Federal Court of Australia

Environment Council of Central Queensland Inc v Minister for the Environment and Water (No 2) [2023] FCA 1208

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| File number(s): | VID 400 of 2023VID 401 of 2023 |
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| Judgment of: | **MCELWAINE J** |
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| Date of judgment: | 11 October 2023 |
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| Catchwords: | **ENVIRONMENTAL LAW –** Application for judicial review of a Ministerial decision to confirm (and not revoke) a controlled action decision under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) – where applicant alleges Minister misdirected herself, engaged in impermissible probability reasoning, misunderstood or failed to apply the precautionary principle – where applicant alleges Minister’s findings were affected by irrationality, involved illogic or were insupportable – application dismissed  |
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| Legislation: | *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ss 3, 3A, 12, 18, 18A, 24D, 24E, 67, 75, 78, 78A, 78C, 391, 523, 527E  |
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| Cases cited: | *Anvil Hill Project Watch Association Inc v Minister for the Environment and Water Resources* [2008] FCAFC 3; 166 FCR 54*Anvil Hill Project Watch Association Inc v Minister for the Environment and Water Resources* [2007] FCA 1480; 243 ALR 784*Attorney-General (NSW) v Quin* (1990) 170 CLR 1*Australian Conservation Foundation Inc v Minister for the Environment and Energy* [2017] FCAFC 134; 251 FCR 359*Australian Conservation Foundation Inc v Minister for the Environment and Energy* [2016] FCA 1042; 251 FCR 308*Badawi v Nexon Asia Pacific Pty Ltd* [2009] NSWCA 324; 75 NSWLR 503*Blue Wedges Inc v Minister for the Environment, Heritage and the Arts* [2008] FCA 8; 165 FCR 211*BNGP v Minister for Immigration, Citizenship and Multicultural Affairs* [2023] FCAFC 111*Bob Brown Foundation Inc v Minister for the Environment (No 2)* [2022] FCA 873*Booth v Bosworth* [2001] FCA 1453; 114 FCR 39*Boughey v The Queen* (1986) 161 CLR 10*Bushfire Survivors for Climate Action Inc v Narrabri Coal Operations Pty Ltd* [2023] NSWLEC 69*Chan v Minister for Immigration and Ethnic Affairs* (1989) 169 CLR 379*Clubb v Edwards* [2019] HCA 11; 267 CLR 171*Environment Council of Central Queensland Inc v Minister for the Environment and Water* [2023] FCA 1117*Friends of the Gelorup Corridor Inc v Minister for the Environment and Water* [2023] FCAFC 139*Friends of the Gelorup Corridor Inc v Minister for the Environment and Water (No 2)* [2022] FCA 1554*King v Minister for Immigration, Citizenship, Migrant Services and Multicultural Affairs* [2023] FCAFC 152*Lawyers for Forests Inc v Minister for the Environment, Heritage and the Arts* [2009] FCA 330; 165 LGERA 203*Minister for Aboriginal Affairs v Peko-Wallsend Ltd* (1986) 162 CLR 24*Minister for Environment and Heritage v Queensland Conservation Council Inc* [2004] FCAFC 190; 139 FCR 24*Minister for Immigration and Border Protection v Sabharwal* [2018] FCAFC 160*Minister for Immigration and Border Protection v Stretton* [2016] FCAFC 11; 237 FCR 1*Minister for Immigration and Border Protection v SZFW* [2018] HCA 30; 264 CLR 541*Minister for Immigration and Border Protection v Tran* [2015] FCA 546; 232 FCR 540*Minister for Immigration and Citizenship v Li* [2013] HCA 18; 249 CLR 332*Minister for Immigration and Citizenship v SZMDS* [2010] HCA 16; 240 CLR 611*Minister for Immigration and Ethnic Affairs v Wu Shan Liang* (1996) 185 CLR 259*Minister for Immigration and Multicultural Affairs v Eshetu* [1999] HCA 21; 197 CLR 611*NEAT Domestic Trading Pty Ltd v AWB Ltd* [2003] HCA 35; 216 CLR 277*Ogawa v Finance Minister* [2021] FCAFC 17*Polaris Coomera Pty Ltd v Minister for the Environment* [2021] FCA 254*Secretary, Department of Primary Industries, Parks, Water and Environment v Tasmanian Aboriginal Centre Inc* [2016] FCAFC 129; 244 FCR 21*South Western Sydney Local Health District v Gould* [2018] NSWCA 69; 97 NSWLR 513*State of Queensland (Department of Agriculture and Fisheries) v Humane Society International (Australia) Inc* [2019] FCAFC 163; 272 FCR 310*Tarkine National Coalition Inc v Minister for the Environment* [2015] FCAFC 89; 233 FCR 254*Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133; 67 NSWLR 256*Triabunna Investments Pty Ltd v Minister for Environment and Energy* [2019] FCAFC 60; 270 FCR 267*VicForests v Friends of Leadbeater’s Possum Inc* [2021] FCAFC 66; 285 FCR 70*Wildlife Preservation Society of Queensland Proserpine /Whitsunday Branch Inc v Minister for the Environment and Heritage* [2006] FCA 736; 232 ALR 510*Wong v Silkfield Pty Ltd* [1999] HCA 48; 199 CLR 255 |
|  | Aronson M, Groves M, Weeks G, *Judicial Review Administrative Action and Government Liability* (7th ed, Thomson Reuters, 2022) |
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| Division: | General Division |
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| Registry: | Victoria |
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| National Practice Area: | Administrative and Constitutional Law and Human Rights |
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| Date of hearing: | 18-20 September 2023  |
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| Counsel for the Applicant: | Mr E Nekvapil SC, Mr J Hartley, Ms M Narayan, Dr L Schuijers and Mr J Blaker |
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| Counsel for the First Respondent: | Mr S Lloyd SC and Mr M Sherman |
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| Solicitor for the First Respondent: | Australian Government Solicitor |
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| Counsel for the Second Respondent: | Mr J Emmett SC and Ms J Davidson |
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| Solicitor for the Second Respondent: | Ashurst Australia |

ORDERS

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|  | VID 400 of 2023 |
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| BETWEEN: | ENVIRONMENT COUNCIL OF CENTRAL QUEENSLAND INCApplicant |
| AND: | MINISTER FOR THE ENVIRONMENT AND WATERFirst RespondentNARRABRI COAL OPERATIONS PTY LTD (ACN 129 850 139)Second Respondent |
|  | VID 401 of 2023 |
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| BETWEEN: | ENVIRONMENT COUNCIL OF CENTRAL QUEENSLAND INCApplicant |
| AND: | MINISTER FOR THE ENVIRONMENT AND WATERFirst Respondent**MACH ENERGY AUSTRALIA PTY LTD (ACN 608 495 441)** Second Respondent |

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| order made by: | MCELWAINE J |
| DATE OF ORDER: | 11 October 2023 |

THE COURT ORDERS THAT:

1. Applications VID 400/2023 and VID 401/2023 are each dismissed.
2. Any applications for costs are to be made in writing, limited to no more than 3 pages, filed and served within 10 business days of the making of these orders and any responding submissions, limited to no more than 3 pages, must be filed and served within 10 business days thereafter.
3. Subject to any further order of the Court, costs applications will be determined on the papers.

Note: Entry of orders is dealt with in Rule 39.32 of the *Federal Court Rules 2011*.

REASONS FOR JUDGMENT

MCELWAINE J:

1. These two proceedings frame the same challenge to decisions made by the **Minister** for the Environment and Water to reconsider and confirm decisions made by a delegate of the Minister under s 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**Act**) that proposed action by two coal mining companies was a controlled action and that ss 18 and 18A (listed threatened species and communities) and ss 24D and 24E (a water resource, in relation to coal seam gas development and large coal mining development) are controlling provisions. For convenience, each reference to a statutory provision in these reasons is a reference to the Act, unless otherwise stated.
2. Pursuant to s 78A, the applicant sought reconsideration, revocation and substitution of the decisions based on the availability of new information about the impacts of each proposed action on matters protected by a provision of Pt 3A. The applicant provided to the Minister very detailed submissions with supporting documents about the effect of greenhouse gas emissions as a primary contributor to climate change. The Minister did not dispute that greenhouse gas emissions associated with the extraction and burning of coal unequivocally has contributed to climate change with severe adverse consequences for our climate. Nor did the Minister dispute that many Matters of National Environmental Significance (**MNES**) have been or will be affected by climate change and its effects. In particular, the Minister accepted that climate change has affected or will affect the world heritage values of declared World Heritage properties, the National Heritage values of National Heritage places, the ecological character of declared Ramsar wetlands, listed threatened species in the critically endangered, endangered and vulnerable categories, listed threatened ecological communities in the critically endangered and endangered categories, listed threatened species and listed threatened ecological communities, listed migratory species, the environment in Commonwealth marine areas and the environment in the Great Barrier Reef Marine Park.
3. For persons familiar with the structure of the Act, that list engages every MNES in Pt 3, save for the protection of the environment from nuclear actions.
4. The Minister also accepted the linear relationship between anthropogenic CO2 emissions and increases in global temperature, such that every tonne of CO2 emissions adds to global warming and that to limit human-induced global warming, deep reductions in CO2 emissions and other greenhouse gas emissions are required. In no sense therefore is this a case about denial of climate science or the existential threat posed by climate change. Rather, it is about whether it was legally open to the Minister, having accepted these matters, to not revoke each controlled action decision and to substitute new decisions pursuant to s 78C, by specifying a greater number of controlling provisions.
5. These proceedings have generated considerable public interest. It needs to be understood that this Court is not concerned with the merits of the Minister’s decision. The judicial function is a limited one. The question is not whether the Minister made the correct or preferable decision on the merits or whether this Court disagrees with the outcome. To succeed, the applicant must demonstrate that the Minister erred in her understanding of the nature or the limits of the statutory power or, as contended in the proceedings, made legally irrational findings. As Brennan J explained in *Attorney-General (NSW) v Quin* (1990) 170 CLR 1 at 35-36:

The duty and jurisdiction of the court to review administrative action do not go beyond the declaration and enforcing of the law which determines the limits and governs the exercise of the repository’s power. If, in so doing, the court avoids administrative injustice or error, so be it; but the court has no jurisdiction simply to cure administrative injustice or error. The merits of administrative action, to the extent that they can be distinguished from legality, are for the repository of the relevant power and, subject to political control, the repository alone.

1. Here pursuant to s 78, the Minister is the repository of considerable review power to revoke a controlled action decision, and the controlling provisions for the action, and to substitute a new decision if satisfied that revocation and substitution is warranted by the availability of substantial new information about the impacts the action has or will have, or is likely to have, on a matter protected by a provision of Pt 3.
2. For the detailed reasons that follow, I have concluded that none of the review grounds are made out and each proceeding must be dismissed. It was legally open to the Minister to weigh and assess the applicant’s material and submissions cognisant of the potentially catastrophic effects of climate change on MNES. The Minister in discharging what is clearly a heavy responsibility was not obliged to reason in the manner contended by the applicant. Ultimately, the applicant’s arguments, anchored by the extensive scientific material relied on, raise matters for Parliament to consider whether the Minister’s powers must be exercised to explicitly consider the anthropogenic effects of climate change in the manner the applicant submits they must.

## Background

1. In proceeding VID 400 of 2023, Narrabri Coal Operations Pty Ltd is the proponent and is the operator to of an underground coal mining operation at Narrabri in New South Wales. The proponent referred a proposal to extend the existing underground mining operation to the Minister on 5 April 2019 pursuant to s 68. On 30 September 2019, the Minister’s delegate determined under s 75 that the proposed action was a controlled action and that ss 18, 18A, 24D and 24E are the controlling provisions. The proposal was assessed under the Bilateral Agreement provisions of Pt 5, was approved at the State level and a subsequent challenge to that decision was dismissed by the Land and Environment Court of New South Wales on 5 July 2023: *Bushfire Survivors for Climate Action Inc v Narrabri Coal Operations Pty Ltd* [2023] NSWLEC 69. An approval decision is yet to be made under Pt 3.
2. On 8 July 2022, Environmental Justice Australia (**EJA**) on behalf of the applicant requested reconsideration of the controlled action decision pursuant to s 78A, and in support provided a considerable amount of documentation and submissions amounting to, in its view, substantial new information about the impacts that the action has or will have, or is likely to have, on matters protected by a provision of Pt 3. On 11 August 2022, EJA provided supplementary material in support of the request. On 3 November 2022, a delegate of the Minister determined that the reconsideration request was valid. It was then the subject of a period of comment, open to the public, and submissions were requested from relevant State and Commonwealth Ministers and from the proponent. Detailed comments were received, including from the proponent.
3. On 11 May 2023, the Minister pursuant to s 78C decided the request. The Minister accepted that substantial new information that was not available at the time of the controlled action decision had been provided about the impacts that the proposed action has or will have, or is likely to have, on a matter protected by a provision of Pt 3. However, the Minister decided not to revoke the controlled action decision because she was not satisfied that the information was about the impacts that the proposed action has or will have, or is likely to have, on MNES for two reasons. One, she was not satisfied that the proposed action will cause any net increase in greenhouse gas emissions. The other, that even if that were so, the likely increase in global greenhouse gas emissions would be very small with the result that she could not conclude that the proposed action will be a substantial cause of adverse impacts on the world heritage values of declared World Heritage properties.
4. The Minister adopted the same reasoning in relation to each other MNES the subject of the reconsideration request and for that reason it is only necessary to essay the Minister’s reasoning in relation to declared World Heritage properties.
5. Proceeding VID 401 of 2023 concerns a proposal by MACH Energy Australia Pty Ltd to increase the open cut extraction area of an existing coal mine at Mt Pleasant, Bengalla in New South Wales to permit extraction of up to 21 million tonnes per annum (**Mtpa**) and extend the life of the mine to 22 December 2048. On 28 July 2020, that proposed action was referred to the Minister pursuant to s 68. On 26 August 2020, a delegate of the Minister determined under s 75 that the proposed action was a controlled action and that ss 18, 18A, 24D and 24E are the controlling provisions.
6. The Mt Pleasant proposed action was also assessed pursuant to the Bilateral Agreement provisions at Pt 5. State approval was granted and there is a pending review proceeding in the Land and Environment Court of New South Wales that is listed to be heard in November of this year.
7. On 8 July 2022, EJA on behalf of the applicant requested the Minister to reconsider the controlled action decision pursuant to s 78A, and provided the Minister with substantially the same information that had been provided in relation to the Narrabri proposal. On 11 August 2022, EJA provided supplementary information to the Minister in support of that request. On 3 November 2022, the Minister’s delegate determined that the reconsideration request was valid and comment was sought from the public, relevant State and Commonwealth Ministers and the proponent. Comments were received. On 11 May 2023, the Minister reconsidered and confirmed the original controlled action decision for reasons that are relevantly identical to her reasons in the Narrabri reconsideration request.
8. In each request, EJA submitted that each of the original controlled action decisions should be revoked and replaced with a new controlled action decision because very many MNES had been impacted and were likely to be impacted by climate change and that in each case the proposed action is a substantial cause of the adverse effects of climate change on MNES, so as to engage the indirect impact provision at s 527E. Self-evidently, if that was accepted, each proposed action would require a far more detailed assessment than required by the original controlled action decisions.
9. To understand the last point, it is useful to set out the example that was developed in oral submissions. In doing so, two matters should be noted. One, the proceedings were argued by reference to the Minister’s reasons in the Mt Pleasant proposal, it being accepted that there is no material difference between it and the Narrabri proposal. The other, that it is only necessary to examine the applicant’s arguments by reference to one MNES, and for that purpose the Great Barrier Reef as a declared World Heritage property was chosen (ss 12-15A).
10. The event or circumstance is coral bleaching, which is caused by increases in ocean temperatures. Ocean temperatures are related to atmospheric temperatures. Atmospheric temperatures are affected by the amount of CO2 emissions, a substantial contributor of which is the burning of fossil fuel, in particular coal. Coal is burnt in industrial applications, particularly for the purpose of generating electricity. The purpose of extracting coal from the Mt Pleasant mine is to sell it for that purpose. The event or circumstance is not global warming per se, although without doubt global warming is the driving force of climate change.
11. Thus, for the purpose of applying the indirect impact provision at s 527E, the question is whether coral bleaching (the event or circumstance) of the Great Barrier Reef inside the marine environment is an impact of each proposed action (mining and extracting coal) because it is an indirect consequence of that action, but only if the action is a substantial cause of the coral bleaching. And there is a further statutory requirement at s 78: the substantial new information must be about the impacts that each action has or will have, or is likely to have, on a matter protected by a provision of Pt 3. It will be apparent at the outset that the application of the indirect impact provisions of the Act is not straightforward upon judicial review of the Minister’s decisions.

