changes to the

5 work plans and with the receipt of new information pursuant

6 to new conditions. On the mechanism more generally, we

7 support counsel assisting's submissions on the utility of

8 s.79A for the purposes of making assessments of the level

9 of the bond. More broadly, cash deposits or bank

10 guarantees are obviously very secure and for that reason

11 are appropriate. We agree with counsel assisting that the

12 Loy Yang model of a trust is a very good one and we also

13 agree with counsel assisting's submissions about the

14 timeframe within which that could be introduced in the

15 Latrobe Valley mines.

16 If we pause for a moment and reflect on the fact that

17 in the Loy Yang model it is intended to have 100 per cent

18 of the rehabilitation costs within 10 years before

19 anticipated closure, if that was applied to Hazelwood and

20 Yallourn now, a very large contribution would have to be

21 made in a very short period of time.

22 Environment Victoria also submits that the Board

23 should consider a post-closure trust fund for maintenance

24 and monitoring costs which are expected to be very

25 significant. A separate instrument for the period of time

26 when the current entities are not likely to be around, in

27 our submission, makes a lot of sense.

28 Can I say something finally just briefly - those are

29 our submissions on the bond - Professor Catford, you asked

30 a question, I think last week, about the roles of the

31 Commonwealth. We will address this in our written

1 submissions, but I thought I should mention it now because

2 it is something that's, frankly, occurred to us after we

3 had the opportunity to put this to any witnesses and it is

4 really just a legal point. It has occurred to us that the

5 Commonwealth Environment Protection and Biodiversity

6 Conservation Act 1999 might have a role to play. Under

7 that Act, s.24D makes it an offence to undertake an action

8 if the action is part of a large coal mining development

9 and will have a significant impact on water resources. So

10 this is really a point about water and it is an offence

11 under that Act to take actions unless the action has been

12 approved by the Minister for the Environment, and in our

13 submission, for reasons which I will develop in writing, it

14 seems to us likely that that provision would apply to the

15 filling of the mines if the pit lake option were adopted

16 because it would fall within the definition of the Act and

17 the pit lake filling will have a significant impact on

18 water resources, so that regime may well become relevant.

19 There is a provision in it for agreements between state and

20 Commonwealth Governments and I won't elaborate on it now

21 but I wanted to mention it just to put other people on

22 notice of it. There is also provision relating to actions

23 that will have a significant impact on wetlands of

24 international importance and we do have one of those in the

25 form of the Gippsland lakes and if access to water by the

26 mines for the purpose of rehabilitation affects the

27 Gippsland lakes, that provision will become relevant as

28 well. Those are our submissions.

29 CHAIRMAN: Thank you, Ms Nichols. Yes, Ms Doyle.

30 MS DOYLE: If the Board pleases, we have a document that we'll

31 just hand out now and I gather it is also going to be made

1 available on the screen. I'll wait for that to be handed

2 out because I'll be directing my remarks to the topics set

3 out in that document.

4 If the Board pleases, this document is an outline of

5 our oral submissions and I'll be expanding upon it, but

6 what you'll see from this document is that we have

7 addressed the topics arising from the terms of reference

8 and the evidence adduced in these hearings by reference to

9 28 questions and we've set out the questions under a number

10 of topics and, of course, under each question in red we

11 give a very short answer, in some cases quite a terse

12 answer, but I hope to develop those answers in more depth

13 during these oral submissions.

14 The first question we pose is the following: is the

15 system broken and does it need fixing? In brief terms, we

16 say the system is not broken because many of the proposals,

17 suggestions and issues that arose during these hearings for

18 future action or even improvements, are capable of being

19 achieved within the existing statutory framework. Why do

20 we say that?

21 Without reciting long tracts from the Act, it is

22 worth bearing in mind that if one goes back to the Mineral

23 Resources Sustainable Development Act and looks at the

24 provisions, including the provisions which set out the

25 principles of sustainable development - those are captured

26 in s.2A - it is instructive because what one sees is that

27 many of the matters which have been traversed in these

28 hearings are already captured in the provisions, in the Act

29 and in its supporting registry scheme, and informed by the

30 principles set out in s.2A. To recap on a couple of the

31 principles set out in the Act which one is required to have

1 regard to in interpreting any particular provision of it,

2 they include community wellbeing and welfare. They include

3 the recognition of a need to develop a strong, growing,

4 diversified and internationally competitive economy which

5 can enhance the capacity for environmental protection.

6 There are other principles which also refer to the need to

7 look at measures which are cost effective and flexible

8 which are not disproportionate to the issues being

9 addressed. The principles also speak of balancing long and

10 short-term economic goals; environmental, social and equity

11 considerations and so on. What one also finds when one

12 goes to the Act and the regulations is that they already

13 capture the following regulatory tools and levers: there

14 are conditions imposed on mining licences, including

15 conditions with respect to rehabilitation - I'm referring

16 here to s.26 of the Act. There is an ability on the part

17 of the Minister to vary conditions, see s.34. There is a

18 requirement that work plans be lodged with the department,

19 s.40. The work plans must include a rehabilitation plan.

20 Section 39 provides that work can only be carried out in

21 accordance with those plans. Section 79 contains specific

22 provisions concerning rehabilitation within those plans.

23 There are mine stability requirements. The Board will

24 recall that the experts agreed stability is a paramount

25 concern with respect to these mines, but that is a matter

26 that has been recognised by the law makers. It is housed

27 in s.40(3) of the Act and, of course, Part II of Schedule

28 15 to the regulations. Together, that suite of provisions

29 requires declared mines to include prescribed mine

30 stability requirements in their work plans. The

31 requirements to rehabilitate are also echoed in s.78 of the

1 Act, which requires the holder of any mining licence to

2 rehabilitate land in accordance with their rehabilitation

3 plan as approved and then there is a regime for dealing

4 with assessment of rehabilitation liability or the bond

5 provisions, as we've been calling them in these hearings,

6 and those are encapsulated in s.79A and s.80. Of course,

7 ultimately there is the power on the part of the Minister

8 to take any necessary action to rehabilitate the land, and

9 that is to be found in s.83 of the Act. An obligation to

10 consult with the community is also enshrined in s.39A of

11 the Act. It is worth recalling those principles and those

12 regulatory tools and it is in light of those that we make

13 the comment we make in our short answer to question 1.

14 Yes, the regime, the architecture is there. Yes, it is

15 also the case that better coordination between the

16 department, the mine operators and other relevant agencies,

17 which may alter from time to time, but in terms of the

18 evidence that's been adduced in these hearings, it appears

19 as though it will often be relevant to coordinate and

20 consult with water authorities, local government, on

21 occasions the EPA and, on occasions, the CFA and VicRoads.

22 Those things would be desirable.

23 The other thing that would be desirable is a clearer

24 statement by the department of the standards which it will

25 apply in light of the overarching regulatory regime and the

26 timeliness with which it will do so.

27 Now, in that context, we agree with counsel assisting

28 that the action plan, which has been mentioned a number of

29 times this morning, Exhibit 37, is a useful first step.

30 We're perhaps not as enamoured by it as counsel assisting

31 appear to be, just in the sense that it is only a first

1 step. It rehearses a number of themes or objectives, which

2 appear laudable, such as enunciating roles with clarity,

3 building capacity, devising risk-based strategies,

4 developing a compliance strategy and the like, but the

5 suggestion that those matters form part of an action plan

6 in 2015 is curious and one would have thought that those

7 things would already be well under way. In any event, they

8 are a useful first step in terms of the matter we raise in

9 point (b), namely, a clearer statement of these standards

10 and some sort of indication of the manner in which and

11 timeliness with which they'll be implemented will assist

12 everybody who is working in this arena.

13 The second question we ask relates to the plan for

14 the final rehabilitation of the Hazelwood Mine. The answer

15 is brief, you'll see. The plan is the slopes will be

16 reshaped and the mine will be flooded to form a pit lake.

17 Now, there is a body of science that sits under that short

18 answer. The Board will recall that Mr Faithful's statement

19 contains a good body of detailed information and annexures

20 which are relevant to answering this question. In

21 particular, the concept master plan is set out in figure 8

22 of his statement, just below paragraph 118, and also in

23 annexure 11. A great deal of the answer to the question

24 also lies in the work plan of 2009 and will also be housed

25 in the 2016 variation to that plan, which is anticipated to

26 be lodged next year. A good deal of the science is also

27 traversed in technical reports and research documents, many

28 of which are described or attached to Mr Faithful's

29 statement and the most important of which is probably the

30 GHD water modelling report, which is also annexure to his

31 statement.

1 At question 3 we ask, "How do we know the final

2 rehabilitation plan will be implemented by the operator of

3 the mine?" We say in short terms one can be confident it

4 will be implemented because of one of the regulatory tools

5 that I referred to at the outset. GDFSAE is bound by

6 licence conditions which require work to be undertaken in

7 accordance with its rehabilitation plan, which is, of

8 course, part of its work plan. But in addition, the mine

9 operator is, and has been for many years, undertaking

10 progressive rehabilitation in accordance with that plan and

11 will continue to do so.

12 Further, and this matter is something we'll develop

13 in the context of bond policy, the mine operator is part of

14 a corporate structure with credit and credibility. It is

15 for that reason that, in the context of bond policy, it is

16 submitted that there is a very low risk of default, and

17 I'll go on to talk more later about this notion of risk and

18 what default might entail.

19 The fourth question that we ask is whether the final

20 rehabilitation plan with respect to this mine, which

21 involves achieving a final land form of a pit lake in the

22 mine void, is feasible or, to use language sometimes

23 employed by the expert panel, safe and stable, in relation

24 to the Hazelwood Mine. The short answer is yes, the

25 experts agree that the approved final rehabilitation plan

26 for Hazelwood Mine, namely a pit lake, is feasible and is

27 the most well developed plan for the end of this mine. I

28 remind the Board that the joint report which was, of

29 course, the product of a conclave or a meeting of all of

30 the experts, the joint report answers questions 4(a) and

31 4(b) in the affirmative. Those are the two questions which

1 best echo the short question we have asked here. In

2 indicating their consensus, the six experts agreed that the

3 mine's current rehabilitation plan generally aligns with

4 the Jacobs' option of a partial backfill below the water

5 table level. It is in this context that we suggest that

6 the submissions made by counsel assisting at paragraphs 1

7 and 8 of their document are overly pessimistic. To remind

8 the Board, in paragraph 1, counsel assisting suggested that

9 presently there is no scientific answer about how exactly

10 these plans might be implemented in order to ensure pit

11 stability and water quality at closure and into the future,

12 and in paragraph 8 counsel assisting suggested that there

13 needed to be a redesign and, "If this were not done, the

14 state would likely be left in perpetuity with huge,

15 dangerous, unsightly and expensive voids to look after and

16 that the communities of the Latrobe Valley would suffer the

17 result." We say that is pessimistic hyperbole in

18 circumstances where the experts who were tasked with this

19 very question of considering the documentation available,

20 principally the work plans for each of the mines, and

21 applying their expertise to these questions all answered in

22 the affirmative. In that regard I refer also, of course,

23 to the Jacobs report, which developed in more detail a

24 feasibility assessment of these plans. Dr Haberfield

25 agreed in his own report that the approved final

26 rehabilitation model constitutes a feasible and appropriate

27 model from the perspective of achieving a safe and stable

28 land form and returning the mine to a condition which will

29 enable future beneficial use. Dr McCollough expressed the

30 same sentiments in his report, noting that a dry void

31 option should be regarded as impracticable and wholly

1 unreasonable.

2 We note that during the oral evidence, the occasion

3 on which the expert panel convened in these hearings, there

4 was an alternative suggestion raised by Professor Galvin

5 that there might be an alternative feasible land form,

6 namely to continue to pump water from a dry void in

7 perpetuity, but we do not, as counsel assisting appear to

8 do, give that any weight. Professor Galvin did not express

9 such a caveat on his opinion when he signed the joint

10 report and when he answered questions 4(a) and 4(b). It

11 was not clear in the end whether this was really raised by

12 him as a serious proposition in the context of these three

13 mines. Whether it was seriously put or not, it was howled

14 down, to put it frankly, by all the other experts, his

15 colleagues on the panel, and it was in that context that

16 Professor McKay, at transcript 450.28, said, "I am a great

17 believer that we will end up in a lake system and I am, as

18 a hydro geologist ... (reads) ... you can actually minimise

19 the risk of movement."

20 I note in similar vein Dr McCollough, when this

21 alternative of the dry void pumped in perpetuity was

22 raised, said it was conceivable but ultimately very

23 unlikely that any other land form would be feasible.

24 Indeed, in light of his experience in other parts of

25 Australia and overseas with these sorts of pit lakes, he

26 said he was yet to find an options analysis that found that

27 pumping in perpetuity yields better outcomes. It was in

28 this context that a comment made by Dr Haberfield, which

29 has received some airplay, was also made, but it is an

30 instructive comment because Dr Haberfield said, "I'm going

31 to be a little bit arrogant here. We're engineers and our

1 job is to ... (reads) ... the best solution I can think of

2 is a lowered land form with a pit lake."

3 It is in light of evidence such as that, but

4 principally in light of the fact that the experts all

5 signed the joint written report, a task they must have

6 taken seriously and a task to which they devoted their

7 joint deliberations, that we confidently answer question 4

8 "yes".

9 Question 5 deals with some matters that received some

10 attention during the evidence pertaining to three different

11 aspects of modes in which one might tackle the task of

12 rehabilitation. In brief form, you'll see the answers we

13 give to question 5. 5(a) pertains to the depth of

14 overburden cover that might be required and we submit that

15 at this stage the best scientific evidence available

16 confirms that one metre coverage on rehabilitated slopes

17 will suffice, and I will develop that in a moment.

18 Question (b) relates to whether there will be a requirement

19 for rip rap to be installed around the internal lake rim.

20 We say the evidence on balance, at the conclusion of the

21 expert panel, was no. The experts who had given this

22 detailed consideration, principally Drs Haberfield and

23 McCollough, said that it was not necessary; said that they

24 had not ever seen it done and did not expect it would need

25 to be done. One other matter which, in the end, may not be

26 as significant because it was a matter raised only in the

27 Jacobs costings, was the question of whether there will be

28 a need for a drain to be installed around the external lake

29 perimeter and we say the evidence there was even clearer.

30 Dr McCollough and Dr Haberfield were adamant not only would

31 it not be necessary but would itself pose a stability

1 danger to the final land form.

2 Can I go back to 5(a) and just develop that very

3 briefly. This question arises because of an assumption

4 made in the costings presented by the Jacobs team and we

5 submit it is rightly described as an assumption because

6 Mr Spiers agreed in evidence, when he was on the expert

7 panel, at transcript page 502, "We really didn't know the

8 right answer, so we went for a conservative depth that we

9 thought was safe to achieve the outcome." We cavil with

10 the proposition that that is, therefore, the correct

11 approach, and insofar as counsel assisting suggest that at

12 paragraph 41 of their submissions, we disagree.

13 Dr Haberfield's report reveals that he gave this question

14 consideration. He went so far as to call an expert at the

15 CSIRO to ask whether there were studies in this area and

16 was told there was no study which suggested that any

17 particular depth was necessary in the circumstances, and I

18 might say that Professor Sullivan also agreed that it is

19 too early to talk about layer thickness at this stage. But

20 Dr Haberfield then said that one ought to look at that in

21 the context of what has been working and what is known. He

22 also looked at it in the context of what he knows in terms

23 of erosion, likelihood of particular types of clay to crack

24 and the like, and on balance, in light of that, he formed

25 the view which he expresses in his expert report, that up

26 to one metre coverage appears to be sufficient to do the

27 job and to raise no other stability concerns.

28 Mr Faithful's evidence accorded with this, in the

29 sense that he said the practical experience of those

30 working at the mine over a number of years is that one

31 metre cover has performed well and held up to risks and,

1 indeed, as he agreed, perhaps the most significant

2 practical experiment, although unwanted at the time, but

3 the most significant practical experiment which has been

4 conducted is the way in which the coalface has responded to

5 the fire last year and, of course, during that fire it was

6 observed that slopes rehabilitated in accordance with the

7 one depth cover method did not burn.

8 I will touch briefly on the rip rap question. It is,

9 of course, no part of the current work plan at Hazelwood to

10 install rip rap in the pit lake. Equally, it is accepted

11 if future erosion studies suggest there is a need for it,

12 the work plan might change, but it is significant that

13 Dr McCollough and Dr Haberfield gave evidence, in the case

14 of Dr Haberfield in his report, but in both cases during

15 their time on the expert panel, that it was not necessary.

