2 June 2011

John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SOUTH SYDNEY NSW 1235

Dear Mr Pierce,

EPR0019: Transmission Frameworks Review Directions Paper

Origin Energy Limited (Origin) welcomes the opportunity to contribute to the Australian Energy Market Commission's (AEMC) Transmission Frameworks Review. Generally, Origin agrees with the areas for further consideration as identified in the Directions Paper, and looks forward to working with the AEMC in developing the respective work packages.

Notwithstanding this, we note that many of the contemplated policy options are geared toward solving anticipated future problems (e.g. increased network congestion) and would require significant changes to the current transmission, and indeed, market framework. Given this, we consider it important that in conducting this review, the AEMC seeks to:

- Test the likelihood and materiality of the problems that are expected to arise;
- Strike an appropriate balance between being strategic/forward looking and practical, by
    - Ensuring that transmission frameworks are robust and responsive to future market developments such as climate change policy
    - Avoiding fundamental changes to the current framework in the absence of substantial evidence that the existing arrangements are inadequate;
- Ensure that the impacts of any proposed solutions are line with the magnitude of the perceived problems they are intended to solve; and
- Act expeditiously, where it is proven that there are current problems within the existing framework

In light of our submission to the AEMC's earlier Issues Paper, and given that we are in the process of undertaking more detailed analysis on some of the other key issues, the attached submission focuses on the area of network connections. This issue is of immediate concern to Origin given that the problems surrounding the connections regime are current and the ensuing effects already evident.

If you wish to discuss any of these issues further please do not hesitate to contact me on (02) 8345 5250 or Steve Reid on (02) 8345 5132.

Yours Sincerely,

Tim O'Grady
Head of Public Policy

1. Network Connections

Origin agrees with the AEMC that there is a need to revisit the NEM's connections arrangements, given that the deficiencies in the current regime have already started to affect market participants. This section comments on the key areas identified by the AEMC in its Directions Paper, namely:

- Negotiating issues;
- The lack of clarity in, and inconsistency between NER Chapters 5 & 6A; and
- Complexities with the Victorian regime.

1.1 Negotiating issues

Negotiating process and framework

Experience over the past few years indicates that there are practical limitations to the existing NER connections negotiating framework. In some areas, the framework falls short of providing adequate commercial incentives for Network Service Providers (NSP). In particular, the lack of detail / direction around the interpretation and application of the various framework elements is cause for concern. Identifying ways to strengthen these incentives and make the framework work practically can improve the efficiency of the connection process.

A relevant example relates to the provisions surrounding the time it takes to complete a connection to the network. The timing of the various stages of the connection process is lengthy, and can take up to 36 months or longer, though there does not appear to be consistency in timing between jurisdictions.

Under NER rule 6A.9, NSPs and connection applicants are required to negotiate in good faith and in accordance with reasonable timeframes (NER cl.6A.9.5). There is a lack of clarity around what constitutes a "reasonable" timeline, however. The incentives of counter-parties negotiating a network connection may not translate into a shared definition of "reasonableness" either. While being too prescriptive is not practical — no two connection applications are likely to be the same — having a clear guideline on how to interpret "reasonable" could help reduce the connection timelines from repeatedly slipping.

Once a connection process commences, the balance of power shifts towards the NSP. There is limited opportunity for the connection proponent to contest delays and hold the NSP accountable. The existing NER do not sufficiently recognise the increased negotiating position held by the NSPs once the process commences. A connecting party is unable to switch "connection providers" in the middle of the process, either because there are no alternative service providers or, if there are, it is not commercially viable to do so. The NER require improved incentives and structure to account for this inherent imbalance in the negotiating positions of NSPs and connection proponents.

Connecting parties have strong commercial incentives to obtain a timely and economic Connection Agreement. It is a crucial step in the overall investment process, with many other commercial decisions dependent on this decision point. The consequences of delay for an NSP on the other hand may have less severe commercial implications. We recognise that delays to the connection process can arise for a variety of reasons, including commercial negotiations, technical parameters, and plant specifications. It is important, however, for the negotiating framework to recognise the differences in the

commercial drivers of the counter parties and strive for greater balance. We therefore encourage the AEMC to investigate incentive options for NSPs, to help ensure the timely processing and efficient negotiation of Connection Applications and Offers to connect.

Connection process

There are a number of steps within the various stages of the connection process that prove challenging for both generators and NSPs. Some of the challenges are discussed below.

