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Mr. John Pierce Australian Energy Market Commission PO Box A2449 Sydney South, NSW 1235

13 November 2019

Coordination of Generation and Transmission Investment – Access Reform: Discussion Paper (EPR0073)

AGL Energy (**AGL**) is one of Australia's leading integrated energy companies and the largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy and provides energy solutions to over 3.7 million customers in New South Wales, Victoria, Queensland, Western Australia and South Australia.

AGL appreciates the opportunity to comment on the Australian Energy Market Commission's (**AEMC**) Access Reform Discussion Paper (**Discussion Paper**) to its Coordination of Generation and Transmission Investment Review (**COGATI Review**). We welcome the significant increase in detail provided and the ongoing willingness of the AEMC's staff to consult extensively and provide clarifications on its internal thinking.

AGL agrees with the premise of the Review that the electricity sector transition that is currently under way is challenging the way in which generation and transmission interact. This transformation is also leading to a small number of large and more centrally located generators being replaced by a large number of relatively small, flexible, asynchronous and geographically dispersed generators. In the next 10 years alone, generation roughly equal to the current size of the national electricity market (50 GW) is expected to connect to the grid. In this context, the NEM will replace most of its current stock by 2040.

Additionally, the networks across the NEM are becoming more meshed and interconnected, with this resulting in increased inter-regional trade and sharing of reserves between jurisdictions. Substantial and timely transmission infrastructure is therefore likely to be required. These changes mean that there is a need to have a better way of co-ordinating generation and transmission investment decisions in order to better facilitate the transition that is occurring. There will also be a need over time for the introduction of a range of risk management tools, including potentially along the lines set out in this Discussion Paper, to enable participants can better manage this dynamic environment.

AGL does not however, consider that the case has been made to move ahead now with a substantial redesign of NEM market arrangements at this time. We consider the arrangements contain considerable implementation risks that have not been fully considered, and which risk reducing market liquidity, efficiency and investor confidence and that its implementation could have profound security and reliability impacts. In addition, possible interactions with other market design processes, existing market rules and market rule change processes need to be fully explored, including the Post-2025 Market Design Review being led by the



Energy Security Board (**2025 Review**). After a period of rapid rule change across wholesale and related markets, it is critical that further major changes to market design are thoroughly considered, costs and benefits well understood, risks are appropriately allocated to those best able to manage them, and any changes implemented holistically to minimise transition and operating costs. These changes also need to reflect the impacts across existing and new market participants, ensuring that no barriers to entry or unforeseen consequences arise, while protecting the interests of consumers.

Moreover, AGL considers that a range of current or upcoming regulatory processes and proposals can address many of the most pressing issues arising from the changing electricity system, including those outlined by the AEMC in the Discussion Paper. These include improvements to the ISP development process, which is intended to remain a central pillar to coordinate generation and transmission, and provide information to market participants about the projected evolution of the system. AGL also points to the current Transmission Loss Factors.¹ rule change process, and the recently finalised Transparency of New Projects.² rule aimed at improving certainty and predictability of loss factors as a key investment signal and improved access to locational specific information and datasets respectively, as recent market changes.

We consider that orderly step changes over the transitional period, such as the reforms above, are needed to retain and further promote investor confidence and price stability in the market, while the other market design processes run their course. Therefore, policy coordination with, and consideration of, the COGATI Review must not be rushed in isolation.

AGL flags a number of issues which we believe must be properly addressed prior to publication of a final COGATI Review report. These issues include:

- A clearer articulation of the problem and solution, noting that changes relating to the primary objective of investment coordination have largely been dropped. The remaining proposals, focussed on congestion management, disorderly bidding behaviour and dispatch efficiency should be assessed against alternative mechanisms to address these issues.
- Greater clarity on the design and interaction of dynamic losses with Dynamic Regional Pricing (DRP) and Financial Trading Rights (FTRs), including ensuring that the settlement equation can balance in all scenarios and that incumbent generators are no worse off compared to the existing Marginal Loss Factor (MLF) regime.
- Further consideration on the impacts to market liquidity and the creation or perception of market power under certain conditions, including how these issues may be assessed by competition regulatory authorities. The COGATI Review should ensure compatibility with the Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Bill 2019.³.
- Clear and demonstrated net market benefits backed by rigorous quantitative modelling of the policy
 proposal both in isolation and cumulatively with other interacting and related market reforms. This
 analysis should also consider if the anticipated improvements to wholesale market efficiency will
 outweigh the design complexity and costs incurred by market participants across wholesale and