## The review applications

1. Each application is brought pursuant to s 39B of the *Judiciary Act 1903* (Cth) and relief in the nature of certiorari and mandamus is sought for jurisdictional error. The applicant also relies on s 5 of the *Administrative Decisions (Judicial Review) Act 1977* (Cth). No point was taken that this makes any difference to the grounds or the outcome. Nor is any point taken about the applicant’s standing, about which I am satisfied in accordance with s 487.
2. The preamble to the grounds of review sets the context for the applicant’s contentions and although lengthy, it assists in understanding the applicant’s case. Relevantly in part it provides (where the Request is a reference to the reconsideration request):

The Request included:

(1) authoritative sources of information relevant to impacts on, and protection of, matters of national environmental significance (**MNES**), spreadsheets compiled from review of those sources, expert reports, academic literature, reports of significant bodies, such as the Intergovernmental Panel on Climate Change (the **IPCC**) and the International Energy Agency (the **IEA**), and fire impact maps;

(2) supplementary material provided on 11 August 2022, namely the *State of the Environment Report 2021*; and

(3) further supplementary material provided on 24 November 2022, namely, the IEA’s *World Energy Outlook 2022*.

In the Request, the Applicant submitted that, having regard to the information contained in the Request, the Minister should be satisfied that the requirements of s 78(1)(a) were met, and the Minister should revoke the Controlled Action Decision, substitute a new decision listing controlling provisions for all MNES affected by climate change as controlling provisions for the Proposed Action and ensure that, where the relevant controlling provision arose under s 18 of the EPBC Act, each relevant subsection of that provision was identified. The bases for that submission relevantly included the following.

(1) The Request was made on the basis of “substantial new information”, within the meaning of the EPBC Act.

(2) The “substantial new information” demonstrated that, by emissions generated from the Proposed Action, the Proposed Action would, or was likely to, have “significant impacts”, within the meaning of the EPBC Act, on a number of MNES, including a number not covered by controlling provisions in the Referral Decision.

(3) That proposition was supported by matters, which included the following.

(a) Human influence has warmed the atmosphere, ocean and land; there is an approximately linear relationship between cumulative anthropogenic CO2 emissions and global temperature, such that every tonne of CO2 emissions adds to global warming (with each 1000 gigatons of cumulative CO2 emissions contributing an approximate 0.45°C increase in temperature); and reaching net zero anthropogenic CO2 emissions is a requirement to stabilise human-induced global temperature at any level.

(b) Further climate change is inevitable, with the rate and magnitude largely dependent on the emissions pathway.

(c) Limiting human-induced global warming to temperature levels well below 2°C above pre-industrial levels, and towards 1.5°C above pre-industrial levels, requires deep reductions in CO2 and other greenhouse gas emissions in the coming decades. All global modelled pathways that limit warming to 1.5°C or 2°C, with no or limited overshoot, involve rapid, deep and in most cases immediate reductions in greenhouse gas emissions in all sectors. Among the scenarios modelled by the IPCC, only the very low emissions scenario, which requires net zero CO2 emissions by 2050, is more likely than not to limit warming to 1.5°C.

(d) The continued installation of unabated fossil fuel infrastructure will lock in greenhouse gas emissions and cumulative future CO2 emissions from existing fossil fuel infrastructure that will exceed the level required in pathways that limit warming to 1.5°C. Limiting warming to 1.5°C or 2°C above pre-industrial levels requires drastic cuts to the use of, among other things, coal, and a substantial amount of fossil fuels to remain unburned.

(e) In modelled pathways that limit warming to 1.5°C, with no or limited overshoot, the global use of coal is projected to decline with median values of about 95% compared to 2019 and with median values of 85% in modelled pathways that limit warming to 2°C. Further, to allow for a 50% probability of limiting warming to 1.5°C, 90% of coal must remain unextracted by 2050, including 95% of Australia’s coal reserves. Meeting demand within coal markets does not require the approval of long lead-time projects or any new coal mines or coal mine extensions.

(f) Human-induced climate change will cause unavoidable increases in multiple climate hazards, including in Australia.

(g) The physical effects of increased global warming in Australia are likely to have a significant impact on the following MNES:

[The applicant here lists the MNES and related provisions of Pt 3 of the Act, save for ss 21-22A (nuclear action). This list has not been reproduced in these reasons]

(h) In all feasible scenarios in which the Proposed Action is carried out, there will be adverse impacts on the identified MNES, caused by the increasing concentration of greenhouse gases absorbed by the Earth System, including from the combustion of coal from the Proposed Action (as would be intended and facilitated by the Proponent).

(i) Feasible scenarios with much lower total emissions, and less impact on the identified MNES, are available in a future without the Proposed Action.

(4) It was not a rational basis for refusing the Request for the Respondent to find that, if the Proposed Action were not approved, someone else in the world would do something that would result in an equivalent amount of emissions being released into the atmosphere, for reasons including the following.

(a) The extent of the impacts of the Proposed Action would depend on the extent of total future emissions before humans limit emissions to net zero.

(b) The Respondent’s function under s 75 was to consider the Proposed Action on the premise that it goes ahead.

(c) If the Proposed Action were assumed to exist, the minimum likely significant impact from the accumulation of emissions (including from the Proposed Action) was the impact resulting from the total temperature above pre-industrial levels that would result from the minimum total future emissions in a scenario in which the Proposed Action could exist (namely, where there is a market that buys and uses, relevantly, coal extracted for the duration of the Proposed Action).

(d) It was not open to the Respondent to assume that the same or worse impact would necessarily occur in scenarios without the Proposed Action, because, relevantly, total energy supply of coal had already peaked, the demand for the coal that would be extracted pursuant to the Proposed Action was not fixed and it could not be said that the impacts would necessarily be the same in a future without the Proposed Action as they would be in a future with it.

(e) The best feasible future scenarios (in terms of total future emissions before the achievement of net zero greenhouse gas emissions) could not eventuate if the Proposed Action exists. Further, emissions resulting from the Proposed Action would result in reaching a minimum temperature in excess of 1.5°C above pre-industrial levels.

1. The application next turns to a detailed summary of the Minister’s reasons as contextualising the 10 review grounds, which it is unnecessary to replicate as it dwells too much on the detail and the over particularisation tends to obscure the applicant’s points.
2. Before considering the individual review grounds, I address the Minister’s reasons.

## The Minister’s reasons

1. The reasons comprise 202 paragraphs and are structured and conveniently divided into parts. The background commences at [2] and concludes at [11], none of which is controversial. The prior history of approval is set out and the reconsideration request timeline is noted. Paragraph [12] lists the material considered by the Minister in the departmental brief, which is extensive. Amongst other things, the Minister lists the reconsideration request together with each of its eight sections comprising research analysis, spreadsheets of data, the *State of the Environment Report 2021* (**SOE 2021**), comments from relevant Commonwealth Ministers, a summary of the public comments, the *IAE Coal Market Report 2022: Coal 2022* (**Coal 2022 Report**) and the *Synthesis Report of the IPCC Sixth Assessment Report*, published on 19 March 2023 (**Synthesis Report**).
2. Paragraphs [13]-[25] summarise the content of the reconsideration request. At [14] the Minister records:

EJA estimated the GHG [Greenhouse gas] emissions associated with the extraction and combustion of the coal from the proposed action. It contended that, if the proposed action goes ahead, there is a real (as opposed to remote) chance that these GHG emissions will result in physical effects of climate change (fire, ocean heatwaves and acidification, drought, rainfall extremes and flooding) and the proposed action will have, or is likely to have, a significant impact on a number of MNES.

1. At [15], the Minister noted the key findings of the analysis undertaken by the EJA of a large amount of scientific evidence about climate change and its effects on MNES as follows:

a. the *Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (**IPCC**), *Climate Change 2021*: *The Physical Science Basis*, establishes unequivocally that human actions have caused a global temperature increase;

b. the frequency, severity and duration of extreme fire weather conditions have increased in southern and eastern Australia. Extreme fire weather in 2019/2020 was at least 30% more likely than a century ago due to climate change (*Working Group II to the IPCC’s Sixth Assessment Report, Climate Change 2022: Impacts, Adaptation and Vulnerability* (**IPCC WGII Report**));

c. rising sea surface temperatures have exacerbated marine heatwaves, notably near Western Australia in 2011, the Great Barrier Reef in 2016, 2017 and 2020, and the Tasman Sea in 2015/2016, 2017/2018 and 2018/2019 (IPCC WGII Report);

d. the oceans around Australia are acidifying — the average pH of surface waters has decreased since the 1880s by about 0.1, representing an over 30% increase in acidity. These changes have led to a reduction in coral calcification and growth rates on the Great Barrier Reef (IPCC WGII Report; Commonwealth Scientific and Industrial Research Organisation (**CSIRO**) and Bureau of Meteorology (**BOM**), *State of the Climate 2020*);

e. climate change will result in more drought in southern and eastern Australia (IPCC WGII Report);

f. extreme rainfall intensity in northern Australia has been increasing (IPCC WGII Report);

g. governments plan to produce more than twice the amount of fossil fuels in 2030 than would be consistent with limiting warming to 1.5°C (*United Nations Environment Programme, The Production Gap: 2021 Report*);

h. all global modelled pathways that limit warming to 1.5°C with no or limited overshoot, and those that limit warming to 2°C, involve rapid and deep and in most cases immediate GHG emission reductions in all sectors (*IPCC WGIII Report, Summary for Policy Makers*);

i. as part of further climate change, more extreme fire weather in southern and eastern Australia can be expected (*high confidence*) (IPCC WGII Report);

j. in southern Australia, some forest ecosystems (alpine ash, snowgum woodland, pencil pine and northern jarrah) are projected to transition to a new state or collapse due to hotter and drier conditions with more fires (IPCC WGII Report); and

k. future ocean warming, coupled with periodic extreme heat events, is projected to lead to the continued loss of ecosystem services and ecological functions (*high confidence*) (IPCC WGII Report).

1. At [18], the Minister noted the contention by EJA that climate change is likely to impact upon several MNES that cover the scope of the reconsideration request. At [20]-[22], the Minister summarised opinions provided by two distinguished climate change scientists, Professor Lesley Hughes and Professor David Karoly, that there is a real, as opposed to a remote chance that a consequence of the continued emission of greenhouse gas into the atmosphere will result in an increase in the regularity, scope and intensity of climate hazards, that those events, or one or more of them, will likely adversely affect MNES and there is an approximately linear relationship between anthropogenic CO2 emissions and global temperature, such that every tonne of CO2 emissions adds to global warming. Further, limiting human-induced global warming requires deep reductions in CO2 emissions, climate change will cause unavoidable increases in multiple climate hazards in Australia and a consequence of the continued emission of greenhouse gas emissions into the atmosphere is that MNES are likely to be adversely affected in multiple ways.
2. At [24], the Minister considered and accepted various statements made in the SOE 2021, including that: “climate change is seen as one of the most significant threats to the Outstanding Universal Value of World Heritage properties globally” and that climate change related impacts to Australian World Heritage properties “in the last five years include: bushfires which cause loss of vegetation and other landscape impacts, mass coral bleaching events, significant seagrass dieback and marine ecosystem changes, increased drying, vegetation community decline, increased habit reduction, changes to saltwater and freshwater wetlands, increased wetness and more waterway sedimentation due to intense wet events after drought”.
3. At [26]-[59], the Minister summarised and considered the comments received during the consultation process, including from EJA on behalf of the applicant and from the proponent. At [60]-[72], the Minister set out the terms of a request for further information from her department to the proponent, and the various responses thereto. Within that material, the proponent estimated that the total average annual emissions within Australia from the proposed action would represent 0.25% of Australia’s annual emissions for the 2020 reporting year, and those emissions within Australia and outside of Australia combined would represent 0.042% of global emissions in 2019. The estimated total emissions over the life of the proposed project is 534.8 Mt CO2. That material also estimated that most of the emissions associated with the proposed action were scope 3 emissions, that is from the combustion of coal by third parties, and of which Japan and South Korea were predicted to be the major consumers at 32.5% and 30% of the estimated product volume.
4. The Minister considered the international and domestic frameworks for addressing climate change at [73]-[85], particularly the *Paris Agreement* adopted on 12 December 2015 and the *United Nations Framework Convention on Climate Change*, adopted on 9 May 1992 as “the primary multilateral mechanisms governing the international response to climate change.” The Minister listed a considerable number of “domestic measures” including the *Climate Change Act 2022* (Cth), and its overall target of a reduction in emissions to 43% below 2005 levels by 2030 and zero emissions by 2050, as supported by a suite of measures.
5. The Minister summarised the statutory framework at [86]-[90]. The Minister then set out her detailed findings on material questions of fact at [91]-[131] as relevant to the world heritage values of World Heritage properties, which findings were adopted for each other MNES. In particular, the Minister found as follows. The reconsideration request comprised substantial new information that was not before the delegate and which demonstrated that climate change “is having or will have adverse effects on the flora, fauna and ecosystems of the identified World Heritage properties”, which in turn will have adverse effects on the world heritage values of those properties and that in consequence consideration of whether the original decision should be revoked and substituted was warranted: at [100]-[101].
6. The Minister accepted at [104] that the new information generally demonstrated that climate change from anthropogenic sources of greenhouse gas emissions “has and/or will have physical effects on protected matters” and further accepted: “that the combustion of coal and/or gas on a global scale results in GHG emissions, which increases the effects of climate change, including the regularity, scope and intensity of climate hazards.” In consequence, the Minister further accepted that these effects “will adversely affect” each MNES identified in the request.
7. At [105], the Minister accepted her departmental advice that the physical effects of climate change on the world heritage values of World Heritage properties are: “if anything, *indirect consequences* of the proposed action: they are events or circumstances that are removed in time and distance from the taking of the action, which is the extraction of coal”.
8. Accordingly, the Minister then turned at [107] to the indirect impact requirement at s 527E and determined that the proposed action is not a substantial cause of “the stated physical effects of climate change on world heritage values of declared World Heritage properties” for two reasons:

a. The information does not demonstrate that the proposed action will cause any net increase in global GHG emissions and global average temperature (and so, any physical effects of climate change on the world heritage values of declared World Heritage properties). I considered that whether this will happen is subject to multiple variables; and

b. even if that were demonstrated, any contribution from the proposed action to global GHG emissions would be very small. It is therefore not possible to say that the proposed action will be a substantial cause of the physical effects of climate change on the world heritage values of declared World Heritage properties.

1. I will refer to these as the first and second limbs of the Ministerial reasons.
2. In detail the Minister then explained the basis for each of those findings at [108]-[131], which matters I return to as they are the subject of significant analysis in the applicant’s submissions. From [132] to [197], the Minister made separate findings concerning each other MNES which, for the reasons I have given, need not be separately addressed. Finally, at [198]-[199], the Minister accepted departmental advice that she was required to consider the precautionary principle, which finds expression at s 391, and stated she had taken it into account.
3. I next deal with relevant aspects of the statutory scheme.

## Scheme of the Act

1. The essential structure of the Act has been summarised in a number of Full Court decisions: *Tarkine National Coalition Inc v Minister for the Environment* [2015] FCAFC 89; 233 FCR 254 at [3]-[24] (Jessup J); *Australian Conservation Foundation Inc v Minister for the Environment and Energy* [2017] FCAFC 134; 251 FCR 359 (***ACF FC***) at [2]-[9] (Dowsett, McKerracher and Robertson JJ); *Triabunna Investments Pty Ltd v Minister for Environment and Energy* [2019] FCAFC 60; 270 FCR 267 (***Triabunna***) at [29]-[42] (Flick J) and *Friends of the Gelorup Corridor Inc v Minister for the Environment and Water* [2023] FCAFC 139 (***Gelorup FC***) at [10]-[24] (Jackson and Kennett JJ).
2. In this proceeding the Act relevantly provides as follows. Section 67 is in these terms:

**What is a *controlled action*?**

An action that a person proposes to take is a ***controlled action***if the taking of the action by the person without approval under Part 9 for the purposes of a provision of Part 3 would be (or would, but for section 25AA or 28AB, be) prohibited by the provision. The provision is a ***controlling provision***for the action.

(Original emphasis.)

1. The prohibitions at Pt 3 operate by reference to the significance of the impact of the action. Thus, for World Heritage properties, s 12 provides in part:

(1) A person must not take an action that:

(a) has or will have a significant impact on the world heritage values of a declared World Heritage property; or

(b) is likely to have a significant impact on the world heritage values of a declared World Heritage property.

1. There is no separate definition of significant impact. Justice Branson held in *Booth v Bosworth* [2001] FCA 1453; 114 FCR 39 (***Booth***) at [99] that it requires an impact “that is important, notable or of consequence having regard to its context or intensity”, which the Full Court endorsed in *VicForests v Friends of Leadbeater’s Possum Inc* [2021] FCAFC 66; 285 FCR 70 at [62] (Jagot, Griffiths and SC Derrington JJ).
2. The delegate’s controlled action decision was made pursuant to s 75, which to the extent presently relevant provides:

**Does the proposed action need approval?**

*Is the action a controlled action?*

(1) The Minister must decide:

(a) whether the action that is the subject of a proposal referred to the Minister is a controlled action; and

(b) which provisions of Part 3 (if any) are controlling provisions for the action.

Note: The Minister may revoke a decision made under subsection (1) about an action and substitute a new decision. See section 78.

1. The concept of “action” is broadly defined at s 523 as including a project, a development, an undertaking, an activity or series of activities or an alteration of any of these things. There are some things that are not actions in accordance with s 524, such as government decision-making, none of which are of present relevance.
2. Section 527E defines the central concept of impact:

**Meaning of *impact***

(1) For the purposes of this Act, an event or circumstance is an ***impact***of an action taken by a person if:

(a) the event or circumstance is a direct consequence of the action; or

(b) for an event or circumstance that is an indirect consequence of the action – subject to subsection (2), the action is a substantial cause of that event or circumstance.

(2) For the purposes of paragraph (1)(b), if:

(a) a person (the ***primary person***) takes an action (the ***primary action***); and

(b) as a consequence of the primary action, another person (the ***secondary person***) takes another action (the ***secondary action***); and

(c) the secondary action is not taken at the direction or request of the primary person; and

(d) an event or circumstance is a consequence of the secondary action;

then that event or circumstance is an ***impact***of the primary action only if:

(e) the primary action facilitates, to a major extent, the secondary action; and

(f) the secondary action is:

(i) within the contemplation of the primary person; or

(ii) a reasonably foreseeable consequence of the primary action; and

(g) the event or circumstance is:

(i) within the contemplation of the primary person; or

(ii) a reasonably foreseeable consequence of the secondary action.

(Original emphasis.)

1. The reconsideration power at s 78, limited as relevant to this case, provides:

**Reconsideration of decision**

*Limited power to vary or substitute decisions*

(1) The Minister may revoke a decision (the ***first decision***) made under subsection 75(1) about an action and substitute a new decision under that subsection for the first decision, but only if:

(a) the Minister is satisfied that the revocation and substitution is warranted by the availability of substantial new information about the impacts that the action:

(i) has or will have; or

(ii) is likely to have;

on a matter protected by a provision of Part 3…

(Original emphasis.)

1. This is to be read with s 78C, the effect of which is that, upon expiry of stipulated time periods, the Minister must reconsider the decision and either confirm it or revoke it and substitute for it a new decision. The Minister is obliged to give reasons for the outcome of the reconsideration: s 78C(4).
2. Unsurprisingly, these provisions have been judicially considered. Starting with s 75, the Full Court in *Anvil Hill Project Watch Association Inc v Minister for the Environment and Water Resources* [2008] FCAFC 3; 166 FCR 54 (***Anvil FC***), Tamberlin, Finn and Mansfield JJ held that s 75 does not erect as a precondition to the exercise of the Minister’s discretion the jurisdictional fact whether the proposed action has or will have, or is likely to have, a significant impact on a matter protected by Pt 3. At [26] and [33], the Court said:

Section 75(1) of the Act imposes a duty on the Minister to decide whether a proposed action is a controlled action. In making this decision, the Minister must take into account the elements of a controlled action as defined by s 67, which in turn involves a determination whether the proposed action would be prohibited by a provision of Pt 3 of the Act, including those provisions which give rise to what the appellant asserts is the condition precedent of s 75(1). The determination of this latter question involves a duty to determine whether there would be a prohibition under Pt 3 of the Act which applies to the proposed action because the action has, will have or is likely to have a significant impact on a relevant aspect of the environment. The duty to make this determination is assigned to the Minister. It is not given to a court or tribunal, and is not expressed as an objective matter. As a result, the performance of this duty is not properly to be regarded as a condition precedent to the exercise of the power in s 75(1).

…

As a matter of practical consequence, if the question of significant impact was considered to be a jurisdictional fact, then, according to the scheme of the Act, a challenge could be made before a court as to whether there was actually and objectively a significant impact on the matters protected by Pt 3 of the Act. Accordingly, the decision of the Minister on this point could be challenged immediately after it was made, and many months might elapse until a final resolution was reached. Such a legal challenge in many cases could involve very substantial delays to the approval process established by the Act, which would be inconsistent with its purpose of adopting an efficient and timely environmental assessment and approval process.

1. Section 75 was described by Heerey J as a “triage system” in *Blue Wedges Inc v Minister for the Environment, Heritage and the Arts* [2008] FCA 8; 165 FCR 211 at [22] which built upon the decision of Stone J as the primary judge in *Anvil Hill Project Watch Association Inc v Minister for the Environment and Water Resources* [2007] FCA 1480; 243 ALR 784 (***Anvil PJ***) at [70]. See also *Triabunna* at [43] (Flick J). In argument, further attention was paid to other aspects of the decision of Stone J in *Anvil PJ*. At issue was a challenge to a decision that a proposal to build and develop an open cut coal mine was not a controlled action because, relevantly and despite public submissions to the contrary, the proposed action would not have indirect consequences caused by the release of greenhouse gases into the atmosphere once the extracted coal was combusted by third parties. The delegate was not satisfied that the likely “relatively small” quantum of emissions would have a measurable or identifiable impact on any increase in global atmospheric temperature or other greenhouse gas impacts.
2. Justice Stone at [34] reasoned that the common law concept of causation, which is factual and evaluative, is not directly applicable to the task set by s 75 because it:

[I]s a factual inquiry about the impact of an action. Although there is an element of indeterminacy injected by the requirement that the action has, will have or be likely to have a **significant** impact, it is quite different from an inquiry into legal causation.

(Original emphasis.)

1. At [35], her Honour noted with approval what Dowsett J had said in *Wildlife Preservation Society of Queensland Proserpine /Whitsunday Branch Inc v Minister for the Environment and Heritage* [2006] FCA 736; 232 ALR 510 (***Preservation Society***) at [57] that he saw “no reason to introduce notions of causation into the process prescribed by s 75. It is not necessary to go beyond the language of the relevant sections.” Further at [44], Stone J addressed a submission of the applicant that the impact of an action should be assessed in the context of the impact of other potential actions, reasoning that:

Whether or not, in terms of greenhouse gas emissions, this approach would materially alter the assessment of the Anvil Hill Project, I have difficulty in conceiving how one would go about assessing a proposed action in the context of hypothetical/potential actions. Be that as it may, however, the Act does not prescribe the frame of reference by which the Minister is to assess the significance or substantiality of an impact upon a protected matter. It contains no requirement that such assessment be confined to a comparison with other, hypothetical, proposed actions. The assessment of whether an impact is or is not significant is a question of fact; *Minister for Environment and Heritage v Greentree* (2004) 138 FCR 198 at [192]. As such, the delegate was entitled to assess the significance and substantiality of the impact of the proposal as a whole rather than merely in comparison with other potential actions. The applicant’s assertion must be rejected.

1. Pausing there, I do not read the decision of Stone J as denying that the task of the Minister pursuant to s 75 does not have an evaluative element, as necessarily that is what is required by a common-sense causal analysis, albeit a statutory and not a common law one.
2. Turning next to s 527E, it is to be noted that it is an exhaustive provision. An event or circumstance is an impact of an action, or it is not. The Full Court in *ACF FC* was concerned with a contention that, in deciding whether to grant approval pursuant to s 136, the Minister was required to consider greenhouse gas emissions from the proposed action of coal mining and with it, the potential effects on MNES, in particular the Great Barrier Reef. The Minister reasoned that emissions from combusting the coal would not have a relevant impact, because a necessary causal relationship could not be identified. At [42], the Court observed:

In the language adopted in s 527E(1) only an “event” or “circumstance” may be an impact of an action. The *New Shorter Oxford English Dictionary* defines the word “impact” as, “the striking of one body as against another, a collision ... the [strong] effect of one thing, person, action, etc, on another; an influence; an impression”. It is a little difficult to describe increased ocean temperature, ocean acidification or more extreme weather events as impacts on World Heritage values, National Heritage values or the Marine Park environment, although one may readily accept that those events or circumstances might cause impacts upon such matters…

1. This is not to say that impacts are confined to physical events or circumstances: *Minister for Environment and Heritage v Queensland Conservation Council Inc* [2004] FCAFC 190; 139 FCR 24 at [53] (Black CJ, Ryan and Finn JJ), albeit decided before the enactment of s 527E. As an example, World Heritage properties are assigned world heritage values pursuant to ss 12 and 14 and those values are identified in accordance with the World Heritage List kept under Art 11 of the World Heritage Convention, being the *Convention for the Protection of the World Cultural and Natural Heritage* made in Paris on 23 November 1972, as amended and in force for Australia from time to time. With that qualification, what the Court said about the Ministerial function of assessing impacts (at [53]) was:

…Accordingly, we take s 75(2) to require the Environment Minister to consider each way in which a proposed action will, or is likely to, adversely influence or effect the world heritage values of a declared World Heritage property or listed migratory species. As a matter of ordinary usage that influence or effect may be direct or indirect. “Impact” in this sense is not confined to direct physical effects of the action on the matter protected by the relevant provision of Pt 3 of Ch 2 of the EPBC Act. It includes effects which are sufficiently close to the action to allow it to be said, without straining the language, that they are, or would be, the consequences of the action on the protected matter. Provided that the concept is understood and applied correctly in this way, it is a question of fact for the Environment Minister whether a particular adverse effect is an “impact” of a proposed action…

1. See also *Secretary, Department of Primary Industries, Parks, Water and Environment v Tasmanian Aboriginal Centre Inc* [2016] FCAFC 129; 244 FCR 21 at [93] (Allsop CJ, Griffiths and Moshinsky JJ) where the Full Court emphasised:

…The process required a weighing of evidence in the context of the complexities of s 527E. These questions of assessment of impact, such as dealt with in Pt 8, may best be seen as the task of the Commonwealth executive not judiciary, at least in the context of an *ex ante* analysis involving a party who does not threaten to break the law…

1. Mr Nekvapil SC, on behalf of the applicant, contends in oral submissions that the adjectival phrase “likely to have” at s 78(1)(a)(ii) when read with s 527E(1) required the Minister “to reason in terms of, on the material before her, the spectrum of really possible events or circumstances across the range of really possible warming scenarios in a future in which the action is taken.” In further development of that submission, Mr Nekvapil argues that the Minister was required to consider whether: “[i]s it really possible the action will be a substantial cause of an event or circumstance.” However, in the applicant’s written case one sees various references to “likely” as expressing “a possibility”, as sitting on a spectrum from certain to “a real and not remote possibility” or what “really might” occur in the future.
2. This lack of precision in the applicant’s case deflects attention from the statutory phrase. Ultimately it is the contextual meaning of the words used by Parliament which is dispositive, the legal as opposed to the dictionary meaning (*South Western Sydney Local Health District v Gould* [2018] NSWCA 69; 97 NSWLR 513 at [78]-[81] (Leeming JA)). What is clear from a number of authorities is that the natural and ordinary meaning of *likely* is intended, being “to convey the notion of a substantial – a ‘real and not remote’ – chance regardless of whether it is less or more than 50 per cent”: *Boughey v The Queen* (1986) 161 CLR 10 at 21 (Mason, Wilson and Deane JJ). See also *Clubb v Edwards* [2019] HCA 11; 267 CLR 171 at [58] (Kiefel CJ, Bell and Keane JJ) and *Chan v Minister for Immigration and Ethnic Affairs* (1989) 169 CLR 379 at 398 (Mason CJ).
3. There are sound reasons not to interpret *likely* ats 78(1)(a) as requiring the assessed likely impacts of an action as meaning probable. In making a controlled action decision pursuant to s 75, the Minister is obliged to consider “all adverse impacts” the action has or will have, or is likely to have, on a matter protected by a provision of Pt 3. The fundamental objects of the Act at s 3 include the protection of the environment, especially those aspects that are MNES and the promotion of ecologically sustainable development. Further, by s 3A, the principles of ecologically sustainable development require that, inter alia, “the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making”. Once that is understood there is no warrant for a narrow reading of the impacts the action is *likely* to have on a matter protected by a provision of Pt 3, more so in the case of assessing the indirect impacts conformably with s 527E.
4. This is not to say, however, that the phrase has one or more of the amorphous meanings pressed on behalf of the applicant. The construction task requires that legal meaning be attributed to the text, in context and having regard to the purpose of the provisions, so far as it can be ascertained. The important task that Parliament has assigned to the Minister requires assessment of the impacts that the action *has or will have*, where *has or will have* require a high degree of satisfaction of actual impact and *likely* requires a lesser degree of satisfaction, though not rising to more probable than not. In that causal context, Parliament has not authorised the Minister to engage in a process of indeterminate reasoning or speculation by reference to possibilities. To do so is to uncouple the causal assessment from the identified impacts that the action has or will have, or is likely to have, on a matter protected by a provision of Pt 3. The factual assessment that is required to be undertaken although broad is not open ended.
5. In this Court, Rangiah J essayed the authorities distinctly for the purposes of ss 18 and 18A in *Polaris Coomera Pty Ltd v Minister for the Environment* [2021] FCA 254 at [203]-[228], which analysis I respectfully adopt. His Honour concluded that the phrase *is likely to have* at s 18(4)(b) and 18A refers to a real or not remote chance or possibility, noted that the phrase “is very similar to that used in a number of other provisions in Ch 2 Pt 3 and in s 75” and that his construction “produces no inconsistency with these provisions”: [228]. There is much to be said for adopting an harmonious construction of the statutory phrase in Pts 3, 7 and 8 of the Act which operates to determine whether action requires assessment and if so the type of assessment.
6. For these reasons, in the context of the present provisions, the phrase means a real or not remote chance or possibility and I reject the more expansive meaning submitted on behalf of the applicant.
7. I deal next with the applicant’s review grounds.

## Grounds of review

1. It is important to understand the structure of the applicant’s case. The Minister reached two alternate conclusions which she summarised at paragraph [107] of the reasons, which I have previously denoted as limbs 1 and 2. The first is the net increase conclusion and the second is the relative contribution conclusion. Grounds 1-6 are directed to the net increase issue and grounds 7-10 to the relative contribution issue.

### Ground 1

1. The ground provides:

In performing the s 78 function, the Minister was required to turn her mind to the future universe in which the Proposed Action will be taken by the Proponent. The Minister misdirected herself by turning her mind to future universes in which:

(a) the Proponent will not take the Proposed Action (for example, the Minister reasoned by reference to emissions from different coal in a future without the Proposed Action, and by reference to offsets).

(b) the Proponent will not take all of the Proposed Action (for example, the Minister reasoned by reference to the possibility that receiver countries might not burn all of the coal).

She then reasoned by a process of “netting off” certain such future universes against the future universe in which the Proposed Action will be taken, as the basis for answering the question posed by ss 78 and 527E.

(Original emphasis.)

1. The reference to the “future universe” requires explanation. The developed submission commences with the premise that the future of MNES, the environment and biodiversity is deeply uncertain, the key element of which is the release of CO2 to the atmosphere. The Minister was satisfied that the applicant had provided substantial new information about the impacts of the proposed action. Section 78 required the Minister to consider whether the substantial new information was about impacts the action has or will have, or is likely to have, on a protected matter, which expresses the causation test with a past, present and future element. The expression “will have” expresses a definite future and “is likely to have” employs an adjective plus an infinitive “to express a possibility”. Thus, on the applicant’s written case “taken together” the Minister was required:

[T]o identify possible futures lying on a spectrum from likely to certain. “*Likely*”, in this context, means a real and not remote possibility. The use of this spectrum reflects the difficulty facing a decision-maker asked to approve an action now, and thereby permit environmental harm throughout its future life. The past is certain, if one can get sufficient information. The future is inherently uncertain. The further one moves forward, the more the potential causal pathways fan out.

When undertaking this exercise, the defining characteristic, or input assumption, for all future worlds must be the taking of the action. Then, the Minister is required to contemplate possible future worlds, and identify the impacts that have a real possibility of occurring indium is the consequence of the taking of the action.

(Original emphasis.)

1. The error attributed to the Minister is that she failed to reason by commencing with the assumption that the action will be taken by reference to a future that is “really possible, but not certain” in which the relevant event or circumstance is the adverse effect on protected matters caused by future increases in the aggregate level of greenhouse gas emissions in the atmosphere. At that point the Minister had before her very considerable scientific information, predominantly from the IPCC, that there is a range of possible future aggregate levels of greenhouse gas emissions, depending upon a large number of variables, which generates considerable uncertainty. The applicant’s written case continues:

…But these are not singular or monolithic. Depending on the future total volume of greenhouse gas emissions before net zero, there is a real possibility that the Reef will be subjected to worse-than-present regular widespread bleaching (even if warming is limited to 1.5°C), and there is a real possibility that it will be utterly destroyed (especially if warming were to reach 3°C or above). The events or circumstances for each matter protected are subject to deep scientific uncertainty, but will range from mild to existential depending on the level of total emissions before net zero.

1. The monolithic reasoning attributed to the Minister was considerably emphasised in the oral submissions of Mr Nekvapil. It was put that the Minister engaged in impermissible “probabilistic reasoning”, which is not possible as a matter of scientific fact: that the future adverse effects or circumstances “will or won’t happen and will or won’t happen with the coal mine or without the coal mine.” By reasoning in this way, the Minister failed to address the correct question by reference to a spectrum of “really possible futures” along which and at various points there is likely to be different effects or consequences for the many different MNES. Conversely, the Minister was required to engage in dynamic reasoning “across a spectrum of really possible events” and consider whether the proposed action was “either a very significant proportion of a much better outcome or a very tiny proportion of complete destruction.”
2. In developing this argument, Mr Nekvapil emphasised, from the material before the Minister, the latest reports of the IPCC as representing the pre-eminent collective views of world scientists, based on various working groups and multiple assumptions. The point is that deep uncertainty affects any projection of “thousands of variables 30 years into the future” with the consequence that “it’s simply not possible to be probabilistic about which scenario will occur or is one more likely to occur than another.”
3. Mr Nekvapil’s argument is not limited to the material that was before the Minister. The applicant also relies on expert evidence from Dr Matthew Gidden, who is a senior research scholar in the Integrated Assessment and Climate Change Research Group of the IIASA Energy, Climate, and Environment Program, where his primary area of study is sustainable pathways for meeting societal energy demand while mitigating changes to the climate and environment. The respondents object to the receipt of his evidence as irrelevant upon this application for judicial review. For reasons that I published during the trial, I determined that his evidence would be received provisionally pursuant to s 57 of the *Evidence Act 1995* (Cth): *Environment Council of Central Queensland Inc v Minister for the Environment and Water* [2023] FCA 1117. From this evidence, Mr Nekvapil draws five propositions of which relevant to this ground is the second: “[i]t is not possible, as a matter of climate science to rule out the real possibility of a less-harmful future without the coal mine than with it”. The second respondent disputes that this proposition is established by the evidence of Dr Gidden. I note that the second respondent withdrew its application to cross-examine Dr Gidden.
4. The oral argument of Mr Nekvapil in support of this ground developed peripatetically. Either it was not open to the Minister to engage in counter-factual reasoning by netting off likely emissions from the proposed action from total global emissions from other sources in a world where the action does not occur. Or, the Minister was required to contemplate what are “the really possible events or circumstances in a future with this coal mine”, which she failed to do in that she failed to assess the likely impacts of the proposed action. At the basal level of the applicant’s submission is the contention that the Act does not permit the Minister to reason by reference to a possible counterfactual where the event or circumstance occurs in any event. That reasoning does not assess the impact of the proposed action.
5. The Minister’s counterfactual reasoning in support of the net increase conclusion at [108] turns on the proposition that the likely contribution of the proposed action towards a net increase in global greenhouse gas emissions and average temperature “is subject a number of variables”. The Minister identified the variables as:
6. Whether generated emissions will be offset, mitigated or abated by the implementation of policies or regulations in other countries in which the prospective buyers would operate (at [109]);
7. Those certain countries, where “it is anticipated” that coal from the proposed action will be combusted (namely Japan, South Korea, Malaysia, Vietnam and Australia), each have nationally determined contributions under the *Paris Agreement* to reduce emissions and to adapt to the impacts of climate change. Taiwan, whilst not a member of the United Nations, has committed to net zero emissions by 2050 (at [110]-[111]);
8. The level of greenhouse gas emissions will likely be subject to emissions reduction policies of consuming corporations. By way of example, power corporations in Japan have committed to being carbon-neutral by 2050 (at [112]);
9. If the proposed action does not proceed, there will not necessarily be an effect on the total global level of greenhouse gas emissions because of a range of other factors, “including the level of emissions from sources other than the proposed action” (at [113]);
10. The identified factors “make it very difficult to estimate the likely net increase in global GHG emissions” from the proposed action and “by extension, the extent of any net increase in global average temperature and the extent to which the world heritage values of declared World Heritage properties will be impacted by the physical effects of climate change” (at [114]);
11. It is likely that if the proposed action does not proceed, that prospective buyers “will purchase an equivalent amount of coal from a supplier other than the proponent” with the consequence that an equivalent amount of greenhouse gas emissions will likely be emitted (at [115]);
12. If the proposed action does not proceed, then it is “reasonable to assume” that the market would respond by increasing the supply from alternative sources (at [116]); and
13. It is open to consider substitution reasoning, despite the submissions of the applicant, that in light of the new information received, whether the proposed action is a substantial cause of the events or circumstances which are likely to impact on the world heritage values of the declared World Heritage properties (at [118]-[120]).
14. I reject the applicant’s submissions that it was not open to the Minister to reason in this way. I also reject the further submission that the Minister was required to reason differently and prescriptively as contended by this ground.
15. The primary difficulty is there is no express requirement in the Act which compels the Minister to reason in any particular way in order to be satisfied, pursuant to s 78, that revocation and substitution of a controlled action decision is warranted by the availability of substantial new information about the impacts the proposed action has or will have, or is likely to have, on a matter protected by a provision of Pt 3. The statutory scheme requires the Minister to undertake a factual inquiry, the limits of which are determined by the relevance of considerations particular to the proposed action and the event or circumstance that is taken to be an indirect consequence if the action is a substantial cause of that event or circumstance within the meaning of s 527E(1)(b). If that factual causation conclusion is reached, the Minister must then turn to the has or will have, or is likely to have, impacts considerations at s 78(1) on protected matters.
16. As Gleeson CJ said in *NEAT Domestic Trading Pty Ltd v AWB Ltd* [2003] HCA 35; 216 CLR 277 at [20]: “The question is what, if anything, the Act requires, or permits or forbids” the Minister from taking into account. There are relevant provisions in the Act which expressly require the Minister to consider specific matters and to exclude others. One is s 75 which requires the Minister to decide whether proposed action is a controlled action. The Minister in doing so must consider public comments received in response to an invitation to comment (s 75(1A)), must consider all adverse impacts (if any) the action has or will have, or is likely to have, on the matter protected by each provision of Pt 3 and must not consider any beneficial impacts of the action: s 75(2)(a) and (b). In deciding whether to approve the taking of an action, and what conditions to attach to an approval, the Minister must consider matters relevant to any matter protected by provision of Pt 3 that the Minister has decided is a controlling provision, as well as economic and social matters (amongst others) in accordance with s 136(1). When deciding about the impacts of a proposed action on World Heritage properties, the Minister must not act inconsistently with Australia’s obligations under the World Heritage Convention, the Australian World Heritage management principles or a management plan for a declared World Heritage property: s 137.
17. In contrast, the Act does not expressly require the Minister to take into account prescribed matters, or to proceed in accordance with any particular pathway, in determining the factual causation question that is required by s 527E(1). This provision prescribes the analysis that is to be undertaken for either the direct or indirect consequences of a proposed action. The limit of that inquiry, in the case of indirect consequences, is determined by identification of what is the proposed action, what is the event or circumstance that is an indirect consequence of the action, whether the action is a substantial cause of that event or circumstance and, if satisfied as to those matters, the inquiry moves to s 78 and becomes whether the Minister is satisfied that the revocation and substitution of the original controlled action decision is warranted by the availability of substantial new information about the impacts that the action has or will have, or is likely to have, on a matter protected by provision of Pt 3.
18. Within that framework, the inquiry is a familiar one. The factors that may be considered, and those that may not be, are determined by the subject matter and purpose of the Act: *Minister for Aboriginal Affairs v Peko-Wallsend Ltd* (1986) 162 CLR 24 at 40 (Mason J). There is no warrant for reading into ss 78 and 527E an implication the effect of which is to constrain in the form of a mandate how the Minister is to undertake what is a common-sense factual cause and effect inquiry. The implication which the applicant’s argument requires cannot be reconciled with the express text of the Act and there is nothing in the statutory context or purpose that supports it. Fundamentally the implication cuts across the broad conferral of the power entrusted by Parliament to the Minister to undertake the evaluative factual inquiry required by ss 78 and 527E. If Parliament had intended to prescribe how the Minister is to undertake the assessment, what matters may be considered and those that may not, then the Act would so provide, which is the case with other provisions in the statutory scheme.
19. The Minister was satisfied that the effects of climate change on a global scale are of such magnitude that MNES will be adversely affected, which is clear from her reasons at [104], [139], [149], [163], [173], [184] and [194]. However, the Minister found that it was “very difficult to estimate the likely net increase in global [greenhouse gas] emissions” from the proposed action, the extent to which those emissions may increase global average temperature and hence the extent of likely impacts on the world heritage values of World Heritage properties: [114]. Accordingly, the Minister was not satisfied that the proposed action is a substantial cause as required by s 527E(1)(b).
20. The applicant does not complain that the Minister considered irrelevant considerations. The argument is that the statutory phrases “will have” and “is likely to have” at s 78 when read together “require a decision-maker to identify possible futures lying on a spectrum from likely to certain” and which then steps from that proposition to the contention that the Minister is required to contemplate “future worlds that, starting with the input assumption that the action will be taken, are generally possible, but not certain”. Having progressed to that point, this should have led the Minister, by application of the correct approach, to being satisfied “that there will (almost certainly) be some events or circumstances (for example, an increase in the regularity and intensity of coral bleaching) in all future worlds in which the action is taken”. That argument in my view cannot be reconciled with the statutory text, its context or purpose. The argument construes the straightforward phrases “has or will have” or “is likely to have” in a manner that the text simply does not bear. The argument fails to explain why these phrases require the Minister to engage in the specific and prescriptive reasoning process that the applicant contends for. The argument fails to address where in the statutory text, or by necessary implication from it, the Minister was required to consider the range of scenarios advocated by the applicant and with the various corresponding input assumptions.
21. It may be accepted, and the respondents do not dispute, that a reasoning pathway that was open to be considered may have traversed a wider spectrum of scenarios than those considered by the Minister pursuant to s 527E(1). But that does not prove the applicant’s preferred construction of the Act as it rather highlights its flaw: the Act leaves it to the Minister to assess whether the proposed action is a substantial cause of an event or circumstance of an indirect consequence and whether there is an impact within the meaning of s 78(1)(a).
22. The argument is underpinned by an incorrect interpretation of what is meant by “is likely to have”: as I have explained and contrary to the applicant’s submissions it does not require consideration of possible futures lying on an identified spectrum, the contemplation of possible future worlds, events or circumstances that really might happen or any one or more of the applicant’s indeterminate phrases. There is no doubt that the Minister correctly understood that in assessing the indirect impacts the action is likely to have on a matter protected by a provision of Pt 3, she understood the concept when summarising the statutory framework at [86]-[90] of her reasons.
23. There is no express prohibition in the Act to the effect that counterfactuals cannot, or cannot in some circumstances, be resorted to by the Minister in the decision-making that is required by s 78. Nonetheless, the applicant submits in its written case that: “the ability to entirely negate a putative likely impact by pairing it with a counterfactual chosen to contain the same level of impact without the action would provide a complete avoidance mechanism of the operation of the controlling provisions, without even getting to the question of assessment [of] mitigation measures.” That submission assumes the correctness of its premise: it fails to explain why a counterfactual has the contended effect. As correctly submitted by Mr Emmett SC for the second respondent, the Act does not prescribe any particular approach to resolution of the factual causation question which, in the case of indirect consequences, requires consideration of whether the action is a substantial cause of the consequence. It is true that the Act does not require the Minister to resort to counterfactuals in resolving that question, but it does not follow that it restricts consideration of relevant counterfactuals to assess the impacts of the action if it proceeds. As explained by Dowsett J in *Preservation Society* at [55]: “The relevant impact must be the difference between the position if the action occurs and the position if it does not”.
24. The applicant’s arguments do not engage with the reasoning of Stone J in *Anvil PJ* at [44] (reproduced above) that the Act does not prescribe “the frame of reference” by which the Minister is to undertake the assessment of whether the proposed action is a substantial cause of the relevant event or circumstance. To the same effect is the reasoning of Griffiths J as primary judge in *Australian Conservation Foundation Inc v Minister for the Environment and Energy* [2016] FCA 1042; 251 FCR 308 (***ACF PJ***) at [162] and [174]: the inquiry is one for the Minister and is a factual one.
25. Nor does the applicant explain how its arguments can be accepted conformably with the conclusion of the Full Court in *Anvil FC* at [32]-[34] that the Ministerial power at s 75 to decide whether proposed action is controlled does not raise a jurisdictional objective fact question.
26. For these reasons ground 1 fails.