16 Indeed, Dr McCollough said at transcript page 527 that he'd

17 never seen it used in a pit lake, it is not required in

18 natural lakes and he would never advise it. Dr Haberfield

19 also pointed to the significant diminution in amenity that

20 those sorts of structures lend to artificial lakes.

21 As to the installation of a drain question, I pause

22 here only to say that Dr Haberfield described it as

23 ill-advised, it being a manner of concentrating water near

24 the top of the lake, see transcript page 509, and

25 Dr McCollough saying he had never seen it used and regarded

26 it as ill-advised, transcript page 510. As I say, those

27 matters are important, (a), to the way in which

28 rehabilitation is undertaken, but, (b), later in our

29 submissions, to the way in which adopting an erroneous

30 assumption, in our submission, can skew the costings, which

31 have received so much attention in these proceedings.

1 I turn to question 6: "Is further study or work

2 required along the path to rehabilitation?" Of course. It

3 is accepted. We see what the authors of the joint report

4 said at paragraph 8. They said there's a significant body

5 of work that needs to be completed, reviewed and

6 synthesised. There's been no suggestion that Hazelwood

7 Mine is not presently undertaking that work - see, for

8 example, the GHD water modelling report attached to

9 Mr Faithful's statement. Nor can there be any suggestion

10 that the operator of the mine will not continue to progress

11 those types of research. As Mr Faithful said, he'd only

12 had a very short time to look at the particular project

13 suggested by Dr McCollough, but he said, "I intend to sit

14 down with Clint and go through the list." In those

15 circumstances, it can only be expected that, as and when

16 required, the work will be commissioned, the work will be

17 done and the results of those researches will be analysed

18 and implemented.

19 I turn to question 7, progressive rehabilitation.

20 First, we submit it is important to ask one's self what the

21 purposes of progressive rehabilitation are, and in our

22 brief answer we suggest two of those. The first is to

23 restore the condition of the land, the land which has been

24 disturbed during the operation of the mine, to restore it

25 so far as is practicable where it is no longer required for

26 the mine's ongoing operations. Pausing there, the Board

27 will remember having heard Mr Faithful's evidence about the

28 way in which retreat mining principles work, namely, that

29 as one completes work in a particular domain of the mine or

30 on a particular batter, it then becomes possible to move

31 infrastructure, if you like, in a direction around the mine

1 which enables it to be used more efficiently as the shape

2 of the mine changes, but also to free up areas for

3 progressive rehabilitation.

4 The other purpose we point to in our answer to

5 question 7 is to ensure that work necessary to be done as

6 part of the final rehabilitation plan is done

7 progressively, again so far as is practicable in line with

8 practical constraints, including ongoing operations but

9 also the availability of overburden.

10 We note, and it is accepted, that progressive

11 rehabilitation also has a very useful by-product. When

12 done, it has the potential to mitigate fire risk in exposed

13 coal during the operational phase of the rest of the mine,

14 but, of course, that species of rehabilitation is only one

15 of a raft of available control measures in terms of fire

16 risk mitigation and fire preparedness. I won't detail all

17 of those now, and a lot of time was spent on them in the

18 first phase of this Inquiry, but they include the fire

19 services network spread throughout the mine, and of course

20 the training and preparedness of those who work at the mine

21 to deal with any fire risk and any ultimate fire if it

22 emerges.

23 In the context of progressive rehabilitation, can I

24 go to the comments made by counsel assisting in paragraphs

25 101, 102 and 106 of their submissions. We're confused by

26 the suggestion in paragraph 101 that there is available a

27 narrow definition, perhaps as opposed to a broader

28 definition, of what constitutes progressive rehabilitation.

29 There, at paragraph 101, counsel assisting say, "There is a

30 general presumption by mines that progressive

31 rehabilitation is about adjusting slope angles, moving

1 overburden around and planting vegetation." Accepting and

2 assuming that this must include all the science that lies

3 beneath that, including questions of stability, we ask

4 rhetorically what else is progressive rehabilitation? Of

5 course one has to do studies in order to understand how to

6 safely and appropriately do those works and that is

7 accepted, but it is not clear to us why this is said in a

8 pejorative sense to be a narrow definition or it is also

9 not clear to us what other species of progressive

10 rehabilitation it is implied we ought to be conducting but

11 are not.

12 We do, however, tend to agree with what counsel

13 assisting say at paragraph 102. There counsel assisting

14 make the point that insofar as the terms of reference seem

15 to suggest that an end of mine life option, whether that be

16 a pit lake or something else, can or cannot ensure

17 progressive rehabilitation is carried out, we agree that is

18 to state the wrong question. We agree further with counsel

19 assisting that it is regulation, commitment and perhaps, in

20 a sense, incentives, including the way the bond system

21 works, which ensure that these outcomes are ultimately

22 achieved.

23 Insofar as counsel assisting suggests, at

24 paragraph 106 of their submission, that the cost of

25 rehabilitation should include trials and research, we agree

26 in part. Those things are being done during the

27 operational life of the mine and are done in order to

28 assess modes of progressive rehabilitation, but it couldn't

29 be said, on looking at the requirements of a schedule 19

30 report, that the mine has been remiss in not calculating

31 out those costs, or estimating them for 100 years into the

1 future, in terms of the detail that it does provide in its

2 schedule 19 costings. That simply has not been a domain or

3 a question that the mines have been required or even

4 invited to include in those schedule 19 reports.

5 Sticking with paragraph 106 of counsel assisting's

6 submission, we do take umbrage with the comment of

7 Ms Unger, which is perhaps taken out of context from her

8 otherwise carefully-given evidence. Counsel assisting

9 refer to her noting that anyone can push out a slope and

10 throw some seed out. Taken on its own, that glib comment

11 is, to say the least, unhelpful and does not represent a

12 fair description of the mode by which the three Latrobe

13 Valley mines research, plan, trial and undertake their

14 progressive rehabilitation. It is clear from all the

15 evidence given by the operators, who attended twice and sat

16 on the mine panels and, of course, from the evidence given

17 by the expert panels, that stability is always front of

18 mind for these mine operators and for the Technical Review

19 Board and for any expert who has spent any time considering

20 the question. The glib suggestion that the way in which

21 this is done is pushing out a slope with a dozer, perhaps,

22 and throwing out some seed does not ring true and does not

23 reflect the evidence that's been given in these

24 proceedings, or the careful work embodied in the operator's

25 plans and in the research to which they've had regard.

26 Question 8 asks whether there are any progressive

27 rehabilitation targets applicable to my client's mind and

28 whether those targets have been met. Mr Faithful's

29 statement engages with this in some detail and I won't

30 repeat the detail here and, of course, his statement harks

31 back to the evidence given in phase one of the Inquiry and

1 to the clarification and understanding that the mine has

2 since reached with the department concerning what the

3 expectations are in terms of progressive rehabilitation and

4 Mr Faithful also sets out the various communications which

5 confirm that there has been no suggestion by the department

6 that the mine is failing to meet its obligations in this

7 regard.

8 I turn to question 9, which asks whether there's any

9 sanction for a failure to meet progressive rehabilitation

10 targets. Well, as we say in our answer, the ultimate

11 sanction is clear. A failure to meet progressive

12 rehabilitation requirements will ultimately engage

13 sanctions under each of the licence, the work plan and the

14 Act because the ultimate sanction is embodied in s.38,

15 namely, the capacity on the part of the Minister to cancel

16 the licence. Now, one would expect, in a regulatory sense,

17 that well before that ultimate sanction is enlivened or

18 enforced, there would be some engagement, real engagement,

19 between the department and the mine operator and, of

20 course, from the evidence the Board has heard, there are

21 multiple opportunities for that engagement; regular site

22 inspections, regular formal and informal meetings, regular

23 communications. One would expect that if on any occasion

24 those targets embodied in the Hazelwood work plan aren't

25 met, that there will be notification given of a shortfall

26 in terms of the conditions.

27 I pause to note that it is principally condition 15

28 in Hazelwood's mining licence which requires that

29 progressive rehabilitation be conducted in accordance with

30 the rehabilitation plan, and then the obligations and the

31 sanctions in the Act that hang off that are to be found in

1 ss.78, 81, and ultimately 38, of the Act.

2 Our 10th question focuses attention on risk

3 assessments and we ask what risk assessment approach ought

4 to apply to these mines during their operational phase but

5 also when planning and performing progressive and final

6 rehabilitation works. It was clear at the conclusion of

7 the evidence from the expert panel that a rigorous

8 technical risk assessment approach is necessary. It was

9 clear from the evidence of the experts that this requires

10 hazard mapping to be undertaken, an identification of risk

11 and then the application of control measures. Now, while

12 the experts use different language, in the end what each of

13 them appeared to be saying in their own way was that

14 control measures need to be applied, once the hazards and

15 risks have been identified, need to be applied to reduce

16 risk to a tolerable or acceptable level.

17 It is also clear from the body of evidence before

18 this Board that a principal, if not the principal,

19 technical risk with which mine operators, and all who

20 advise them and regulate them, are concerned throughout the

21 life of the mine is the question of stability but, of

22 course, there is also evidence, principally in

23 Mr Faithful's statement, that stability is front of mind on

24 a day-to-day level throughout the life of the operations of

25 the mine and that stability is monitored on a daily basis

26 through extensive equipment monitoring, with geotechnical

27 and hydro-geological conditions being tested, monitored and

28 reported upon. The technical data derived from the

29 instruments that the mine uses in this regard, and the

30 strategies that the mine deploys to manage safety concerns,

31 are the subject of periodic reports to the department and

1 are also supplied to the Technical Review Board for review.

2 Although, as I say, the language used by the experts

3 tended to differ slightly, it is submitted that the

4 following might represent a good summary of the concepts

5 expressed by each of the experts during the occasions on

6 which they were taken to the question of risk management.

7 Each of them agree that there is risk inherent in operating

8 large coal mines and also in the works necessary to be

9 undertaken to rehabilitate them. All agree the most

10 significant risk usually is stability. All of them agree

11 that the likelihood of a risk eventuating, and the possible

12 consequences if that risk eventuates, differ mine to mine,

13 domain to domain and often batter to batter. In other

14 words, one cannot adopt a one-size-fits-all approach.

15 Equally, all of the experts agreed that one could

16 minimise and control those risks by adopting the approach I

17 have referred to, hazard mapping, a rigorous risk

18 assessment process undertaken mine by mine, domain by

19 domain. All of the experts agreed it is not possible to

20 eliminate risk but that the goal is to reduce risk to a

21 level which is tolerable or, to use language that some of

22 them employed, acceptable or as low as is reasonably

23 practicable. Once that risk is identified, then

24 appropriate control measures are applied. The other thing

25 that all the experts agreed, though, is that these control

26 measures are substantially known, tried and tested, there

27 are solutions which are suitable for managing risk of

28 stability and there is equipment already in use which

29 enables one to monitor the stability risk during the life

30 of a mine. It is of note that these mines submit

31 six-monthly stability reports to the regulator. And

1 Professor Galvin noted that it was the Technical Review

2 Board which assisted the mines, in particular Hazelwood, in

3 setting up these systems and as a result, said Professor

4 Galvin, at transcript p.491, he is confident that the mine

5 has a good survey system and that the Board has fairly good

6 oversight of what is happening.

7 Can I pause before the lunch break to mention or

8 expand upon one other aspect of progressive rehabilitation.

9 I have already gone to some of the evidence on the one

10 metre cover question, but I should say that it was not

11 until oral submissions of counsel assisting this morning

12 that it was at all clear to us that there remained a live

13 question about the method of covering exposed coal because

14 it was not until those oral submissions that counsel

15 assisting made a suggestion that there should still be some

16 consideration given, in the context of the risk assessment

17 process, to covering coal by some other means and in this

18 context, counsel assisting harked back to the evidence in

19 phase one of these proceedings, the hotly contested

20 evidence in relation to other possible modes of covering

21 coal, evidence given by Professor Cliff and Mr Incoll in

22 those proceedings, sometimes referred to as the concrete

23 cover or the shotcrete cover solution.

24 Now, there is significant issues that we raise with

25 respect to this suggestion. It wasn't put to any of the

26 mine operators in this phase of the proceedings, it wasn't

27 put to any of the experts and all debate proceeded on the

28 basis that the only issue between us, or serious question

29 between us, was one metre versus two. But in any event, it

30 seemed that counsel assisting was perhaps only using that

31 as an example or as a means of pointing to deficiencies in

1 the risk assessment process undertaken by the mines. Well,

2 we take issue with that as well. Annexure 4, formerly

3 confidential annexure 4, at the back of Mr Faithful's

4 statement, but it is now available with some redactions, is

5 Hazelwood's risk assessment management plan. Now, if one

6 looks at that, it does not suffer from the vices to which

7 counsel assisting pointed. It was suggested that if the

8 mine staff sit in a room by themselves, they'll tend to

9 confine their discussion of risk management control options

10 to things that they've done in the past and it seemed to be

11 suggested against GDF Suez that this had led to a confining

12 of options and a focus on the one metre cover rather than

13 revisiting the Incoll/Cliff solutions.

14 Well, we do take issue with that because in fact the

15 workshops, that predated the development of this large and

16 detailed risk assessment management plan, included input

17 from mine staff, sure enough, but three representatives of

18 the consultants, GHD, one from Coffey and Associates and

19 input from the CFA and Victoria Police on topics relevant

20 to them. It is not the case that mine staff sat in a room

21 with a myopic focus on their current mode of undertaking

22 progressive rehabilitation, the matter was assessed with

23 the assistance of those expert commentators, but more

24 significantly, revisiting that question, the question of

25 mode of coverage of exposed coal, wasn't put to

26 Mr Faithful, wasn't put to the other mine representatives

27 and wasn't put to the expert panel as perhaps being proof

28 of some deficiency in the mine's approach to this question.

29 I note also that the implementation monitor's report,

30 with respect to recommendation 16.1 at page 91 of that

31 report, also, with respect to another body of work,

1 commends GDF Suez for its work undertaken in reviewing its

2 mine fire service policy and code of practice and having

3 done so with the assistance of independent consultants,

4 with the view to embodying any of the findings coming from

5 that review process into any reviewed or revised version of

6 that document.

7 So in those circumstances, we do take issue with the

8 suggestion that there's either been a particular deficiency

9 in the risk assessment management process or that it has

10 thrown up a result, in terms of mode of covering exposed

11 coal, which is unacceptable in light of current science and

12 research. I note the time and I'm up to question 11. The

13 next suite of questions will be quicker.

14 CHAIRMAN: Admittedly, we have had one sticking to time and

15 Mr Attiwill being very economical, but you are roughly

16 halfway, as you were about to say.

17 MS DOYLE: Yes.

18 CHAIRMAN: And you have gone for over half an hour. Do you

19 expect that you will be another half an hour?

20 MS DOYLE: 25 to 30 minutes at the most.

21 CHAIRMAN: And I gather that the others that we're allowing for

22 - I'm just trying to work out whether we just have a

23 shortened break or a longer break.

24 MR ROZEN: I'm not sure how short - - -

25 CHAIRMAN: I'm just going to compromise and say three-quarters

26 of an hour.

27 MR ROZEN: I think that might be the best approach.

28 CHAIRMAN: All right. That means approximately 1.45.

29 LUNCHEON ADJOURNMENT

30

31

1 UPON RESUMING AT 1.45 P.M.:

2 MS DOYLE: If the Board pleases, I was up to question and answer

3 11. Question 11 poses the question what water entitlements

4 Hazelwood Mine currently has and to what extent they're

5 used and as you'll see from our answer there, GDF has a

6 substantial water entitlement under a groundwater licence.

7 It is presently not fully utilised. In fact, the evidence

8 of Mr Faithful is that the mine presently uses about 50

9 per cent of that which is allocated to it.

10 Under question 12, we ask, "How long will it take to

11 fill the mine void to create the pit lake?" The most

12 recent modelling work, as I've said a number of times, is

13 included in the annexure to Mr Faithful's statement, which

14 is the GHD modelling report. What that shows is that it is

15 estimated that it will take about seven years for the pit

16 to fill to what has been called the stability point, or

17 negative 22 metres, and that it will take longer, and the

18 modelling depicts on a chart in that GHD report a period of

19 between 30 and about 90 years, depending on which water

20 sources are used, to fill the pit lake. This is in stark

21 contrast with the 500 years which was previously thought to

22 be the case and which is constantly quoted against

23 Hazelwood. I emphasise that because we are constantly

24 called upon to improve the science and improve the

25 knowledge base. This is an instance where that has been

26 done and we'd ask then that in consideration of water

27 sources, time to fill the void and the like, that regard be

28 had to the most recent science, which tells us that the

29 fill time is, as I've said, seven years to the point of

30 stability and then a number of decades, perhaps in the

31 order of 30 to 90 years, to fill the lake to the ultimate

1 level of plus 8 metres.

