Australian Resources Development Limited

Submission regarding AEMO's Draft 2026 Integrated System Plan

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The 26ODP produced in the 26DISP is a work of fiction as it bears little relationship to the likely developments in the NEM.

The 2026 Draft Integrated System Plan (**26DISP**) develops the Optimal Development Path (**26ODP**) which optimises benefits to consumers.

However, the ISP methodology does not assess whether the actionable and future ISP projects included in the **26ODP** are feasible within the projected costs and timeframes.

Major areas where the 26ODP is disconnected from the likely developments in the NEM are:

- The 26ODP requires a massive acceleration in the construction of onshore wind and large-scale solar generation capacity. To deliver the 26ODP, approximately five times as much capacity must be built between the 2025 financial year (**FY25**) and FY30 than was actually built between FY20 and FY25.
- There is a significant divergence between the 26ODP and the projections of AEMO's latest Electricity Statement of Opportunities (**25ESOO**). The 26ODP projects an optimised, reliable power system that meets government policies while the ESOO measures the extent to which a reliable power system is likely to be achieved in the medium term. Compared with 25ESOO projections for FY30, the 26ODP capacity mix has significantly less dispatchable capacity, a similar proportion of renewable capacity and significantly more battery storage capacity.

  Under the 26DISP mix, renewables (including hydro generation) generate precisely 82% of the load (the current government target) by using the significantly higher battery storage to firm the FY30 renewables. In contrast, the 25ESOO FY30 mix relies on 4GW more of dispatchable coal capacity and less battery storage and would not meet the 82% target. Notwithstanding the more reliable generation mix based on committed and anticipated projects, the 25ESOO concludes that additional firm capacity is required to meet the reliability standards in FY30.
- The 26DISP estimates that the present value of the 26ODP is $256 billion. However, this valuation understates the present value of the 26ODP by approximately $1.3 trillion by omitting numerous costs components required to deliver the plan.

Thus, the 26DISP can be described as a theoretical, abstract construct solely designed to demonstrate that the current government energy policies can be met. In effect, it can be described as a work of fiction that bears very little relationship to likely developments in the NEM.

This brings into question the relevance of the 26DISP that forces an outcome that meets policy targets, regardless of the likelihood of the outcome being achieved under a realistic assessment of likely NEM developments.

The 26ODP does not attempt to balance the conflicting objectives of the National Electricity Objective (NEO)

The NEO has the conflicting objectives of being required to meet simultaneously the long-term interest of electricity consumers with respect to both "price, quality, safety and reliability of electricity supply" and the achievement of "emission reduction targets".

While the former goals are clearly in the long-term interests of electricity consumers, it is by no means clear that the achievement of emission reduction targets is in their long-term interests. While the first group of goals directly affect electricity consumers, emissions reduction is a national and global ambition. Given Australia's insignificant contribution to global emissions, it is difficult to accept that it is in the long-term interests of Australian electricity consumers to be disproportionately burdened by attempts to meet emissions targets.

While acknowledging the conflict, AEMO makes no attempt to balance the objectives. Not one of the 23 candidate development paths (**CDP**) investigated by AEMO included the life extension of existing coal-fired generators and the construction of new coal-fired capacity. Thus, without any guidance from the NEO, AEMO gives primacy to meeting emission targets over minimising the price of electricity and maximising the quality, safety, reliability and security of supply of electricity.

This was confirmed by the testimony of Mr Westerman, Chief Executive Officer of AEMO to the Select Committee on the Energy Planning and Regulation in Australia (December 2024), that the 26DISP does not estimate whether renewable energy is the cheapest form of generating electricity. Instead, the ISP estimates the "least cost pathway" of meeting various government policy targets, including the Federal Government's 82% renewable generation target by FY30.

In the Final 26ISP, AEMO needs to explain why it does not attempt to balance the conflicting objectives of the NEO and present objective evidence that the achievement of emission reduction targets is in electricity consumers' long-term interests.

AEMO could balance the conflicting objectives of the NEO with a coal-fired CDP

This balance would be achieved if AEMO developed a coal-fired CDP which allowed the life extension of the existing coal-fired generators and the development of replacement coal-fired capacity. While there will be additional capital, O&M and fuel costs under this CDP relative to the 26ODP, these will be significantly outweighed by the avoided cost of the massive growth of renewables capacity in the 26ODP and the cost of the associated transmission system investment.

While the emissions targets will not be met under such a coal-fired CDP, such a plan is significantly less risky than the 26ODP, especially over the next decade. In this context, it is noted that there is widespread scepticism that it is possible to deliver the required investment in renewables and transmission capacity under the 26ODP.

As this organisation has pointed out on several occasions, the need for a coal-fired CDP does not mean that the transition to a low carbon energy sector is not important and worthwhile. However, it highlights the importance of Australian policy makers and stakeholders being better and more reliably informed of the likely future costs of the major pathways to making the transition to a low carbon generation sector.

AEMO has no role in promoting the current government energy policies by claiming, without evidence, that "*new renewable generation is less costly than new coal*."

Through its failure to balance the conflicting objectives of the NEO, the 26DISP does not investigate a coal-fired CDP so cannot provide any justification for this assertion. As noted, the 26DISP does not evaluate the relative cost of a system development plan based on new coal generation. It only looks at plans that meet the current government energy policy targets.

In making this assertion, AEMO is in direct conflict with the major conclusion of the CSIRO's GenCost 2025-26 Consultation draft that: "*There is a clear trend that decreasing emissions increases 2050 electricity costs*". (Page 55). This is a very important conclusion by the CSIRO as it rejects the mantra, consistently recited by politicians and renewable energy lobbyists, that not only is renewable energy good for the environment, it is the cheapest source of new-build electricity generating capacity. What makes AEMO's assertion all the more surprising is that the GenCost reports are a collaboration between CSIRO and AEMO.

Of course, in this context, AEMO could play a useful role in the energy policy debate by undertaking a comparative analysis of a system development plan based on coal (or other dispatchable technologies such as nuclear generation) that would inform the debate about the cost and reliability consequences of transforming the NEM to total reliance on firmed renewable technologies.

AEMO is not a Federal Government agency. To retain its "independence", it should base its public statements on facts it has demonstrated . Thus, it should stay out of the Australian energy policy debate, especially given that there now are opposing views on NZ50.

Consequently, in the Final 26ISP, AEMO should either publish the results of a coal-fired CDP confirming its assertion or withdraw the assertion.

The 26DISP does not provide any evidence of its claim that "*global economics is driving down the cost of renewable*".

AEMO attempts to justify the claim on three grounds that are incorrect:

1. The fact that wind and solar generation technologies received over three times as much investment as did coal generation technologies does not measure the importance of the amount and reliability of the electricity capable of being generated by the technology. That is, while there was approximately 3.5 times more investment in wind and solar technologies than in coal technologies in 2024, the new wind and solar units were only capable of generating approximately 1.8 times the electricity of the new coal units. Further, the comparison of capital expenditure ignores the need for the additional storage and peaking plant required to firm the renewable energy to render it equivalent to coal-fired generation, the additional transmission infrastructure to transmit the diversely-located, low density renewable energy generation to load centres and the substantial subsidies that are required to support investment in renewables capacity.

2. AEMO misinterprets its cited source by referring to the "absolute" amount of energy delivered rather than the "growth" in energy delivered, as referenced by its source. Thus, the claim that more of the world's energy was delivered by renewables than by coal is incorrect.

3. The claim that new renewable generation is less costly than new coal generation is not based on the results of the 26DISP but, rather, reflects AEMO's support for the current government energy policy.

Thus, AEMO is strongly advised either to justify the assertions or remove them from the Final 26ISP.

The ISP no longer delivers "affordable" energy

Since the 2018 ISP AEMO has continuously claimed that the ISP delivered affordable electricity. Notwithstanding that real consumer electricity prices continued to increase significantly, the 2022 ISP and the 2024 ISP continued to deliver "affordable" energy.

However, the 26DISP fails to make any reference to "affordable" energy. The obvious conclusion is that AEMO no longer considers that the "energy" to be delivered under the 26ODP is "affordable".

Nevertheless, AEMO continues to claim on its website that it "… *manages electricity and gas systems and markets across Australia, helping to ensure Australians have access to affordable, secure and reliable energy*".

Despite AEMO's claim that Australians have "affordable" energy, real consumer electricity prices have increased significantly over the last decade as more renewable energy is forced into the market. These price increases represent a significant transfer of wealth from power consumers (many of whom are in low-income brackets) to investors in renewable energy projects; i.e., the policies forcing the penetration of renewable energy are a regressive tax that differentially harms the low-income households and individuals.