### Ground 2

1. This ground assumes that it was permissible for the Minister to engage in a counterfactual inquiry and, stated succinctly, the contention is that the Minister was required on all the material before her to reason across a very broad spectrum of future scenarios in which the proposed action is taken, but failed to do so. More particularly, the ground provides:

In performing the s 78 function, picking up the s 527E definition, the Minister was required to consider whether a potential event or circumstance, which “is an indirect consequence of the action” and of which “the action is a substantial cause”, is “likely” (within the meaning of s 78(1)(a)(ii)). Translating s 527E (“is”) into the context of s 78(1)(a)(ii) (“is likely to have”), the question becomes whether, if that event or circumstance occurred, it would be an indirect consequence of the action, and one of which the action would be a substantial cause. The Minister misdirected herself by asking, at the anterior stage of positing the potential events or circumstances of climate-change impacts on the relevant MNES, the question whether these “will” result from the Proposed Action.

(Original emphasis.)

1. Mr Nekvapil submits in the applicant’s written case that the Minister misdirected herself as to what s 78 requires. Section 78(1)(a):

[R]equired consideration of impacts that the action is likely to have. Read with s 527E(1)(b), this required identification of an event or circumstance of which the following could be said: there is a real possibility of that event or circumstance happening with the proposed action as a substantial cause, in a world in which the action is taken.

1. Accepting that it was open to the Minister to engage in counterfactual reasoning, the applicant primarily focuses upon the Minister’s reasons at [113] where the acceptance of her departmental advice is recorded:

…I accepted the Department’s advice that, if the proposed action does not proceed, this will not necessarily affect the level of GHG emissions worldwide or the extent to which the world heritage values of declared World Heritage properties will be impacted by the physical effects of climate change. That will be subject to a range of other factors, including the level of emissions from sources other than the proposed action.

1. The Minister went on to identify some of those variables, which I have summarised earlier in these reasons. The counterfactual reasoning is criticised on the basis that the Minister could only have been satisfied that a likely future impact was negated “if she could be satisfied that there was no real possibility of the putative event or circumstance happening with the proposed action as a substantial cause.” In reasoning in the way that she did, the submission is that the Minister misconstrued “likely” at s 78(1)(a)(ii).
2. I reject this submission substantially for the reasons given for ground 1. As I have explained, it turns on interpreting the adjective by placing on it one or more of the applicant’s variations of the statutory language and distracts from what is a relatively straightforward factual inquiry. The Minister is not restricted to proceed by considering only scenarios based on the assumption that the action will be taken.
3. It is true that at points in the reasons, the Minister used the words “will” and “would”, but this does not bespeak of error. The entirety of the reasons must be read as a whole, consistently with the well-established principle that one does not do so with a judicial eye keen to detect error: *Minister for Immigration and Ethnic Affairs v Wu Shan Liang* (1996) 185 CLR 259 at 271-272 (Brennan CJ, Toohey J, McHugh and Gummow J) and see generally the discussion of these principles by Griffiths J in *ACF PJ* at [143]-[153].
4. The Minister at [99] accepted that the applicant’s request contained substantial new information which identified that “climate change and its flow-on effects are affecting or will affect the ecology of the identified declared World Heritage properties.” Expanding on that finding, the Minister was satisfied that the unique natural environments of the World Heritage properties contain ecosystems and/or species more susceptible to climate change and therefore more susceptible to its impacts. At [100], the Minister noted the information which demonstrated that climate change “is having or will have adverse effects on flora, fauna and ecosystems” which in turn will affect the values of declared World Heritage properties. The Minister deployed the statutory language of s 78(1)(a) at [101] to conclude that consideration of the revocation and substitution of the controlled action decision was warranted by the availability of that information.
5. Next the Minister at [102]-[103] correctly set out s 527E as the test required to be applied in her decision-making. The Minister applied the test commencing at [107], which when read in context and as a whole does not reveal error. Whilst the Minister said she was not satisfied that the new information demonstrated “that the proposed action **will** cause any net increase in global GHG emissions and global average temperature” (emphasis added) in the summary statement of her first reason (no net increase) it is clear from the introduction to this paragraph that the Minister was plainly aware of the statutory requirement at s 78(1)(a) when she said:

Therefore, the information is not about impacts the proposed action has or will have, or is likely to have, on the world heritage values of declared World Heritage properties.

1. Following the summary statement of conclusion at [107], the Minister gave detailed reasons at [108]-[120] where it is to be observed she was cognisant of the need to assess the likelihood of any net increase in greenhouse gas emissions from the proposed action at [114], the likelihood that if the proposed action does not proceed, prospective buyers will acquire an equivalent amount of coal from other sources at [115], stated that she was not satisfied that the proposed action “is likely to result” in a net increase in greenhouse gas emissions or affect the extent to which the world heritage values of World Heritage properties “will be impacted” at [117] and at [120] confirmed her correct understanding of the statutory question required by s 527E(1)(b).
2. For these reasons this ground fails.

### Ground 3

1. This ground contends error, said to be related to ground 2, in that the Minister selected as one variable that other countries may in the future implement laws or policies to reduce emissions within territorial borders to mitigate the emission of greenhouse gases. It provides:

In performing the function under s 78, where contemplating a potential event or circumstance under s 527E(1)(b) that would be caused by multiple, contributing causal factors (including the Proposed Action), the Minister was required to contemplate the potential event or circumstance and whether the Proposed Action would be a substantial cause of it. The Minister misdirected herself by contemplating instead a less impactful version of the potential event or circumstance that might occur if causal factors other than the action were less substantial (for example, the Minister reasoned by reference to legal or political measures that might result in scenarios of less overall accretion of greenhouse gases, in a future in which the Proposed Action is taken).

1. The specific criticism that the applicant presses is that this variable was one of many, perhaps thousands, that climate change scientists had modelled to generate a range of “feasible (and therefore likely) scenarios”. On that argument, the Minister ought to have understood that all variables “bore on the range of likely events or circumstances in future worlds in which the action was taken, and were irrelevant to any counterfactual, or any netting as between worlds with and without the action.”
2. The particular reasoning the applicant impugns is at [109]-[112]:

One variable is whether any emissions generated by the combustion of the coal from the proposed action will be offset, mitigated or abated. The countries or jurisdictions where the prospective buyers of the coal are expected to combust the coal may at any time implement new policies or regulations regarding emissions within their borders.

As set out at paragraph 70 above, the countries where it is anticipated that the coal from the proposed action will be consumed (Japan, South Korea, Malaysia, Vietnam and Australia) each have respective nationally determined contribution (NDC) under the Paris Agreement to reduce national emissions and adapt to the impacts of climate change. Under the Paris Agreement (referred to at paragraphs 74 to 79 above), each Party must submit an NDC every five years. These NDCs are required to reflect increased ambition over time. Parties may also submit new or updated NDCs at any time. The emissions generated by combusting coal (including coal from the proposed action) would be counted as scope 1 emissions in the country where combustion occurred and may be subject to mitigation actions or offsetting.

Taiwan is not a member of the United Nations and is excluded from the UNFCCC. Domestically, however, it has an Intended NDC that includes a 2030 target and has committed to net zero emissions by 2050.

The level of global GHG emissions will also likely be subject to the emissions reduction policies of power companies, and any changes to the efficiency of their power plants. The department brief included examples of changes to the emissions reduction policies of certain companies. For example, power companies in Japan have committed to being carbon-neutral by 2050 including phasing out inefficient power plants.

1. These are findings of fact where clearly the Minister understood that there were very many variables that impact upon the likely contribution of greenhouse gas emissions from combusted coal sourced from the proponent’s mine. In oral argument, Mr Nekvapil accepted that it was open to the Minister to be selective in her identification of some of those variables but submitted that she could only do so “if it was meaningful”. That concession exposes the primary difficulty with this ground. It is a contention which engages with the Minister’s fact finding, which explains the subsequent concession that this is not a standalone ground but merely supportive of grounds 1 or 2.
2. For completeness, I add that I accept Mr Lloyd SC’s further submission for the Minister that this ground exposes an inherent difficulty with the applicant’s preferred construction of the statutory scheme. The climate scientists in formulating models that are designed to generate a range of feasible future outcomes, and which turn on a very large number of assumptions, do not do so in order to address the statutory tests that the Minister is required to address at s 78(1) of likely impact and s 527E(1)(b), substantial cause. Correctly understood, the Minister exampled these variables, with additional reasons at [113]-[116], to conclude at [117] that she was not satisfied, based on the substantial new information, “that the proposed action is likely to result in a net increase to GHG emissions” and thereby have the requisite impacts on the world heritage values of World Heritage properties.
3. Accordingly, this ground fails.

### Grounds 4 and 5

1. These grounds are concerned with the precautionary principle at s 391 which relevantly provides:

**Minister must consider precautionary principle in making decisions**

*Taking account of precautionary principle*

(1) The Minister must take account of the precautionary principle in making a decision listed in the table in subsection (3), to the extent he or she can do so consistently with the other provisions of this Act.

*Precautionary principle*

(2) The ***precautionary principle***is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.

(Original emphasis.)