2 Question 13 raises the question of what options the

3 mine has in terms of sources of water and we set out there

4 - again, these are drawn from the latest science,

5 principally the GHD report - we set out there the most

6 likely and feasible sources of water for the pit lake. I

7 won't read them. We set out there those which have been

8 modelled by GHD.

9 Question 14 raises the issue of whether there will be

10 sufficient water available for the mine. Focusing on the

11 Hazelwood Mine on its own, the answer is yes. The most

12 recent modelling suggests there will be sufficient water,

13 for reasons including that the operator does not presently

14 use even over 50 per cent of its groundwater entitlements

15 and it has also had regard to the possibility to, for

16 example, discharge water from the Hazelwood cooling pond

17 and redirect rainfall in order to fill the void. But a

18 question mark was raised during these proceedings about a

19 comment made in the 2011 Gippsland water strategy document

20 which suggests that there may be insufficient water

21 available for all three mines ultimately to fill their pit

22 lakes at the same time. There was nothing put forward by

23 the department or the water authorities which explained the

24 scientific foundation for the comment in the 2011 document

25 and, of course, it is a comment that has not been treated

26 in any way by the department or the water authorities as

27 urgent or as requiring any particular action to be taken

28 thereafter.

29 In the evidence that was given by the water panel, it

30 emerged that none of the water authorities had considered

31 how much water was required. None of them had considered

1 whether the mines could, in accordance with their current

2 entitlements, fill the mine voids with that water allocated

3 to them and, as has been said a number of times, there's

4 been no formal discussions about how that might happen.

5 But one has to look at this in context. The mines have,

6 during the period of time which straddles the issue of the

7 2011 document, been submitting work plans and work plan

8 variations which have always had regard to the final

9 closure option of a pit lake. In circumstances where the

10 department continues to approve those work plans and work

11 plan variations, it is hard to understand why it is said

12 that the mines are to blame for not initiating a

13 conversation about what is, after all, on its face, a

14 thought bubble which appeared in a 2011 strategy document.

15 As I said, the science was not explained to this Inquiry.

16 In fact, the members of the water panel most often answered

17 questions put to them by declining to speculate, and this

18 was one of the topics on which they said they were unable

19 to speculate.

20 The inertia which has characterised the department's

21 response since 2011, we submit, is not the fault of the

22 mines. It is not incumbent on the mines to help the

23 department activate its 2011 strategy; it is a matter for

24 the department. In circumstances where there is liaison

25 and consultation about that question, then of course the

26 mine will participate and will do so in light of the

27 science and any other requirements imposed upon it by the

28 department or the water authorities.

29 I turn to question 15 and those that follow, which

30 deal with the questions of coordination and engagement. We

31 ask in question 15 is it appropriate that there be more

1 coordination between the mines. Yes, of course. More

2 coordination and improved cooperation between the mines is

3 likely to assist in developing an overall plan so far as

4 there are common elements between the three mines.

5 I turn to question 16. We ask whether the

6 consultation should also - of the type I have just referred

7 to - include input from others and, if so, who should

8 coordinate it. We mention in our answer to question 16 a

9 number of entities that might be relevantly coordinated and

10 consulted with and we do suggest that rather than

11 re-inventing the wheel, either the existing regulator or a

12 body such as Coal Resources Victoria, might be well placed

13 to be tasked with the responsibility for coordinating

14 engagement between the relevant groups.

15 In question 17, which directs attention to the

16 question of how GDF presently engages with the community,

17 we note that GDF already has a range of community

18 consultation measures in place. To mention but a few, they

19 conduct quarterly ERC meetings with a range of community

20 representatives and in the evidence we of course referred

21 to and tendered the presentations given on three occasions

22 throughout 2014 and 2015 in relation to implementation of

23 the outcomes of the first Inquiry and, in the last of those

24 three consultation sessions, the slides reveal that there

25 was information presented in relation to the final

26 rehabilitation plan. Of course, in this context, GDF

27 agrees with a comment that was made by a number of

28 witnesses, including Ms Unger and Dr McCollough, that

29 community consultation in relation to mine closure and

30 final rehabilitation is obviously not a once-off event and

31 consultation must be ongoing.

1 Question 18 asks, "What is the community's view in

2 relation to final rehabilitation plans?" In this context,

3 we make the point that there is no single view which

4 emanates from the community, and nor would there be

5 expected to be one sole view, but of course GDF is

6 committed to continued consultation with the community and

7 with diverse views as expressed by the community. We

8 remind the Board of the reality that there are, of course,

9 diverse and divergent opinions in the community. To the

10 extent that Ms Rhodes-Ward gave evidence of the views of

11 the community, we express some caution about the results of

12 the survey on which she relied. It was informative but it

13 was, of course, based on a mere 71 responses, as she agreed

14 in evidence, and when asked open-ended questions about

15 positives and negatives in their community, the issue which

16 appeared to be front of mind for all those who responded -

17 and I pause to note, in a period that was only about 45

18 days after the fire - most respondents, indeed 37 per cent

19 of them, identify that their single biggest concern was

20 traffic noise, and others identified matters flowing from

21 the fire, such as coal dust, proximity to the mine and the

22 like. Others, in turn, referred to concerns including

23 safety on the streets and amenity of their properties.

24 By way of further example, we, of course, also drew

25 attention to the fact that there are members of the

26 community who expressly noted the view and we used just one

27 example, the letter to the editor written by a gentleman

28 who said he had a different view from one community action

29 group and wanted to be heard own that matter. Bearing in

30 mind then that the views of the community are diverse, will

31 change from time to time and that there is the phenomenon

1 explored in the evidence of consultation fatigue,

2 nevertheless it is accepted that there is a requirement and

3 a benefit to be derived from consultation with the

4 community.

5 I turn to question 19, where we ask whether there are

6 successful examples of community consultation and enjoyment

7 of the end beneficial use of mines rehabilitated in similar

8 ways to those in the Latrobe Valley. Without going to the

9 detail, the Board, of course, remembers that the evidence

10 confirms the German experience has been instructive and

11 relevant and Dr McCollough's report sets out examples of

12 successful mine closure leading to pit lakes throughout

13 Australia and overseas.

14 Can I turn to the topic of rehabilitation bonds and

15 we traverse this in questions 20 and following in our short

16 submissions. Before I go to the questions and answers, can

17 I address the vexed topic of terminology, which comes up a

18 number of times in this topic, but in at least two

19 significant ways is important to get straight before we

20 embark on the process of asking and answering specific

21 questions: a lot of evidence has been written and said

22 about costings. GDF submits it is important to be clear

23 that one must compare apples with apples. Even if one is

24 just looking at the mines' Schedule 19 reports submitted to

25 the regulator and comparing them with the AECOM costings,

26 of course at the outset it is imperative to acknowledge

27 they were prepared for different reasons. The schedule 19

28 report calls on the operator to estimate their current end

29 of mine liability. So, unsurprisingly, it is done using

30 the operator's knowledge, method and rates, and done in a

31 context in which the operator is best placed for most

1 purposes to understand the plan that they intend to

2 implement. So insofar as the operator makes assumptions,

3 they're very well informed ones based on the approved work

4 plan.

5 AECOM, in contrast, was asked to cost out two

6 scenarios: early close and end of mine, and it was asked to

7 do that - again not unsurprisingly - on a different basis,

8 namely, on the basis that a third party, not the operator,

9 would undertake those tasks. So right from the outset one

10 can see that they were engaged in different tasks for

11 different purposes. Secondly, both sets of costings are

12 underpinned by very different assumptions, and I'll draw

13 attention in a moment to a few of them which, in GDF's

14 submission, were erroneously adopted on the part of AECOM

15 and have led to wrongly inflated costs, and thirdly,

16 although this is to repeat really a point I have made for a

17 different purpose, of course they're based on different

18 inputs: the operator's costings and rates versus those if a

19 third party has to walk in.

20 The second issue of terminology that it is important

21 to get straight from the outset is the meaning of the

22 scenarios that AECOM was tasked with costing out, but also

23 the scenarios which figured in many of the questions asked

24 of witnesses. All of us in this room constantly use the

25 phrases "early close" and "end of mine", but it is

26 important to bear in mind that early close is not

27 necessarily synonymous with a scenario in which an operator

28 drops their tools, walks away in the dead of night, leaving

29 rehabilitation untouched or walks off the property at a

30 certain point in time. A mine can close early, as a number

31 of witnesses agreed, including Mr Cramer and others, a mine

1 can close early for lots of reasons, but nevertheless, in

2 circumstances where the operator attends to all of its

3 rehabilitation tasks. Equally, a mine can close at the end

4 of its planned life in precisely the same manner, with the

5 operator attending to each of its obligations in terms of

6 rehabilitation.

7 So when one uses that terminology, it is necessary to

8 be clear in each case whether one is talking about an early

9 close of mine that is structured, planned and undertaken by

10 the operator, or what is really the worst-case scenario,

11 and that is a default walk-away outcome. It will become

12 clear that GDF's submission and answers in relation to each

13 of the next suite of questions I'm going to address is all

14 premised on the foundation of its assessment and submission

15 that there is a very low probability that the operators of

16 these mines will effect a worst-case scenario or the walk

17 away scenario. They don't just say that on their own

18 account; they say it in light of the evidence, and the

19 evidence on which they rely includes the following: the

20 KPMG report of 2011, which has been referred to by a number

21 of witnesses as encapsulating very well 10 guiding

22 principles. The first and fifth of those principles are

23 expressly that a 100 per cent failure rate in this area -

24 namely, in the domain of these three coal mines - is

25 unlikely, and the fifth principle is that any review of the

26 bond system should be based on risk management principles.

27 Next, of course, the mines point to the expert

28 opinion of Dr Gillespie and in addition point to the fact

29 that the Accent environmental report, along with other

30 witnesses, also suggested that the KPMG principles were

31 instructive in this arena. So question 20 asks then what

1 amount is set for the Hazelwood Mine rehabilitation bond?

2 The amount is well-known. It is 15 million. But what is

3 interesting is the manner in which it was set. Mr Rozen

4 identified this in some detail in his submissions, so I

5 won't rehearse the same material, but GDF submits that in

6 fact what appears to emerge from the documentation, when

7 one looks back at the 1995 materials concerning the way in

8 which the department set this bond, what appears to have

9 occurred is that, without expressly saying so, the

10 department appears to have adopted an early or rudimentary

11 version of a discounted bond system, because the

12 documentation indicates that it was assessed that there was

13 a raw or undiscounted bond amount of 20 million, but that

14 bearing in mind the operator's commitment to spend a

15 certain amount on progressive rehabilitation in the

16 following years, the bond level was reduced to 15 million.

17 Now, that, we say, is an early version of what in these

18 proceedings has been referred to as the bond discount

19 model, in the sense that allowance was made and recognition

20 was given for the fact that the mine had planned and

21 budgeted to conduct progressive rehabilitation, which Dr

22 Gillespie and Mr Cramer agreed with me in cross-examination

23 is a matter which demonstrates, (a), a track record that

24 you're likely to do it and, (b), that the operator is going

25 to bring down its rehabilitation tasks and liability in

26 years to come.

27 In question 21 we ask simply what are the estimated

28 costs for end of mine rehabilitation and, in the context of

29 the schedule 19, those costs, or their estimate, is

30 well-known for the Hazelwood Mine; 73.4 million.

31 Question 22 asks, "Are there more reliable costings

1 available?" GDF submits there are not. We submit that the

2 alternative costings proffered via Jacobs and AECOM are

3 based on unsound assumptions and ultimately will not assist

4 the Board. We pause here to note that, quite

5 appropriately, counsel assisting has not sought to rely on

6 the Jacobs costings in this arena, regarding them rather as

7 indicative or prepared only for comparative purposes, and

8 we agree. They're not in a form that they can assist this

9 board. But some reliance is apparently sought to be placed

10 on the AECOM costings. It is GDF's submission those

11 costings are flawed and based on erroneous assumptions.

12 Can I mention first the use of the probabilistic

13 model. I would challenge anyone in this room to summarise

14 how it works in light of the evidence of Dr Bowden. It

15 produces results which in many respects are perverse and I

16 propose to test that by undertaking three simple reality

17 checks in a moment against real-world matters as opposed to

18 assumptions, but what we can say about use of the

19 probabilistic method and the Monte Carlo simulation model

20 is that the AECOM panel themselves agreed that it tends to

21 deliver up ranges which are conservative and tends to skew

22 towards high values.

23 In light of that, as I've suggested, we should test

24 the results spat out by this model against three reality

25 checks. The first is a simple one: the numbers that the

26 model spat out in terms of - or the amounts it spat out in

27 terms of management and procurement fees, which were set at

28 15 per cent of the total cost of the job. I pause to note

29 that in its 2008 work, the GHD report, which is Annexure 30

30 to Mr Wilson's statement, back in 2008 GHD said, in a

31 different context, that a 10 per cent mark-up or uplift for

1 management was inappropriate in a circumstance where it

2 generated a $6 to $7 million fee. The AECOM report and

3 model spits out a $41 million cost for management and

4 procurement on the early-close model - pausing to note that

5 is early close walk-away model - and 48 million for the end

6 of life of mine model, again walk-away. In similar vein,

7 the monitoring post execution cost, which includes a

8 3 per cent uplift for management in the AECOM report, comes

9 to 38 million for early close and 60 million for end of

10 mine. I call that the first of the reality checks. Those

11 figures alone, 41 and 48 million, 38 million and 60

12 million, ought to have rung alarm bells, and I put that to

13 the AECOM panel. They were not concerned by the size of

14 those figures and apparently found them unsurprising. But

15 GDF submits in this room that they are very surprising,

16 that in circumstances where GDF estimates its current end

17 of mine rehabilitation liability to be 73 million, that it

18 could be suggested that there might also be a $48 million

19 uplift on those costs should a third party have to come in

20 and manage the process is extraordinary and is clearly

21 erroneous.

22 The second reality check is the uplift for plus-risk

23 costs. Mr Rozen has already accepted in his submissions

24 that it is regrettable that the AECOM report does not

25 disclose in any way the method by which these plus-risk

26 costs were divined. Dr Bowden said it was an output from

27 the model and then he gave a very long explanation, but it

28 ultimately transpired that the expert analysis that had

29 been applied to assessing risk was conducted by a group he

30 first called an expert panel, but ultimately conceded was

31 simply Mr Chadwick and Mr Byrne sitting in a room, applying

1 a percentage, they told us a number of times, could be

2 provided but that they never did provide and certainly did

3 not set out in their report. In those circumstances, it is

4 odd indeed that the plus-risk cost element applied to the

5 Hazelwood Mine on the early-close model came to 46 million

6 at P50 level of confidence; 54 million at the P80 level and

7 63 million at the P95 level. Now, I put to Dr Bowden that

8 any operator would look at this and quickly, or more slowly

9 in my case, do the maths and realise that it represented

10 exactly a 21 per cent uplift in each case. Dr Bowden told

11 me the model doesn't work that way, you shouldn't reverse

12 engineer it, but it is submitted by GDF that it is not

13 unreasonable for anyone furnished with these costings to

14 look at it and see that the suggestion that there is a 21

15 per cent loading placed on in the case of risk raises a

16 number of questions, not the least of which the one the

17 panel declined to answer, and that is, "How did you come up

18 with those figures?"

19 In the end-of-mine scenario, the amounts added to the

20 base cost said to be referable to risk were 67 million,

21 80 million and 91 million respectively, which ranges

22 between 37 and 40 per cent of the base cost. Again, as a

23 reality check, does this not expose that there is something

24 wrong with the model? Again, if GDF Suez has calculated

25 its end of life of mine rehabilitation liability at 73

26 million, how can the plus-risk costs be 91 million? How

27 can they be more than 100 per cent of the base cost?