³https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22legislation%2Fbillhome%2Fr6420%2

¹ <u>https://www.aemc.gov.au/rule-changes/transmission-loss-factors</u>

² <u>https://www.aemc.gov.au/rule-changes/transparency-new-projects</u>



contract markets, and ultimately consumers. Further consideration will also be necessary to determine if the proposal creates an environment that encourages new investment, the capital costs associated with these projects and whether this would impact wholesale prices.

- Revisiting the proposed implementation timeline and arrangements to take into account key system, operational and readiness processes, including NEM dispatch engine system redesign, changes to the Marginal Loss Factor (MLF) and Settlement Auction Residue (SRA) mechanism, financial and contract markets changes including to the renegotiation of existing products/contracts, FTR auction design and setup, and market participant readiness.
- Development of a high-level transitional plan, including further detailed design on the proposed grandfathering arrangements.

AGL strongly encourages the AEMC to continue to work through these identified issues through the COGATI Review process over a slower timetable which would enable closer coordination with the 2025 Review.

Alternatively, AGL would also support the AEMC recommending in their final COGATI report that a follow up stage covering detailed design, take place prior to making any recommendations to progress a design through the NER rule change process. Being able to utilise a more flexible review process to further consider and enhance any proposed market changes, and assess the interactions of related reforms, will allow industry to participate in more fulsome consultation, compared to the current compressed timetable.

We believe undertaking either of these actions as part of the AEMC's development process will be critical to retaining industry confidence. AGL encourages the AEMC to continue to consult widely on its progress on the COGATI Review. We are happy to provide additional input as required to guide the AEMC's development.

AGL has provided further detailed responses on the issues above in Appendix 1. Where possible, given the consultation constraints, we have also attempted to address the AEMC's specific questions in Appendix 2.

If you have any queries about the submission, please contact Dan Mascarenhas on (03) 8633 7874 or DMascare@agl.com.au.

Yours sincerely,

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Elizabeth Molyneux General Manager Energy Markets Regulation



Appendix 1 – The Case for Change

AGL broadly accepts the economic theory utilised by the AEMC to demonstrate the need for the introduction of DRP and FTRs. AGL also agrees that these proposals reflect a potential improvement against the backdrop of a transitioning energy market from one with a small number of large generators with largely one-way power flow, to a bidirectional energy market made up of many small generators on the transmission network. However, we continue to have strong concerns with regards to the key elements of purpose, reform coordination, design complexity and transition to minimise costs. We do not consider at this time that the AEMC has adequately addressed these fundamental elements in making the case for change.

<u>Purpose</u>

AGL notes that the Discussion Paper outlines a key role for centralised transmission planning via an increased focus on Integrated System Plan (ISP) outputs and existing Transmission Network Service Provider (TNSP) processes.⁴. These largely Business As Usual regulatory mechanics replace pillar three from the original proposal relating to the coordination of, and incentives to, align transmission and generation investment. We understand that the AEMC consider this approach is suitable because an 'indirect' link would signal through the ISP, areas where transmission improvements are required.

In AGLs view, this is a somewhat disappointing decision. We understood the primary objective of the COGATI Review was to identify pathways for closer investment coordination between transmission and generation investment. While we acknowledge that continuing down the initially proposed 'direct' link approach (i.e. generators underwriting transmission investment or some other hybrid option) may have been difficult to develop in the absence of international examples, we do not believe the revised proposal will progress this coordination objective sufficiently beyond the current market design. AGL agrees that generation and transmission planning signals (and regulatory approvals) are likely enhanced by the proposed model, however the coordination of new investment decisions and timing disparity between transmission and generation building works remain unaddressed. Without these issues addressed, the core tenets of this COGATI Review are not addressed, and this fundamentally impacts the key driver behind the COGATI Review workstream.

AGL strongly encourages the AEMC to consider how to address these problems and suggest a review of the previously discussed hybrid options serves as an appropriate starting point. We are happy to engage further on this matter.