Thus, AEMO is strongly advised either to justify the claim on its website that Australia's electricity is affordable or remove it.

Introduction

The 2026 Draft Integrated System Plan (**26DISP**) : "… *sets out the least-cost investment pathway for the National Electricity Market (NEM) to meet consumer energy needs and government policies through to 2050* ." (Page 3).

The major conclusion of the 26DISP is that "… *renewable energy, connected by transmission and distribution, firmed with storage and backed up by gas, presents the least-cost way to supply secure and reliable electricity to consumers through to 2050, as coal plants retire and while meeting government policies*." (Page 5)

In response to the AEMO's request for "stakeholders' feedback", Australian Resources Development Pty Ltd has prepared this Submission which raises several major concerns with the 26DISP.

Renewable generation technologies include wind, utility solar (and other distributed solar technologies) (**LS Solar**) and rooftop solar PV and associated resources (**Rooftop PV**) and are referred to as variable renewable energy (**VRE**) technologies. VRE generation excludes hydro generation.

Reference to years is to financial years (**FY**) and all monetary figures are expressed in fiscal year FY25 dollars. The Submission makes reference to the documents listed in Appendix 1.

The major output of the 26DISP is the optimal development path (**26ODP**) "… *for generation, storage and network investments to meet both consumer needs and government policies, at least cost, for at least the next 20 years*." (Page 5).

The 26ODP "… *contains actionable projects, future ISP projects and ISP development opportunities, and optimises costs and benefits of various options across a range of future ISP scenarios*." (Page 113).

The focus of this Submission is:

1. Relationship of the 26ODP to the likely developments in the NEM.
2. 26DISP estimation of the cost of achieving NZ50.
3. The conflicting objectives of the National Electricity Objective.
4. AEMO's role in promoting the current government energy policies.
5. The evidence that global economics is driving down the cost of renewables.
6. The affordability of the energy delivered by the 26DISP.

The 26ODP bears little relationship to the likely developments in the NEM

Introduction

The requirement for the 26ODP to meet government policies was set in the National Electricity Law in February 2024.

A major target is that 82% of generation is from VRE technologies by FY30 (**82% Target**).

The 26DISP defines a development path (**DP**) as a *"… set of projects (actionable projects, future projects and ISP development opportunities) in an ISP that together address power system needs."* (Page 113). According to the 25ISP Methodology (page 92), the 26ODP is then derived in a two-stage process as follows:

1. "*A Candidate Development Path (CDP) represents a collection of DPs which share a set of potential actionable projects. The timings of potential future ISP projects are then allowed to vary across scenarios depending on the needs of a given scenario.*
2. *The Optimal Development Path (26ODP) is chosen from the set of CDPs as the suite of actionable and future ISP projects which optimises benefits to consumers given the uncertainties in the future outlook*".

However, the ISP methodology does not assess whether the projects included in the 26ODP are feasible within the projected costs and timeframes. In this regard, the ISP is designed only to show that the projects, if developed, can meet the government policies in a reliable system.

The extent of the resultant disconnection with likely developments in the NEM can be demonstrated as follows.

26ODP requires a massive acceleration in the construction of onshore wind and LS Solar

Table 1 sets out the actual installed capacity and generation for onshore wind and LS Solar in FY20 and FY25 together with the FY30 projections from the 26ODP. This data is used to calculate the capacity factor for each generation technology in each year.

The actual installed capacity data show that in the five years between FY20 and FY25, 2.7GW of onshore wind and 4.5GW of LS Solar was constructed in the NEM. In order to meet the 82% Target, AEMO would now have us believe that in the five years between FY25 and FY30, 14.2GW of onshore wind and 21.2GW of LS Solar will be constructed in the NEM.

Thus, to achieve these projections, approximately five times as much capacity must be built between FY25 and FY30 than was actually built between FY20 and FY25.

For the 26ODP to be feasible, the capital cost of this construction task of $80 billion at current prices needs to be financed.

Further, Australia's renewable energy transition is widely considered to be falling behind schedule, with major stumbling blocks being grid congestion, slow investment in large-scale projects, planning bottlenecks and the absence of social licence.

From this perspective, the 26ODP appears highly undeliverable.

The 26ODP bears little relationship to the likely developments in the NEM (cont.)

Table 1: Growth in VER generation technologies from FY20 to FY30

	FY20	FY25	FY30
Installed capacity – GW[1]			
Onshore wind	9.3	12.0	26.2
LS Solar	6.0	10.5	31.7
Total	**15.3**	**22.5**	**57.9**
Generation – TWh[2]			
Onshore wind	16.9	31.2	81.3
LS Solar	7.0	16.4	67.9
Total	23.9	47.6	149.1
Capacity factor[3] **- %**			
Onshore wind	21%	30%	35%
LS Solar	13%	18%	24%
Total	**18%**	**24%**	**29%**

1. Source: 26DISP Chart Data, Figure 1.. 2 Sources: 2026 DISP Chart Data, Figure 1 and AES Table O.. 3. The capacity factors are calculated from the installed capacity and the annual generation.

In addition to the projected rapid increase on the construction of VRE plant, the 26ODP also requires significant increases in the capacity factor of the VRE technologies. The major determinant of the generation from wind and LS Solar technologies are wind speeds and irradiance levels (**VRE Resources**). While there may be some improvement in the efficiency in converting the VRE resources to electricity in newly constructed plant, given that the better VRE sites have likely been taken first, it is reasonable to assume that capacity factors for new-build VRE technologies will be lower than the capacity factors currently being achieved.

Thus, the projected rapid increase in both the construction of VRE plant and the capacity factors of that new plant are highly unrealistic and unlikely to be achieved in the NEM.

The 26ODP bears little relationship to the likely developments in the NEM (cont.)

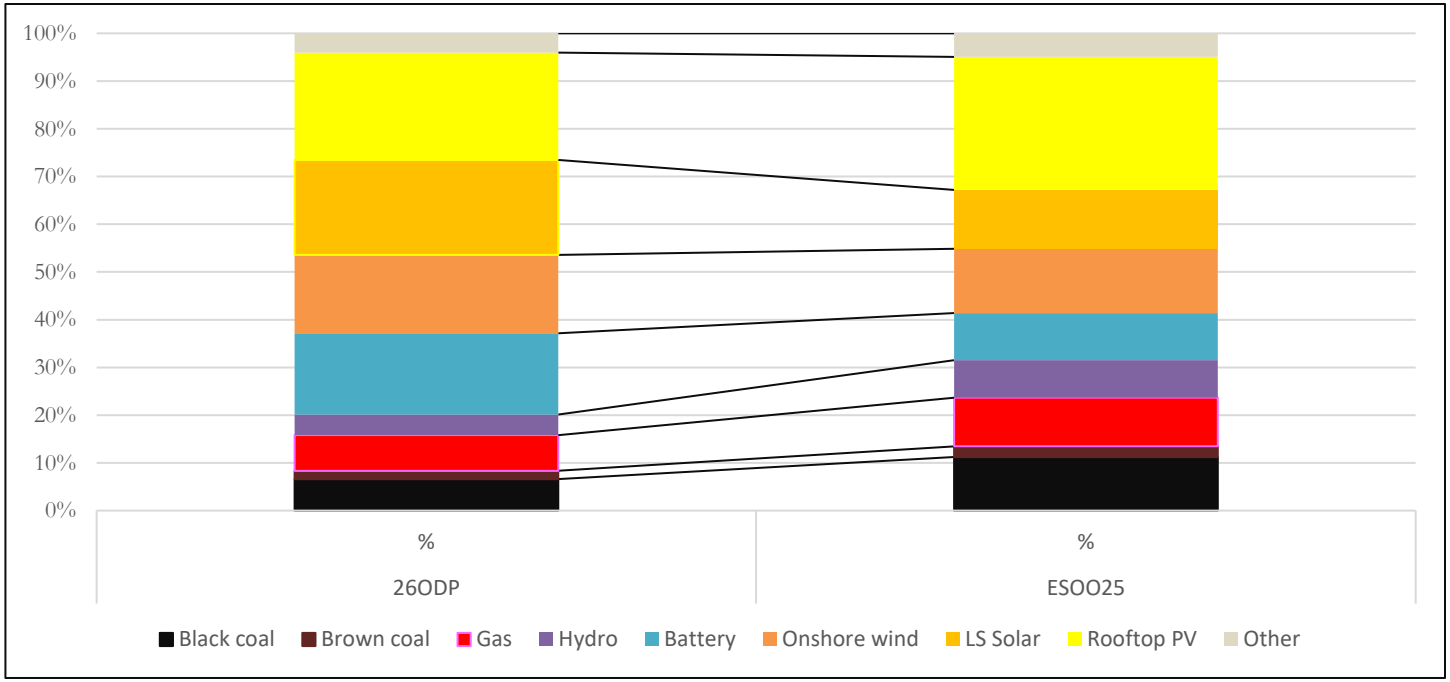
Significant divergence between the 26ODP and the Electricity Statement of Opportunities

AEMO also publishes the Electricity Statement of Opportunities (latest version August, 2025, **25ESOO**) which assesses the reliability of the NEM over a ten-year period based on information generally available at 1 July 2025. (The 26DISP is based on information generally available at 1 December 2025.) Rather than looking at a theoretical, abstract system that is solely designed to meet government policies, the ESOO is required to takes a more realistic approach of examining only committed and anticipated projects.