1. Subsection (3) lists decisions where the principle must be considered. There is a reference to s 75, but not s 78. Nonetheless, the Minister accepted departmental advice that the principle was required to be taken into account because s 78C(1) requires reconsideration of the controlled action decision made under s 75. The Minister maintains that position before me.
2. Ground 4 provides:

As the Minister accepted, s 391 of the EPBC Act required the Minister to take account of the precautionary principle in making a decision under s 78 (for the purpose of reconsidering a decision under s 75). The s 527E questions arose in the course of making that decision. The Minister misdirected herself by treating the s 527E questions as anterior to (and exempt from) the operation of s 391.

1. Ground 5 is expressed in the alternative and simply provides:

The Minister misunderstood and/or failed to comply with s 391 of the EPBC Act: ADJR Act, s 5(1)(b), (d), (f); Judiciary Act, s 39B.

1. The Minister mentioned the precautionary principle, at the end of her reasons, after stating her multiple conclusions that she was not satisfied that the new information was about the impacts the proposed action has or will have, or is likely to have, on each MNES. The Minister said (at [198]-[199]):

As a request was made pursuant to section 78A of the EPBC Act, I accepted the department’s advice that I was required to reconsider the decision under section 75. In making a decision under section 75, I am required to take account of the precautionary principle to the extent that I can do so consistently with the other provisions of the EPBC Act. The precautionary principle is that a lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage. I noted that the precautionary principle was applied in the original referral decision.

In making my decision to confirm the referral decision, I took into account the precautionary principle. I considered that, while the information in the request demonstrates that there is a risk of serious or irreversible harm arising from climate change, for the reasons I have explained above, the GHG emissions from the proposed action do not cause ‘impacts’ on protected matters for the purposes of the EPBC Act. I therefore was not satisfied that the revocation and substitution of the original decision was warranted by substantial new information about the impacts the proposed action has or will have, or is likely to have, on protected matters.

1. There are two limbs to the principle. The Minister was satisfied as to the first: there is a risk of serious or irreversible harm from climate change. The applicant’s argument is that the Minister misapplied the second, in that she failed to take the principle into account on the likely impact question in deciding whether to substitute the controlled action decision. Or, more bluntly, the Minister “put the cart before the horse” by first reaching conclusions about likely impacts, which the Minister then deployed to denude the operation of the principle.
2. The principle was recently addressed by the Full Court in *Gelorup FC*. The Court dismissed an appeal from the primary judge, Colvin J, who in turn dismissed a challenge to the grant of approval to undertake controlled action subject to conditions pursuant to s 136: *Friends of the Gelorup Corridor Inc v Minister for the Environment and Water (No 2)* [2022] FCA 1554 (***Gelorup PJ***). One ground of challenge contended that the Minister’s delegate failed to apply the precautionary principle. In rejecting the ground, Colvin J reasoned that the principle “is concerned with a way of reasoning not with a particular topic or subject matter that might be considered in evaluating whether to approve” (at [57]) and after considering the accepted authority on the function of the principle (the decision of Preston CJ in *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133; 67 NSWLR 256 (***Telstra***)) continued at [61]:

Importantly for present purposes, the precautionary principle does not operate as a factor that will itself affect the outcome. Rather, it applies where there is a basis to conclude that there is a threat of serious or irreversible environmental damage and scientific uncertainty as to the nature and scope of the threat. In order for it to operate there must be material to be evaluated. The principle does not provide a basis for a decision in and of itself. It is properly seen as being directed to the quality of proof that is needed concerning a risk of environmental damage that might bear upon a particular decision. It operates in a similar manner to the direction to a jury to be satisfied beyond reasonable doubt. It sets a standard as to the level of certainty on which a decision may be based.

1. His Honour differed from the approach to the principle taken by Moshinsky J in *Bob Brown Foundation Inc v Minister for the Environment (No 2)* [2022] FCA 873 (***Bob Brown***), who upheld a challenge to a decision of the Minister’s delegate that proposed action under s 75, being certain design and assessment works to investigate a proposal to construct a mine tailings storage facility in western Tasmania, was not a controlled action because the delegate failed to take account of the precautionary principle. In reasoning to that conclusion, Moshinsky J characterised each limb of the principle as a condition precedent (at [21]) and determined that the requirement to “take account” of the principle “is interchangeable with the requirement that a decision-maker ‘consider’ a particular matter”, which in turn requires active intellectual engagement: [33]. At the factual level of analysis, his Honour was not satisfied that the delegate proceeded in this way, explaining at [48]:

In my view, it is apparent from the Statement of Reasons that the Delegate did not comply with the obligation in s 391(1) to take account of the precautionary principle. As set out above, to comply with this obligation, it is necessary for the Minister (or, in this case, the Delegate) to *consider*, at least, whether the first condition precedent (namely, if there are threats of serious or irreversible environmental damage) is satisfied. This requires the decision-maker to bring an active intellectual process to this matter. Having reviewed the section of the Statement of Reasons dealing with the Tasmanian Masked Owl (being [177]-[196]), and the Statement of Reasons as a whole, I am satisfied that the Delegate failed to do this. The Delegate did not expressly refer to the first condition precedent in the section of the reasons dealing with the Tasmanian Masked Owl. Nor did the Delegate make a finding in terms that correspond to the first condition precedent. While the Delegate, at [184], identified a number of 'threats' to the Tasmanian Masked Owl (by reference to the Approved Conservation Advice), the Delegate did not go on to discuss, or make a finding as to, whether those threats, or the threats posed by the proposed action, were *serious or irreversible*. In the absence of any discussion or finding about this matter, I infer that the Delegate failed to consider it.

1. Justice Colvin identified “some tension” between this approach and that of the Full Court in *State of Queensland (Department of Agriculture and Fisheries) v Humane Society International (Australia) Inc* [2019] FCAFC 163; 272 FCR 310 which he explained at [69]:

…It may be accepted that the precautionary principle described in s 391(1) may only apply where there are threats of serious or irreversible environmental damage. However, it is not the principle itself that is the source of an obligation to consider whether there are such threats. Rather, the principle is that a lack of scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there is the requisite threat. If the decision to be made requires consideration as to whether there is a threat of serious or irreversible environmental damage then a lack of full scientific certainty cannot be used as a reason not to take a measure to prevent that outcome. If a particular decision to be made under the Act requires there to be regard to whether there is a threat of the requisite kind then it is largely a matter of evaluative fact for the delegate as to whether there is such a threat. If there is such a threat, then scientific uncertainty 'should not be used' to postpone a measure that would prevent that degradation (in the present case that measure being refusing to approve the proposed action).

1. His Honour reasoned further at [71]:

As has been noted, s 391 operated as an evidentiary principle not as an articulation of a substantive mater to which the decision-maker was required to have regard. The precautionary principle itself could not be a reason why a decision might be made to refuse to give an approval. Rather, the precautionary principle could only be the basis upon which material that demonstrates the requisite threat may be used as a reason for a decision made in order to prevent degradation to the environment even though there is a lack of full scientific certainty that the damage is likely to occur.

1. On appeal, Jackman and Kennett JJ in joint reasons broadly agreed with the approach of Colvin J “without wishing to suggest” that Moshinsky J was wrong in *Bob Brown*: [83]. At [85], they said by reference to the decision in *Telstra*:

It is noteworthy that the principle, as there expressed, applies to the resolution of a question concerning “postponing a measure to prevent degradation of the environment”. The Minister or a delegate deciding whether or not to approve a proposed action under s 133 (and what conditions if any to impose) does not face any question that fits within that description. Approval of an action that may have significant impacts on MNES cannot be described as “a *measure to prevent* degradation of the environment”. The controlling provisions in Part 3 do that work. Refusal of approval therefore does not “postpone” any measure; it leaves relevant protections in place. Conversely, the effect of an approval granted under s 133 is to relax one or more of the prohibitions in Part 3 and thereby *allow* some degree of adverse impact. Additionally, s 136 does not permit consideration of “degradation of the environment” as a general topic: the only environmental impacts to be considered are matters relevant to the matter protected by a controlling provision: s 136(1)(a), (5).

(Original emphasis.)

1. At [88], their Honours agreed with Colvin J that the principle is “a decisional rule concerning how evidence is to be acted upon rather than a relevant consideration in the sense of a factor to be given more or less weight in an evaluative or discretionary decision”. At [89], their Honours accepted “as far as it goes” the reasoning of Moshinsky J that “take account” and “consider” are “essentially interchangeable expressions”, but then noted that the content of the obligation varies according to what must be assessed, distinguishing between cases where the duty requires weighing various factors as part of a reasoning process from those where the duty requires an understanding of the relevant factors. At [93], their Honours reasoned that:

The important point for present purposes is that, because the precautionary principle is an approach to decision-making that must be respected (rather than a mandatory consideration that must be brought to bear in deciding what is the correct or preferable decision), “taking account of” the principle in the context of deciding whether to approve a controlled action does not require a distinct, identifiable step in the reasoning involving consideration of whether the principle applies. On the one hand, according to its terms, the principle simply does not apply to a decision such as the present one. On the other hand, consideration of the nature and seriousness of the impacts of an action on aspects of the environment is already at the heart of the decision-making process.

1. Justice Feutrill in separate reasons reached the same conclusion, noting that in his view, Moshinsky J did not “express an interpretation of [the] provision that is necessarily of general application”: [168]. At [172], his Honour reasoned:

The primary judge was correct to observe that the precautionary principle is, of its nature, an evidentiary principle. It concerns a way of approaching environmental decision-making that treats environmental damage as certain where there is scientific uncertainty as to that damage. Consequently, a measure that is capable of preventing or mitigating that damage should be implemented before any environmental damage actually takes place. Therefore, what is ‘taken account of’ or ‘taken into account’ by the decision-maker where the principle applies is the assumed certitude of serious or irreversible environmental damage as a factor that is to inform the nature and extent of any precautionary measure intended to avoid or mitigate that damage.

1. A point of distinction that Jackson and Kennett JJ acknowledged (at [85]) is that the power to grant an approval at s 133 is not concerned with postponing a measure to prevent environmental degradation as the Pt 3 controlling provisions “do that work”. That is how the Minister reasoned in this matter at [199] in stating that she was satisfied that the new information satisfied the first limb of the precautionary principle. The applicant’s argument is that the Minister failed to apply the second limb as an evidentiary rule in her individual fact-finding whether the proposed action would be a substantial cause of likely adverse impacts on MNES by reference to the detailed information in the request to the effect that there is global scientific uncertainty about the extent of likely future impacts caused by climate change. In partial support of that submission, reliance is placed on an observation of Branson J in *Booth* at [98] that “likely” at s 12(1) might be construed conformably with the precautionary principle.
2. There are four problems with the applicant’s submission. First, it was not suggested that *Gelorup FC* is presently distinguishable on the basis that this proceeding concerns review of a controlled action decision under Pt 3 and the Full Court was concerned with an approval decision under Pt 9. Accordingly, I am bound to apply the reasoning of the Full Court rather than that of Moshinsky J in *Bob Brown*. Whilst a decision to consider a request to review under s 78 may be accepted as one which involves consideration of whether a measure to prevent degradation to the environment should not be postponed because of a lack of full scientific certainty (i.e. whether the controlling provisions are engaged), the Minister did take the precautionary principle into account as a decisional rule in her assessment of the scientific material contained in the request. The Minister accepted the scientific uncertainty about the extent of future impacts from anthropogenic sources of greenhouse gas emissions leading to climate change and the consequential impacts on MNES at [99], [100], [101] and [104]-[105]. However, as I have explained, the Minister was not satisfied the proposed action is likely to result in a net increase of emissions or affect the extent to which the values of declared World Heritage properties will be impacted: [99], [120] and [125].
3. Secondly, the Minister’s reasons expressly record that the precautionary principle was considered, “in making my decision” (at [199]), which can only mean the entirety of her decision. However, it did not cause the Minister to revoke the controlled action decision because she was not satisfied that emissions from the proposed action would be likely to cause relevant impacts on MNES: [199]. The applicant attempts to overcome that significant hurdle by reliance on the cart before the horse contention. That argument requires the reasons to be read sequentially, which is to ignore the totality of the reasons, read fairly: *cf Minister for Immigration and Border Protection v Tran* [2015] FCA 546; 232 FCR 540 at [24] (Jagot J). And, as explained in *Gelorup FC* (at [93]), the principle “does not require a distinct, identifiable step in the reasoning involving consideration of whether the principle applies.”
4. Thirdly, s 391(1) provides that the principle is to be taken into account to the extent that the Minister “can do so consistently with the other provisions of this Act”, which is subordinating and confirms that it does not have pre-eminent effect: *Lawyers for Forests Inc v Minister for the Environment, Heritage and the Arts* [2009] FCA 330; 165 LGERA 203 at [36] (Tracey J).
5. Fourthly, the argument is not supported by the tentative observation of Branson J in *Booth* at [98]. The point was not argued or developed and in any event, it is the decision in *Gelorup FC* that must be applied.
6. For these reasons, grounds 4 and 5 fail.

### Ground 6

1. This attacks the Minister’s reasoning as irrational as a legal constraint on the lawful exercise of statutory power. The focus is the no net increase conclusion and reasons. Put at its highest, the contention is that the Minister’s conclusion essentially turned on “speculation, guesswork or assumptions formed by reference to material incapable of supporting those assumptions”. The ground provides:

The finding was affected by irrationality, in that the Minister’s reasoning involved illogic, or was insupportable, on the material before her or otherwise: ADJR Act, s 5(1)(f), (h); Judiciary Act, s 39B.

(1) The Minister reasoned as follows. The irrationality arises from the final step (e).

(a) *Premise*. Climate change caused by the total accretion of greenhouse gas emissions, before it stops increasing, from sources including (in a universe where it is taken) burning of coal from the Proposed Action will have a significant impact on very many MNES.

However…

(b) *Premise*. Whether or not the Proposed Action proceeds, the total level of accreted global greenhouse gas emissions and average temperature at which each stops increasing will be determined by a range of variables.

(c) *Premise*. There are therefore some future scenarios without the Proposed Action that result in total greenhouse gas emissions greater than or equal to some future scenarios with the Proposed Action.

(d) *Preliminary conclusion*. It is therefore not possible to say that total emissions will be higher if the Proposed Action is taken than if the Proposed Action is not taken.

(e) *Final Conclusion*. The significant impacts from greenhouse gas emissions including those from burning the coal from the Proposed Action are not likely significant impacts the Proposed Action is likely to have.

(Original emphasis.)