Application stage

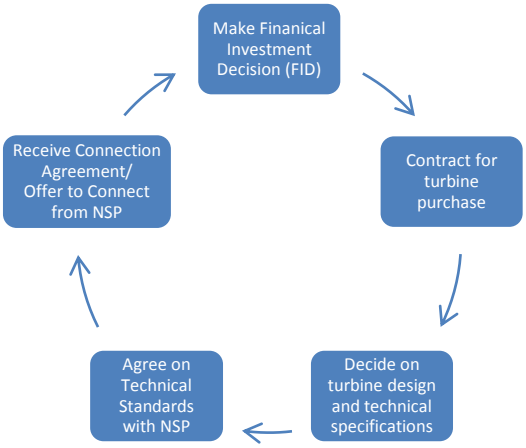
The primary challenges at this stage relate to information provision and cost classification and allocation. These are discussed below.

Information provision
Under the current connection process, there is a misalignment between the data requirements at this stage and the underlying commercial realities of connecting parties. The NER require a substantial amount of commercial and technical information from the prospective generator at the Application Stage. Chapter 5 of the NER (in particular clauses 5.3.3 and 5.3.4) requires the Connection Applicant to provide a list of technical data, commercial information and an application fee.

The commercial reality, however, is that connecting parties are unlikely to be in a position to stipulate their turbine or plant type at this early stage. Without these decisions, it is not possible for the connecting party and NSP to negotiate the detailed technical standards as required in the NER. To progress connections today NSPs effectively use "work-arounds" to recognise this commercial reality. While this may enable connections to progress, using "work-arounds" that are unlikely to have coverage under the existing NER can leave counter-parties exposed to ad hoc decision-making processes. Either way, the current process creates significant challenges for both connecting parties and NSPs.

The decision-making cycle set out in Figure 1 below, illustrates this challenge. In order to get a Financial Investment Decision (FID), a generator can require a Connection Agreement. In order to finalise a Connection Agreement, the connecting generator and NSP need to agree on Technical Standards. To set the Technical Standards, the generator needs to select a turbine design and model. However, in order to purchase the turbines and confirm the make and model and obtain the detailed technical specifications, the investor requires FID. Herein lies the challenge for both NSPs and connecting parties to agree on technical specifics at the Application Stage.

Figure 1 – Example of a generic generator investment decision-making process



These information requirements can delay the connection process by several months and affect the costs on both sides of the negotiation. For example, if a connecting party has a number of possible turbine models it is considering, the NSP may need to undertake concurrent transmission modelling to test the system implications of each turbine design. Finding ways to reduce redundant system modelling can improve the efficiency of the connection process for both the connecting parties and NSPs.

We encourage the AEMC to look at specific data requirements at the Application stage and investigate options to make them more realistic and meaningful. For instance, a possible option to address the "chicken or egg" problem could be to split the Application Stage into two, which reflect the different types of information required, e.g. (1) the physical construction aspects of the connection and (2) the more performance-based specifics (Technical Standards).

Experience suggests it is the performance-based detail that takes more time to agree, and is directly reliant on the turbine make and models. Identifying what aspects of the negotiation that do not rely on those model details could improve the efficiency of the connection process for all parties.

Costs classification and allocation

Origin considers that the allocation of costs to a connection can be an opaque process; connecting parties can have little visibility as to how NSPs calculate connection costs. This lack of transparency can make it challenging for a generator to link costs allocated by the NSP to the actual costs incurred (as required under the NER clause 6A.9.1). From experience, costs can also escalate well beyond original estimates. A connecting party has little recourse to object to new costs in the middle of a connection process, given the commercial viability of the project is conditional on a successful network connection.

The NER provide little guidance as to what constitutes "reasonable costs". NSPs can charge an application fee to cover:

the reasonable costs of all work anticipated to arise from investigating the application to connect and preparing the associated offer to connect; and meet the reasonable costs

anticipated to be incurred by AEMO and other Network Service Providers whose participation in the assessment of the application to connect will be required.[1]

This broad definition gives way to different interpretations and applications across the NEM; each NSP has its own approach for setting application fees.

We support options to improve information disclosure, including better transparency and clarity around cost calculations and allocations. This includes a realistic upfront disclosure of all expected costs in an easy to understand format, including line item breakdown information that substantiates forecast (and actual) expenses. Details on any underlying assumptions, such as the weighted average cost of capital, are also important. An AER guideline on cost allocation could provide a first step to address some of the cost transparency concerns.

