



File note of meeting with Matt Harris, Frontier Economics

Matter name	Brookfield LP and MidOcean proposed acquisition of Origin Energy Limited		
ACCC/AER parties	Gina Cass-Gottlieb, Catriona Lowe, Mick Keogh, Anna Brakey, Peter Crone, Stephen Ridgeway		
Merger authorisation no.:	MA1000024		
Other ACCC attendees	ACCC attendees via Teams: Daniel McCracken-Hewson, Rajat Sood, Kathryn Wood, Michael Drake, Katie Latham, Sita McTavish, Tess Macrae, Tanya Hobbs, Nick Cooke, Louisa Kefford, Tuan Phan, Hugh Cosolo, Will Richards, Soo Sian Koh, Lilla Csorgo, Helen Anness and Gregory Moran		
External attendees	External attendees via Teams: <ul style="list-style-type: none">• Matt Harris, Frontier Economics• Helen Joyce and Emma Panhuber, Baker McKenzie		
Date	28 August 2023		
Time	1:30 pm AEST		
Phone to <input type="checkbox"/>	Phone from <input type="checkbox"/>	Meeting <input checked="" type="checkbox"/>	Other <input type="checkbox"/>

This was a meeting between representatives of the ACCC and Matt Harris of Frontier Economics to allow representatives of the ACCC to ask questions of Mr Harris regarding:

- his report dated 9 August 2023, prepared in response to questions the ACCC put to Mr Harris under section 90(6)(d) of the *Competition and Consumer Act 2010* (Cth) (**Harris Report**);
- the Applicants' response to the ACCC's s90(6)(b) notice dated 16 August 2023 (**Applicants' Response**); and
- the report prepared by Mr David Dixon of Rystad Energy for the Applicants, dated 25 August 2023 (**Rystad Report**).

Australia's emissions and renewables targets

Differing views on whether or not Australia is likely to meet its renewables target

1. The Harris Report states that "an acceleration of the recent growth trend will be required to meet a goal of 82% for the NEM by 2030" and that "this is likely to occur" given a number of factors set out in paragraph 43 of the Harris Report.
2. The ACCC referred to the Applicants' Response at paragraph 6 which sets out "a number of statements from industry leaders, regulators and climate advisors" that share the Applicants' view that Australia is not likely to achieve its renewable targets for 2030 or 2050 "unless something changes".
3. The ACCC asked Mr Harris for his response to those statements.
4. Mr Harris agreed that as stated in the Harris Report at paragraph 38, based on the existing trend of investment in renewables, Australia will fall short of its renewable targets and an acceleration will be required to meet the renewables target of 82% of the NEM by 2030. Mr Harris does not consider that the transition to renewables will be linear and considers that there is likely to be an acceleration such that the renewables target of 82% is likely to be met. Mr Harris does not consider that the process of transitioning to renewables will be linear because, for example, there will need to be an alleviation of network, planning and firming constraints.
5. Mr Harris noted that the Applicants' response appears to agree, at paragraph 22, that government interventions will address network constraints to enable the required acceleration in renewables. The key difference of opinion being the effectiveness of government policies to provide price certainty or sufficient direct investment. The Applicant assumes a failure of government policies addressing finance and revenue certainty, while Mr Harris' view is that government intervention can address finance and revenue certainty.
6. The ACCC noted that Mr Harris' view on the likelihood of Australia meeting its renewables and emissions targets was perhaps more optimistic on the spectrum of views from commentators and analysts and asked why there was a divergence in views.
7. Mr Harris noted that there was a long history of divergence in views on emissions and renewable projections and that government intervention made a big difference. He also noted that criticism of current policies not putting Australia in a position to meet targets can also lead to policy change with the aim of meeting those targets. For example, in the speech by Kane Thornton of the Clean Energy Council (referred to at paragraph 6(d) of the Applicants' Response), Mr Thornton noted that each time there were challenges to meeting renewable targets but the renewable targets were met.

Applicants' assertion that the AEMO ISP is arguably already out of date

8. At paragraph 12 of the Applicants' Response, the Applicants state that the AEMO ISP is arguably "already out of date". Paragraph 12 goes on to state that the AEMO ISP "has been modelled based on the assumption that Australia's renewable targets will be met, which as discussed above, is unlikely to happen".
9. The ACCC asked Mr Harris for his response to this statement.
10. Mr Harris noted that AEMO is undergoing a new ISP process. The ISP sets out the given renewables targets and the network investment required to meet those targets. Mr Harris agrees that, if there are delays to that network and firming investment, it is quite possible that Australia will fall short of its renewable targets, but this will equally affect a

private investor. However, in his view, if the ISP is revised, he does not consider that to be an indication of the failure of finance or revenue certainty.