<u>Timing</u>

While AGL is in principally supportive of the proposed introduction of DRP and FTRs and many the design decisions, we required a fuller understanding of the reforms, particularly the interactions of a Dynamic Loss Factor (DLF), the FTR auction, and the outputs from the planned quantitative modelling. However, noting the COGATI Review seeks to address a number of secondary issues, including growing congestion management and perceived disorderly bidding, we encourage the AEMC to redetermine if the COGATI

⁴ Namely, the Transmission Annual Planning Report (TAPR) and Regulated Investment Test for Transmission (RIT-T) processes.



Review is the right vehicle to progress the proposals, and if they are feasible, practical and cost-efficient under current proposed timelines.

AGL maintains that greater, and more coherent alignment is necessary between, at least, the COGATI Review and the 2025 Review. We are concerned that external policy discussions (and progress) with other regulatory market bodies, including the ESB and AEMO, may impact or render the COGATI Review reforms unworkable. It is possible that any market benefits of the proposed reforms may be unwound by further structural market changes. Therefore, consideration on the most appropriate timeframe to introduce these planned reforms remains a critical challenge.

AGL therefore encourages the AEMC to work more closely on industry communications with its counterparts to ensure that coordinated policy and regulatory reform proposals are uniformly designed and presented to industry for consultation in an orderly manner.

Simplicity

In its current form, AGL believes the reforms proposed by the AEMC are complex, costly and likely to have cross-market interactions and impacts. We remain unsure if the reforms, in their uncompleted state, will drive the operational and investment behaviours sought by the AEMC, especially in the absence of comprehensive quantitative modelling and more granular, targeted worked examples. This is because, while economic theory presents a rational, market's purest perspective, it does not necessarily consider, or assign sufficient weighting to, other competing objectives or obligations imposed on a market participant⁵.

Current market design, including the existing open access framework, is well known and understood by market participants, developers, large consumers and the regulatory institutions charged with its operation. Any change resulting from market reform requires clear direction on its intended operation, balanced risk allocation, cost-efficient delivery and sufficient time to allow for market adjustments. The design must also ensure that it remains complementary to existing (or soon to be introduced) energy market rules and the operation of other markets, and therefore does not introduce unintended consequences.⁶.

Specifically, under the NER, congestion management and transmission losses are managed under two separate but related frameworks. The overarching design of the proposal seeks to merge these two mechanics under DRP, with FTRs available as a risk management tool. While this will address volume risks associated with the open access framework, it intentionally introduces price risk. We believe this type of risk may potentially be more complex and costly for the market to manage, particularly under certain scenarios. For example, smaller generators are unlikely to have the necessary skill sets or finances to understand and/or participate in DRP and the FTR auctions . Similarly, other market participants may find that their existing financial and hedging contracts are unworkable as a result of changes to key definitions⁷, overall market compliance and operation costs increase, and new projects are harder to finance because of

⁵ For example, a generator with a Power Purchase Agreement may be focused on meeting its dispatch volume targets set out in its market contract, rather than the applicable spot price. As such implementation of DRP may not impact or alter the generator's market engagement and dispatch strategy.

⁶ For example, it is unclear how Demand Response Service Providers (DRSPs), under the AEMC's Wholesale Demand Response Mechanism (WDRM) draft rule, would be participate in DRP and FTRs.

⁷ For example, proposed changes to the Regional Reference Price and the MLF mechanic.



new forward modelling challenges. Indeed, even if finance could be secured, it may only be provided under tighter lending conditions and with higher attached premiums; as cost which may be passed on to consumers.

Together these situations may impact negatively on generation investment until market participants, financiers and their counterparties understand their new operating environment and cost stack. It is likely that market participants that cannot access FTRs will face both volume and price risks. These risks and their associated costs are not trivial and must be quickly quantified.

It is therefore prudent that a positive net benefits case for change is presented to garner the confidence of the industry, and clearly demonstrate to governments that this approach will deliver optimal outcomes in line with the National Electricity Objective, prior to finalising the COGATI Review. This assessment of costs and benefits is more necessary given the reduced scope of the proposed reforms, following the removal of the transmission planning aspects.