Connection stage

Arriving at a Connection Agreement can be a long process. Delays can inefficiently increase connecting party and NSP costs.

Origin has found that it spends a disproportionate amount of time negotiating standard ("boilerplate") terms and conditions, which are found in all connections contracts. Experience has generally shown that significant time and cost is necessary to bring the NSP's starting terms and conditions down into the range of what could be considered "commercially realistic". Given in most cases, the connecting party is negotiating with a natural monopoly, taking a more pragmatic approach to contract terms and conditions could result in more efficient outcomes for all counter-parties.

One way to reduce the negotiating time is to develop a standard set of default Connection Agreement terms and conditions. Though, again, we realise that any such move, will need to strike an appropriate balance between greater prescription and the avoidance of impediments to commercial negotiations.

The standard terms could include (but are not limited to): liability & indemnity (including consequential losses); prudential requirements (bank guarantee or parent company guarantee); dispute resolution; taxes and GST; variations and delay during construction; asset treatment on termination; changes in law; invoicing and payment terms; financial recovery on termination; and immunity for NSP actions required by law.

1.2 Lack of clarity in and inconsistency between Chapters 5 & 6A

Origin supports the AEMC's conclusion that NER chapters 5 and 6A do not set out a clear framework for connecting to the network. There are inconsistencies between related provisions; they do not work together in a clear coherent manner. The framework needs to identify clearly the roles and responsibilities of parties throughout the process. Service classification and contestability measures are vital in ensuring an economically efficient process that promotes competitive outcomes, where possible, while also minimising the risk of monopoly creep beyond the regulated aspects of the connection process. Current problem areas in the NER include: the classification of transmission services, contestability, and augmentations and extensions. These are discussed below.
Classification of transmission services

[1] NER clause 5.3.3(c)(5).

Across jurisdictions, there is a lack of clarity and consistency around the classification of transmission services. The current NER definitions for transmission services can be confusing. The NER can greatly benefit from further guidance and clarification on both the definitions of various transmission services as well as the process for classifying them.

In addition, we see further benefits in clarifying the treatment of construction assets required to provide connection or shared network services. Origin understands there is a distinction between the provision of a transmission service and the transmission assets that deliver that service; the construction of assets is not a transmission service in and of itself. This is not necessarily a consistently held view across the market. As such, the treatment of construction assets and transmission services is not uniform across the NEM. Investigating and clarifying this distinction in the NER can improve the operational efficiency of these Rules.

Contestability
We agree with the AEMC's position that contestability is not a criterion for determining whether a transmission service is prescribed, negotiated or non-regulated. However, this principle is not applied consistently in the market place. For example, Grid Australia presents a different interpretation in its *Categorisation of Transmission Service Guidelines*[2]. Paragraph 3.2 states that:

Extensions to connect a Transmission Customer or Generator would generally be offered as non-regulated transmission services, as these works are usually fully contestable.

This is particularly relevant in the context of separating the transmission service from the transmission asset. As discussed above, Origin considers there is an important distinction between the provision of a transmission service and the assets that deliver the service. If the construction of assets is contestable, that does not automatically mean that the service delivered using those assets is also contestable. The position presented in Grid Australia's Guidelines does not appear to recognise this distinction.

The NER needs to provide greater clarity around determining contestability. The current provisions give rise to confusion, which makes negotiating a connection more challenging than it needs to be. Improvements can make the connection process more efficient for all counter-parties.

Augmentations or extensions - obligation on TNSPs to connect
There is currently confusion amongst market participants over NSP obligations to augment or extend the shared network to facilitate a connection. The AEMC's paper is not entirely clear on this issue either.

There is general agreement that under the NER, NSPs have a regulatory obligation to offer to provide a connection, or modify an existing connection, on fair and reasonable terms.[3] There is some confusion, however, over the scope of NSP obligations to augment or extend the shared network.[4] The relevant NER drafting on this subject matter is particularly confusing, particularly NER clause 5.3.6(k).[5] With regards to augmentations