Pipeline of new projects

11. At Table 3 of the Harris Report (page 15), Mr Harris sets out the historical trend of renewables projects which have reached financial close, compared against the ISP Step Change projections.
12. At paragraph 14 of the Applicants' Response, the Applicants include a table that sets out the progression of renewables projects from anticipated or proposed through to existing.
13. The ACCC noted that there was a significant difference between proposed projects and the projects actually delivered. The ACCC asked Mr Harris for his views on this.
14. Mr Harris noted that the pipeline of projects is very large and there are a lot of projects where some development has taken place but there are a number of reasons why some proposed projects are never developed. A large pipeline is necessary but not sufficient, but indicates at least initial progress on proposals. Mr Harris noted that, perhaps more importantly in his view, there is a wide range of developers for these projects, and, in recent years, these are mainly large global renewable specialists without a retail book. For example, Squadron Energy has nearly 5.8GW committed or announced projects recognised by AEMO¹, but publicly claims a 20GW pipeline without a retail load. This suggests that not having a retail book is not hindering investment in renewables by these global renewable specialists.
15. Mr Harris also noted some errors in the table at paragraph 14 of the Applicants' Response. For example:
 - a. the table has 4 years of data, representing 3 years of growth so the annual average should be the total divided by 3 but the data has instead been divided by 4.
 - b. the table includes non-scheduled projects, that is, projects that AEMO cannot schedule to dispatch in years 2020-2022 but omits these from 2023. This means that the existing capacity (and growth since 2020) is understated by around 1.5GW. Mr Harris noted that the table at paragraph 53 of the Applicants' Response also understates existing capacity by around 1.5GW, which overstates the required capacity.
16. However, Mr Harris' view is that these errors are not material to the conclusions that follow the tables in the Applicants' Response because, based on the existing trend of renewables investment, Australia is not on track to meet its renewables target and that conclusion is the same regardless of the errors in the tables in the Applicants' Response.
17. In Mr Harris' view, the real question is whether the existing trend in renewables investment will accelerate enough to meet Australia's renewables target through government policy if network and connection constraints are addressed.
18. The ACCC asked Mr Harris what he understood the "adjusted GW" figures to be in the table at paragraph 56 of the Applicants' Response. Mr Harris understood that table to be setting out what the policy should deliver or what it claims to deliver and then the Applicants provide their analysis of the policy falling short and then set out why they consider that to be the case.

The role of Government renewable policies and interventions

¹ See Table 5 of the Harris Report.

19. The ACCC questioned Mr Harris about his view that the progress of Australia's transition to renewables will not be linear and his expectation that the transition will accelerate.
20. Mr Harris' view that investment in renewables will accelerate is based on government policy intervention. His view is that this policy intervention is what is driving new renewables investment to be faster than what the market would otherwise require due to demand growth and retirements. Mr Harris considers the government policy intervention is the key area where his view differs from the Applicants' view, who appear to consider that government policies will fail to meet renewables targets without the Applicants' support because these policies will fail to provide price certainty or sufficient investment. His view is that this implies that the Applicants agree that planning and network constraints can be successfully addressed by government interventions to enable them to privately build enough renewables to meet the targets.
21. The ACCC questioned Mr Harris about his level of confidence in his conclusions in the Harris Report.
22. Mr Harris is reasonably confident that Australia is likely to meet its renewables targets if existing planning and network constraints can be alleviated. He acknowledged that there were many contingent parts to the path to Australia meeting its renewables targets and it was difficult to predict. He said that if the network constraints continue to affect projects, this will continue to affect them whether they are privately owned or not. In his view, long term government contracts and the investment of government money should alleviate concerns about price and policy risks.
23. Mr Harris had a higher degree of confidence that Australia is likely to meet its emissions targets as that target is not entirely dependent on Australia meeting its 82% renewables target – there are other ways Australia could meet its emissions target via further improvements in emissions in other sectors, including industrial and fugitive (as a result of the Safeguard Mechanism reforms) and land use change. Mr Harris also noted that emissions fall every year with every update, that there is inherent conservatism in projections and that new government policy interventions will always be aimed at cutting emissions further.

The impact of government policies attracting private investment in renewables

24. The Harris Report at paragraph 91 states that early renewable projects (before 2016) "involved long-term PPAs with large electricity retailers" and that "[i]ncreasingly, projects are contracting directly with either large corporate users, governments or publicly-owned utilities..." before concluding that this suggests "there is minimal advantage signing PPAs with large private electricity retailers compared with contracting directly with large corporate consumers".
25. The Applicants disagree with this view in the Applicants' Response at paragraphs 97 – 106, noting the need for guaranteed offtake, the challenges in securing a PPA and the dysfunctional PPA market.
26. The ACCC asked Mr Harris for his response to the Applicants' position regarding government policy and PPAs.
27. Mr Harris stated that PPAs were very important in providing price certainty but that these are an alternative to direct investment. His view is that the PPA market has changed, moving from the majority of PPAs being with the big three retailers, to PPAs now bypassing retailers and developers contracting directly with large corporates such as Amazon and Microsoft or with government electricity retailers. He said that most

benefits can be provided by government contracts which remove price risk and provide long term price certainty.