While we are pleased to see the that AEMC intend to undertake quantitative modelling under a two staged approach, the results of the initial round do not provide time for stakeholder feedback based on the AEMC's current timetable. AGL requests that the AEMC consider extending the timetable of the COGATI Review through 2020 to enable the AEMC to close the outstanding design gaps in the proposal, and to allow stakeholders the appropriate time to duly consider the operational design, impacts, costs and benefits of the proposal against the initial modelling data sets. Importantly, this would also enable closer coordination with the 2025 Review.

Transition

Suitable transitional arrangements, including implementation timeframes and protection measures to support existing market participants manage their risk and operational profile is an important attribute of any successful market reform. AGL applaud the AEMC on their commitment to keep this issue at the forefront of its COGATI Review proposal and appreciate the initial commentary and guiding principles setting out how grandfathered access rights (taking the form of 'free' FTRs, tapering off over time) would be allocated.

However, AGL reaffirms its position that setting an implementation effective date, as July 2022, is unnecessarily rushing the proposed reform design process, leaving key design gaps and significant industry concerns relating to liquidity and market power, unresolved.

To ensure that the proposed reforms are workable, compatible with recently finalised or expected laws and NER rules to be implemented over the same time period (i.e. the WDRM and transmission loss factors rule changes, five minute settlement rule (5MS), the retailer reliability obligation, and Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Bill 2019 etc.), and delivers against the NEO, the COGATI Review needs to provide suitable time to design, modelling and stakeholder testing.

In addition, implementation arrangements need to take into account key system, operational and readiness processes, including the NEM dispatch engine system redesign, changes to the MLF and Settlement Auction Residue (SRA) mechanism, financial and contract markets changes including the renegotiation of



existing products/contracts, FTR auction design and setup, and general market participant readiness. We believe from a systems perspective, AEMO are likely to require at least 18 months to design, build and test the revised NEM dispatch engine, settlement processes and FTR auction.

Should the COGATI Review and its subsequent rule change be progressed, AGL suggests that as at an absolute minimum, the proposed reforms take effect no earlier than 3 years and 7 months after a final rule is made. This approach would maintain consistency with the AEMC's ruling for 5MS and would allow existing derivative contracts and most customer contracts to roll off naturally. It may be appropriate, subject to the final COGATI rule and grandfathering arrangements, to commence FTR auctions earlier to allow existing market participants and new entrants to forward plan their operations under the new market environment. As such, AEMC should consider commencing FTR auctions no earlier than from 1 July 2022, with DRP and FTR's taking effect from no earlier than 1 July 2025. This approach would allow AEMC to maintain aspects of its proposed implementation arrangements set out in the Discussion Paper and may also more closely align with any outputs from the 2025 Review.

AGL also suggests the AEMC consider running a soft trial, possibly under specific sandboxing arrangements, to practically demonstrate how the reforms would operate, and address any unforeseen issues prior to NEM-wide implementation.



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Appendix 2 – AGL's Response to Key Questions

AEM	C Question	AGL Position	
1	Scope of DRP	AGL agrees that the distinction between scheduled and non-scheduled remains an appropriate test in deciding what generation/load should face the LMP. We agree that generation/load currently registered with AEMO (and therefore above the registration threshold) will have the greatest ability and incentive to respond to wholesale spot price signals.	
		While AGL agrees with the setting of a timed one-way gate for non-scheduled participants seeking to face their LMP, we are concerned that the 12 month wait period may be too short, particularly those with contractual positions to manage. Further, allowing a shorter waiting period will impact the Volume Weighted Average Price (VWAP) that customers will pay (and generators will hedge against). Careful consideration will be necessary in determining the right balance. AGL suggests reviewing the 3 Year Notice of Closure rule for additional guidance.	
2.	Constraints in Pricing	AGL agrees that all constraints currently captured by the NEM dispatch engine, should be included and used to calculate the LMP. In addition, we agree that only constraints that result in a limitation of transmission flows should be reflected by price disparity between the LMP and the VWAP.	
		However, we encourage the AEMC to consider the impact of co-optimised energy and Frequency Control Ancillary Service (FCAS) provision through the dispatch process and how this might affect the calculated Energy LMP and whether there are also implications for the way the FCAS price is charged and recovered. Noting that changes	