[2] Grid Australia, *Categorisation of Transmission Services Guideline*, available at: http://www.gridaustralia.com.au/index.php?option=com_content&view=category&layout=blog&id=114&Itemid=230
[3] See further NER clause 5.1.3, NEL s157, NER clauses 6A.1.3(1), 6.1.3(a)(2), 5.3.5(a) and 5.3.6(c)
[4] See further Grid Australia, *Categorisation of Transmission Services Guideline* at paragraph 3.1.
[5] NER clause **5.3.6(k):**- Nothing in the Rules is to be read or construed as imposing an obligation on a Network Service Provider to effect an extension of a network unless that extension is required to effect or facilitate the connection of a Connection Applicant and the connection is the subject of a connection agreement.

or extensions, Grid Australia's *Categorisation of Transmission Services Guideline*[6] puts forward the view that under 5.3.6(k), NSPs are not obliged to extend their systems beyond existing limits in order to provide a connection.[7]

There are alternate interpretations of NER clause 5.3.6(k), however. NER clause 5.3.6(k) could confirm that an NSP will be obliged to extend its network if a Connection Agreement is in place. This clause can be interpreted to merely confirm that there must be a Connection Agreement in place before a connection can be effected, e.g. an NSP cannot be forced to augment the network without a Connection Agreement.

The fact that there are different interpretations around the meaning of this particular clause contributes to the confusion surrounding NSP obligations to provide connection services. In the context of investigating ways to improve overall the rules in this area, there is value in clarifying the purpose and assessing the relevance of this clause in particular.

1.3 Complexities with the Victorian regime

Origin supports the AEMC's review of the Victorian connections regime, including in particular: Victorian contractual arrangements; third party liabilities; and obligations on generators in the shared network. Importantly, the AEMC is also having regard to the AEMO Connections Initiative (AEMO Review).

There are risks, however, with running parallel consultation processes on transmission, with substantially different timetables. The AEMO review and the AEMC's Transmission Frameworks Review overlap in many areas. Having inconsistent recommendations between the reviews is likely to create greater confusion rather than deliver improvements to the connection processes in Victoria and the rest of the NEM. In addition, there is a risk that recommendations in Victoria may mean the connection process in that state may deviate even more substantially from the same process in the other NEM jurisdictions. Greater complexity in the Victorian connection arrangements could also result in less effective locational signals for new projects.

The AEMO Review appears to canvass key matters currently being examined under the AEMC's SENE Consultation Process. It is therefore not clear how the Victorian work program inter-relates with the AEMC's wider transmission review and whether AEMO will require Rule changes to make operational some of the policy packages being contemplated under its review.

Attached is a copy of Origin's submission to AEMO's Victorian Connection Initiatives Industry Workshop, held on 28 April 2011. The key messages from the submission include:

Context of the AEMO Connections Initiative: It is our understanding that the purpose of the AEMO initiative is to review AEMO's current practices based in its interpretation of the current NER. However, some matters being canvassed are broader than that. In particular AEMO's proposed approach to new terminal station design may be inconsistent with the AEMC's own analysis of the NER. There are risks, should the Victorian and AEMC reviews reach inconsistent outcomes.

[6] Grid Australia, *Categorisation of Transmission Services Guideline*, available at: http://www.gridaustralia.com.au/index.php?option=com_content&view=category&layout=blog&id=114&Itemid=230

[7] Grid Australia, Categorisation of Transmission Services Guideline, paragraph 3.1.

Cost impacts: AEMO's proposal for new terminal stations has material and immediate cost impacts compared to a connection proponent's stand-alone alternative. If the costs significantly exceed those of a stand-alone alternative, then they may be considered to be inconsistent with the current NER negotiated transmission service principles, set out in NER clause 6A.9.1.

Schedule impacts: The terminal station proposal could further draw out the existing connection process. As discussed above, Origin encourages the AEMC to investigate ways to reduce the time to process a connection application. Introducing a policy in Victoria that actually extends the process may counter any possible improvements identified by the AEMC in the TFR.

origin

6 May 2011

Ms Antara Mascarenhas
Acting Senior Manager Connection Initiatives
Transmission Services
AEMO

By e-mail: antara.mascarenhas@aemo.com.au

Dear Antara

Subject: AEMO Victorian Connection Initiatives

Please find below Origin's preliminary comments following a review of the materials presented at the Victorian Connection Initiatives Industry Workshop on 28 April 2011 and based on our current understanding of the same. Given the early stages of the process and the limited time we have had to consider the materials tabled by AEMO, this submission should not be considered Origin's final position; accordingly, we reserve the right to add to, subtract from and/or amend the following as time progresses.