The 25ESOO "… *includes only those supply developments that are sufficiently progressed to meet AEMO's commitment criteria. Few developments are identified beyond the first four years, because developments in those later years are not yet sufficiently progressed to meet AEMO's commitment criteria.*" (25ESOO, page 7).

Thus, the 26ODP projects an optimised, reliable power system that meets government policies while the ESOO measures the extent to which this objective is likely to be met in the medium term.

Chart 1: Comparison of FY30 generation technology mixes of 26DISP with 25ESOO



In this context, Chart 1 sets out the FY30 generation technology mixes for 26ODP and 25ESOO. The 25ESOO generation capacity[4] was adjusted from typical summer availabilities to nameplate capacity for purposes of comparison. 2029-30 is the fifth year of the 25ESOO outlook and so, in the period when fewer developments are identified. It is also the year in which "… *82% of the NEM's supply (*will*) be from renewable sources* …". (26DISP, page 18).

The major differences between the FY30 generation technology mixes are:

- The 26DISP has approximately 20% dispatchable capacity (coal, gas and hydro) compared with approximately 30% for the 25ESOO.
- The 26DISP has approximately 60% onshore wind and LS Solar capacity compared with approximately 55% for the 25ESOO, while both use the same projections for Rooftop PV capacity.
- The 26DISP has approximately 17% of battery storage (which AEMO classes as dispatchable) compared with 10% for the 25ESOO.

Under the 26DISP mix, renewables generate precisely 82% of the load by using the significantly higher battery storage to firm the renewables. In contrast, the 25ESOO mix relies on 4GW more of dispatchable coal capacity and less battery storage and would not meet the 82% target.

Notwithstanding the more reliable generation mix based on committed and anticipated projects, the 25ESOO concludes that additional firm capacity is required to meet the reliability standards in FY30.

Thus, relative to the 25ESOO, the 26DISP bears little relationship to the developments in the NEM.

Conclusion

In this section it has been demonstrated that:

- The projected rapid increase in both the construction of VRE plant and the capacity factors of that new plant are highly unrealistic and unlikely to be achieved in the NEM.
- Relative to the 25ESOO, the 26DISP bears little relationship to the developments in the NEM.

Thus, the 26DISP can be described as a theoretical, abstract construct solely designed to demonstrate that the current government energy policy targets can be met. In effect, it can be described as a work of fiction that bears very little relationship to likely developments in the NEM.

This brings into question the relevance of the 26DISP that forces an outcome that meets policy targets, regardless of the likelihood of the outcome being achieved under a realistic assessment of likely NEM developments.

4. Source: 25ESOO, Figure 1, page 6, by observation.

26DISP significantly underestimates the cost of achieving NZ50

The 26DISP lists the nine policies and targets that are modelled in developing the 26ODP. The overarching policy target is for Australia to achieve NZ50. The NPV of the 26ODP in the 26DISP is $256 billion as set out in Table 2.

Table 2: NPV of the Step Change scenario 26ODP in the 26DISP

Cost element	NPV July 2025 $billions[1]	Assets covered
Generation, storage and electrolyser capital costs	115.4	Assets constructed after FY26
Generation, storage and electrolyser FOM[2] costs	50.7	Existing assets and assets constructed after FY26
Generation, storage and electrolyser VOM[3] costs	5.0	Existing assets and assets constructed after FY26
Generation, storage and electrolyser retirement costs	3.9	Existing assets and assets constructed after FY26
Fuel costs	18.1	Existing assets and assets constructed after FY26
DSP+USE costs	0.1	Assets constructed after FY26
Flow path capital costs	8.4	Assets constructed after FY26
Flow path O&M costs	2.3	Assets constructed after FY26
REZ capital costs	2.0	Assets constructed after FY26
REZ O&M costs	0.5	Assets constructed after FY26
Distribution capital costs	0.2	Assets constructed after FY26
Distribution O&M costs	0.0	Assets constructed after FY26
System security costs	3.6	Assets constructed after FY26
Emissions costs	45.3	Existing assets and assets constructed after FY26
Total	**255.6**	

1. 26DISP Results, Summary Regional Sheet. 2. Fixed operating and maintenance cost (**FOM**). 3. Variable operating and maintenance cost (**VOM**).

From the Table, 26DISP fails to include the cost components of several classes assets projected to be existing in FY26 (**Existing Assets**). As demonstrated in this Submission, the Existing Assets are required to deliver the 26ODP. Thus, the $256 billion cost estimate excludes several major costs required to deliver the 26ODP and to achieve NZ50 as described in this section.

Extent of the reliance on the uncosted, existing generation assets to deliver the 26ODP

To confirm the importance of the existing generation assets, Table 3 sets out the projected change in installed generation capacity for the 26ODP between FY25 and FY30 (26DISP Chart Data, Figure 1).

Table 3: Change in installed generation capacity in the NEM between FY25 and FY30

Installed capacity - GW	Capacity change
Black coal	-5.9
Brown coal	-2.0
Mid-merit gas	-1.0
Flexible gas	1.1
Hydro	-0.8
Onshore wind	14.2
LS Solar	21.2
Rooftop PV	10.9
Biomass	0.0
Total	**37.6**

Of the additional 38GW projected to be installed, only VRE capacity is projected to increase while the major reductions in coal generators include the closures of the Eraring (2,880MW), Yallourn (1,450MW) and Gladstone (1,680MW) power stations.

The 26ODP FY30 projected total system generation is approximately 255GWh. However, on a pro-rata basis, approximately 60% of this generation is from the Existing Assets in FY25 broken down by 36% from VRE, 18% from coal and gas and the remainder from hydro capacity.

Clearly, the 26ODP cannot be delivered without the generation from the existing FY25 generation assets and the cost of these assets needs to be included in the total cost of the 26ODP.

26DISP significantly underestimates the cost of achieving NZ50 (cont.)

Omits the capital cost of Existing Assets required to deliver the 26ODP set out in the 26ISP

Existing generation assets

The ISP methodology attributes no value to the existing generation assets while relying on those assets to supply a significant amount of the electricity required to meet the reliability of the 26ODP as acknowledged in the 26ISP: "*In the near term, coal-fired generators would be needed to help meet both generation and system security requirements until replacement services are installed.*" (Page 10).

Based on the 26ISP Inputs (Existing Gen Data Summary sheet), there was approximately102GW of "*Existing, Committed and Anticipated generators*" capacity in the NEM in FY25 (including storage). There was also an additional 26GW of Rooftop PV projected to be installed in FY26 plus the projected construction of approximately 5GW of onshore wind, LS Solar and flexible gas capacity in FY26 (26DISP Charts, Figure 1).

Based on the latest GenCost26 Draft capital cost estimates (GenCost26 Workbook), the depreciated replacement cost of these assets is approximately $300 billion.

Existing transmission assets

Similarly, the ISP methodology attributes no value to the existing, high voltage transmission assets while relying on those assets to transmit a significant amount of the electricity required to meet the reliability of the projected system. The transmission networks in the NEM are regulated by the Australian Energy Regulator (**AER**). As at 30 June 2024, the AER estimated the value of the combined regulated asset bases (**RAB**) of the NEM transmission network service providers (**TNSPs**) at approximately $28 billion. (AER25, page 33). This figure omits the value of the transmission assets built in FY25 and FY26.

Existing distribution assets

Again, the ISP methodology attributes no value to the existing, low voltage distribution assets while relying on those assets to distribute and store a significant amount of the electricity required to meet the reliability of the 26ODP. The low voltage transmission networks in the NEM are also regulated by the AER. As at 30 June 2024, AER estimated the value of the combined regulated asset bases of the NEM distribution network service providers (**DNSPs**) at approximately $95 billion after excluding the RAB of the ACT's Evoenergy and the Northern Territory's Power and Water (AER25, page 33). Again, this figure omits the value of the distribution assets built in FY25 and FY26.