1. The applicant submits that this ground is made out based only on the material that was before the Minister but also seeks to rely on the expert evidence of Dr Gidden, which I received provisionally.
2. At the outset, it is necessary to be cautious in considering this ground so as not to impermissibly descend into the merits of the Minister’s decision: *Ogawa v Finance Minister* [2021] FCAFC 17 at [17] where Logan, Katzmann and Jackson JJ observed with respect to legal unreasonableness:

[O]f all of the jurisdictional error grounds, none is more fraught with the possibility of impermissible transgression by the judicial branch into the constitutional remit of the executive branch than unreasonableness.

1. In my view that statement applies equally to the irrationality review ground, and it is not necessary in these proceedings to resolve whether irrationality is a sub-set of unreasonableness: cf Aronson M, Groves M, Weeks G, *Judicial Review Administrative Action and Government Liability* (7th ed, Thomson Reuters, 2022*)* at [5.360].
2. There are other principles which must be borne steadily in mind, primarily that the threshold to establish legal irrationality is stringent, as recently explained in *King v Minister for Immigration, Citizenship, Migrant Services and Multicultural Affairs* [2023] FCAFC 152 at [53]-[55] (Anderson, Feutrill and Raper JJ). I particularly emphasise [55], commencing with the reference to the reasons of Crennan and Bell JJ in *Minister for Immigration and Citizenship v SZMDS* [2010] HCA 16; 240 CLR 611 (***SZMDS***):

‘Whilst there may be varieties of illogicality and irrationality, a decision will not be illogical or irrational if there is room for a logical or rational person to reach the same conclusion on the material before the decision maker. A decision might be said to be illogical or irrational if only one conclusion is open on the evidence, and the decision maker does not come to that conclusion, or if the decision is one to which the decision maker came was simply not open on the evidence or there is no logical connection between the evidence and the inferences or conclusions drawn.’: *SZMDS* at [135]; ***DAO16****v Minister for Immigration and Border Protection* [2018] FCAFC 2; (2018) 258 FCR 175 at [30(4)]. However, ‘to establish jurisdictional error based on illogical or irrational findings of fact or reasoning, “extreme” illogicality must be demonstrated “measured against the standard that it is not enough for the question of fact to be one on which reasonable minds may come to different conclusions”’: *DAO16* at [30(5)] (and the authorities cited therein).

1. See also the summary of the general principles in *BNGP v Minister for Immigration, Citizenship and Multicultural Affairs* [2023] FCAFC 111 at [45]-[50] (Perry J, Bromwich and Kennett JJ agreeing) and *Minister for Immigration and Border Protection v Sabharwal* [2018] FCAFC 160 at [45] (Perram, Murphy and Lee JJ).
2. I mention two further matters. One, it is necessary to undertake a detailed factual analysis: *Minister for Immigration and Border Protection v SZFW* [2018] HCA 30; 264 CLR 541 at [84] (Nettle and Gordon JJ). The other, as Allsop CJ explained in *Minister for Immigration and Border Protection v Stretton* [2016] FCAFC 11; 237 FCR 1 (***Stretton***) at [2]: “The proper elucidation and explanation of the concepts of jurisdictional error and legal unreasonableness does not depend on definitional formulae or on one verbal description rather than another.” Although his Honour was concerned with legal unreasonableness, reasoning which is illogical or irrational founds a conclusion “that the decision-maker has been unreasonable in a legal sense” (*Minister for Immigration and Citizenship v Li* [2013] HCA 18; 249 CLR 332 at [72] (Hayne, Kiefel and Bell JJ)), which Allsop CJ noted at [10] and then continued at [11]:

The boundaries of power may be difficult to define. The evaluation of whether a decision was made within those boundaries is conducted by reference to the relevant statute, its terms, scope and purpose, such of the values to which I have referred as are relevant and any other values explicit or implicit in the statute. The weight and relevance of any relevant values will be approached by reference to the statutory source of the power in question. The task is not definitional, but one of characterisation: the decision is to be evaluated, and a conclusion reached as to whether it has the character of being unreasonable, in sufficiently lacking rational foundation, or an evident or intelligible justification, or in being plainly unjust, arbitrary, capricious, or lacking common sense having regard to the terms, scope and purpose of the statutory source of the power, such that it cannot be said to be within the range of possible lawful outcomes as an exercise of that power. The descriptions of the lack of quality used above are not exhaustive or definitional, they are explanations or explications of legal unreasonableness, of going beyond the source of power.

1. Each of Griffiths J (at [87]) and Wigney J (at [90]), agreed with the analysis of Allsop CJ.
2. Against that general background, I turn to the applicant’s arguments. The Minister is repeatedly criticised for engaging in “probabilistic reason”, which I understand to be a reference to probability reasoning as subject to or involving chance, variations, or uncertainty. In the written case the submission is framed as:

At the heart of this ground is the Minister’s use of scenarios, about which probabilistic reasoning was not rationally possible due to the sheer volume of complex interconnected variables on a global scale over decades, to make probabilistic judgments for the purpose of applying the relevant statutory provisions. The [applicant’s] position is that the material before the Minister revealed both (1) a range of feasible (and therefore really-possible) worlds, and (2) the impossibility of rationally determining, from among them, which is more or most likely than the others to occur.

(Original emphasis.)

1. Central to the applicant’s complaints is the Minister’s reasoning at [108]-[120], which I have summarised but which now require more detailed attention. The Minister accepted departmental advice that the likely contribution of emissions from the proposed action to a net increase in global emissions and global average temperature is subject to a number of variables: [108]. Next, the Minister addressed one variable, namely whether any emissions caused by the proposed action will be offset, mitigated, or abated ( [109]), where the Minister reasoned that other jurisdictions where prospective buyers are located may take steps to limit or reduce emissions. The Minister continued at [110]-[117]:

As set out at paragraph 70 above, the countries where it is anticipated that the coal from the proposed action will be consumed (Japan, South Korea, Malaysia, Vietnam and Australia) each have respective nationally determined contribution (NDC) under the Paris Agreement to reduce national emissions and adapt to the impacts of climate change. Under the Paris Agreement (referred to at paragraphs 74 to 79 above), each Party must submit an NDC every five years. These NDCs are required to reflect increased ambition over time. Parties may also submit new or updated NDCs at any time. The emissions generated by combusting coal (including coal from the proposed action) would be counted as scope 1 emissions in the country where combustion occurred and may be subject to mitigation actions or offsetting.

Taiwan is not a member of the United Nations and is excluded from the UNFCCC. Domestically, however, it has an Intended NDC that includes a 2030 target and has committed to net zero emissions by 2050.

The level of global GHG emissions will also likely be subject to the emissions reduction policies of power companies, and any changes to the efficiency of their power plants. The department brief included examples of changes to the emissions reduction policies of certain companies. For example, power companies in Japan have committed to being carbon-neutral by 2050 including phasing out inefficient power plants.

More broadly, I accepted the department’s advice that, if the proposed action does not proceed, this will not necessarily affect the level of GHG emissions worldwide or the extent to which the world heritage values of declared World Heritage properties will be impacted by the physical effects of climate change. That will be subject to a range of other factors, including the level of emissions from sources other than the proposed action.

I considered that these factors make it very difficult to estimate the likely net increase in global GHG emissions from the proposed action’s emissions and, by extension, the extent of any net increase in global average temperature and the extent to which the world heritage values of declared World Heritage properties will be impacted by the physical effects of climate change.

I considered that it is also likely that, if the proposed action does not proceed, the prospective buyers will purchase an equivalent amount of coal from a supplier other than the proponent, which would result in an equivalent amount of GHG emissions when combusted, when compared with the amount estimated for the proposed action. As stated at paragraphs 58-59 above, the proponent engaged CRU Consulting to provide modelling for seaborne thermal coal demand and supply until 2050. I noted that, if the likely alternative supplies of coal were consumed instead, the modelling predicts that an additional 9-26% CO2-e, depending on the alternative source of supply, could be emitted relative to the proposed action.

I took into account that the IEA *Coal 2022* report states that in 2022, China increased its imports from Indonesia and Russia when it reduced its imports from Australia. International trade also started to reshuffle due to the decline in Russian exports from international trade sanctions. The gap left by Russian coal supplies in Europe has been largely filled by suppliers from South Africa, Colombia and other small producers such as Tanzania and Botswana. Indonesia also shifted its exports to Europe to help offset the Russian shortfall. The report noted that China and India will continue to boost their coal production to overcome supply shortages, more than offsetting the decline in Russian production due to trade sanctions. I considered it reasonable to assume that, should the proposed action not proceed, the market would respond through an increase in supply elsewhere, in circumstances where there is still anticipated demand for the coal from the proposed action.

I was not satisfied that the proposed action is likely to result in a net increase to GHG emissions or affect the extent to which the world heritage values of declared World Heritage properties will be impacted by the physical effects of climate change.

1. The Minister then addressed the applicant’s submission that she could not rationally be satisfied that the same or worse impacts “will necessarily occur in scenarios without the proposed project” at [118]. At [119], the Minister noted the further submission of the applicant that:

[I]n all feasible scenarios in which the proposed action is carried out, there will very likely be physical effects of climate change on World Heritage properties, and, conversely, that feasible scenarios with lesser increases in those effects are available in the future without the proposed action.

1. The Minister did not agree, reasoning that the argument “does not address the relevant statutory question, which requires me to consider in light of new information, whether the proposed action is a substantial cause of the event or circumstance…”: [120]
2. There are two parts to the irrationality contention, though they were often blended in oral argument. One is that the Minister, having identified certain variables, failed to deploy them to draw rational conclusions based on the scientific evidence about the probable level of total global greenhouse gas emissions. As put in the applicant’s written case:

[T]he Minister reasoned from a premise that a thing can happen, to a conclusion based on a thing in fact happening. That is illogical or irrational. It is missing a step: that, not only can the thing happen, it will happen.

(Original emphasis.)

1. Reasoning in that way is said to be irrational because the Act requires the Minister to assume that the proposed action will be taken.
2. The second part contends irrationality in finding that the proposed action is not a substantial cause of physical effects of climate change because the Minister was not satisfied that the proposed action will cause any net increase in global greenhouse gas emissions which, on the applicant’s argument:

[N]ecessarily involves probabilistic conclusions or predictions to at least a relatively high level of confidence. These findings were irrational in circumstances where the only evidence before the Minister showed that those kinds of conclusions or predictions, with that kind of confidence, simply cannot be made.

1. In oral argument, and in some detail, I was taken to several IPCC Working Group reports that were before the Minister to make good those propositions. In particular, there is the Synthesis Report, which is a report from Working Group III. At page 23, there are graphs which model scenarios required to be implemented if global warming is to be contained to between 1.5°C and 2°C, which requires deep reductions in emissions. The scenarios are modelled on the 5th to the 95th percentile. Next emphasis was placed on paragraph 3.8.22 of the report which is concerned with scenario feasibility. By reference to this material, Mr Nekvapil orally developed the submission in this way:

I don’t need to take your Honour through it in detail, but the point that’s there discussed is the need to assess the feasibility of scenarios, because although a scenario is not a prediction of the future, it may be possible to say, for example, if a scenario ratchets up the use of renewables too quickly to a point that it’s just not feasible that can occur, it will be excluded by the IPCC Working Group III, because it’s not s not a feasible scenario. And therefore, even if everything occurred in order to bring that scenario about in terms of changes in policies or human variables, it still wouldn’t be possible as a technical matter.

And so that’s why when we talk about a range of really possible scenarios, we’re not talking about, for example, coal stopping tomorrow, because there are a range of feasible scenarios which end at 1.4 or 1.5 – I mean which start at 1.4 or 1.5 degrees, which below that it’s just not feasible because there’s a, sort of, momentum in the system.

1. Later in oral argument, when I expressed concern that I should not undertake a merits review, Mr Nekvapil refined the applicant’s contention and the relevant exchange was:

MR NEKVAPIL: Can I – I will try and put the point very simply like this: is that this is an attempt to, by the global scientific community, to work out what futures are possible and where the global scientific community, through this material, has disclosed that this is the possible range of futures, it’s covered the field of rationality in the sense that it is no longer rational when the global scientific community has made that effort and produced this spread of likely scenarios between which there cannot be probabilistic relativities, it’s no longer rational to say, “I think it’s that one.” It just – so it’s not that that’s a scientific endeavour over there and I’m a Minister administering something over here, it’s just - - -

HIS HONOUR: But your request had to satisfy the Minister that there was substantial new information that there was likely to be adverse impacts on matters of national environmental significance.

MR NEKVAPIL: Yes.

HIS HONOUR: So I hesitate to use the word “onus” in this sort of proceeding, but I will use it just make clear what – the Minister then had to form a judgment about likelihood under the Act, and that’s the test: has, will have or is likely to have.

MR NEKVAPIL: Yes.

HIS HONOUR: So the Minister had to do the best she could on the material available.

MR NEKVAPIL: I accept that. What she had to do, in our submission – and I will come to this in a moment by way of reply to what my learned friend, Mr Emmett said about *Tarkine* – what she had to do was to decide on the statutory text what were the likely events or circumstances, either directly consequential or, if indirectly consequential, for which this would be a substantial cause in a likelihood sense.

1. By reference to the expert evidence of Dr Gidden, Mr Nekvapil formulates six propositions which the applicant contends make good this ground. They are (omitting cross referencing to the transcript and the report):

**Proposition 1**. The Minister’s reasoning process was irrational because it made a probabilistic finding as to the future with the mine and a future without the mine, whereas there was only a spectrum of really-possible futures in which the action is taken, and a spectrum of really-possible futures in which the action is not taken, with no way of rationally determining which scenario on either spectrum is more or less likely to occur than any other.

**Proposition 2**. It is not possible, as a matter of climate science to rule out the real possibility of a less-harmful future without the coal mine than with it.

**Proposition 3**. The spectrum of really-possible futures with the coal mine was shorter than the spectrum without the coal mine, because the one difference is that the future with the coal mine must contain the combustion of the 534 Mt of coal, at 21Mtpa out to 2048, such that there is a range of possible futures (in which total emissions and global average temperature rise are lower before net zero) without the coal mine that cannot exist in futures with it.

**Proposition 4**. The global scientific community has modelled scenarios of possible climate futures; the range of really-possible or feasible scenarios starts with C1 scenarios, and ends with C8 scenarios.

**Proposition 5**. the CRU scenario is roughly a C6 scenario.

**Proposition 6**. the NZE scenario is a C1 scenario, in which a new coal mine extension providing 21 Mtpa of coal out to 2048 cannot exist, which has been vetted to the IPCC WGIII requirements.