1. **Positive Observations:**

   (i) AEMO's stated objectives include clarifying requirements, improving transparency, increasing certainty, and streamlining the connection process. Origin is supportive of these objectives and welcomes efforts to that end; we also acknowledge the potential benefits available through access to scale economies (our support of this concept is evidenced by our submissions to the AEMC throughout the SENE Rule change process).

   (ii) We consider AEMO's proposed web portal to be positive; in particular, we believe the intention to explicitly publish plans with respect to development of new terminal stations will deliver significant benefits into the future.

   (iii) Notwithstanding the issues highlighted in the following sections, we note that AEMO is at least acknowledging their proposal would place additional burdens on generation proponents and appears to be seeking to mitigate those impacts.

   However, we are concerned that, as presented, elements of AEMO's proposed Connections Initiatives are likely in practice to deliver outcomes contrary to the stated objectives and, more importantly, are at odds with the current Rules.

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2. **General Comments:**

(i) AEMO has presented the Connections Initiatives in the context of documenting AEMO's current practices based on its interpretation of the current Rules. Origin considers the matters being canvassed cannot reasonably be categorised as questions of interpretation of the current Rules. In our view, key elements of what AEMO is contemplating, particularly the proposed approach to new terminal stations triggered by generator connection enquiries, are inconsistent with the Rules and we do not believe that that the Rule changes apparently being considered by AEMO address those inconsistencies. Further, to the extent that material aspects of the rules are open to interpretation, we believe that the TFR process being conducted by AEMC is the most appropriate means to address any such shortcomings.

(ii) AEMO is targeting September 2011 to complete its process. As we understand it, this timeframe is essentially artificial; being driven by AEMO's internal objectives, rather than any fundamental external market requirements. A key observation is that significant elements of the Connection Initiatives effectively re-open matters that have recently been the subject of significant and lengthy debate under the proposed SENE rule change process, and which have ultimately met with strong resistance from various quarters. Given the matters in question, we consider the timetable unrealistic, particularly in light of the fact that the AEMC's TFR process is running in parallel. Similarly, we consider that any changes under AEMO's timetable risk being subject to further amendment under the AEMC TFR process; such 'churn' is extremely inefficient, would create significant market uncertainty and expose participants to increased risk in the meantime. Origin therefore seriously questions whether AEMO's proposed objectives and timetable are either reasonable or realistic.

(iii) Origin's primary concerns with the Connection Initiatives stem from the concept of requiring a generation proponent to cater for future network and/or other connection requirements. Our observation from comments made during the 28 April 2011 workshop is that many of the attendees have similar reservations. Origin's recent experience with regard to connection of generation in Victoria underscores many of the key concerns that we have; these project-specific issues have previously been aired with AEMO but we are happy to discuss further in closed session if necessary.

3. **Specific Issues:**

We have grouped our concerns under the following categories, each of which is expanded upon below:

- Inconsistency with Rules
- Cost impacts
- Schedule impacts
- Development risk
- Other

(i) Inconsistency with Rules

With respect to connection services, the negotiated transmission service principles embodied within 6A.9.1 of the Rules essentially require that the price for such services should be based on the costs incurred in their provision, being no less than the avoided costs and no more than the stand-alone cost. Accordingly, AEMO's proposal is inconsistent with the Rules to the extent that it would result in a proponent's costs exceeding those of its stand-alone alternative.

The negotiated transmission service principles also require that pricing for negotiated transmission services:

- must be the same for all users unless there is a material difference in the costs of providing the services to those respective users; and
- should be adjusted over time to account for use of the relevant assets to provide services to subsequent parties.

Origin contends that key elements of AEMO's proposed Connection Initiatives offend the above criteria and therefore cannot be implemented until either AEMO amends those elements in order to conform to the current Rules, or the necessary Rule changes are duly implemented to fully accommodate AEMO's proposed approach.