26DISP significantly underestimates the cost of achieving NZ50 (cont.)

Omits the FOM cost of existing network assets required to deliver the 26ISP

The AER estimated the annual FOM cost of DNSPs and TNSPs at $4.5 billion in 2024 (AER25, page 20, by observation) which is equivalent to a capital sum of approximately $50 billion over the 24-year life of the 26ODP.

Omits the capital and operating cost of committed and actionable transmission projects

The 26DISP states: "*To 2050, the annualised capital cost in present value (PV) terms of the future capital costs of all utility-scale generation, storage, firming and transmission and distribution network in the 26ODP would be $128 billion in the Step Change scenario. … The transmission element of this capital cost would be $9 billion in PV terms ...*" (Page 18).

However, the 26DISP further states: "*This value* ($128 billion) *includes transmission and distribution augmentation, and utility-scale generation and storage capex converted into an equivalent annuity, and* ***does not include the cost of commissioned, committed or anticipated transmission projects***". (Footnote 65, page 93, emphasis added).

The following seven committed and anticipated transmissions projects listed in Table 5 (page 78):

- Project EnergyConnect Stage 2.
- HumeLink.
- Hunter-Central Coast REZ Network Infrastructure Project.
- Central West Orana REZ Network Infrastructure Project.
- Western Renewables Link.
- Project Marinus Stage 1.
- CopperString.

The estimated capital cost of the committed and anticipated project is approximately $35 billion as set out in Appendix 3.

26DISP significantly underestimates the cost of achieving NZ50 (cont.)

These projects are clearly required to deliver the 26ODP and so their capital cost needs to be included.

Similarly, the 26DISP omits the FOM of the committed and anticipated projects. The NPV of the FOM of the Flow path and REZ transmission projects is approximately $2.8 billion (26DISP Results, Summary Regional sheet). Based on the ratio of the total line length of the Flow path and REZ transmission projects to the total line length of the committed and anticipated projects results in a valuation of the FOM of the committed and anticipated projects of approximately $3 billion over the life of the 26ODP.

Omits the cost of all the subsidies of renewable generation and storage technologies

The 26ISP "… *incorporates all relevant government policies and targets* …".(Page 9). Seventeen major Federal and State Government policies and targets are listed in the 26DISP Inputs, (Energy Policy Targets worksheet). The referenced worksheet contains the following statements: "*As further discussed in the 2025 IASR, AEMO will model in the ISP the emission targets for Australia as legislated in the Climate Change Act 2022. ISP modelling will also incorporate state-level emission reduction ambtitions (sic) in Queensland, New South Wales, South Australia, and Victoria.*"

These policies and targets subsidise investments in renewable technologies and are funded by electricity consumers or taxpayers in the relevant jurisdiction. Thus, while AEMO states that it "models" these policies and targets, nowhere in the 26DISP does AEMO measure the cost to electricity consumers and taxpayers of these policies.

In addition to these policies, several government agencies are funded by taxpayers to subsidise investments in renewable technologies.

The annual cost of these subsidy schemes has been valued at approximately $16 billion in 2025 (Spectator25) which is equivalent to a capital sum of approximately $180 billion over the 24-year life of the 26ODP.

Omits the cost of consumer energy resources

The 26DISP defines consumer energy resources (**CER**) as: "… *generation or storage assets … owned by consumers and installed behind-the-meter. These can include rooftop solar, batteries and electric vehicles (EVs). CER may include demand flexibility.*" (Page 112). The 26DISP does not optimise these smaller investments which are "… *left to individual participants in the energy market, from single households through to distribution network operators.*" (Page 8).

Thus, the 26DISP assumes away the cost of CER needed to deliver transition to firmed renewables because they will be funded by consumers.

The Centre for Independent Studies estimates the omitted cost of CER at $360 billion (CIS25, page 4.)

As with all the elements of the 26DISP, the critical issue is the estimated cost and not how the cost is funded.

Thus, the 26DISP needs to include the cost of CER to provide an accurate estimate of the cost of achieving NZ50.

26DISP significantly underestimates the cost of achieving NZ50 (cont.)

Summary

From Table 2, the present value of the annualised capital cost of the 26ODP is $256 billion. This present value excludes several major costs required to deliver the 26ODP which are estimated in this section and summarised in Table 4.

Table 4: Major costs required to deliver the 26ODP

Omitted cost element	**2025$ billions**
Capital cost of existing generation assets	293
Capital cost of existing transmission assets	29
Capital cost of existing distribution assets	97
Capital cost of committed and actionable transmission projects	35
FOM of committed and actionable transmission projects	3
FOM of existing distribution and transmission assets	53
Cost of CER	360
Subsidies for the VRE generation and storage technologies	184
Total	**1,053**

When all these costs are included, the $256 billion present value of the 26ODP would increase to approximately $1.3 trillion.

The 26ODP does not attempt to balance the conflicting objectives of the NEO

Conflicting objectives of the NEO

The National Electricity Objective (**NEO**) as stated in the National Electricity Law is:

"*to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:*

(a) price, quality, safety, reliability and security of supply of electricity; and

(b) the reliability, safety and security of the national electricity system; and

(c) the achievement of targets set by a participating jurisdiction:

1. *for reducing Australia's greenhouse gas emissions; or*

2. *that are likely to contribute to reducing Australia's greenhouse gas emissions.*"

It is noted that that the requirement to achieve emission reduction targets was only included in February 2024 to solidify "… *a significant regulatory shift towards net zero* …". (AEMC24)

It is further noted that, prior to being required to reduce emissions, previous ISPs voluntarily adopted this approach on the basis that it is in "… *the long-term interests of the consumers of electricity* …" to respond to "… *government policies for decarbonisation*". The 26DISP claims that the long-term interests of consumers of electricity "… *include the price, quality, safety and reliability of electricity supply, and the achievement of emissions reduction targets.*" (Page 9).

The obvious problem is that while the "price, quality, safety and reliability of electricity supply" are clearly in the long-term interests of electricity consumers, it is by no means clear that the achievement of emission reduction targets is in their long-term interests. While the first group of goals directly affect electricity consumers, emissions reduction is a national and global ambition. Given Australia's insignificant contribution to global emissions, it is difficult to accept that it is in the long-term interests of Australian electricity consumers to be disproportionately burdened by attempts to meet emissions targets.

Thus, the NEO has conflicting objectives. The 26DISP recognises this as: "*The ISP seeks the least-cost path to balance those factors* ." (Page 9).

AEMO fails to balance the conflicting objectives of the NEO

Unfortunately, AEMO does not attempt to "balance these factors".

To develop the 26ODP "*AEMO calculated the net market benefits of 23 candidate development paths, (which) …. were compared with a 'counterfactual' that has no new transmission projects beyond those already committed or anticipated.*" (Page 9).

The 26ODP does not attempt to balance the conflicting objective of the NEO (cont.)

Not one of the candidate development paths AEMO investigated included the construction of new coal-fired capacity.

Thus, without any guidance from the NEO, AEMO gives primacy to meeting emission targets over minimising the price of electricity and maximising the quality, safety, reliability and security of supply of electricity.

In the Final 26ISP, AEMO needs to explain why it does not attempt to balance the conflicting objectives of the NEO and present objective evidence that the achievement of emission reduction targets is in electricity consumers' long-term interests.

AEMO could balance the conflicting objectives of the NEO with a coal-fired CDP

This balance would be achieved if AEMO developed a coal-fired CDP which allowed the extension of the operation of the existing coal-fired stations and the development of replacement coal-fired capacity.

ARDL22 recommended this scenario to inform the debate about the cost and reliability consequences of transforming the NEM to the total reliance on VRE.

The major risk currently facing coal-fired generators arises from the rising share of VRE generation due to the dispatch preference given to VRE supported by significant subsidies.

There will be additional capital, O&M and fuel costs under this CDP relative to the 26ODP.

However, these additional costs will be significantly outweighed by the cost savings including:

- The avoided cost of the additional 90GW of VRE capacity in the 26ODP.
- The significant avoided cost of the transmission system investment required to support the avoided VRE capacity.

Of course, the emissions targets will not be met.

Perhaps more importantly, a coal-fired scenario, especially over the next decade, is significantly less risky than the 26ODP. There is widespread scepticism that it is possible to deliver the required investment in VRE and transmission capacity under the 26ODP. Indeed, Australia's renewable energy transition is widely considered to be falling behind schedule, with major stumbling blocks being grid congestion, slow investment in large-scale projects, planning bottlenecks and absence of social licence. (See The Australian26 and VicUni25).