28 The third reality check is a number of the

29 assumptions adopted by AECOM. I traversed each of these in

30 evidence with Mr Faithful and with Mr Chadwick and others

31 on the panel. Each of them is rehearsed in Exhibit 33 -

1 that is the correspondence chain in which GDF attempted,

2 vainly, to bring to AECOM's attention, in the very short

3 period of time afforded to it for any meaningful

4 consultation, the difficulties with the assumptions they

5 had adopted. Mr Chadwick conceded, frankly, that there had

6 been a relatively short period for the mine to be involved,

7 namely just between mid-October and mid-November, and that

8 he had finished his report without taking them all into

9 account and, quite frankly, he disagreed with some of them,

10 but here is a shopping list of the assumptions that we

11 submit have skewed the AECOM results: the end-of-mine life

12 issue. AECOM was implacably opposed to adopting the

13 planned end-of-mine life date, 2033, and stuck to the

14 licence date, 2026, because they were instructed to do so.

15 The time to fill the pit lake: AECOM assumed 21 to 28

16 years to the initial level and then 500 years thereafter.

17 You will have heard by dint of my answer to earlier

18 questions that that is not correct, based on the latest

19 modelling, which is in the order of seven years and then in

20 the later phases, 30 to 90 years. Management and

21 procurement fees is a question over which we differ and I

22 have already said something about that.

23 Monitoring. AECOM assume that there will be a need

24 to monitor the mine post the execution of rehabilitation

25 for 100 years. That has, of course, generated a huge cost,

26 in the order of between 38 and 60 million. Water source

27 and the need to purchase water - again, there is a

28 difference between us. Mr Faithful based his costings on

29 the reality that the mine uses half of what is allocated to

30 it and pays only 20 to 30,000 a year. On a basis that

31 wasn't fully explained, AECOM has asserted a cost of 6 to 8

1 million for the same entitlement.

2 Rip rap I won't dwell on, but it is a topic that

3 generated a cost of $90 million on the early-close scenario

4 and $107 million on the end-of-mine case. This was

5 principally because AECOM assumed there was a need to

6 replace this expensive rip rap, which I think is said to be

7 installed at about $10 million a pop, many times over a

8 500-year period, leading to those outcomes of 90 to 107

9 million.

10 AECOM also assumed there would be a 15 per cent

11 failure rate of rehabilitated slopes, something with

12 respect to which we submit the science and the practice at

13 the mine does not support them.

14 Can I conclude this analysis of the costings by

15 undertaking this simple, and I'm sure Dr Bowden would say,

16 simplistic analysis, but it is a fourth, if you like,

17 reality check. The P95 confidence level costings issued by

18 AECOM for the Hazelwood Mine were $241 million. If we just

19 subtract from that two of the most contentious items in our

20 submission, namely take out $107 million for rip rap and

21 take out 60 million for monitoring this mine for 100 years,

22 you'll never guess what we get: 74 million - very close to

23 GDF's own estimated costs absent rip rap and absent

24 monitoring the mine for 100 years. So it may be, after

25 all, despite the fact that we say there's been an erroneous

26 attempt to compare two things done for different purposes,

27 that the GDF costings are not far from the truth at all.

28 Question 23 asks about the principles that do inform

29 the current bond policy and we note in our answer that

30 there does appear to be a tension between what is assumed

31 to be the purpose of the current system and the current

1 arrangements in place.

2 Question 24 is easily answered: "What mechanism is

3 presently used to provide financial surety?" The bank

4 guarantee. The Board will recall the evidence given about

5 the cost at which that comes, and I need only to refer to

6 the evidence of Dr Gillespie in that regard.

7 Question 25 casts attention upon the question of the

8 method used to provide financial surety. GDF submits there

9 ought to be flexibility in this regard and that perhaps

10 looking at, as an alternative to bank guarantees, a parent

11 company guarantee might do. We suggest it is too early to

12 fix upon any other alternative method because one first of

13 all has to get the principles underpinning the model

14 correct.

15 So on that basis I turn to what is essentially our

16 last substantive question, question 26: "Should the Board

17 recommend a new model for rehabilitation bonds, and if so,

18 what principles ought underpin it?" Our primary submission

19 is that the current system is not broken and does not need

20 fixing. Harking back to what I said at the outset, the

21 current regulatory regime contains the answers. It is all

22 there. The Act, supported by regulations and the Schedule

23 19 requirements and, of course, s.79A, to which counsel

24 assisting have properly drawn attention, presently enable a

25 bond to be set and to be reviewed and to be cross-checked

26 by an independent party. There is simply no evidence which

27 demonstrates that this process does not presently offer

28 sufficient surety to the state or that it will not continue

29 to do to. Why do we say that? Because we very firmly

30 endorse the evidence given in these proceedings that the

31 risk of default on the part of the operators of the large

1 coal mines in the Latrobe Valley is very low, or to quote

2 Dr Gillespie, "very, very, very low". His doesn't say that

3 in a vacuum; he says that in light of his consideration of

4 the materials in front of him, including risk factors, to

5 which I took he and Mr Cramer, and they both agreed that

6 they were an appropriate suite of considerations in this

7 arena. They agreed with me that the past conduct of the

8 operator of the mine is relevant; the operator's track

9 record in relation to progressive rehabilitation; the

10 question of whether there is demand for the mines' product

11 and service and the degree of financial stability of the

12 operator, that those factors should throw up the answer to

13 the risk question and I pause to note that, of course, the

14 KPMG principles, as I've said, particularly principles 1

15 and 5, enshrine the same approach.

16 It is for that reason that our principal submission

17 is there is no evidence before the Board sufficient to

18 support a finding that the current bond system or level are

19 inadequate.

20 In the event the Board does not accept that primary

21 submission and if a new system is to be considered, then

22 GDF submits that a robust risk assessment approach ought to

23 be applied to setting and reviewing bonds and that such an

24 assessment ought not be applied in a one-size-fits-all

25 approach, but rather there will need to be site specific

26 assessments.

27 It is said against us that there are burdensome

28 transactional costs in that regard. We submit to the

29 contrary, that while another simpler system might be

30 appropriate for the many small mines or mines in relation

31 to different resources across Victoria, in the case of the

1 three coal mines, there is no reason not to apply the

2 appropriate time and resources to conducting a

3 sophisticated risk assessment with respect to these three

4 mines in light of the three criteria that we've set out in

5 our answer there.

6 There's also been some consideration in the

7 proceedings to the question of a discount bond system. I

8 opened this part of our submission by referring to the

9 quirk that it appears that back in 1995, without

10 necessarily making express the fact that this is what it

11 was doing, the department in fact adopted an early version

12 of a discount bond system. Dr Gillespie proposed that a

13 bond discount system should be based also on the outcome of

14 a risk assessment approach, which would involve

15 consideration of the sorts of factors I have already

16 pointed to, and he also in that context saw no reason why

17 there should be any ceiling on the amount of the discount

18 allowed under that system. GDF agrees. It submits that

19 there should be some mode of recognition, reward or

20 encouragement for progressive rehabilitation, but that,

21 most importantly, it fits within a risk assessment approach

22 because it enables one to have regard to an operator's

23 track record and the likelihood that it will continue to

24 meet its obligations and its targets.

25 So it is submitted that a bond system which permits

26 eligibility for a bond discount should also be considered

27 and that, if adopted, it should be done so by reference to

28 clear eligibility criteria.

29 Question 27 is a discrete topic that arose

30 principally through the evidence of Mr Webb and it directs

31 attention to whether the mine is required to provide a

1 financial assurance to the EPA in respect of landfill. We

2 give a short and simple answer: yes, it is plain that a

3 financial assurance is required, but the assurance level

4 has never been set or implemented by the EPA.

5 The final question we pose relates to, again, a

6 separate topic, the question of fire mitigation. The

7 simple answer is, in terms of what steps have been

8 undertaken, that it is set out in the implementation

9 monitor's report, but, of course, this Board will recall

10 that there have been a large number of recommendations

11 pertaining to the system in terms of risk mitigation, but

12 also the physical works on the ground in terms of fire

13 preparedness, and you will also recall from my opening

14 submissions that the effectiveness of Hazelwood's revised

15 procedures was road tested on 6 October this year and it

16 transpired and Commissioner Lapsley agrees, that the new

17 systems were not found wanting in any respect.

18 If the Board pleases, those are our submissions.

19 CHAIRMAN: Yes, Ms Forsyth.

20 MS FORSYTH: If the Board pleases, the Australian Gaslight

21 Company, AGL, was formed in 1837. AGL has been around in

22 various forms for 178 years. AGL Energy Ltd is now the

23 largest ASX-listed owner, operator and developer of

24 renewable energy generation in Australia. It owns AGL

25 Loy Yang.

26 As the Board has heard, through AGL Loy Yang, AGL

27 also owns and operates the Loy Yang mine, which provides 50

28 per cent of the Victorian community's energy needs. It

29 performs this role with certainty and reliability. There

30 have not been, either in AGL's time or in previous times,

31 any major batter stability issues, fires, pollution

1 incidents or any other major incidents of public concern at

2 the mine. There are no allegations before the Board that

3 AGL has acted outside the law. AGL prides itself on its

4 relationship with the Latrobe Valley community. For

5 example, it runs regular ERC meetings at which

6 representatives of the community are regularly engaged on

7 key issues relating to the mine. Mr Rieniets said, not

8 surprisingly, that the focus this year has been on fire

9 management.

10 AGL came to this Inquiry in good faith to address the

11 Board on the issues raised by the term of reference. It

12 called three witnesses. All three witnesses were honest,

13 credible, knowledgeable and expert at what they do. Where

14 is all of this recognised in counsel assisting's

15 submissions? One, if not the only, reference to the

16 character of any of those witnesses in counsel assisting's

17 submission is a submission that the answer given by

18 Mr Rieniets was glib in relation to a particular topic.

19 The definition of "glib" is "insincere and shallow". Could

20 this be any further from an accurate description of the

21 evidence given by Mr Rieniets in relation to that question

22 or any other? We encourage the Board to take a different

23 view.

24 Counsel assisting said this morning that the TRB are

25 the truth tellers in this whole sorry saga. The TRB no

26 doubt expressed their honestly-held views. Mr Rieniets and

27 Professor Sullivan and Dr Gillespie did likewise. How can

28 it possibly be put, if it is sought to be put, that they

29 are not also the truth tellers?

30 Moreover, counsel assisting has painted a picture of

31 a sorry saga. The view promulgated by these submissions is

1 one of extreme negativity and pessimism. Counsel assisting

2 has identified, both in opening and closing, a number of

3 questions that have not yet been answered in relation to

4 the AGL Loy Yang Mine. AGL Loy Yang, which I will now call

5 AGL to shorten these submissions, quite openly accepts that

6 there are issues that are not yet finally resolved.

7 However, that is not at all surprising in the context of

8 the long life of the mine and in the current stage of the

9 mine's life. Uncertainty is not a new issue in the

10 management of complex systems like large coal mines.

11 Uncertainty is a feature of all large undertakings,

12 especially when they relate to major items of

13 infrastructure, public infrastructure that sit within

14 complex environments. The key issue is not whether

15 uncertainty exists but whether there are processes in place

16 to address and resolve uncertainties. It is the avoidance

17 of unacceptable outcomes, rather than the elimination of

18 uncertainty, that is ultimately important.

19 Mine rehabilitation and risk management are two

20 central features of mine planning. Satisfactory completion

21 of mine rehabilitation and the implementation of an

22 approved risk assessment and management plan are existing

23 core statutory obligations arising under the Act and the

24 mining licence. AGL also recognises that appropriate mine

25 rehabilitation and risk management are more than simply a

26 compliance issue. AGL accepts that the right to mine is a

27 social licence which entails a moral commitment to

28 undertake mine rehabilitation, risk management and to

29 engage in meaningful dialogue with the local community.

30 Sometimes meaningful dialogue will involve the provision of

31 information. On other occasions it will involve a duty to

1 consult, in the sense of receive and take into account

2 community feedback. It is proper that there is a

3 regulatory framework that ensures that mine rehabilitation

4 is planned for and implemented. The framework should

5 ensure the technical and engineering rigour of the process,

6 noting the complex issues involved in mine rehabilitation.

7 It is also proper that the regulator is diligent in

8 ensuring that mining licensees perform rehabilitation works

9 in accordance with the commitments they have made.

10 There has been much discussion about AGL's work plan

11 variation 2015 during the course of the hearing. The

12 extent to which it fully resolves issues, such as the

13 source and quality of the water that will fill the mine

14 void, the shape and form of batters, treatment to be

15 provided along the mine lake shore line and other matters,

16 have each been subject to examination. AGL readily agrees

17 that there are uncertainties which remain which require

18 further work, but there is no evidence to suggest that

19 these issues will not be addressed or that they are

20 incapable of resolution. AGL has made significant

21 commitments, both within the body of the work plan

22 variation 2015 and in allocating substantial resources to

23 address these issues. Moreover, AGL has demonstrated that

24 it takes a beyond-compliance approach to resolving

25 uncertainties. For example, the evidence of Professor

26 Sullivan in his witness statement is that AGL has shown a

27 strong corporate commitment to addressing these issues and

28 challenges. Professor McKay acknowledges that AGL has a

29 significant program going forward to look at the surface

30 stability of the mine batters, including field work, so

31 that they can deliver a safe and stable batter - transcript

1 431-432.

2 AGL notes that it now has quite onerous conditions on

3 its work plan variation which set out timeframes for

4 resolution of key issues based upon the stages of mine

5 life. AGL Loy Yang's work plan variation 2015 did, of

6 course, already contain commitments to undertaking a

7 closure plan during Stage C, i.e. before approximately

8 2023, including detailed planning, providing milestones and

9 completion criteria.

10 Of course, 2023 is also the date of the commencement

11 of the Loy Yang complex agreement contributions and is

12 still some 25 years away from the anticipated date of mine

13 closure. The submissions so far seem to be saying that

14 work should have been done now.

15 Further, it is simply not correct, as EV submits,

16 that the work plan does not set out how the progressive

17 rehabilitation is to be done. For example, see section

18 6.4.3 of the work plan variation. It is submitted that

19 broad assertions about the work plan variation should not

20 be uncritically accepted by the Board.

21 While not necessarily agreeing with the drafting of

22 the conditions that have been provided, AGL does accept

23 that the risk based and staged approach taken by the

24 department to the conditions is generally an appropriate

25 one. Mr Galvin indicated that the department could take a

26 leaf out of the New South Wales book, which is always a

27 contentious issue in Melbourne, in drafting approval

28 conditions. AGL agrees that conditions of approval should

29 be written in such a way as to be easy to understand.

30 Perhaps this does not apply so well to the conditions of

31 approval that AGL has received.

1 In relation to the issue of progressive

2 rehabilitation, there is no evidence to support a

3 conclusion that AGL has not undertaken appropriate

4 progressive rehabilitation to date or that significant

5 additional rehabilitation could have practicably been

6 undertaken but has not been. Critically, there's no

7 evidence before the Board that any unacceptable

8 environmental or social outcomes are associated with the

9 current state of rehabilitation at the AGL mine. Contrary

10 to the tone of submissions by counsel assisting, there is

11 no crisis of rehabilitation at the AGL Loy Yang Mine.

12 There is no evidence before the Board, as said previously,

13 of substantial major issues.

14 AGL manages its risks competently. There is no

15 reason to consider it will not do so in relation to final

16 rehabilitation.

17 I'd like to turn now to each of the specific terms of

18 reference, and looking at term of reference 8, which

19 required consideration of short, medium and long-term

20 options for rehabilitation, Professor Sullivan's evidence

21 is that there is only one land form option for AGL

22 Loy Yang's mine, and that is the option described in the

23 2015 work plan. The expert panel on geotechnical issues

24 also confirmed that there is only one land form option for

25 the Loy Yang Mine, namely the partial backfill with the pit

26 lake option. This is critically important in relation to

27 term of reference 8. Importantly, there is a clear

28 distinction to be drawn between the long-term land form, on

29 the one hand, and the potential range of end uses of that

30 land form on the other. It is the case, of course, that

31 the land form will define the potential range of end uses

1 available, but where there is only one land form that is

2 practicable, then the land form will determine those end

3 uses rather than the other way around. AGL's approach to

4 rehabilitation is to work towards a safe, stable and

5 sustainable land form in the context of its setting. The

6 consensus among those experts giving evidence appeared to

7 be clearly that AGL Loy Yang is taking a reasonable and

8 responsible approach to the short, medium and long-term

9 rehabilitation of the mine.