		are currently being proposed to FCAS services, AGL recommends that these possible
		changes to contingency FCAS requirements (in particular more localised requirements) should be considered by the Review.
3.	Regional Pricing	AGL agrees that a change to VWAP is sensible, whereby nodal prices are calculated for load, to ensure that settlement balances. We believe the loss of liquidity that would probably be entailed in additional load nodes would negate any advantages with the current market.
		However, AGL strongly encourages the AEMC to ensure that the correct pricing signals are maintained in this proposed structure after the nodal price for loads are calculated (for example when constraints bind or there is localised unserved energy, especially in regions with load that is more geographically and electrically spread such as in Queensland).
4.	Dynamic Regional Pricing	AGL agrees that in the context of the overall COGATI Review proposal, a shift to DLFs appears economically sensible (i.e. with the availability of an appropriate hedging instrument).
		However, it is not clear to us how the DLF would be calculated on a trading interval basis, how market participants (including new developers seeking finance) could sensibly and accurately model the daily and/or year fluctuations, and how FTRs would provide firm financial protection. Similarly, further clarification is necessary to explain how the ISP and TNSP regulatory planning processes set the FTR for DLFs, noting that there is currently no link between the ISP and the existing MLF regime.
		A number of conceptual and practical issues remain unaddressed. Considered consultation with industry is required to understand how this will work in practice, especially for those participants who are unable to procure sufficient FTR's to hedge their risk, and are therefore exposed to both price and volume risk as a consequence.
5.	Market Power Concerns	AGL supports the AEMC's preference for non-intervention in terms of introducing market power mitigation mechanisms.



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		However, while the AEMC has indicated that it will undertake specific impact analysis to determine the significance of market power considerations under DRP, it has not yet provided any meaningful details regarding what the modelling tasks will involve. AGL AEMC to further consult with industry participants on this modelling approach and what reforms are appropriate as a result of the outcomes of such analysis (if any). We encourage the AEMC to ensure its review of market power is conducted in the context of a participants overall operating position (i.e. its engagement in the energy and contract markets).	
		AGL also strongly urges the AEMC to apply caution when considering whether to introduce further bidding regulations. It is imperative that any regulatory changes are consistent with <i>all</i> the other existing (and imminent) energy market interventions.	
		Further, when considering the approaches taken in other energy markets to similar issues, careful consideration of different market structures and operating environments is necessary.	
6.	Types of FTRs	Yes – AGL agrees that options provide the simplest approach to the provision of financial protection (i.e. managing insurance risks) without exposing FTR holders to payment liability and prudential risks.	
		However, we encourage AEMC to further explore if an option-only approach would be appropriate across the two proposed FTR products. For example, a swap product may be more useful for hedging between regional prices only, if it allows a greater volume of FTRs to be sold inter-regionally, compared to an options product. This may assist in improving liquidity.	
7.	Liquidity and FTRs	AGL agrees that under DRP, an ability to hedge congestion and loss factor risk through FTR's are critical to maintaining liquidity.	
		However, it remains unclear if the introduction of DRP and FTR's will improve liquidity compared to the current state of the NEM, especially with respect to intra-regional FTR's.	



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		It may be that the uncertainty as to whether a participant will be able to acquire (sufficient) FTR hedges at financially acceptable prices (especially for longer dated contracts) is likely to mute the effect of increasing liquidity.	
8.	Prices that can be hedged	AGL broadly agrees that these pairs of prices are most pragmatic and useful to keep the market and FTRs liquid and feasible.	
		However, there may be some benefit in also identifying a handful of additional "synthetic hubs" which are auctioned with the specific LMP- Regional VWAP hedges (i.e. it could represent a set of connection points or a single connection point but solved with the bids related to the individual pairs of FTRs simultaneously). For example, AGL expects some de facto hubs forming between certain connection points in Victoria and the Victorian regional price in both the auctions and possible secondary markets, where most of the congestion is expected. Having a hybrid version with hubs may increase liquidity in the secondary market by reducing fragmentation.	
9.	When FTRs are active	Yes – continuous and time-of-use rights are appropriate.	
		AGL considers that flat, peak, and super peak (perhaps between 1500 – 1800 hours) are probably the most logical FTR's to sell at the primary auction. This would allow baseload thermal generation, wind, solar and peakers/batteries to hedge their risk appropriately. Beyond this level of specificity, auctions are likely to be problematic and patchy. AGL believes it may be better to leave these granular details to the secondary market for trading as a bespoke product.	
		However, some consideration into how the auction would work is required for the combined products (for example, we suggest if a participant is willing to pay more \$/MW for continuous rights for the same FTR, this should be allocated in front of a participant buying peak only at a lower \$/MW price). In addition, further clarity is necessary on how conditional offers and linked bids will be treated.	
10.	Revenue to back FTRs	AGL cautiously agrees with the AEMC intended approach, however FTRs must be fully firm to the extent possible.	