As this organisation has pointed out on several occasions, the need for a coal-fired CDP does not mean that the transition to a low carbon energy sector is not important and worthwhile. However, it highlights the importance of Australian policy makers and stakeholders being better and more reliably informed of the likely future costs of the major pathways to making the transition to a low carbon generation sector.

AEMO has no role in promoting the current government energy policies

AEMO's Charter

Its website states that AEMO's "… *planning and forecasting work supports efficient investment, operations and policy decisions by governments, regulators, industry participants and the community* …" and that AEMO also "… *provides the detailed, independent planning, forecasting and modelling information and advice that drives effective and strategic decision-making, regulatory changes and investment.*"

Mr Daniel Westerman, Chief Executive Officer of AEMO, told the Select Committee on the Energy Planning and Regulation in Australia on 5 December 2024 that: "… *the ISP does not estimate whether renewable energy is the cheapest form of generating electricity. Instead, the ISP estimates the "least cost pathway" of meeting various government targets, including the Federal Government's 82 per cent renewable target by 2030*. (Senate24, page 144).

Nowhere in any of these activities does AEMO have a role in promoting the current government energy policies designed to force the transition of Australia's electricity system from one dominated by dispatchable coal-fire generation to renewable generation technologies connected by transmission and distribution, firmed with storage and backed up by gas.

AEMO actively endorses the transition to renewable generation

AEMO is widely believed to be an independent organisation. For example, Climate Change and Energy Minister, Mr Bowen, recently confirmed this view as follows: "*I have full confidence in AEMO. They are deeply independent, technical experts*". (Bowen25).

Notwithstanding AEMO's charter and its "independence", the 26DISP asserts that:

"*Even with the additional support discussed in Section 1.3 below, new renewable generation is less costly than new coal.*" (Page 31). Section 1.3 lists a range of "solutions" required to firm renewables (see Appendix 4).

Given AEMO's "independent" role, such statements supporting the current government energy policies have no place in the ISP. By its own charter, AEMO's role is to develop the ISP to "meet" the current policy, not to "endorse" it. This is particularly important for three major reasons as follows:

1. AEMO's endorsement of renewables as cheaper than coal is in direct conflict with the conclusion of GenCost26 Draft that: "*There is a clear trend that decreasing emissions increases 2050 electricity costs*". (Page 55). This is a very important conclusion by the CSIRO as it rejects the mantra, consistently recited by politicians and renewable energy lobbyists, that not only is renewable energy good for the environment, it is the cheapest source of new-build electricity generating capacity. What makes AEMO's assertion all the more surprising is that the GenCost reports are a collaboration between CSIRO and AEMO. (Page ix).
2. AEMO's endorsement of renewables is in direct conflict with the Federal Opposition's rejection of the policy for Australia to achieve NZ50 and the maintenance of its policy to support nuclear generation technologies.

AEMO has no role in promoting the current government energy policies (cont.)

3. AEMO's endorsement of the current government policies encourages statements like the following from Minister Bowen:

   "*Today's updated draft energy plan from AEMO reiterates what we already know, firmed renewable energy is not just clean, it's the cheapest way to ensure a reliable grid*," (DCCEEW23).

Clearly, the ISP does not project the cheapest way to ensure a reliable grid. It only projects the cheapest way to ensure a reliable grid subject to current policy. That is, it does not consider the cost of a grid dominated by fossil fuels.

The endorsement is without evidence as the 26DISP doe not investigate a coal-fired CDP

Through its failure to balance the conflicting objectives of the NEO, the 26DISP does not investigate a coal-fired scenario so cannot provide any justification for this assertion. Thus, as confirmed by Mr Westerman's testimony to the Select Committee on the Energy Planning and Regulation in Australia, the 26DISP does not evaluate the relative cost of a system development plan based on new black coal generation. It only looks at plans that meet the current government energy policy targets.

Of course, in this context, AEMO could play a useful role in the energy policy debate by undertaking a comparative analysis of a system development plan based on coal (or other dispatchable technologies such as nuclear generation) that would inform the debate about the cost and reliability consequences of transforming the NEM to total reliance on firmed renewable technologies.

For this very reason, this organisation's submission on 22DISP made the following recommendation:

"Thus, the 22FISP needs to include a Coal-fired scenario to identify the size of the financial benefit to consumers of retaining coal-fired generation relative to the other scenarios. Politicians and voters can then assess and value the countervailing environmental impact." (ARDL22, page 8).

Conclusion

AEMO is not a Federal Government agency. To retain its "independence", it should base its public statements on facts it has demonstrated . Thus, it should stay out of the Australian energy policy debate, especially given that there now are opposing views on NZ50.

Consequently, in the Final 26ISP, AEMO should either publish the results of a coal-fired CDP confirming its assertion or withdraw the assertion.

Evidence that Global economics is driving down the cost of renewables?

26DISP contains the further assertion that "*Global economics is driving down the cost of renewables"* (page 31). AEMO justifies this assertion as follows:

"*Globally in 2024, wind and solar received over three times as much investment as did coal. In the first half of 2025 and for the first time, more of the world's energy was delivered by renewables than by coal.*" (Page 31).

The Australian capital cost of new grid-scale solar and two-hour battery storage fell significantly over the last four years while the capital cost of new coal-fired power stations with carbon capture and storage has risen significantly over the last eight years. " (Summarised from Page 31).

Each justification is reviewed in turn.

Justification 1: Globally in 2024, wind and solar received over three times as much investment as did coal

AEMO cites the IEA25 as the source of this statement.

The increase in the value of the investment in renewables relative to coal does not necessarily mean that renewable generation technologies are more competitive than coal generation technologies for the following reasons:

1. The relatively greater investment in VRE technologies is prima facie evidence that VRE generation is more expensive than coal –fired generation given that it takes approximately 3MW of solar and wind generation capacity to replace 1MW of coal capacity. According to IEA25 data (pages 18 and 23), while there was approximately 3.5 times more investment in wind and solar technologies than in coal technologies in 2024, the new wind and solar unit were only capable of generating approximately 1.8 times the electricity of the new coal units, based on standard industry capacity factors.

   In short, the level of expenditure on a particular generation technology, does not measure the important issues of the amount and reliability of the electricity capable of being generated by the technology.

2. It ignores the need for the additional storage and peaking plant required to firm the renewable energy to render it equivalent to the energy produced from coal-fired plant and the additional transmission infrastructure to transmit the diversely-located, low density renewable energy generation to load centres. This point is made in IEA25: "*The annual investment required in renewable power still needs to double to achieve a tripling of installed renewable capacity by 2030, accompanied by rising spending on grids, storage and other forms of flexibility to ensure secure and cost-effective utilisation of this capacity.*" (Page 10). The need for this support is also confirmed in the 26DISP in Section 1.3.

3. It ignores the need for substantial subsidies that are required to support investment in renewables capacity. This point is made in IEA25: "*China's shift to more liberalised power markets in 2025 and changes to subsidy regimes from mid-year could moderate new renewable and battery storage capacity additions in the second half of the year.*" (Page 21).

Thus, Justification 1 does not support the assertion that "*Global economics is driving down the cost of renewables"* .

Justification 2: In the first half of 2025 and for the first time, more of the world's energy was delivered by renewables than by coal

AEMO cites ER25 as the source of this statement.

The statement is not a direct quotation from ER25 with the closest statement: "*Solar and wind outpaced demand* ***growth*** *as renewables overtook coal's share in the first half of 2025*." (Front page, emphasis added).

First, ER25 refers to the share of the "growth" in demand between the first half of 2024 **(H1 24**)and the first half of 2025 **(H1 25)** supplied by solar and wind generation exceeded that supplied by coal generation**.** This is self evident from the chart on page 4 that is reproduced in Appendix 3.

Secondly, ER25 refers to the share of the "growth" in demand between H1 24 and H1 25 supplied by solar and wind generation relative to that supplied by coal which is confirmed by its own data. Table 5 was constructed using ER's monthly electricity generation data.

Table 5: Generation sources that meet H1 25 Demand Growth

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Fuel source	H1 24	H1 25	Change H1 25	Change H1 25	Generation Share
	TWh	TWh	TWh	%	%
Bioenergy	264	265	1	0.5%	2%
Coal	4,925	4,883	-42	-0.9%	33%
Gas	3,070	3,070	0	0.0%	21%
Hydro	2,106	2,064	-43	-2.0%	14%
Nuclear	1,315	1,349	34	2.6%	9%
Other fossil	404	416	12	3.1%	3%
Other renewables	81	83	2	2.9%	1%
Solar	997	1,309	312	31.3%	9%
Wind	1,270	1,365	95	7.5%	9%
Total	**14,432**	**14,804**	**372**	**2.6%**	**100%**

The total change in demand in H1 25 compared with H1 24 is 372TWh (slightly different from 369TWh set out in the chart reproduced in Appendix 2).