28. At paragraph 89 of the Harris Report, Mr Harris states that "[m]ost issues related to finance and access to capital should be addressed by long term government contracts that reduce price risk, or direct government investment and ownership that reduces the need for private investment."
29. The ACCC asked Mr Harris to clarify what he meant by those types of government intervention.
30. Mr Harris responded that governments were adopting both long term government contracts and directly investing in renewables. For example, in Victoria, there is the Victorian Renewable Energy Target (VRET) scheme which offers Government contracts to fix a long term renewable supply price, and the Government is also bringing back the State Electricity Commission (SEC) to deliver renewable generation capacity of 4.5GW. The contracts are long duration and can provide large scale with a creditworthy counterparty. These reduce the price and policy risk of projects. Mr Harris noted that price contracting mechanisms like the VRET both:
 - a. represented a risk internalisation mechanism, in that governments (through their obligation to compensate counterparty investors for low prices) bore the cost of their own future price-depressing interventions. This de-risking enabled investors to embark on projects for a lower expected return than they would otherwise require; and
 - b. reflected a complementarity between taxpayers and consumers, in that even if taxpayers were required to compensate investors when market prices were low, consumers would benefit from those low prices.
31. The ACCC asked Mr Harris who is taking on the construction risk for PPAs and who is providing the expertise of design and procurement.
32. Mr Harris said that in most cases, the PPA developers are large specialised global renewable developers and the long term price and revenue certainty from government contracts enables them to close finance.
33. Mr Harris noted that there was a development stage and ownership stage to PPAs. Once constructed, a long term PPA can be sold and large funds will come in at that stage.
34. Mr Harris also noted that, in his view, part of the reason for the lag in the existing trend in renewables investment is that government is not holding as many auctions for projects as they could until network constraints are addressed. There are a lot of developers out there. For example, with the first round of Long Term Energy Service Agreements (LTESAs), the NSW Government was seeking 1.4GW in capacity and received around 3GW in applications. There have been two further LTESA rounds held in 2023 with successful projects not yet announced.
35. The Applicants' Response questions whether the quantum of announced policies is enough to meet Australia's 82% target.
36. Paragraph 80 of the Harris Report states that "[a]n increase in the rate of renewable investment is likely due to recent increases in government support, particularly the large investment for new network capacity. There has only been one round of LTESA and two rounds of VRET held to date, but more rounds will occur."
37. The ACCC asked Mr Harris how confident he was that more rounds of government investment would occur.

38. Mr Harris responded that the fundamental issue with meeting renewables targets was likely to be network and transmission constraints. In the absence of those constraints, if it appeared that Australia or one of the States was going to miss its renewable target, and existing policies were not sufficient to meet the target, Mr Harris expects that government would change its policies, including by increasing investment.
39. In relation to the Victorian Government's SEC, Mr Harris noted the Applicants' Response anticipated a 1.5GW shortfall (table at paragraph 56) but that this was based on a \$1 billion investment which is said to be an initial investment, clearly flagging that there is more to follow. The Victorian Government committed to a 65% renewables target and if the State is not on track to meet that target, Mr Harris considers that it is reasonable to expect that the Government will increase investment or hold another round of VRET to meet the target.
40. In relation to the other aspects of the table at paragraph 56 of the Applicants' Response, Mr Harris noted:
- a. the Applicants conclude 37GW is required based on the difference between Existing generation and capacity projected for 2031, but that is overstated by 1.5GW because of the earlier error in the table at paragraph 14 of the Applicants' Response;
 - b. the table does not include Snowy 2.0, however the ISP figure for required utility storage does include new pump hydro., This reduces the "gap" by another 2GW (or 2GW should be included under policies);
 - c. the estimated 37GW requirement omits around 8.8GW of Committed investment, which further reduces the gap. This includes Snowy 2.0, so this would indicatively reduce the requirement by around 6.6GW;
 - d. Offsetting this, there is overlap between some committed projects and the policy driven investment. For example, around 4.5GW of Existing and Committed capacity is counted toward the 12GW LTESA renewable target based on from projects since November 2019 and the Round 1 projects. This reduces the additional investment driven by the LTESA. But the 2023 IIO projects the 12GW target will be met in 2029, with an additional further 3.3GW (9.5TWh) by 2031;
 - e. The analysis assumes that existing gentailer renewable targets (12GW across AGL, EA and Origin) would not be additional to the policy interventions and would not contribute to closing the gap, but the Applicants' 14GW plans would be additional to the policy driven renewables.
 - f. in relation to NSW, the 4GW shortfall in the table is explained at paragraphs 74 – 76 as there not being much price or revenue certainty. Mr Harris disagrees with that as it ignores the fact that there is a 2 year option which, if exercised at each opportunity, means the price can be fixed (as a floor) for 20 years, which should provide price certainty. More broadly, Mr Harris noted that government strategies can provide as much price certainty as retailer contracts and referred to paragraph 82 of the Harris Report which cited independent advice for lower WACC for projects under the scheme.