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		AGL disagrees with the AEMC's position on further firming FTRs using the revenue from FTR sales. Noting the significant financial costs that may arise to secure FTRs and the higher cost base new generation is expected to face, serious consideration should be made into using a portion of auction proceeds to offset periods where insufficient revenue arises. We understand a similar approach is implemented in New Zealand. If circumstances are forecast to mean that FTRs require scaling back, this must be communicated to industry well in advance. The detail on how scaling would be	
		calculated should also be comprehensively consulted with industry. In addition, AGL considers that market demand for FTRs should play a role in the quantity made available. While AGL acknowledges the AEMC's position that this may not be economically ideal, we believe that the likely increase in clearing price for the rights at auction will improve firmness and allow market participants greater access to	
12.	Losses	managing their risk. AGL agrees that further work is required to understand the design, operation and impact of dynamic loss factors within the FTR. AGL is especially concerned for participants who are unable to procure FTR hedges – we believe it would be incredibly difficult to offer contracts for their generation without being able to predict or hedge this loss factor. These participants would be exposed to volume and price risk at possibly no fault of their own.	
		We suggest that it may be easier to separate the congestion and losses component parts of the FTR or simply confining the FTR to congestion only with a static loss factor applied. As addressed in the Discussion Paper, this is less ideal in the context of the broader COGATI Review, however this may be more palatable, predictable and practical. Any further design should be coordinated with the current Transmission Loss Factors	
40		rule change.	
13.	Method of FTR Sale	AGL supports use of the simultaneous feasibility auction to determine the quantity and combination of FTRs for sale, however consideration should also be given to the use	



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		of a buffer which allows for further FTRs to be sold dependent on market demand. We agree that AEMO should manage the auction process and that a reserve price of zero is appropriate at the commencement of bidding.	
14.	FTR Tenure and Lead Time	AGL broadly supports a 4 year lead time, however we acknowledge that this may not provide sufficient protection for new generation seeking financial backing. The AEMC should further consider the requirements of financial institutions in its assessment.	
		We would support an ability to purchase FTRs for at least the next full 12 quarters after the current quarter in line with the contract market. I.e. AEMO should consider the shape of release tranches and make this publicly available in advance. Any changes to tranches should also be published as soon as practically possible.	
		Lastly, the initial couple of tranche releases (at least) should take into consideration the number of grandfathered rights, and auction on an accelerated timetable.	
15.	Auction Participants	AGL is unsure at this stage if auctions for FTRs between the LMP and RRP should be limited to physical participants. The benefits of price discovery and liquidity that can be provided by participants outside the physical market will need careful considered, in addition to defining what a physical participant may look like to avoid creating artificial barriers.	
		There may be some merit in non-physical participants being allowed to trade certain subsets of FTRs on the local to region price, for example the synthetic hubs described in Q8.	
		AGL also agrees that the definition of 'physical participant' should be described such that it does not preclude committed new investments in the pipeline.	
		Yes - non physical participants should be permitted to buy FTRs between regional prices to ensure liquidity in the financial contract market is maintained. This is important as some non-physical participants may use these products within their portfolio to manage their overall portfolio risk.	
16.	FTR Holder Transparency	AGL supports public disclosure of the FTR clearing price and the entity for each of the primary FTR auctions. The purchaser of the FTR can be reported to the appropriate	