Evidence that Global economics is driving down the cost of renewables? (cont.)

The data in Table 5 confirm the ER conclusion that the share of the "growth" in demand between H1 24 and H1 25 supplied by solar and wind generation (38.8%) exceeded that supplied by coal generation (-0.9%).

However, the second AEMO justification in the ISP claims that "*more of the world's energy was delivered by renewables than by coal.*" Thus, it refers to the "absolute" amount of energy delivered rather than the "growth" in energy delivered referenced by ER. The data in Table 5 confirm that AEMO statement is incorrect with coal generation supplying 33% of the world's energy compared with 18% supplied by solar and wind.

Perhaps AEMO has included hydro generation in its calculation which would mean that renewables supplied 32% of generation, comparable with coal generation. However, the 26DISP does not classify hydro generation as "renewable" as follows: "*Existing hydro generators and other long-duration storage such as new pumped-hydro firm renewables* …" (Page 7). That is, the reference to renewables is to VRE as defined in the 26DISP Glossary (Page 113). Further, it is noted that fossil fuels supplied 57% of the load.

Thus, the Statement 2 does not support the assertion that "*Global economics is driving down the cost of renewables"* .

Justification 3: : The AUD capital cost of new grid-scale solar and two-hour battery storage fell significantly over the last four years while the capital cost of new coal-fired power stations with carbon capture and storage has risen significantly over the last eight years

There are several inconsistencies and omissions in Justification 3.

1. The Justification is irrelevant as it compares the cost of dispatchable coal plant with the cost of unfirmed, VRE technologies. For the comparison to be relevant, the changes in the cost of firming technologies and transmission assets needs to be included in the VRE costs.
2. Notwithstanding this, GenCost and Australian Bureau of Statistics data, the changes, over a consistent four-year period, the real unit capital cost of technologies relevant to Justification 3 are set out in Table 6.

Table 6: Four-year change in the real unit capital cost of technologies relevant to Justification 3

Technology	Four-year change
Black coal	35%
Black coal with carbon capture and storage	20%
LS Solar	-5%
Onshore wind	39%
Battery Storage – 2 hours	-16%

The 26DISP only refers to Black Coal (with carbon capture and storage (**CCS**)), LS Solar and Battery Storage but not to Black Coal (without CCS) and Wind. Based on the results in Table 6, one could be forgiven for concluding that reference to Wind was omitted because it is contradictory to the Justification that the cost of renewable generation capacity is falling while the cost of coal capacity is rising.

As discussed, new Black coal generation is dispatchable and does not require firming. Thus, black coal is likely to be the lower-cost technology to onshore wind after taking into consideration its relatively low-capacity factor and the cost of all the support discussed in section 1.3.

It is for this reason that AEMO is urged to publish the results of a coal-fired CDP in the Final 26ISP.

Conclusion – The 26DISP does not provide any evidence

The 26DISP fails to provide any evidence that global economics is driving down the cost of renewables:

- Justification 1 is based on the level of expenditure on a particular generation technology which does not measure the important issues of the amount and reliability of the electricity capable of being generated by the technology. It also ignores the significant costs to firm renewable energy and the need for substantial subsidies to support the investment in renewables.
- Justification 2 is based on the misinterpretation of AEMO's cited source by referring to the "absolute" amount of energy delivered rather than the "growth" in energy delivered, as referenced by its source. Thus, the Justification that more of the world's energy was delivered by renewables than by coal is incorrect.
- Justification 3 that new renewable generation is less costly than new coal generation is not based on the results of the 26DISP but, rather, reflects AEMO's support for the current government energy policies.

Thus, AEMO is strongly advised either to justify the assertions made in Section 1.2 or remove them from the Final 26ISP.

Previous ISPs

The AEMO CEO's Preface to the 22DISP stated: "*As it has since 2018, the ISP offers the most robust 'whole of system plan' available for supplying* ***affordable*** *and reliable electricity to homes and businesses in the eastern and south eastern states, while supporting Australia's net zero ambitions.*" (Page 3, emphasis added).

This organisation's submission on the 22DISP pointed out that since 33TWh of renewable electricity generation had been forced into the NEM, there had been a massive increase in consumer electricity prices. Consequently, it was suggested that 22FISP needed to explain the basis for the claim that that the NEM currently supplies "affordable" electricity. AEMO ignored this suggestion and so CEO's Preface to the 24DISP stated: "*The plan outlines the lowest-cost pathway of essential generation, storage and transmission infrastructure to meet consumers' energy needs for secure, reliable and* ***affordable*** *energy, and to achieve net zero emissions targets.*" (Page 3, emphasis added).

Thus, notwithstanding that the renewable share of generation and consumer electricity prices had continued to rise, the 24FISP continued to deliver "affordable" and "reliable" energy, that energy was now "secure".

Interestingly, the word "affordable" was omitted from the CEO's Preface in the 24FISP. However, the Executive Summary stated: "*The 2024 ISP is a robust plan that calls for urgent investment in generation, storage and transmission to deliver secure, reliable and* ***affordable*** *electricity through the energy transition.*" (Page 3, emphasis added).

26DISP

Not only does the CEO's Preface to the 26DISP also fail to refer to "affordable" energy, there is no reference to the word "affordable" in the 26DISP. In contrast, the 22FISP referred to "affordable" eight times and the 24FISP 24 times.

Conclusion

The obvious conclusion is that, while the 26DISP continues to deliver secure and reliable energy, AEMO no longer considers that "energy" to be "affordable".

Nevertheless, AEMO continues to claim on its website that it "… manage(s) *electricity and gas systems and markets across Australia, helping to ensure Australians have access to affordable, secure and reliable energy*". The Charts in Appendix 5 demonstrate that real consumer electricity prices have increased significantly over the last decade as more renewable energy is forced into the market, driving out coal-fired generators. These price increases represent a significant transfer of wealth from power consumers (many of whom are in low-income brackets) to investors in renewable energy projects; i.e., the policies forcing the penetration of renewable energy are a regressive tax that differentially harms the low-income households and individuals.

Thus, AEMO is strongly advised either to justify the claim on its website that Australia's electricity is affordable or remove it.

The 26ODP produced in the 26DISP is a work of fiction as it bears little relationship to the likely developments in the NEM.

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The 26DISP develops the 26ODP which optimises benefits to consumers.

However, the ISP methodology does not assess whether the actionable and future ISP projects included in the 26ODP are feasible within the projected costs and timeframes.

Major areas where the 26ODP is disconnected from the likely developments in the NEM are:

- The 26ODP requires a massive acceleration in the construction of onshore wind and large-scale solar generation capacity. To deliver the 26ODP, approximately five times as much capacity must be built between the FY25 and FY30 than was actually built between FY20 and FY25.
- There is a significant divergence between the 26ODP and the projections of the 25ESOO. The 26ODP projects an optimised, reliable power system that meets government policies while the ESOO measures the extent to which a reliable power system is likely to be achieved in the medium term. Compared with 25ESOO projections for FY30, the 26ODP capacity mix has significantly less dispatchable capacity, a similar proportion of renewable capacity and significantly more battery storage capacity.

  Under the 26DISP mix, renewables generate precisely 82% of the load (the current government target) by using the significantly higher battery storage to firm the FY30 renewables. In contrast, the 25ESOO FY30 mix relies on 4GW more of dispatchable coal capacity and less battery storage and would not meet the 82% target. Notwithstanding the more reliable generation mix based on committed and anticipated projects, the 25ESOO concludes that additional firm capacity is required to meet the reliability standards in FY30.
- The 26DISP estimates that the present value of the 26ODP is $256 billion. However, this valuation understates the present value of the 26ODP by approximately $1.25 trillion by omitting the numerous costs components required to deliver the plan:

Thus, the 26DISP can be described as a theoretical, abstract construct solely designed to demonstrate that the current government energy policies can be met. In effect, it can be described as a work of fiction that bears very little relationship to likely developments in the NEM.

This brings into question the relevance of the 26DISP that forces an outcome that meets policy targets, regardless of the likelihood of the outcome being achieved under a realistic assessment of likely NEM developments.

The 26ODP does not attempt to balance the conflicting objectives of the NEO

The NEO has the conflicting objectives of being required to meet simultaneously the long-term interest of electricity consumers with respect to both "price, quality, safety and reliability of electricity supply" and the achievement of "emission reduction targets".