Increase in private investment in renewable generation crowding out other private or public investment in generation

41. The ACCC asked for Mr Harris' view on the timeliness and extent of crowding out if there were government policy modifications.

42. Mr Harris noted that LTESAs were being run bi-annually over 10 years, that for VRET there was no set schedule and that, in Queensland, there is essentially direct investment but with no specific targets as it is under the Large-scale Renewable Energy Target (LRET) so it could be described as more ad hoc intervention.
43. Mr Harris' concern about crowding out was more in relation to the physical constraints of network and storage in the first instance. If one investor moves quickly, the physical constraints would mean others would be crowded out. If the physical constraints were removed, the next constraint is in relation to policy. If one investor moved forward more quickly, it would ease the burden on government to intervene and increase investment to meet the renewables targets. Government could also increase targets but Mr Harris considers that unlikely given the current target of 82% by 2030 is likely close to the limit of what is possible at this stage with the physical constraints.
44. Mr Harris noted that the crowding out issue in relation to policy constraints was not just about government directly investing but also effectively underwriting. If one investor moved more quickly, government would have less need to invest or underwrite, or take other actions. However, Mr Harris did note that it would be quite optimistic to suggest that one private investor could mean that the 82% renewable target is met or exceeded.

Nature and ownership of an individual renewable investor

45. The Applicants' Response at paragraph 93 notes that the intention of the investor / developer can materially affect the outcome of a renewables build out.
46. The ACCC asked Mr Harris for his view on this.
47. Mr Harris agreed that the intention of the investor / developer might make a difference, pending the alleviation of the physical constraints such as network and storage, noting that, theoretically, they might undertake voluntary action more quickly but that is more of a commercial decision for that investor or developer. However, his view remains that the physical constraints are the first issue that need to be resolved and PPAs and government contracts can provide a viable alternative to private investment and ownership.

Other questions regarding the proposed acquisition

48. The ACCC asked Mr Harris for his view as to whether the proposed acquisition would increase grid stability. Mr Harris' view was that it would depend on storage constraints, noting that Origin has already announced a battery replacement at Eraring with concerns about stability in relation to what extent Eraring could be retired before Snowy 2.0 comes in. Mr Harris noted that for the proposed acquisition to increase grid stability, the Applicants would need to move faster than Origin's existing plans for storage. Mr Harris also noted that there were a number of government interventions in relation to storage as well, such as the Waratah Super Battery.
49. The ACCC also asked whether if investment is increased, this might actually bring on grid instability. Mr Harris' view is that this also depends on storage and other physical constraints. There are practical limitations – for example, the Rystad Report raised land and transmission connections for existing plant as an advantage for gentailers. But Origin currently only has Eraring at 2.8GW coal closing in NSW: that connection and land is not going to accommodate 14GW and presumably has no wind resource there.
50. The ACCC asked Mr Harris whether he saw the renewables and emissions targets as achieving different policy objectives with the renewables target contributing to the emissions target. Mr Harris agreed, noting that there will be other contributors to the

emissions target such as offsets, for example in the land sector with agriculture. He noted that the overall objective is to cut emissions, not to meet an arbitrary target and that the renewables target could be increased if the physical constraints were alleviated.

51. The ACCC noted that there seemed to be a reasonable degree of uncertainty in relation to whether projects such as Snowy 2.0 would be able to deliver in the longer term.
52. The ACCC asked how significant the Applicants' proposed investment would be in terms of Australia's transition to renewables and the finance needed.
53. Mr Harris noted to put the Applicants' proposed investment into context, there were a raft of different government policies with commitments of billions of dollars. For example, as part of the Queensland Energy and Jobs Plan, Stanwell has committed to investing \$9 billion up to 2028 to connect 9-10GW as part of Queensland's 22GW renewable energy target without a retail book. Further, Squadron is claiming 20GW in their pipeline, again without a retail book.