10 Turning to term of reference 9(a), which relates to

11 the extent to which the option would decrease the risk of

12 fire, the evidence before the Board is that the constraints

13 on progressive rehabilitation at the mine are operational

14 and do not reflect any unwillingness or reluctance on the

15 part of AGL to commit financial and other resources to the

16 task. Mr Rieniets explained, by reference to the plans

17 contained in the work plan, the milestones for progressive

18 rehabilitation at each stage of the mine from now through

19 to closure. He also explained AGL's commitment to

20 rehabilitation trials, research and development -

21 transcript 293-294 and 341-347. He took the Board through

22 the operational constraints on achieving greater

23 progressive rehabilitation by reference to the plans

24 annexed to his witness statement - transcript 342 onwards.

25 The Board also heard evidence from Professors McKay and

26 Sullivan about the potential stability issues that could

27 arise if progressive rehabilitation was mandated ahead of

28 an orderly and structured process, especially if it was

29 mandated ahead of the trials that are required to ensure

30 long-term stability. The Board is referred in particular

31 to the evidence of Professor McKay on this issue at

1 transcript 515-17. Mr Rieniets also gave evidence about

2 AGL's extensive fire mitigation network and fire risk

3 manage regime. Mr Rieniets's evidence is that the batters

4 which are not covered have extensive fire protection, both

5 in terms of fixed infrastructure and having regard to AGL's

6 significant mobile equipment and trained personnel. There

7 is no reasonable basis for the Board to conclude that more

8 progressive rehabilitation should be undertaken in relation

9 to fire risk at the AGL Loy Yang Mine.

10 AGL also adopts the submissions made by Ms Doyle

11 earlier in relation to any suggestion that the risk

12 assessment and management plan that was undertaken by AGL

13 was somehow inward looking. The Board is referred to the

14 report undertaken by R4 Risk Assessors, which sets out the

15 extensive range of internal and external consultants who

16 had input into that risk process.

17 Turning now to term of reference item (b) and (c),

18 which both relate to stability, stable land forms and

19 long-term environmental protection, there are a number of

20 topics of relevance here. The first is the issue of the

21 setting. Professor Sullivan's evidence emphasised AGL's

22 Loy Yang setting, which is a largely rural setting with no

23 significant proximate man-made infrastructure. The land

24 form that is proposed is entirely compatible with this

25 rural setting.

26 Secondly, in relation to water quantity and quality,

27 the work plan variation contains information about the

28 anticipated lake level in the short-term after closure,

29 i.e. for stability purposes, and in the long-term. While

30 questions were directed to how long it would take to fill

31 the lake with water, no questions were raised about the

1 veracity of the short and long-term levels themselves.

2 There is no evidence to suggest that the level of

3 approximately RL negative 22 will not achieve hydrostatic

4 balance. AGL Loy Yang accepts that there is more work to

5 be done in relation to assessing options to provide

6 improved water quality in the final pit lake and this work

7 needs to be done before any final decisions can be made

8 about the final beneficial uses supported by the pit lake,

9 including public recreational use.

10 Counsel assisting's submissions intimate that a land

11 form that is not fit for public use may not be a

12 "rehabilitated land form". With respect, that submission

13 perhaps slightly misses the point. It is one thing to

14 provide, for example, water quality of a standard for human

15 consumption and another to provide, for example, water

16 quality that is suitable for cattle. One would not make

17 the submission that the provision of water quality that is

18 suitable for a whole range of beneficial uses is not a

19 rehabilitated land form.

20 AGL accepts that the extent to which bulk

21 entitlements may be made available for rehabilitation

22 purposes should be addressed with the relevant authorities

23 and accepts that it is now required in its work plan to do

24 that by the end of stage C. However, at this stage AGL has

25 not received any indication from the authorities that it

26 will not be able to use at least some of the water

27 currently available to the site by way of bulk entitlements

28 or groundwater licence. While the 700 gigalitres required

29 to fill the lake to negative 25 RL may seem like a lot of

30 water, it needs to be viewed in the context of the 80

31 gigalitres per annum that is presently available to the AGL

1 Loy Yang site, including the power stations, through the

2 bulk entitlement and groundwater licensing system. We note

3 counsel assisting's closing submissions at paragraph 60

4 refer to 40 gigalitres, but that is contrary to the

5 evidence that was led on this issue at transcript 212.

6 AGL submits that it is entirely appropriate for it to

7 put forward its preferred scenario for lake filling in its

8 work plan and to work with the authorities to aim to

9 achieve that outcome. There is no evidence before the

10 Board to suggest its preferred scenario is fundamentally

11 flawed. Moreover, there is no rational reason why the

12 authorities would refuse to provide AGL with a continuing

13 entitlement to fill its mine if it was in the net interests

14 of the community of Victoria to provide access to that

15 water. The evidence to date demonstrates that there

16 appears to be advantages to reaching the stable water level

17 as soon as is reasonably practicable.

18 In this context, it is important to recall the role

19 that these mines serve, will serve and have served for

20 decades in providing Victoria with essential services.

21 Yes, they need water allocated to them. Yes, that water

22 has been allocated to them to date. Yes, it is fair and

23 reasonable for the mines to expect that that water will

24 continue to be allocated to them for rehabilitation

25 purposes.

26 Turning to term of reference 9(d), this is the term

27 of reference which requires consideration about the extent

28 to which the option would ensure progressive rehabilitation

29 is carried out as required under the Act. As previously

30 said, Mr Rieniets's evidence demonstrates the measurable

31 milestones contained within the work plan variation against

1 which AGL's progressive rehabilitation can be assessed.

2 Counsel assisting has questioned whether the department's

3 regulatory powers should be augmented with additional

4 enforcement action options and penalties which could be

5 utilised by the regulator if a mine operator fails to

6 undertake sufficient progressive rehabilitation, but the

7 Act already has a range of options available to the

8 regulator should there be a need to step in. Importantly,

9 there is no evidence before the Board that the regulator

10 has needed to step in and lacked the necessary tools for

11 doing so. To the contrary, the evidence before the Board

12 is that the mines have been compliant with their

13 obligations to undertake progressive rehabilitation as set

14 out in their relevant licences.

15 Turning next to term of reference 9(e), the estimated

16 timeframe for implementing the option. AGL accepts that

17 there's some uncertainty in relation to the time it will

18 take to fill the lake beyond the stable water level and

19 this will depend upon water availability at the relevant

20 time. This issue is recognised in its 2015 work plan

21 variation. A time of 70 years is forecast based upon the

22 highly conservative assumption of no reliance on artesian

23 pumping, bulk entitlements or diversion of flood waters

24 from nearby creeks. Of course, if this was considered to

25 be too long at some future time, the government could make

26 available, and should make available, water for a quicker

27 fill of the lake.

28 Turning next to term of reference 9(f), the options

29 viability, any associated limitations and its estimated

30 costs. AGL has estimated the costs of rehabilitation over

31 the remaining life of the mine based on the 2015 work plan

1 variation with assistance from GHD. This is contained in

2 Mr Rieniets's first and third witness statements, among

3 other things. The costings undertaken to date do not give

4 rise to concerns by AGL about the viability of conducting

5 remediation in relation to the proposed final land form.

6 AGL's forward planning takes into account these costs,

7 including costs of progressive rehabilitation. AGL Energy

8 Ltd is not a two-bit operation. Dr Gillespie gave evidence

9 that it has an operating earnings before interest and tax

10 in 2015 of $1.1 billion.

11 Term of reference 9(g), the impact of the option on

12 any current rehabilitation plans for each mine. The answer

13 to this term of reference is short. The only option under

14 consideration is entirely consistent with AGL's now

15 currently approved work plan variation.

16 Term of reference 9(h), whether and to what extent

17 the option would impact the future beneficial uses of the

18 land areas impacted by the mines. Section 79 of the Act is

19 important in understanding the minimum regulatory

20 requirements of mining operators in terms of

21 rehabilitation. Insofar as the rehabilitation plan should

22 deal with end uses, the Act requires the plan to address

23 the desirability or otherwise of returning agricultural

24 land to a state that is as close as reasonably possible to

25 its state before the mining licence was granted. One must

26 remember, of course, that the AGL Loy Yang Mine sits within

27 a rural setting. As Ms Unger put it, that is the default

28 position in relation to agricultural land. As the owner of

29 the freehold of the land, AGL has an interest in addition

30 to that of a holder of a mining tenement, in ensuring that

31 rehabilitation of the land maximises the beneficial end use

1 of that land.

2 AGL's rehabilitation plan addresses what is

3 contemplated by the Act. It identifies that a return to

4 agricultural land is desirable at this stage and the final

5 land form concept works towards that end use. There is no

6 reason to think that the land surrounding the mine pit will

7 not be able to be used for agricultural purposes once

8 rehabilitated. Agricultural use is a beneficial use of

9 land. It should not be discounted because it is not a

10 public use, such as a potential recreational use.

11 The Act does not require the rehabilitation plan to

12 identify a particular end use. As already stated, there is

13 a distinction between land form, on the one hand, and end

14 uses on the other. The expectation in the Act is the final

15 land form will be safe, stable and sustainable. Further,

16 there is a distinction to be made between articulating the

17 concepts for possible end uses and the delivery of a

18 possible end-use outcome. For example, if AGL was to

19 determine - this is a purely hypothetical example - that a

20 possible end-use outcome was a wind farm, that would not

21 then translate into an obligation to provide that end use.

22 The obligation would be to produce a land form that was

23 suitable for the range of end uses articulated in the

24 rehabilitation plan. It may be, if one wanted to use the

25 land for one of those end uses, further work would need to

26 be undertaken to bring that end use to fruition. The

27 obvious example with a wind farm is putting in place the

28 relevant plates for the turbines to be placed upon. So one

29 needs to bear in mind what needs to be delivered under the

30 Act, as distinct from what may be the range of end uses

31 that may be appropriate on that land form, which of course

1 may vary over time. As Mr McCollough and Ms Unger both

2 recognised, mine closure planning is a process. It is not

3 fixed in time, it is designed to be flexible and meet the

4 needs of the environment, the operation and the social

5 community as it develops.

6 On day two of the hearings, Professor Catford asked

7 Mr Rieniets why AGL had changed the rehabilitation plan in

8 terms of end use from public access to private access only.

9 The fact is that AGL Loy Yang inherited the work plan 1997

10 when it purchased the site, in part in 2004 and in full in

11 2012. That was only three years ago, or 10 years ago if

12 you take the part acquisition. The work plan 2015, which

13 AGL has been working on almost since it took full ownership

14 of the mine, is the first variation that has sought a

15 change to the rehabilitation plan. On the basis of the

16 work undertaken to inform that work plan, AGL has developed

17 a plan which envisages this issue of private ownership for

18 agricultural purposes and AGL is confident that the land

19 will be able to be returned to that agricultural use. In

20 fact, much of the land has already been returned to

21 grazing. However, the land form that AGL is working

22 towards is not inconsistent with some form of public

23 access. Clearly, the partial backfill with pit lake option

24 would permit in theory a range of community uses to be

25 undertaken at the site if that was thought a desirable

26 outcome at the relevant time.

27 Professor Sullivan said the way the work plan

28 variation dealt with the issue of public access was "an

29 example of good rehabilitation process". This evidence is

30 also largely consistent with what Ms Unger said about the

31 need to get the science right and engineering right before

1 the final end uses are determined.

2 AGL accepts it needs to engage with the community in

3 this process and to explain why its work plan variation

4 takes the conservative approach that it does in relation to

5 public access. Mr Rieniets explained that the ERC has been

6 involved in the development of the work plan variation.

7 The ERC, which has a broad membership base, including from

8 the community, council, DEDJTR, Southern Rural Water and

9 the EPA. AGL takes serious issue with the statement made

10 by counsel assisting this morning that it may be years

11 before that information came to light publicly. AGL has

12 not sought to hold back this issue of its change in the

13 work plan, but the process of community engagement needs to

14 occur now that the work plan variation has been approved,

15 and Mr Rieniets has agreed that that is the case at T.309.

16 However, AGL rejects any suggestion, if there is one, that

17 it should have surveyed the local community about whether

18 or not it should take a conservative approach to

19 end-of-life mine planning in submitting its work plan

20 variation for approval. That should be a given.

21 In relation to term of reference 9, it really invites

22 submissions about any other matters of relevance and AGL

23 has nothing further to add to that term of reference.

24 Perhaps going back one step top the previous

25 discussion about approval of the work plan variation,

26 obviously the timing of this Inquiry has had significant

27 bearing on the approval of the work plan variation and also

28 on the resources of AGL Loy Yang since its work plan was

29 approved some two weeks ago. So steps that perhaps might

30 have been taken will need to be taken once this Inquiry

31 process is over and AGL can then divert its resources back

1 to its usual processes.

2 I now turn to term of reference 10. There's been

3 considerable discussion about the adequacy of the

4 rehabilitation bond for the AGL mine. While clearly the

5 current bank guarantee does not match the current

6 rehabilitation liability of the mine, it does not

7 necessarily follow that the bank guarantee ought to be

8 increased, either by a single or multi step. As set out in

9 opening submissions on term of reference 10, AGL

10 acknowledges that it will need to engage with the

11 department over the coming months to determine whether or

12 not a revised bond is required in light of the 2015 work

13 plan variation and the bond review project. Dr Gillespie's

14 evidence is that bonds are primarily aimed at addressing

15 the risk of default in the event of insolvency or a firm

16 refusing to undertake final rehabilitation. Mr Cramer's

17 evidence is that in considering the options for financial

18 mechanisms, the state has to assess the likelihood and

19 consequences of rehabilitation default, its willingness to

20 take on risk, and balance this against the commercial needs

21 of the operators, EXP.0010.001.0006. Both experts on this

22 issue before the Inquiry gave evidence that one should look

23 at the risk of insolvency in understanding the issue of

24 rehabilitation bonds.

25 Despite setting out this broad principle, however,

26 Mr Cramer's report failed to carry it through in any

27 meaningful way, as opposed to the report of Dr Gillespie.

28 The Act enables the Minister to exercise discretion

29 in setting the bond. This discretionary approach is

30 appropriate. While a set of guidelines may be useful in

31 relation to setting bonds for smaller mines and quarries

1 for administrative efficiency, that is not the case for the

2 Latrobe Valley mines. To be clear, AGL Loy Yang submits

3 that it is neither necessary or desirable to set a

4 prescriptive set of guidelines, a prescriptive model or a

5 prescriptive mechanism for the bonds required under the

6 Act. Rather, the Minister should take into account a range

7 of relevant considerations, relevant depending on the

8 circumstances, including, firstly - and some of these

9 matters have been put by Ms Doyle, but I'll set them out

10 for the sake of completeness - whether there are any

11 documented cases in Victoria of an operator of a major coal

12 mine failing or refusing to adhere to its rehabilitation

13 options; past conduct in relation to rehabilitation;

14 financial stability; assets held by the mine operator and

15 their parent companies; indicators of good corporate

16 governance; the fact that mine operators are engaged in

17 conducting a business which involves the supply of a

18 product used to supply an essential service in Victoria;

19 the likelihood of continued demand for electricity in

20 Victoria and the lead time required to establish

21 alternative sources of supply; the advanced planning work

22 done by major suppliers of electricity to plan for and

23 transition to changing energy markets and regulatory

24 environments; the politically stable environment that we

25 have in Victoria in relation to energy policy; the fact

26 that coal mine operators are required to undertake

27 progressive rehabilitation; other financial assurance

28 mechanisms already in place to address the statement

29 rehabilitation risks, for example, in the case of AGL,

30 Loy Yang, the LIDAR; importantly, the risks of unplanned

31 closure, combined with the mine operator's financial

1 incapacity to fulfil financial rehabilitation obligations

2 over the projected time of the mine and, finally, the

3 quantum of the rehabilitation costs at any particular point

4 in time as measured against the likelihood of closure at

5 that point in time and the likelihood of default.

6 Ms Unger was asked by Ms Nichols whether she had a

7 view about the major risks to the government in achieving

8 100 per cent financial assurance. Her evidence was that

9 the risk of default with large corporations is less likely

10 because there is a reputational issue, a body of oversight

11 and other resources that can be drawn in - T.361.

12 Dr Bisnart's evidence set out some interesting

13 landscape scale rehabilitation options in East Germany.

14 However, AGL notes the political situation in Traralgon

15 Victoria has no parallels to the situation prior to the

16 reunification of Germany and its associated implications

17 for risk of default.

18 The evidence before the Board generally points to the

19 rehabilitation liability of the mine going down over time

20 as a result of progressive rehabilitation programs. Given

21 the purpose of the bond and the evidence before the Board

22 about the risk of default, it would be manifestly

23 unreasonable to set the bond based upon a close-now

24 scenario for the AGL Loy Yang Mine when the chances of the

25 mine closing tomorrow approach zero. As Dr Gillespie

26 explained, as the chances of default approach zero, so too

27 does the risk. When it comes to the issue of bonds, risk

28 equals likelihood of default times consequence. It should

29 not be conflated with likelihood of early planned closure

30 or with rehabilitation liability of the mines at any

31 particular point in time.