While the former goals are clearly in the long-term interests of electricity consumers, it is by no means clear that the achievement of emission reduction targets is in their long-term interests. While the first group of goals directly affect electricity consumers, emissions reduction is a national and global ambition. Given Australia's insignificant contribution to global emissions, it is difficult to accept that it is in the long-term interests of Australian electricity consumers to be disproportionately burdened by attempts to meet emissions targets.

While acknowledging the conflict, AEMO makes no attempt to balance the objectives. Not one of the 23 candidate development paths investigated by AEMO included the life extension of existing coal-fired generators and the construction of new coal-fired capacity. Thus, without any guidance from the NEO, AEMO gives primacy to the meeting emission targets over minimising the price of electricity and maximising the quality, safety, reliability and security of supply of electricity.

This was confirmed by the testimony of Mr Westerman, Chief E xecutive Officer of AEMO to the Select Committee on the Energy Planning and Regulation in Australia (December 2024), that the 26DISP does not estimate whether renewable energy is the cheapest form of generating electricity. Instead, the ISP estimates the "least cost pathway" of meeting various government policy targets, including the Federal Government's 82% renewable generation target by FY30.

In the Final 26ISP, AEMO needs to explain why it does not attempt to balance the conflicting objectives of the NEO and present objective evidence that the achievement of emission reduction targets is in electricity consumers' long-term interests.

AEMO could balance the conflicting objectives of the NEO with a coal-fired CDP

This balance would be achieved if AEMO developed a coal-fired CDP which allowed the life extension of the existing coal-fired generators and the development of replacement coal-fired capacity. While there will be additional capital, O&M and fuel costs under this CDP relative to the 26ODP, these will be significantly outweighed by the avoided cost of the massive growth of renewables capacity in the 26ODP and the cost of the associated transmission system investment.

While the emissions targets will not be met under such a coal-fired CDP, such a plan is significantly less risky than the 26ODP, especially over the next decade. In this context, it is noted that there is widespread scepticism that it is possible to deliver the required investment in renewables and transmission capacity under the 26ODP.

As this organisation has pointed out on several occasions, the need for a coal-fired CDP does not mean that the transition to a low carbon energy sector is not important and worthwhile. However, it highlights the importance of Australian policy makers and stakeholders being better and more reliably informed of the likely future costs of the major pathways to making the transition to a low carbon generation sector.

AEMO has no role in promoting the current government energy policies by claiming, without evidence, that "*new renewable generation is less costly than new coal*."

Through its failure to balance the conflicting objectives of the NEO, the 26DISP does not investigate a coal-fired CDP so cannot provide any justification for this assertion. As noted, the 26DISP does not evaluate the relative cost of a system development plan based on new coal generation. It only looks at plans that meet the current government energy policy targets.

In making this assertion, AEMO is in direct conflict with the major conclusion of the CSIRO's GenCost26 Draft that: "*There is a clear trend that decreasing emissions increases 2050 electricity costs*". (Page 55). This is a very important conclusion by the CSIRO as it rejects the mantra, consistently recited by politicians and renewable energy lobbyists, that not only is renewable energy good for the environment, it is the cheapest source of new-build electricity generating capacity. What makes AEMO's assertion all the more surprising is that the GenCost reports are a collaboration between CSIRO and AEMO.

Of course, in this context, AEMO could play a useful role in the energy policy debate by undertaking a comparative analysis of a system development plan based on coal (or other dispatchable technologies such as nuclear generation) that would inform the debate about the cost and reliability consequences of transforming the NEM to total reliance on firmed renewable technologies.

AEMO is not a Federal Government agency. To retain its "independence", it should base its public statements on facts it has demonstrated . Thus, it should stay out of the Australian energy policy debate, especially given that there now are opposing views on NZ50.

Consequently, in the Final 26ISP, AEMO should either publish the results of a coal-fired CDP confirming its assertion or withdraw the assertion.

The 26DISP does not provide any evidence of its claim that "*global economics is driving down the cost of renewable*".

AEMO attempts to justify the claim on three grounds that are incorrect:

1. The fact that wind and solar generation technologies received over three times as much investment as did coal generation technologies does not measure the importance of the amount and reliability of the electricity capable of being generated by the technology. That is, while there was approximately 3.5 times more investment in wind and solar technologies than in coal technologies in 2024, the new wind and solar units were only capable of generating approximately 1.8 times the electricity of the new coal units. Further, the comparison of capital expenditure ignores the need for the additional storage and peaking plant required to firm the renewable energy to render it equivalent to coal-fired generation, the additional transmission infrastructure to transmit the diversely-located, low density renewable energy generation to load centres and the substantial subsidies that are required to support investment in renewables capacity.

2. AEMO misinterprets its cited source by referring to the "absolute" amount of energy delivered rather than the "growth" in energy delivered, as referenced by its source. Thus, the claim that more of the world's energy was delivered by renewables than by coal is incorrect.

3. The claim that new renewable generation is less costly than new coal generation is not based on the results of the 26DISP but, rather, reflects AEMO's support for the current government energy policy.

Thus, AEMO is strongly advised either to justify the assertions or remove them from the Final 26ISP.

The ISP no longer delivers "affordable" energy

Since the 2018 ISP AEMO has continuously claimed that the ISP delivered affordable electricity. Notwithstanding that real consumer electricity prices continued to increase significantly, the 2022 ISP and the 2024 ISP continued to deliver "affordable" energy.

However, the 26DISP fails to make any reference to "affordable" energy. The obvious conclusion is that AEMO no longer considers that the "energy" to be delivered under the 26ODP is "affordable".

Nevertheless, AEMO continues to claim on its website that it "… *manage*(s) *electricity and gas systems and markets across Australia, helping to ensure Australians have access to affordable, secure and reliable energy*".

Despite AEMO's claim that Australians have "affordable" energy, real consumer electricity prices have increased significantly over the last decade as more renewable energy is forced into the market. These price increases represent a significant transfer of wealth from power consumers (many of whom are in low-income brackets) to investors in renewable energy projects; i.e., the policies forcing the penetration of renewable energy are a regressive tax that differentially harms the low-income households and individuals.

Thus, AEMO is strongly advised either to justify the claim on its website that Australia's electricity is affordable or remove it.