1. In those propositions, CRU is a reference to a report provided to the Minister by the proponent from CRU Consulting which is a modelled *Coal Market Substitution Study* (**CRU Report**), C1 is from the Synthesis Report and represents the outcome of 97 scenarios that world temperature will reach or exceed 1.5°C warming during the 21st century with a likelihood of less than or equal to 67% and limiting warming to 1.5°C in 2100 with a likelihood of greater than 50% and C8 is a worst case outcome of 29 modelled scenarios that exceed warming of 4°C during the 21st century with a likelihood of 50% or greater. A 4°C average global warming is likely to have catastrophic climate change consequences. The NZE is a reference to the *International Energy Agency’s Net Zero by 2050* Scenario.
2. Mr Emmett maintains objection to the admission of Dr Gidden’s evidence and in any event submits that propositions 1, 2, 3 and 6 are not made out in accordance with it when one pays careful attention to the questions posed for his opinion. He accepts that propositions 4 and 5 are founded in the evidence of Dr Gidden, save for the gloss “really possible” in 4, and 5 is in any event irrelevant. Mr Lloyd does not distinctly engage with this evidence.
3. I need not resolve whether the applicant’s six propositions are made out either on the material that was before the Minister or as now sought to be supplemented by the evidence of Dr Gidden. That is because the Minister did not doubt the science of climate change, the causal relationship between the emission of carbon dioxide, the warming of the atmosphere of the Earth and the range of likely impacts on MNES as a result of anthropogenic climate change. Nor did the Minister doubt that the combustion of coal is a significant contributor to total global CO2 emissions. All of that is clear from the Minister’s reasons at [14]-[23], when the Minister summarised some of the material contained in the request without disputing the conclusions there identified, at [24] where the Minister noted departmental comment from SOE 2021 and at [96]-[99] where the Minister accepted that the request contained substantial new information which identified that climate change and its effects had affected and will affect MNES. Further, one cannot in this proceeding doubt the integrity of analysis or the conclusions of the various IPCC reports that were before the Minister, nor the credibility of the expert evidence of Dr Gidden, as the second respondent withdrew its notice that he be present for cross-examination.
4. However, in this proceeding acceptance of those matters does not assist the applicant’s case for several reasons.
5. First, a central feature of the argument in support of this ground is that the Minister did not reason in accordance with the applicant’s framework and by reference to the extensive evidence that it relied on before the Minister and which it now seeks to rely on in this proceeding. As I have explained in addressing ground 1, the statutory scheme did not require the Minister to reason conformably with the applicant’s contentions. Nor did it prohibit the Minister from reasoning in the manner that she did.
6. Secondly, the Minister did not proceed by rejecting the substance of the scientific material referenced in the request that predicting the likely future course of events turns on a very large number of variables and is uncertain. Rather, the Minister accepted at [113], in accordance with her departmental advice, that there is a range of factors, including the level of emissions from other sources, that affect the total level of CO2 in the atmosphere. The Minister then reasoned at [114]-[116] that the variables “make it very difficult to estimate the likely net increase” in global greenhouse gas emissions from the proposed action because, inter alia, she found it likely that if the proposed action does not proceed that prospective purchasers will acquire equivalent amounts of coal from other sources and concluded that she was “not satisfied” that the proposed action “is likely to result in a net increase” or “ the extent to which the world heritage values of declared World Heritage properties will be impacted by the physical effects of climate change”: [117]. To an extent, the applicant’s arguments misunderstand this aspect of the Minister’s reasons by attributing to her that she ignored the range of variables or was not satisfied of their existence or effect.
7. Thirdly, the IPCC reports and the evidence of Dr Gidden do not, self-evidently, address the statutory question that the Minister was required to be satisfied about pursuant to s 78. The Minister was obliged to consider the likely impacts of the action on each MNES in issue which necessarily required her to make findings about cause and effect conformably with the indirect impact requirement of s 527E. The large body of scientific opinion is not concerned with that question.
8. Fourthly, this ground is an invitation to engage in a detailed factual analysis on the merits of the Minister’s reasoning and conclusions. The basal complaint is that the Minister adopted a reasoning pathway that the applicant disputes, indeed strongly disapproves. That is not a basis for concluding that the applicant has made out a case of illogical or irrational reasoning or conclusions. The material that the Minister relied on, including the CRU report, the Coal 2022 Report and the advice from her department evidences that there was a rational basis for the Minister’s findings and not that only one conclusion, contrary to that of the Minister, was open: *King* at [55]. See also *SZMDS* at [131] (Crennan and Bell JJ) and *Minister for Immigration and Multicultural Affairs v Eshetu* [1999] HCA 21; 197 CLR 611 at [40] (Gleeson CJ and McHugh J).
9. The Minister’s no net increase reasons are intelligible and explained. They are not lacking in commonsense, particularly once it is accepted that the statutory scheme, as I have explained, did not require the Minister to reason in a particular way but did require her to undertake an evaluative assessment to reach the state of satisfaction required by s 78(1)(a).
10. Fifthly, the Minister did not engage in the probability reasoning that the applicant criticises. What is clear from the reasons at [113] and [117] is that the Minister was not satisfied on the material that the proposed action is likely to contribute to a net increase in total global greenhouse gas emissions or affect the values of the declared World Heritage properties because there are many variables, including but not limited to those she identified at [109]-[116].
11. Sixthly, the Minister did not “fail to deploy” the identified variables, which misunderstands the Minister’s reasons. Rather, the Minister found that the variables made it “very difficult” for her to estimate the likely net increase if the proposed action takes place: [114]. That reasoning discloses the variables relied on by reference to material that was available to the Minister, and which cannot be characterised as lacking common sense to produce an arbitrary or capricious outcome: *Stretton* at [11] (Allsop CJ).
12. Finally, the Minister based her conclusion at [117] that she was not satisfied that the proposed action is likely to result in a net increase, on her consideration of some of the many variables and did not, contrary to the applicant’s arguments, base it on the “fatalist premise” that the world is “doomed to burn at least enough coal into the future that there will be a market to support this mine” because as each new mine is opened or extended the market volume increases. The error in that submission is that this embraces the applicant’s preferred approach but fails to demonstrate why the Minister’s reasoning by reference to the international market for coal, is lacking in an evident or intelligible justification.
13. It follows that I have concluded that the evidence of Dr Gidden is not probative on this ground and will not be received. In any event, for all these reasons, this ground is not made out.

### Ground 7

1. As I have noted, this ground and grounds 8-10 concern the substantial cause finding of the Minister at [107]. To recap, even if emissions from the proposed action were likely to cause a net increase in total global greenhouse emissions, the relative contribution “would be very small.” The ground provides:

The Minister misdirected herself by determining whether a cause was “substantial” in s 527E(1)(b) by reference solely to a criterion whether it had “very small” numerical significance.

1. The gravamen of the complaint is that the Minister misunderstood what is meant by “substantial” at s 527E(1)(b) by equating it with “large numerical significance.” The submission is that contextually understood the requirement means “real or of substance”, particularly by reference to the decision in *Wong v Silkfield Pty Ltd* [1999] HCA 48; 199 CLR 255 at [28], where the Court was concerned with representative proceedings and whether the claims gave rise to a substantial common issue of law or fact pursuant to s 33C of the *Federal Court of Australia Act 1976* (Cth). The argument continues that this construction is to be preferred having regard to the beneficial objects of the Act, particularly s 3(1)(a): “to provide for the protection of the environment, especially those aspects of the environment that affect matters of national environmental significance”. Accordingly, s 527E (1)(b) “does not erect a high barrier to protective measures being taken to avert physical effects on MNES.”
2. Justice Griffiths decided a submission to the same effect in *ACF PJ* at [72], and rejected it for the reasons at [105]-[108] and [163]. Essentially the Minister did not need to address any ambiguity in the word because, on the material, he found it difficult to identify any causal relationship between the proposed action and adverse environmental impacts caused by greenhouse gas emissions. However, in reasoning to that conclusion, his Honour observed that he had “great difficulty” in understanding how in the context of s 527E *substantial* meant not insubstantial or nominal.
3. In *Badawi v Nexon Asia pacific Pty Ltd* [2009] NSWCA 324; 75 NSWLR 503, the Court of Appeal (Allsop P, Beazley, McColl, Basten JJA and Handley AJA), was concerned with a workers compensation statute which required that the employment, as a contributing factor to an injury, must be “a substantial contributing factor” within the meaning of s 9A of the *Workers Compensation Act 1987* (NSW). Relevantly, in the joint reasons, the Court (at [81]) observed that causation is a factual inquiry, which turns on commonsense and for that reason it is not possible “to lay down a principle which can be applied unbendingly to all cases.” At [82], the Court said of substantial:

It is a word of ordinary English meaning. It is a word of evaluative concept. The word “substantial” has been said to be not only susceptible of ambiguity, but also to be a word calculated to conceal a lack of precision. Which of the various possible shades of meaning the word beers is determined by the context.

(Citations omitted.)

1. As I have demonstrated in addressing other grounds, Parliament has entrusted the Minister to undertake a broad evaluative assessment to revoke and substitute a controlled action decision only if satisfied that to do so is warranted by the availability of substantial new information about the impacts of the action on MNES. The Minister is constrained by the meaning that Parliament has determined for what is an *impact* at s 527E. For an event or circumstance that is an indirect consequence of the proposed action, the field of inquiry is broad and necessarily fact determinative. A commonsense cause and effect analysis is required. In performing that task, it is a matter for the Minister to make an informed judgment on the question of substantial cause. Here, as demonstrated by the coral bleaching example, the causal connexion is remote, in the sense that it is many times removed, in time and place, from the action of expanding the mine to extract a greater quantity of coal than is permitted under the extant approvals. Once that is understood, it is not useful in my view to place into the statutory scheme an interpretation of *substantial* taken from materially different statutory contexts and apply it as an overriding gloss.
2. Whether a proposed action is a substantial cause of an indirect event or circumstance turns upon identification of the content of the proposed action, the event or circumstance and the chain of reasoning that is necessary to conclude that the statutory causal relationship exists. So understood, it is an error to construe substantial in isolation: the inquiry is about substantial cause of one or more indirect events or circumstances, the answer to which will be revealed by the particular facts and circumstances under consideration. In some cases, numerical significance may be insufficient. In others, a small numerical significance may have large consequences. The interrelationship of particular actions, identifiable events or circumstances and attribution of substantial cause is a factual matter for the Minister.
3. Further, the Minister did not make the error that is attributed to her. At [102], the Minister set out the relevant provisions of s 527E without qualification or refinement. At [106], she correctly reasoned that she must be satisfied that the proposed action is a substantial cause of the effects of climate change on the world heritage values of World Heritage properties. From [121], she applied that test, on the second limb of her reasoning, by reference to information in her brief about the average total greenhouse gas emissions from the proposed action at [122] and the proponent’s estimate that the quantity of coal to be extracted from the proposed action would result in a net increase in global greenhouse gas emissions and global average temperatures of approximately 0.00024°C. On those facts, the Minister concluded at [125] that the possible increase in net global greenhouse gas emissions and total average temperature resulting from the proposed action was “very small” and on that basis the proposed action would not be a substantial cause of the identified physical effects of climate change. Put simply, that reasoning was open to the Minister and reveals no error on her part in misunderstanding the substantial cause requirement of s 527E. The Minister did not in her reasons equate that requirement with large or numerically significant.
4. Accordingly, this ground fails.

### Grounds 8 and 9

1. These grounds repeat grounds 4 and 5 (the precautionary principle), as applied to the second limb of the Minister’s reasons and each fail for the same reasons.

### Ground 10

1. This ground asserts irrationality in the Minister’s reasoning on the second limb. It provides:

The finding was affected by irrationality, in that the Minister’s reasoning involved illogic, or was insupportable, on the material before her or otherwise: ADJR Act, s 5(1)(f), (h); Judiciary Act, s 39B.

(1) The Minister reasoned as follows.

(a) *Premise*. The Proposed Action will produce up to 21Mtpa of coal each year until 2048, which will then be burned and produce greenhouse gas emissions.

(b) *Premise*. The annual emissions from burning coal from the Proposed Action, when compared to total greenhouse gas emissions in 2019, and the consumption of coal from the Proposed Action, when compared with predicted coal consumption for 2022, are very small in proportion.

(c) *Conclusion*. Therefore, the total proportion of greenhouse gas emissions from burning that amount of coal, and total proportion of coal consumed, from the Proposed Action, each year out to 2048, will be a very small proportion of the total greenhouse gas emissions and coal consumed before the total accretion of emissions and consumption of coal stops increasing.

1. The applicant’s succinct expression of the argument in its written case is:

The Minister compared the proposed actions’ maximum annual coal output to global coal consumption in 2022 specifically. She compared the proposed actions’ average total annual greenhouse gas emissions to global annual emissions from 2019 specifically.

This reasoning was irrational. This would only be a meaningful methodology if global coal consumption, and global annual emissions, would, in all (or perhaps most) really-possible future scenarios, remain static over the duration of the proposed actions, such that the percentages calculated likewise remained static. But there was no basis for the Minister to have come to the view that those metrics would remain static in all such scenarios.

(Footnotes omitted.)

1. In oral submissions, Mr Nekvapil refined the submission. The complaint of irrationality turns on the Minister’s reasoning “based on fixed proportions arrived at by using deterministic fixed denominators when dealing with the likelihood [of a] future” where there is a large spectrum of possible scenarios.
2. I reject the submission. Whilst the Minister employed 2022 figures as set out in the Coal 2022 Report, for predicted global consumption of coal of 8025 Mtpa and a further prediction of global consumption of 8038 Mtpa in 2025, it was not irrational for her to do so by ignoring, on the applicant’s argument, that a different denominator, reflecting “dramatic decreases in coal used for electricity generation over the period to 2040” would produce a different result, and that it was not open in that circumstance to adopt “snapshots” from individual years. The Minister proceeded on material that was before her, disclosed her reason for doing so and there is nothing in that which bespeaks of legal irrationality, as distinct from the applicant’s strong disagreement with how the Minister reasoned.
3. Thus, this ground fails.

## Outcome

1. For these reasons, each application must be dismissed. I order as follows:
2. Applications VID 400/2023 and VID 401/2023 are each dismissed.
3. Any applications for costs are to be made in writing, limited to no more than 3 pages, filed and served within 10 business days of the making of these orders and any responding submissions, limited to no more than 3 pages, must be filed and served within 10 business days thereafter.
4. Subject to any further order of the Court, costs applications will be determined on the papers.

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| I certify that the preceding one hundred and sixty-three (163) numbered paragraphs are a true copy of the Reasons for Judgment of the Honourable Justice McElwaine. |

Associate:

Dated: 11 October 2023