1 Dr Gillespie's evidence also noted that the cost to

2 industry can result in a net loss to society and community

3 where there is a very small probability of the government

4 bearing that liability. Both counsel assisting and

5 Ms Doyle this morning have referred to the briefing note

6 back in 1995 that was produced in relation to the Hazelwood

7 bond and the fact that it set out the circumstances in

8 which the author of the briefing note considered that a

9 full mine liability should not be required as the bond, due

10 in part to the fact that the mine was supplying part of the

11 state's power supply. That approach some 20 years later

12 seems eminently sensible. In the case of AGL Loy Yang, of

13 course, the risk at end-of-mine life is all but negligible

14 given the existence of the Loy Yang complex agreement which

15 Mr Cramer confirmed sits at the secure end of the spectrum.

16 The mechanism for the start of contributions commence in

17 2023, which is eight years. On any assessment, the risk of

18 default by AGL Loy Yang within the next eight years is

19 extremely unlikely.

20 Mr Rieniets's evidence on this was hard to argue

21 against. He gave evidence regarding the position of AGL in

22 the electricity market, the size and diversity of the

23 company and the low probability of unplanned closure. AGL

24 meets all of the criteria which Dr Gillespie and Mr Cramer

25 acknowledged as being relevant to an assessment of the

26 likelihood of default.

27 In those circumstances, AGL maintains its position

28 that the evidence before the Board does not lead to the

29 conclusion that the existing security arrangements for AGL

30 Loy Yang present an unreasonable risk to the state.

31 I just now have one final section to address you on,

1 which relates to the AECOM report. The question is whether

2 it provides a proper basis to assess AGL Loy Yang's

3 rehabilitation liability assessment. AGL submits that mine

4 rehabilitation liability assessments should reflect

5 individual mine situations, be determined by mine

6 operators, with external audit if required, and address

7 planned likely rehabilitation costs, as per Dr Gillespie's

8 evidence. They should also, to the extent that they

9 address risk, be undertaken in accordance with a formal

10 risk assessment process, including mine personnel and

11 appropriate experts. The AECOM report runs counter to

12 those principles. AGL does not consider that it represents

13 a fair, realistic or appropriate rehabilitation liability

14 assessment. AGL proposes to engage with the department in

15 relation to the methodology, rates and risk assessment

16 component in that report. AGL absolutely agrees with the

17 evidence that Mr Wilson gave, that a mine would be best

18 placed to determine its own liability. AGL supports a

19 model where the mine provide DEDJTR with its cost estimates

20 and the estimates are reviewed by an independent

21 consultant. AGL does not necessarily oppose a risk-based

22 approach to undertaking the rehabilitation liability

23 assessment, but it needs to be undertaken transparently,

24 which was a feature lacking in the AECOM work.

25 Further, AGL rejects the notion that rehabilitation

26 liability assessment should be based upon a P95 confidence

27 level. That approach is economically inefficient and runs

28 counter to Dr Gillespie's evidence that bonds are not

29 designed to deal with extremely unlikely events, but rather

30 designed to address planned closure costs. The use of an

31 appropriate contingency is a more transparent and

1 appropriate alternative.

2 The evidence of Dr Bowden was that in the case of

3 Loy Yang, the P95 represented a contingency in the order of

4 44 per cent for the early closure plus risk scenario. If

5 the numbers are run on the end-of-mine scenario plus risk,

6 the P95 would represent a contingency of some 70 per cent.

7 AGL submits that approach is unwarranted.

8 As noted by Ms Doyle this morning, the AECOM report

9 nominates two dates to base its analysis on: close

10 tomorrow, and 2037 in the case of AGL Loy Yang, which is

11 the end-of-mining licence scenario. While the 2015 date

12 may be relevant to assess current liability, it is not an

13 appropriate date upon which to fix for the purpose of

14 setting the bond, for the reasons already articulated,

15 namely, that closure of the mine tomorrow is an absurd

16 proposition.

17 The selection of 2037 may coincide with the end of

18 mining licence, but this is not a date of any significance

19 in relation to the AGL Loy Yang Mine, it is purely a

20 consequence of the 40-year limit in the Act from the date

21 of the grant of the mining licence in 1997. It is not the

22 planned closure of the AGL Loy Yang Mine.

23 Moving to the specific, AGL takes exception to the

24 7 December report, for a number of reasons. Firstly,

25 timing constraints under which the report was produced. It

26 was produced between 1 and 7 December. It was not given to

27 AGL until lunchtime on Friday, 11 December, despite the

28 fact that it was dated 7 December. No explanation has been

29 given for that. There was a lack of consultation with AGL

30 about the inputs to the report and the model used. There

31 was a lack of transparency in multiple aspects of the

1 report, including the failure to provide the risk register,

2 even though AGL's solicitors had requested that information

3 over the weekend. Basic errors in the report, some of

4 which were picked up on AGL's cursory reading of the report

5 over the weekend. Those errors would have had the effect

6 of reducing cost estimates. Nor does it take account of

7 the LIDAR in its end of mine licence scenario.

8 There was a lack of rigour in the rates that had been

9 chosen by Dr Byrne and Mr Chadwick, based on their own

10 judgments, and the fact that the risk events were based on

11 a two-person panel, despite the fact that they dealt with

12 complex issues, and that members of the panel had not even

13 visited the mine or taken into account AGL's risk

14 assessment and management plan, which one would think would

15 be a primary document to inform such an exercise.

16 In the time available to review the report, AGL

17 focused on one domain, the post execution monitoring and

18 maintenance domain, with a raw cost of some 100 million.

19 The report was internally inconsistent in this item. For

20 example, the description it gave for the annual rate, first

21 five years after execution phase, was inconsistent with the

22 70 years that was ascribed to that item. Evidence that was

23 given in the box in relation to this issue was

24 inconsistent. Under questioning from Mr Rozen, at T932 of

25 transcript, Dr Byrne said that a 5 to 15 year intensive

26 monitoring and maintenance program had been adopted for all

27 three mines, but the subsequent evidence of Dr Byrne was

28 that the numbers had been switched for AGL, with a higher

29 cost adopted for the first 70 years at AGL Loy Yang and a

30 lower cost for the subsequent five years. If the 70 years

31 in the report was not simply an error, then it provides a

1 useful example to point to some of the major problems with

2 the report. Firstly, the arbitrary nature of the rates

3 that were adopted. Two different rates were selected for

4 monitoring, 175,000 or 375,000 per year, depending on

5 whether the rate was seen to be intensive or not. The way

6 the rates were applied. The exact same rates were adopted

7 for the first five years at Hazelwood and Yallourn as were

8 adopted for 70 years at Loy Yang, despite the different

9 monitoring and maintenance regime that would undoubtedly

10 occur at those mines over different timeframes and, of

11 course, the lack of transparency in the report. Why assume

12 that rip rap will progressively be applied at one mine but

13 assume instead very high monitoring costs and maintenance

14 cost at the Loy Yang Mine instead of the application of rip

15 rap? We say that this example of inconsistency between the

16 report showed that there was an uncertainty on the part of

17 the authors of those reports as to how to deal with this

18 erosion issue. We say neither approach is warranted on the

19 evidence. Ms Doyle made submissions about the need for rip

20 rap, and in relation to the substantial ongoing monitoring

21 and maintenance costs to deal with erosion, the answer is

22 simple. If it was the case, because we have to assume that

23 this is on a - the case that the state is taking over

24 rehabilitation of these mines - if it was the case that

25 there was substantial erosion likely over 70 years, the

26 state would simply use some water to fill the mines more

27 quickly.

28 There is another important point to make about this

29 very high-level post-execution maintenance and monitoring

30 figure. The AECOM report assumes that the land post

31 rehabilitation will have no beneficial use, which is in

1 stark contrast to the beneficial use of rehabilitated areas

2 for agricultural pursuits that already occurs at the

3 Loy Yang site. The AECOM report does not take into account

4 the extent to which any of the long-term costs of

5 monitoring and maintenance will be offset by income

6 generated from the land. On that basis, among others,

7 including the difficulties with assuming end of mine life

8 at 2037, so on that basis and others, AGL does not accept

9 that the AECOM's estimates of costs are acceptable. It

10 submits that the report is unreliable as an indicator of

11 estimated rehabilitation liability.

12 In relation to the EPA financial assurance, AGL's

13 submission is that financial assurances for the power

14 stations are simply not within the term of reference for

15 the Board of Inquiry. The Board should only consider the

16 evidence about the EPA financial assurance insofar as it is

17 relevant to its deliberations, about the appropriateness of

18 the bond system and the bond model and that evidence, in

19 AGL's submission, supports AGL's contention that a flexible

20 approach should be taken in appropriate circumstances.

21 So in terms of recommendations for term of reference

22 10, what can the Board recommend? In relation to whether

23 the rehabilitation liability assessment is adequate, the

24 Board should find that AGL's reported rehabilitation

25 liability assessment is all but irrelevant due to the new

26 work plan variation now approved. In this regard, counsel

27 assisting took issue with the fact that a draft report,

28 dated 2011, was provided to the Inquiry as the basis for

29 AGL's estimate of 53.7 million. Of course, AGL had been in

30 the process of obtaining approval for its 2015 work plan

31 variation for some years and that is why the mine also

1 offered up the updated GHD estimates of the 2015 work plan

2 variation to the Board.

3 Secondly, the Board should find that the outcome of

4 the bond review project is unknown. This issue is

5 noncontentious. Thirdly, that the AECOM report is not a

6 reliable indicator of rehabilitation liability. One cannot

7 simply sweep aside the recognised flaws and limitations of

8 the report as minor issues. They fundamentally affect the

9 outputs. The Board is aware, of course, of AGL's own

10 preliminary high-level internal costings, in the order of

11 120 million for a close-now scenario and, if one assumes

12 that the rehabilitation liability assessment is based on a

13 close-now scenario, then the Board could make some

14 high-level findings that the current rehabilitation

15 liability assessment is likely to be above its reported

16 2015 rehabilitation liability assessment, which, of course,

17 was undertaken on the basis of the old work plan. That is

18 not a contentious issue.

19 The second question under term of reference 8 is

20 whether the current rehabilitation bond system is or is

21 likely to be effective. For the reasons already given, AGL

22 maintains its position that the evidence before the Board

23 does not lead to the conclusion that the existing security

24 arrangements present an unreasonable risk to the state.

25 Counsel assisting's submissions to the Board

26 encourage it to reject the formalised risk assessment

27 process for setting bonds. AGL understands the submission

28 to be along the lines that a risk-based assessment of

29 likelihood of default is too hard, but a risk-based

30 assessment of the consequences of default is a good way to

31 go. The Board is asked to reject that submission as being

1 internally inconsistent and to take into account Dr

2 Gillespie's evidence about the principles of economic

3 efficiency and equity being important in the setting of

4 bonds.

5 In relation to the recommendation by counsel

6 assisting that there could be a trust fund established for

7 all three mines, AGL would ask the Board not to accept that

8 proposition. It does not incentivise the mines to perform

9 because underlying that method is an assumption that one

10 mine may need to foot the bill of the defaulting mine - see

11 the Accent report, p.11. This recommendation is somewhat

12 surprising, given the way the evidence developed, and it is

13 submitted that there is not an appropriate basis for the

14 recommendation upon the limited evidence before the Board

15 about such a mechanism. There was, however, discussion

16 about a parent company guarantee and AGL submits it is

17 appropriate to keep that option open.

18 In terms of any practical, sustainable and effective

19 alternative mechanisms, AGL would not oppose a

20 recommendation by the Board that there should be greater

21 coordination of rehabilitation, potentially under the

22 guidance of a locally-based coordinating body, such as Coal

23 Resources Victoria.

24 AGL thanks the Board for the opportunity to

25 participate and wishes it well for its deliberations.

26 CHAIRMAN: Thank you, Ms Forsyth. Yes, Dr Collins.

27 DR COLLINS: Chair, I note the time. Was it intended to take a

28 short break?

29 CHAIRMAN: Sorry?

30 DR COLLINS: Were you intending to take a short break, Chair?

31 CHAIRMAN: I think we'll keep going.

1 DR COLLINS: Yes, certainly. We recognise the significant

2 amount of work that clearly went into the written

3 submissions that we received from counsel assisting late

4 yesterday and we recognise that a gargantuan effort,

5 really, has gone into marshalling an enormous volume of

6 valuable and timely evidence in the past two weeks before

7 the Board. In a number of respects, as we will explain, we

8 agree with the submissions of Energy Australia. In other

9 respects, however, the submissions have overlooked evidence

10 adduced in the past two weeks. In respect of my client, in

11 particular, the very substantial body of work done by and

12 for Energy Australia in developing and executing its

13 approved rehabilitation plan has been all but ignored. The

14 submissions contain, for example, almost no reference to

15 the conclusions of the suite of research, all of which was

16 either independent or peer-reviewed, that was undertaken by

17 or for Energy Australia in 2011 and 2012 as a result of

18 condition 7 of the approval of its 2011 work plan

19 variation. In counsel assisting's written submissions,

20 that work merits a three and a half line's mention in

21 paragraph 117.

22 The research addressed directly, and in considerable

23 detail, many of the matters that counsel assisting now say

24 have been ignored by the mines, including questions of

25 batter stability and water quality and interconnection.

26 Counsel assisting said orally this morning that the

27 reports from 2011 and 2012 "didn't answer anything". That

28 statement is just wrong. We cannot fathom how it could

29 have been made by someone who had read the material.

30 Counsel assisting's submissions also make no

31 reference to the evidence that Energy Australia has

1 expended more than $9 million by way of direct costs, and

2 considerably more in indirect costs, in progressive

3 rehabilitation over the last nine years. Nor is there any

4 reference in counsel assisting's submissions to the fact

5 that the amount of net disturbed land at Yallourn has

6 declined significantly since 2005 as a result of Energy

7 Australia's progressive rehabilitation efforts.

8 As a result of these and other omissions to which I

9 will come, which are glaring, in some respects startling

10 and unexplained, and which cannot be allowed to pass

11 without critical comment, we say that counsel assisting's

12 submissions have, in important respects, fallen into the

13 trap against which many of the witnesses warned the Board

14 in the course of these hearings. They assume a

15 one-size-fits-all approach can be applied to criticism of

16 the mines and the regulator and to the viability of the

17 various approved rehabilitation options and to the question

18 of how best to ensure that the rehabilitation options of

19 the operators are appropriately secured. We recognise that

20 counsel assisting have produced their submissions in the

21 face of significant time pressures. In their present form,

22 however, particularly in relation to terms of reference 8

23 and 9, they are, with respect, not an accurate reflection

24 of the evidence; they require substantial revision. They

25 are not sufficiently rigorous. The community of the

26 Latrobe Valley deserves better.

27 Terms of reference 8 and 9 ask about the short,

28 medium and long-term rehabilitation options for each of the

29 three Latrobe Valley mines. All of the evidence pointed to

30 a pit lake at Yallourn being the only viable solution upon

31 the cessation of mining. A fully-flooded lake was the

1 strategy developed by the SECV for Yallourn in 1994. A

2 range of reports from independent experts were commissioned

3 by the SECV in the 1990s, including a May 1993 report by

4 GEO-Eng Pty Ltd into the flooding option; a June 1995

5 report by GEO-Eng assessing mine batter stability, and a

6 1997 report by HRL Technologies into the viability of the

7 flooding strategy. We see no reference to any of that

8 material in any of the submissions put to the Board today

9 by counsel assisting.

10 A fully-flooded lake, consistent with the SECV's

11 already well developed plan from the 1990s, was the

12 solution embedded in the Yallourn Mine rehabilitation plan

13 that was approved in January 2002. The viability of that

14 plan was further confirmed by a concept review undertaken

15 independently by GHD in 2005, which looked at, among other

16 matters, lake depth, filling time and water quality issues,

17 issues which, according to counsel assisting, the mines

18 have simply ignored.

19 The approved plan was confirmed again by the suite of

20 work done in 2011 and 2012 in response to condition 7 of

21 the 2011 work plan variation. Apart from the one passing

22 reference to the condition 7 materials, occupying three and

23 a half lines at paragraph 117, there is otherwise no

24 attention given at all to that vast body of independent and

25 peer-reviewed work. This is a fundamental shortcoming in

26 the submissions that have been put to the Board. It

27 pervades them. It does a disservice to the evidence and it

28 is apt to mislead and alarm the community.