Appendix 1: Document References

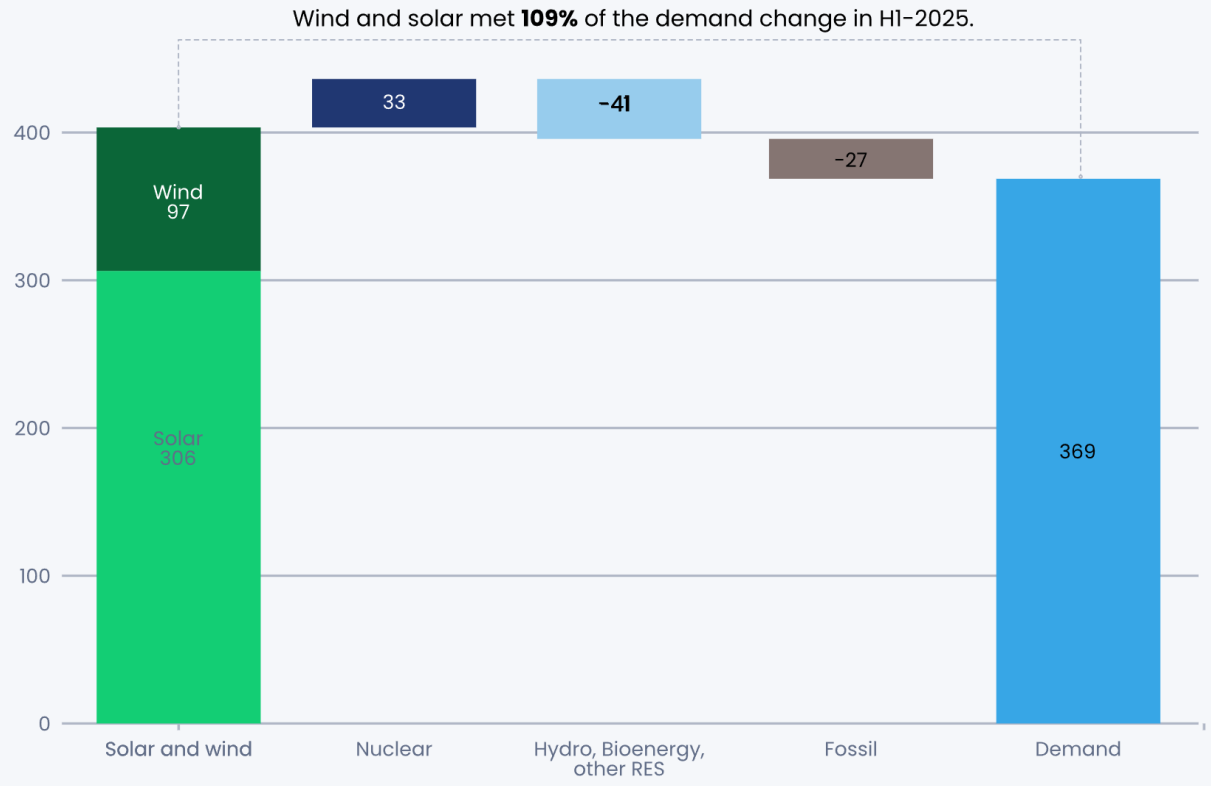
Abbreviation	Title	Publication date
22DISP	AEMO, Draft Integrated System Plan, 2022	Dec-21
22FISP	AEMO, Final Integrated System Plan, 2022	Jun-22
24DISP	AEMO, Draft Integrated System Plan, 2024	Dec-23
24FISP	AEMO, Final Integrated System Plan, 2024	Jun-24
25ESOO	AEMO, Electricity Statement of Opportunities	Aug-25
25ISP Methodology	AEMO, ISP Methodology	Jun-25
26DISP	AEMO, Draft Integrated System Plan, 2026	Dec-25
26DISP Chart Data	AEMO, Draft 2026 Integrated System Plan: Report Charts	Dec-25
26DISP Inputs	AEMO, Draft 2026 ISP Inputs and Assumptions workbook	Dec-25
26DISP Results	AEMO, Draft 2026 ISP Results Workbook	Dec-25
AEMC24	Australian Energy Market Commission Media Release	Feb-24
AER25	Australian Energy Regulator, Electricity and gas networks performance report 2025	Dec-25
AES Table O	Australian Energy Statistics, Table O, Department of Climate Change, Energy, the Environment and Water	Aug-25
ARDL22	ARDL Submission on regarding AEMO's Draft 2022 Integrated System Plan	Feb-22
Australian26	The Australian, Australia's renewables plan crumbles, sparking power price chaos for million,	Feb-26
Bowen25	Ministerial Press conference in Avonlie, NSW, DCCEEW website	Dec-25
CIS25	Centre for Independent Studies, Submission to AEMC's Treatment of policies and costs in the ISP Consultation Paper	Nov-25
DCCEEW23	DCCEEW Media Release: Energy Market Operator shows firmed renewables the path for a cleaner, cheaper, more reliable grid	Dec-23
ER25	Ember Research, Global Electricity Mid-Year Insights 2025	Oct-25
GenCost26 Draft	CSIRO, GenCost 2025-26, Consultation draft	Dec-25
GenCost26 Workbook	CSIRO, GenCost2025-26ConsultApxTables_20251216	Dec-25
IEA25	International Energy Agency, World Energy Investment 2025	Jun-25
Senate24	Select Committee on the Energy Planning and Regulation in Australia, Final Report	Dec-24
Spectator25	Spectator Australia, The four pillars of modern civilisation	Dec-25
VicUni25	Victoria University Media Release, Central planning is failing Australia's energy transition	May-25

Appendix 2: Estimated capital cost of committed and anticipated transmission projects

Project	25$m	Source
Project EnergyConnect Stage 2	3,600	Energy Australia's AER's Capital Expenditure Incentive Guideline Review, 21 February 2025.
HumeLink	4,579	$4,279.1 million ($2022–23), AER Determination, Transgrid's HumeLink Stage 2 Delivery Contingent Project Application, 2 August 2024, adjusted to 2025 dollars.
Hunter-Central Coast REZ Network Infrastructure Project	596	26$615, Table 12.3, AER Final decision, Hunter-Central Coast REZ network infrastructure project (non-contestable), (1 July 2026 to 30 June 2031), November 2025.
Central West Orana REZ Network Infrastructure Project	5,526	AER Summary report published on remade revenue determination for CWO REZ network project, 5 August 2025.
Western Renewables Link	1,530	PWC Report to Ausnet reported in the press.
Project Marinus Stage 1	5,387	AEMO, Project Marinus Feedback Loop Analysis, August 2025, Figure 1, adjusted to 2025 dollars.
CopperString	14,000	Queensland Treasurer Media Release, Crisafulli Government saves CopperString, 8 April 2025.
Total	**35,218**	

Growth in solar and wind generation outpaced the rise in global electricity demand in H1-2025

Change in electricity generation: H1-2025 v H1-2024 (TWh)



Source: Monthly electricity data, Ember

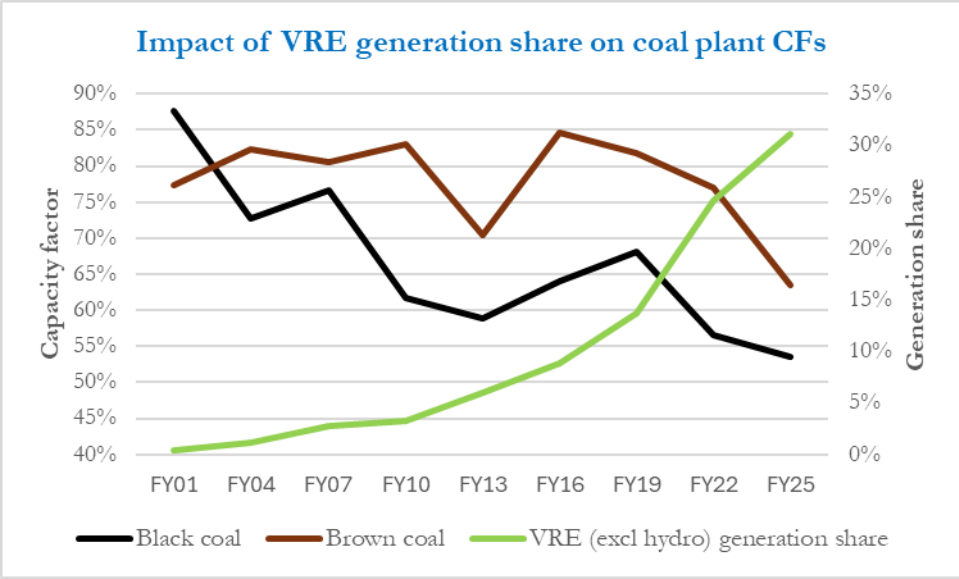
EMBER

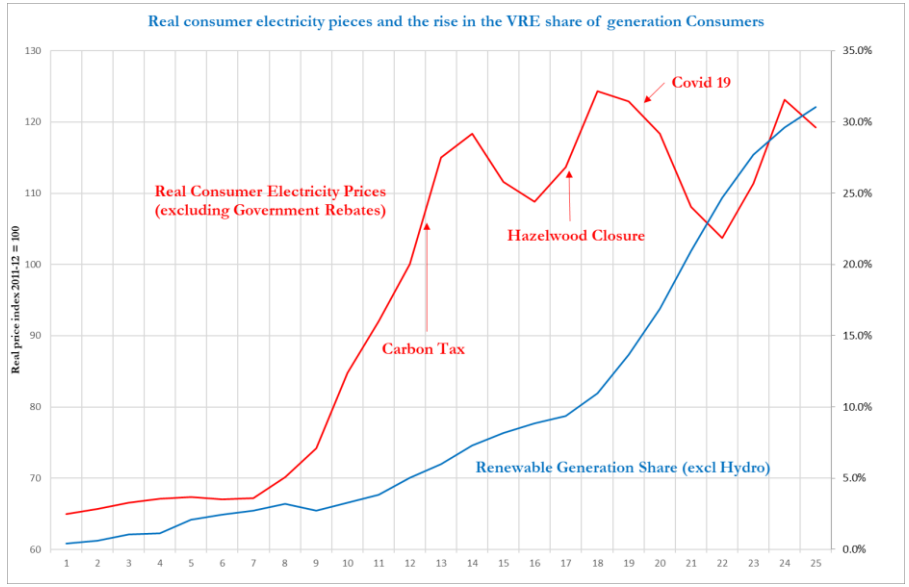
Appendix 4: Estimated capital cost of committed and anticipated transmission projects

Section 1.3 lists the following range of "solutions" required to firm renewables, in the NEM and globally, as follows:

- Transmission networks are being extended.
- Distribution networks are being upgraded.
- Batteries are becoming more common as they get rapidly cheaper.
- New flexible gas-powered generation plants.
- Existing hydro generators and other long-duration storage such as new pumped-hydro.
- Alternatives to fossil fuels are available to maintain grid security and stability.

Appendix 5: Generation shares of coal and VRE technologies and real consumer electricity pieces





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