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		regulators to ensure compliance. However, AGL does not support the publication of FTR holders at a company level due to commercial confidentiality.	
		We agree that for secondary trades the quantity sold and the purchaser should be confidentially notified to AEMO to assist in settlement. A transparent, aggregated information register for secondary trades is appropriate. We consider the Australian Financial Markets Association's over-the-counter surveys may be a suitable place to publish this data.	
17.	Costs of Implementing the Proposed Model	AGL generally agree with the proposed approach, however full contingency costs need to be explored. For example, if a move to a Full Network Model is required this may be significant more expensive than using the current NEM dispatch.	
19.	Better Risk Management	While AGL agrees that in theory, FTR's should allow projects to be less risky by providing an ability to hedge congestion and losses risk, costs and probability of actually procuring an FTR must be included in the model. We also note that it is possible that the auction process may not deliver an economically efficient price, increasing actual costs for generation over and above what they would have been exposed to under current market conditions (even with congestion).	
		In addition, the type of FTR sold may also increase costs for participants, for example if a battery operator is only able to procure continuous hedges, it may be paying significantly more than if it could buy hedges for the smaller periods it would actually like to operate.	
		It is therefore also important that the baseline analysis clearly explain how these investments are quantifying the value of risk in the current NEM state.	
21.	Improved Operating Incentives	With respect to 'race to the floor bidding', AGL agrees this analysis is useful. However, we are very concerned with historical analysis of only spot market outcomes being used to asses future policy changes without understanding the contracting arrangements generators have on both the sale and procurement side. For example, the AEMC must take into account PPA obligations, take or pay obligations under commodity contracts etc.	



25.	Market Power	Refer to AGL's response to question 5.
		While we agree actual price on congestion and losses can be delivered more explicitly through the FTR auction, we consider the incremental improvement between the information that is possible to derive now and the actual price signal to be the true size of the prize.
		A key factor impacting both congestion and MLFs is the lack of information available to new generators and developers seeking to build new investments. We believe this risk is likely to be significantly managed through the increase in available information and datasets set out in the recently published Transparency in New Projects final rule. ¹⁰ .
23.	Better Locational Incentives to Invest	AGL is very concerned with estimated historical cost of congestion being used to determine the 'size of the prize'. It is important to consider that information on congestion and MLF changes in the network is possible to derive today from publicly available information (including published by AEMO).
22.	Improved Dispatch Efficiency	While a useful study, without a historical knowledge of the contract position of the market participants involved in dispatch, drawing sensible conclusions will be difficult. AGL encourages the AEMC to use a reasonable threshold in determining loss factor differences that would give rise to dispatch inefficiencies (for example, an MLF change of less than 0.05 is unlikely to be material in practice).
		On 'bidding unavailable behaviour', AGL does not agree or accept the characterisation of the situation in South Australia exhibiting "non-competitive market conduct". ⁸ . We would encourage the AEMC to assess the submission AGL has made on the RRN test rule change to understand our position on the operations in South Australia ⁹ . It is not clear to us that the situation that occurred in South Australia would be any different under LMP without some specific examples of how the particular condition would be implemented in dispatch.

 ⁸ AEMC; Coordination of Generation and Transmission Infrastructure Proposed Access Model; page 19
 ⁹ <u>https://www.aemc.gov.au/sites/default/files/2019-10/Rule%20Change%20SubmissionERC0253ERC0255%20-%20AGL%20-%2020191003.PDF</u>
 ¹⁰ <u>https://www.aemc.gov.au/sites/default/files/2019-10/ERC0257%20-%20Final%20Determination%20-%20For%20publication.pdf</u>



29.	Communication	AGL strongly supports the operation of a paper trial. Our preference is that the model
		is designed to accurately reflect a part of the NEM and a subset of actual dispatch. The more realistic, the better this will be in assisting industry understanding of the proposed access reform.
		AGL also suggests the AEMC consider running a soft trial, possibly under Sandboxing arranging, to practically demonstrate how the reforms would operate, and address any unforeseen issues prior to NEM-wide implementation.
31.	Grandfathering	AGL agrees with the proposed principles and approach set out in the Discussion Paper. We encourage the AEMC to consider an arrangement which suitably values a generators access pathway (against its current level of congestion and transmission losses) over its operating life. As such we believe any grandfathered right should have a fixed period linked to the generators economic operating plan, with tapering commencing once Notice of Closure has been announced to the market.