29 Reliance was also placed by counsel assisting on the

30 criticism of the mine operators made by the Technical

31 Review Board in its 2011-2012 annual report. Counsel

1 assisting has, however, overlooked the frank concession

2 made by Professor Sullivan - transcript 477, lines 8-11,

3 that the TRB prepared that report in ignorance of all of

4 the work that had been done by Energy Australia in 2011 and

5 2012, including the work in relation to lake filling, water

6 quality, interconnection and batter stability. That

7 concession from Professor Sullivan very significantly

8 blunts those criticisms, at least in their application to

9 Yallourn.

10 The Jacobs's report, prepared for the purposes of the

11 work of the Board, further confirms the validity and

12 desirability of a pit lake plan for Yallourn, noting that

13 the plan sits somewhere between its full pit lake and

14 partial backfill before the water table option. The Jacobs

15 witnesses, in their oral evidence, said that their report

16 should not be taken to be a criticism of the approved

17 Yallourn plan - transcript 471, lines 4-7.

18 As Ms Doyle pointed out, Professor Sullivan,

19 Dr McCollough, Dr Haberfield, Mr Hoxley and Professor McKay

20 all said that they did not believe there was any other

21 viable or better solution than a pit lake for any of the

22 Latrobe mines.

23 The evidence showed that the pit lake option for

24 Yallourn has major potential benefits for the community of

25 the Latrobe Valley and the state. Mr Mether, at transcript

26 315-317, outlined an inspiring vision for the Yallourn Mine

27 in his evidence. He pointed to the fact that he is a

28 longstanding member of the Latrobe Valley community and he

29 referred to the community's experience, traumatic at the

30 time, of the benefits of the establishment of the Blue Rock

31 Lake. Dr McCollough also pointed to the substantial

1 opportunities of rehabilitation and cautioned against

2 focusing only on the risks - transcript 445, lines 11-22.

3 Everyone was impressed with Dr von Bismarck's evidence,

4 which was tangible proof that, properly implemented, pit

5 lakes can become magnificent community resources. He spoke

6 about the German experience with hydrological modelling and

7 treatment at transcript 551, line 26, to 552, line 1. He

8 said that if interconnection with the local river system

9 can be achieved, there are large benefits.

10 It is true, as counsel assisting have stated, that a

11 principal unknown for each of the mines is accessibility to

12 water. As Mr Mether explained, however, in his statement,

13 at paragraph 198, unchallenged, Energy Australia has

14 undertaken a great deal of work in relation to lake

15 filling. Modelling demonstrates that with natural inflows,

16 the deployment of Energy Australia's current water

17 entitlements and predicted overflows from the Latrobe and

18 Morwell rivers, the likely filling time of the Yallourn

19 void drops to as little as five to six years. Again, we

20 see no reference to any of this work in the submissions of

21 counsel assisting.

22 As Ms Doyle pointed out, and again contrary to what

23 was submitted by counsel assisting, the Gippsland

24 Sustainable Water strategy, Exhibit 11, is not evidence

25 that pit lakes cannot be achieved in the Latrobe Valley.

26 Neither Dr Davis nor Mr Rodda were able to identify what,

27 if any, work had been done in respect of what Ms Doyle

28 described, we think aptly, as a thought bubble. The water

29 panel's evidence was that the Latrobe Valley water system

30 is very reliable - at transcript 196, lines 29-31 and

31 transcript 216, lines 1-8.

1 The evidence was clear that the quicker the void can

2 be filled, the better the outcome in terms of stability and

3 erosion and, of course, the sooner the voids can be

4 transformed into lakes, the earlier the community will have

5 access to what are potentially very exciting assets.

6 One of the outcomes of these hearings has been to

7 highlight the need for water accessibility issues to be

8 addressed and coordinated. Energy Australia sought to

9 initiate a dialogue with the state on the question of water

10 allocation in 2012. The achievement of certainty in

11 respect of matters like water allocation would obviously

12 assist in progressing final rehabilitation. Whilst

13 certainty around water allocation is important, indeed

14 vital, it is simply not correct to suggest, as counsel

15 assisting have done, that the fact that water allocation is

16 an unresolved issue today points to a failure on the part

17 of either the mine operators or the regulator. We put it

18 the other way around. It would be remarkable if that

19 question had been finally resolved so far out from the

20 cessation of mining. In Yallourn's case, the first of the

21 mines are predicted to close some 17 years from now. It

22 would also be remarkable if that question could be finally

23 resolved this far out. It is obviously a matter that needs

24 to be the subject of ongoing coordination, dialogue and

25 refinement.

26 Counsel assisting are right to point to the fact that

27 there is still a good deal of work to be done before mine

28 closure but wrong, with respect, to convey to the Board or

29 to the community that there is some kind of present or

30 impending crisis. The work yet to be done includes further

31 work on batter stability, but in Energy Australia's case, a

1 great deal has already been done, again all of it

2 overlooked in the submissions we heard today. As Mr Mether

3 explained, unchallenged, batter stability tests have been

4 undertaken at different gradients and different levels of

5 cover at Yallourn over more than 15 years. A lot has been

6 learned as a result of the failures that occurred in 2007

7 and 2012. Mr Mether explained, transcript 357-358, that

8 Energy Australia has developed detailed models all around

9 the Yallourn Mine identifying different needs in different

10 areas. Again, that evidence is unchallenged and we see no

11 reference to it in the submissions put to the Board today.

12 There is also, of course, the question of the

13 government-funded batter stability project, itself focused

14 upon the Yallourn Mine.

15 We submit, contrary to the tenor of what was put this

16 morning, the Board can be confident and should find that

17 questions of stability are being addressed in a considered

18 and competent manner at Yallourn, consistent with where one

19 would expect to be at least 17 years out from the forecast

20 cessation of mining.

21 Water quality is another ongoing issue. Again, as

22 Mr Mether explained, unchallenged, a great deal of work has

23 been done in that area. The Yallourn Mine, pursuant to the

24 terms of its EPA discharge licence, returns about 15

25 gigalitres of water to the river system every year and has

26 done so for many years without issue. As many of the

27 witnesses affirmed, there are potentially huge advantages

28 from being able to interconnect with existing watercourses

29 and there is no reason to think that that will not be

30 possible at Yallourn. As Professor McKay said, there's no

31 reason why you cannot get an engineered form of

1 flow-through - transcript 451, line 26. Professor McKay

2 also pointed to the natural advantages that Yallourn has

3 over the other two mines - transcript 452, line 4.

4 Mr Hoxley also accepted that interconnection could

5 lead to water quality improvements, both within the lake

6 and without flows to existing watercourses - transcript

7 472, line 3.

8 The need for community engagement has been a

9 recurrent theme of the present hearings, but the

10 development of that theme has, at times, lacked focus. If,

11 as all the evidence suggests, the only viable plan for the

12 Yallourn Mine is the establishment of a pit lake, then

13 community engagement needs to centre around the way in

14 which that plan can benefit the community, not around the

15 antecedent question of whether there should be a pit lake

16 at all. That appears to be the way in which community

17 engagement operated, with great success, in the German

18 experience related by Dr Bismarck. Ms Unger also gave a

19 credible and balanced perspective on this question -

20 transcript 633, line 27.

21 It might perhaps be said that the community could

22 have been consulted more closely in relation to the

23 development of the SECV's pit lake plan in 1993. There was

24 no evidence before the Board bearing one way or the other

25 on that question, but the evidence was clear that Energy

26 Australia has not ignored its local community. Its efforts

27 at engagement are considerable. Again, we see little

28 reference to this in counsel assisting's submissions.

29 Every year since 1996, Energy Australia has conducted

30 quarterly meetings of its Environment Review Committee, at

31 which questions of mine rehabilitation are routinely the

1 subject of discussion. The Latrobe council has at all

2 times had representatives on the committee.

3 Ms Rhodes-Ward's ignorance of that work in her oral

4 evidence before the submission was surprising and somewhat

5 disturbing. The last meeting of the committee was

6 advertised in the Latrobe Express, although it appears

7 no-one from the community attended the meeting in response

8 to the advertisement.

9 Community engagement is an ongoing process. We're

10 instructed that Energy Australia will hold a community open

11 day, as it does periodically, in the new year, at which

12 anyone with an interest in the subject will be able to gain

13 a better understanding of the nature and extent of the

14 rehabilitation activities that have been undertaken to date

15 at Yallourn and the nature and benefits of the

16 rehabilitation plan.

17 The rehabilitation plans for each of the mines are,

18 in the language of some of the witnesses, matters of

19 legacy. We do not start with a blank sheet of paper. We

20 cannot look at the options for rehabilitation as if the

21 past 20 years of assessment, refinement and progressive

22 implementation of rehabilitation has not taken place. We

23 are a very long way down the track. Fortunately, however,

24 the evidence has not revealed any foundation for believing

25 that there is a better option that has been overlooked.

26 The evidence has shown that the vision for a lake at

27 Yallourn is more likely developed and further down the

28 track in terms of execution than the corresponding plans at

29 the other two mines. There is every reason to be

30 optimistic that the Yallourn pit lake will be a success

31 story comparable to the best examples of which Dr von

1 Bismarck spoke in Germany. There is ovary reason to think

2 that it will become a source of pride for the Latrobe

3 Valley community.

4 Energy Australia therefore urges the Board, in

5 relation to Yallourn, to adopt a positive and optimistic

6 glass more than half full approach, consistent with the

7 evidence. The community of this Valley deserves nothing

8 less. There should be findings, in our submission, that

9 the Yallourn rehabilitation strategy is well advanced and

10 developed, on track, achievable, responsible and safe.

11 Can I address the question of governance. It cannot

12 be doubted that greater coordination and prioritisation as

13 between government and the three mine operators is required

14 and that that will become increasingly important as the

15 closure of the mines approaches. Ms Cameron's evidence was

16 impressive. As counsel assisting have submitted, as we

17 understand it, it seems clear that, in her terms, a lead

18 agency model is the appropriate way forward for the Latrobe

19 Valley mines. While of course legislation and regulations

20 need to be regularly reviewed to ensure that they reflect

21 best practice, we agree with what we take to be the broad

22 consensus, perhaps with the exception of environment

23 Victoria, that a case has not been made for throwing out

24 the current regulatory model and starting again. We

25 positively caution against such an approach. New levels of

26 red tape are not desirable, nor is it desirable to

27 superimpose upon a long-established industry wholly new

28 rules or structures in the absence of evidence of

29 demonstrable failure of the existing rules and structures.

30 New rules and structures can introduce new problems, new

31 uncertainties and new inefficiencies. There are serious

1 sanctions available under the existing regime for operators

2 who fail in their obligations of rehabilitation, including

3 progressive rehabilitation. Conditions can be imposed on

4 licences; s.34. In extreme cases, the state can take over

5 an operator's rehabilitation obligations and recover the

6 costs of doing so as a debt in a court of competent

7 jurisdiction; s.83. Contrary to counsel assisting's

8 submissions this morning, we submit there can be no real

9 doubt about the ability of the state to enter upon the land

10 of a mining operator in order to give effect to its rights

11 under s.83. The rights would be of no value were it

12 otherwise. The Minister is empowered, under s.83, to take

13 "any necessary action" to rehabilitate land.

14 There was evidence that the current principal

15 regulator, DEDJTR, has not been as active as it should have

16 been in some areas and has failed to coordinate effectively

17 between different stakeholders. The lack of a formal

18 response to the Energy Australia condition 7 materials is a

19 glaring example. That evidence must, however, be kept in

20 its proper context. As Mr Mether explained, there are

21 monthly on-site meetings between Energy Australia and

22 representatives of DEDJTR at the Yallourn site, at which

23 monitoring and stability results are discussed, as well as

24 progress in drainage and broader geotechnical issues -

25 transcript 323, line 7. There are also quarterly meetings

26 with DEDJTR on site, at which compliance activities are

27 discussed and monitored. The regional manager of DEDJTR

28 attends and discusses, in Mr Mether's language, "the whole

29 range of issues from the progression of mining and

30 rehabilitation to geotechnical, water and stability

31 issues" - transcript 323, line 23. And Energy Australia

1 provides six-monthly rehabilitation reports to DEDJTR,

2 setting out, again in Mr Mether's words, "every bit of

3 monthly geotechnical information we have on site, our

4 rehabilitation progress, all our bore monitoring, our water

5 monitoring, they are very extensive" - transcript 324, line

6 11.

7 Mr Mether characterised the nature and extent of the

8 communications as between Energy Australia and the

9 regulator as "regular and often" - transcript 324, line 20.

10 He said he did not consider there to be anything

11 fundamentally broken in relation to Energy Australia's

12 journey towards rehabilitation or its relationship with the

13 regulator and the state more broadly - transcript 324, line

14 28. None of the evidence I've just recounted was

15 challenged and none of it is acknowledged in counsel

16 assisting's written submissions. Only the briefest

17 reference was made to the monthly meetings in oral

18 submissions this morning.

19 The evidence points, in our submission, to the

20 desirability of, in Ms Cameron's terms, the lead agency

21 model, led by DEDJTR, engaging in better and more

22 coordination as between the department, the mine operators,

23 other government agencies, the community and other

24 stakeholders.

25 Could I turn to term of reference 10. In relation to

26 term of reference 10(a), Energy Australia accepts that a

27 case has been made for reviewing and updating the predicted

28 costs of rehabilitation at each of the three mines. We

29 agree with the submissions put by our learned friends for

30 the other mine operators that the work done by AECOM is

31 unfinished, unreliable and has significant limitations.

1 The AECOM assessment, as others have pointed out, was a

2 desk-top study. It involved no site visits; it involved

3 next to no consultation with the mine operators. The

4 evidence was that there's been no substantive consultation

5 between AECOM and Energy Australia since delivery of the

6 report.

7 Mr Chadwick, in his oral evidence, acknowledged that

8 further engagement with the mines would help and would

9 inevitably affect the estimation of costs - transcript

10 1003, line 27. Everybody agreed that the mine operators

11 are the best repositories of information concerning the

12 likely cost of rehabilitation of the mines. There were

13 errors in the assumptions made by AECOM, critical errors,

14 in relation to all three of the mines. One obvious error

15 that others have pointed to concerned the expected end of

16 mining. In the case of Yallourn, AECOM was instructed to

17 assume that mining would end in 2026, when all of the

18 evidence is the likely cessation date is 2032. Mr Byrne

19 conceded that an assessment of costs, calculated by

20 reference to an end date of 2032, would yield a lower

21 result than an assessment based on a 2026 date - transcript

22 1004, line 29. There were other errors or debatable

23 propositions in the AECOM analysis. Most fundamentally, as

24 I think everyone recognises, the analysis assumed the

25 likelihood of occurrence of a large range of risk events

26 calculated entirely as a matter of the subjective judgment

27 of a panel of two, Messrs Byrne and Chadwick. Those

28 subjective judgments were not set out in the report and are

29 not available for scrutiny, nor were they the subject of

30 any input from the operators - transcript 1007, line 1.

31 In relation to Yallourn, the assessment included an

1 allowance for topping up the filled lake in perpetuity at a

2 raw or undiscounted cost of some $67 million. In the first

3 place, there was real confusion in the AECOM report about

4 whether topping up would be required at all - transcript

5 1005, line 17 to 1007, line 12. More fundamentally,

6 however, it is difficult to see why, once a filled lake has

7 passed to other owners and is being exploited for community

8 or private benefits, the cost of maintaining the new

9 owner's property should be treated as a cost of

10 rehabilitation. At the very least, it is a debatable

11 proposition that's not been the subject of any

12 consideration in the AECOM report or elsewhere and it has a

13 dramatic impact upon the estimate of costs, and we

14 identified other apparent errors in the AECOM report in an

15 exchange with Mr Mether at transcript 779, line 20 to 782,

16 line 17.

17 Energy Australia presently estimates its

18 rehabilitation costs at between $46 and $91 million. Those

19 costs were not the subject of any critical attention in the

20 evidence. Mr Mether was not challenged in relation to them

21 at all, other than being asked by counsel assisting whether

22 the costs included the estimated costs of research.

23 Mr Mether responded that research is funded as an

24 operational cost at Yallourn and Mr Mether was asked

25 whether it included a contingency in its estimated costs.

26 Mr Mether's response was that Energy Australia did, in the

27 sense that it adopted conservative rates, and those

28 exchanges were at transcript 740, lines 11-31.

29 When the AECOM estimated costs for Yallourn are

30 adjusted for the errors and incorrect assumptions to which

31 we've pointed, Energy Australia believes the corrected

1 estimate will come down so that it is in or close to the

2 ballpark of that in the Schedule 19 return filed by Energy

3 Australia.

4 Given the limitations to the work undertaken by

5 AECOM, the errors in it, the absence of any critical

6 analysis at these hearings of Energy Australia's own

7 estimated costings, apart from those matters to which I

8 have referred, we say there is no proper foundation. We go

9 further; we say there is no foundation at all for the

10 submission that the AECOM costings ought to be treated as

11 more reliable than those of Energy Australia.

12 Like everyone, we agree with counsel assisting that

13 there is merit in the s.79A model towards the calculation

14 and verification of rehabilitation costs. The mine

15 operators have the intimate and superior knowledge of their

16 operations. They should be the first port of call for

17 conducting estimates of rehabilitation costs. They should,

18 however, we agree, be done according to a consistent set of

19 guidelines and be the subject of independent verification.

20 We think Ms Unger agreed with that approach - transcript

21 623, lines 13 and following.

22 I turn briefly to term of reference 10(b). The

23 members of the DEDJTR panel agreed with counsel assisting -

24 this was at transcript 814, line 5 - that the current

25 premise of the bond requirement in Part 7 of the Act is "to

26 provide the state with sufficient money to rehabilitate a

27 mine if the mine owner walked away". If that is the proper

28 premise of the bond requirement, then, plainly enough, the

29 current bonds are inadequate and a case has been made for

30 their upwards revision. There is, however, as Professor

31 Catford in particular observed in the course of questioning

1 at the hearings, there is an antecedent question which is

2 at the heart of term of reference 10(c), and that question

3 is what is the purpose of a rehabilitation bond? In

4 relation to that question of public policy, it seems to us

5 that much more work needs to be done and that the present

6 board can contribute to that work by providing a focus for

7 the further work by identifying some of the matters that

8 need to be addressed. To that end, we finish our oral

9 submissions with a few brief observations.

10 First, it is a matter of regret that the NERA

11 Economics report was not available to the Board in time for

12 the present hearings. It is likely to make a substantial

13 contribution to the debate because NERA has, it seems, been

14 expressly asked to consider what policy ought to underpin a

15 rehabilitation bond mechanism. Mr Wilson said that at

16 transcript 829, line 11.

17 It is also a matter of regret that the Rehabilitation

18 Bond Review Project has not yet completed its work, not the

19 least because the completion of that work is assumed in

20 term of reference 10. Again, the outcome of that project

21 would inevitably have informed the Board in answering term

22 of reference 10(c).

23 The Accent report is a valuable report. It canvasses

24 a range of alternatives to the current bond system, all of

25 which, in our submission, merit further consideration.

26 Flexibility has been shown to be a key consideration. In

27 this area, again, a one-size-fits-all approach is unlikely

28 to be the optimal solution for protection of the state's

29 legitimate interest in not being left bearing

30 rehabilitation costs.

31 At the end of the day, however, the Accent report is

1 an options paper. The merits of the different options were

2 not the subject of detailed scrutiny in the present

3 hearings.

4 The 10 principles identified in the KPMG report

5 commanded general acceptance by those who gave evidence

6 before the Board. Those principles favour the development

7 of a rehabilitation assurance mechanism that provides

8 incentives to mine operators to comply with their

9 rehabilitation obligations and that sanctions operators

10 when they don't. Regrettably, the Board has not been given

11 the ammunition that would be necessary to make

12 recommendations about how that laudable public policy

13 outcome might be achieved, whether through reform of the

14 existing Board mechanism or otherwise.

15 Dr Gillespie's report, like the Accent report, was

16 also valuable and, in our submission, merits further

17 consideration. He made a point which is both obvious and

18 correct, namely, that the present system assumes, in

19 effect, that the risk of the mine operators walking away

20 from their rehabilitation obligations or becoming insolvent

21 is so great that they should be compelled to provide

22 security for 100 per cent of the estimated rehabilitation

23 costs up-front. That assumption is plainly wrong. It has

24 deleterious economic impacts upon the mining operators. It

25 may serve as a disincentive to progressive rehabilitation.

26 It ties up very significant amounts of capital in

27 protection of a low-level risk. Whatever the merits of the

28 current system in its application to small and speculative

29 mining operations, it is a blunt and economically

30 inefficient mechanism when applied to the Latrobe Valley

31 coal mine operators, which, it must be recalled, supply an

1 essential service and are part of large diversified

2 corporations.

3 We agree with counsel assisting's conclusion that it

4 is premature to consider alternative mechanisms for

5 securing rehabilitation options. We also agree with

6 counsel assisting that there should not be change for

7 change's sake. Against those recommendations, we disagree

8 with counsel assisting's recommendation that a trust fund

9 be established from 2018. In the first place, it is

10 inconsistent with those conclusions of prematurity and

11 change for change's sake. While we can see potential merit

12 in a trust fund as a mechanism for ensuring that ongoing

13 maintenance obligations are secured after ownership of the

14 filled pit lakes has past from the mine operators, that is

15 not what was recommended by counsel assisting and that will

16 not happen in any event until, at the earliest on present

17 estimations, about 25 years from now.

18 Counsel assisting have not explained how the proposed

19 trust fund would sit with the existing rehabilitation bond

20 mechanism. If, as Dr Gillespie said, the mine operators

21 already effectively pay twice, counsel assisting's

22 recommendation would see them pay thrice. No case has been

23 made, in our submission, for establishing a trust fund from

24 2018; no analysis has been attempted as to the structure of

25 such a fund, or the contributions that ought to be made to

26 it. The Accent report, as my learned friends at the Bar

27 table for the mine operators have pointed out, suggests

28 both advantages and disadvantages to the establishment of a

29 trust fund. The desirability or otherwise of a trust fund

30 one might expect to be the subject of analysis in the

31 forthcoming NERA Economics report.

1 In short therefore, in my submission, there is an

2 inconsistency, a fatal inconsistency, in the way in which

3 this is being put by counsel assisting and, in addition,

4 there is insufficient analysis of the issue such that it is

5 simply premature for such a significant and sweeping

6 recommendation to be made.

7 In our submission, in relation to term of reference

8 10, the Board should recommend that the state undertake

9 further work in developing a fit for purpose model for

10 securing the mine operator's obligations to rehabilitate

11 the Latrobe Valley mines, in consultation with the mine

12 operators. That work should have regard to, in the first

13 place, consistently assessed evaluations of the likely

14 costs of rehabilitation, following the s.79A model,

15 conducted in the first instance by the mines and then

16 independently verified. Secondly, a proper assessment of

17 the true risk of the operators not complying with their

18 legal obligations to rehabilitate the mines, either because

19 they walk away or become insolvent. Thirdly, the

20 desirability of providing incentives for progressive

21 rehabilitation and sanctions for operators who don't comply

22 with their obligations. And finally, the desirability of

23 flexibility in the provision of security to reflect the

24 fact that a one-size-fits-all approach is inappropriate in

25 the context of the Latrobe Valley mines. May it please the

26 Board.

27 CHAIRMAN: Thank you, Mr Collins.

28 MS DOYLE: Mr Chairman, may I correct an error? When I was

29 speaking in the context of the topic of community

30 engagement, I referred to the doorknock question that I had

31 put to Ms Rhodes-Ward in evidence. During my oral

1 submissions, I, in error, referred to that doorknock as

2 having occurred in 2014. Transcript page 50 confirms that

3 when I was discussing that with Ms Rhodes-Ward, we were

4 both talking about a doorknock that occurred in 2015, so it

5 was this year and not last year, if the Board pleases.

6 CHAIRMAN: I think that is all that we will be hearing in terms

7 of submissions. I would call upon Mr Rozen to perhaps,

8 although his mind may have been on other things in the last

9 few minutes, refer to some of the matters which we are

10 grateful for. I will add a little more, but mine will tend

11 to be a formal list of matters. I am conscious of the fact

12 that people will want to get away, but I will also call

13 upon Dr Catford, who may make a more personal approach to

14 these sorts of things. Mr Rozen.

15 MR ROZEN: Thank you very much, Mr Chairman. Today marks the

16 final day of public hearings for the Hazelwood Mine Fire

17 Inquiry, Part 2. The terms of reference were provided to

18 the Board in May of this year and the first public hearings

19 were held in July, concerning term of reference 11, which

20 focused on the closure of the Anglesea mine. In a very

21 short period of time, this board, and its quite small group

22 of employees and assistants, has carried out, in effect,

23 four inquiries, the first being the Anglesea Inquiry in

24 July and August, which has reported to the government, the

25 second being an Inquiry conducted in the Latrobe Valley

26 under term of reference 6, which examined the question of

27 whether there is any relationship between the Hazelwood

28 fire of 2014 and the death rates in the Latrobe Valley in

29 the subsequent period. That's also reported to the

30 government. The third Inquiry conducted looked forward to

31 future developments that might be available in relation to

1 the health of residents of the Latrobe Valley, and that is

2 a work in progress and, of course, this is the fourth of

3 the Inquiries that the Board has engaged upon.

4 In the process of those four Inquiries, an enormous

5 amount of work has been done and it is work which has

6 addressed disparate topics, all of which are of great

7 importance to the Victorian community generally but

8 particularly the community of the Latrobe Valley. The

9 impact of the work of this Inquiry will endure for many

10 years. All of that work has been done, as I say, by a very

11 small team. With apologies to Winston Churchill, a lot has

12 been done by few for many Victorians. It has been a

13 privilege to be part of this passionate and hard-working

14 team. It is my very pleasant duty to thank a number of

15 members of the team. It is always difficult, in these

16 circumstances, to single out individuals, but there are

17 some that need particular mention. In no particular order

18 but like any good member of counsel, I'll start with my

19 instructing solicitor, and that is the indefatigable

20 Justine Stansen, who has been incredibly hardworking,

21 resourceful, nothing has ever been too much trouble and

22 it's certainly not too much trouble for her to be engaged

23 in 10 different tasks at once and to happily accept a

24 request to perform an 11th one. We have all seen that on

25 numerous occasions. She's pulled together a 12-volume

26 court book, largely on the run, with very little in the way

27 of back-up and has overseen the incredibly smooth running

28 of six days of evidence and now a seventh day with

29 submissions.

30 Second, it would be remiss of me indeed not to

31 mention the indomitable Ruth Shann, who has been my junior

1 throughout this Inquiry, one of the hardest working and, I

2 must say, smartest barristers that I have ever had the

3 pleasure to work with in my time at the Bar. Ruth, of

4 course, will shortly be producing a junior of her own and

5 I'm sure that the Board joins me in wishing her the very

6 best. She will have different challenges to deal with, as

7 all of the parents in the room know.

8 Thirdly, I'd like to mention the Secretariat. I

9 can't mention them by name, but they've been headed up by

10 Genelle Ryan, who took on the responsibility without any

11 real background in running inquiries, she learnt on the

12 run, and she's the person who makes it all happen behind

13 the scenes and makes the rest of us look halfway competent

14 and with a small team of secondees from the public service

15 and others, Genelle has done an extraordinary job in

16 keeping the show on the road, as they say.

17 Fourthly, I need to mention briefly the local

18 communities of both Anglesea but particularly here in the

19 Latrobe Valley who have followed the progress of all of the

20 Inquiries in surprising number and kept turning up to

21 consultation sessions, providing the Board with submissions

22 and making us all feel welcome and as if what we were doing

23 had a degree of relevance to their lives.

24 Finally, lastly, but certainly not least, I'd like to

25 mention Anita Roper, who is, of course, the Board member

26 who was primarily responsible for this aspect of the

27 Board's work. She's been an inspiration to us all, full of

28 energy and ideas, and she's been sorely missed during the

29 two weeks of the hearings, but her recent improvements in

30 health would indicate that she may yet be able to come off

31 the interchange bench and provide us with some assistance

1 in completing the report. If the Board pleases.

2 CHAIRMAN: Thank you, Mr Rozen. I would add my thanks, without

3 going into detail, to the various people that Mr Rozen has

4 thanked and I'd also thank other people like those at the

5 extended Bar table, with a very favourable gender mix that

6 has obviously been noted, but I also thank but understand

7 that you would want me to thank on your behalf those people

8 at the back, who have, throughout the last few months,

9 since May, when the second Inquiry was announced, have

10 taken an interest for a variety of different reasons and

11 will be so much better informed to pass on to so many other

12 members of the community what has come through this Inquiry

13 that you couldn't have possibly obtained in any other way,

14 so I add my thanks to those people.

15 Can I just briefly add to what Peter has said that I

16 particularly have found the loss of Anita Roper troubling,

17 but I did go to hospital and saw her yesterday and it

18 appears that she is recovering quickly.

19 The final thing I would add is really just of a

20 formal note. We will be reporting on the health

21 improvement in the Valley to the Governor on - our times

22 are 29 January for that report and for the report on mine

23 rehabilitation bond, on 15 March. So while you may be able

24 to relax over the next few weeks, you can assume that a lot

25 of us will not be able to do so. But apart from repeating

26 my thanks in a more formal way, what I have asked John to

27 do is to do it in a more personal way. John.

28 PROFESSOR CATFORD: Thank you very much, Chair. I would like to

29 conclude with some general comments, and perhaps we might

30 start by just recognising that this Valley, the Latrobe

31 Valley, has been the lion of Victoria over all our

1 lifetime. Through power generation, the Latrobe Valley has

2 helped create the wealth that we all enjoy today, but

3 before wealth there is health and we found last year and

4 through this Inquiry that, unfortunately, health has been

5 damaged in the Valley as a consequence of that wealth

6 creation and the mine fire itself has exacerbated the poor

7 health in the Valley. So we do welcome and commend the

8 government in re-opening this Inquiry to consider the

9 health impacts from the fire, the ways that we could

10 together improve the health of the population in an urgent,

11 comprehensive and substantial way and also that we can look

12 optimistically to the future of the Valley, one in which

13 rehabilitated mines are not just safe but also are a

14 community asset, and we very much hope that our reports,

15 and there are still two to come, will help us on that

16 journey to improve health and rehabilitate the mines and it

17 is in that perspective we look to a positive, prosperous

18 and healthy future for the Valley.

19 We've benefited from a very large number of

20 participants, individuals, organisations, government

21 representatives and the various councils, and they've had a

22 direct interest and commitment to the health and wealth of

23 the Valley and we thank you for that, and I think it would

24 be true to say that in terms of our term of reference, no

25 stone has been left unturned. This sometimes has been

26 challenging, unpalatable, occasionally harsh, but at the

27 least what we've done, I think, is to flush out the key

28 issues that hopefully we can learn from and work together

29 to build that better future and, as the saying goes, the

30 best learning is painful learning. So we thank all of

31 those involved for your goodwill and constructive response

1 to our inquiries and like counsel assisting, I'd like to

2 also thank my colleagues on the Board, particularly the

3 Chair, who gets up at 6 o'clock to start work on this

4 Inquiry every day, my colleague Anita Roper, who is, I'm

5 very pleased to say, making a good recovery after an

6 illness, the Inquiry team, counsel assisting, not the least

7 Peter Rozen, our senior counsel.

8 This Inquiry, and the one before, would not have

9 happened, frankly, if there had not been a mine fire that

10 had burned for 45 days in 2014 but, crucially, it would not

11 have happened without a concerned community that took to

12 heart the impact and demanded action not just to bounce

13 back but to bounce up. In some ways this black cloud that

14 enveloped the Valley will have a silver lining. So we look

15 optimistically towards the future and we very much hope the

16 Latrobe Valley can continue to be the lion of Victoria and

17 we certainly believe that there is the capacity, will and

18 ingenuity for this to happen. Our role, by definition, is

19 limited. It will be for others now to carry on the work

20 and it has been a great privilege to serve you.

21 We've had mention of Winston Churchill on a few

22 occasions, not the least when I commented that Ms Unger had

23 done a Churchill fellowship and that both the Chair and I

24 have had that privilege, and I was reflecting that in fact

25 70 years ago a fire was burning in the Yallourn Mine which

26 stimulated the Stretton Royal Commission and at that time

27 Winston Churchill also made a remark, which I think is

28 relevant to the story here, and I will paraphrase it very

29 slightly and it would go as follows: it was the Latrobe

30 Valley community that had the lion's heart. We had the

31 privilege to give the roar. Thank you very much.

1 CHAIRMAN: Thank you.

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