(ii) Cost Impacts

Cost Burden

AEMO's proposed enforced imposition in relation to all new terminal stations to cater for the ultimate arrangement has material and immediate cost impacts compared to a connection proponent's stand-alone alternative, including as follows:

- even assuming appropriate locations for new terminal station can be promptly settled so as not to negatively impact a connection proponent's development timeframe, the need to provide for future land requirements directly increase the land acquisition / reservation cost. It is also likely to indirectly increase land costs to the extent that parcels that would have supported a stand-alone terminal station are either not suitable (or not made as readily available by current landholders) for the ultimate arrangement. Similarly, any need to provide areas subject to easements for future connections will obviously drive up land requirements and increase costs accordingly;
- the requirement to undertake incremental civil works and provide earthing grids to facilitate future expansion will both impose additional costs on the first mover;
- while it is currently not clear to us what permitting obligations AEMO expects the initial connection proponent to bear, the mere existence of the ultimate arrangement is likely to make permitting more challenging and time consuming for the first mover regardless, as local government and other stakeholders will have legitimate concerns as to the long term impact of proposed developments which will need to be dealt with. The question of development risk is further considered in sub-section (iv) below; and
- any pre-investment in equipment to allow future expansion, for example installation of busbars with higher ratings, will clearly elevate costs.

Cost Allocation

The pre-investment approach AEMO is proposing to 'future-proof' terminal station development distils down to, and is entirely consistent with, the SENE concept. The key cost allocation principles have therefore been quite heavily and very recently debated through the AEMC's SENE rule change process and the arguments both in favour and against the concept around 'socialising' any overbuild have been well rehearsed.

With reference to the SENE rule change process, it would appear that the AEMC has very limited appetite for potential stranding risk to be borne by consumers; however, this model is one of the options being considered by AEMO. Absent support for a SENE approach, avenues currently available to roll incremental costs into the prescribed network are subject to cost-benefit analysis, the default process being application of the RIT-T. It is generally accepted that the timeline to complete the RIT-T process is most accurately described in terms of years; hence, triggering such a process in response to a proponent's enquiry will almost certainly create a fundamental timing bust and either significantly add to that party's development timeline (to the extent that it seeks to wait for the outcome of the RIT-T), or expose them to cost uncertainty should they proceed in advance (assuming their project economics support such a decision).

From the above, Origin considers that, if AEMO's approach is to be adopted, it cannot reasonably be implemented until such time as there is an equitable solution to allocation of the pre-investment costs that neither:

- makes the first mover worse off (including as to cost, schedule and certainty); nor
- imposes unacceptable stranding risk on consumers.

As evidenced by the SENE debate, no such solution is obvious and thus far none has been identified.

In relation to contributions by parties effecting subsequent connections, our preliminary observations include the following:

- to the extent that subsequent parties only contribute a proportion of payment profiles, and such payment profiles reflect declining charges over time (which is typically the default approach), those contributions do not reflect the true economic cost of the assets utilised by those subsequent parties; and
- to allow subsequent parties to 'free ride', or otherwise contribute less than the true economic cost of the assets they utilise, distorts locational signals and potentially limits the degree to which efficiency gains can be captured.

(iii) Schedule Impacts

It is currently not clear to us when, under AEMO's proposal, the TNSP will provide sufficient definition as to the location and ultimate arrangement for a new terminal station triggered by a connection proponent's enquiry. However, the longer this process takes, the greater the uncertainty and potential for impacts on that proponent's development schedule, with potential consequences for project viability.

In relation to projects currently in development, it is likely that proponents will have already progressed land acquisition and permitting activities that may not align with AEMO's plans; potential for significant re-work (with ramifications as to cost, schedule, reputation and stakeholder management) is clearly foreseeable if any changes are made that do not factor in appropriate transition arrangements.

As previously highlighted:

- permitting is expected to become more challenging in the context of the ultimate arrangement. As a minimum this will increase the complexity of activities and hence extend the time required to secure necessary outcomes, at the other extreme it elevates the risk that necessary approvals may be unable to be achieved at all; and
- cost-benefit analysis associated with any proposed roll in of terminal station establishment and interface costs to the prescribed network is likely to delay the connection process.

Factors that prolong development schedules will inevitably, whether directly or indirectly, result in higher costs. Accordingly, the above contribute (in some cases significantly) to the matters considered under item 3(ii), above.

(iv) Development Risk

We understand that AEMO is considering to what extent it may become directly involved in the approvals process for new terminal stations. In relation to new terminal stations triggered by connection applications, Origin's concerns with AEMO taking an active role in the approvals process include:

- potential for the process to be sidelined by non-core drivers from the connection proponent's perspective;
- the associated risk of brand and/or reputation damage to the proponent by losing control of the process;
- confusion and delay if conflicting messages are relayed to the community / stakeholders (with whom the generators are likely to be more fulsomely engaged across broader aspects of their project);
- the risk of inconsistency in management of stakeholder expectations creating additional obstacles and delays in approval processes, including contagion risk beyond the terminal station scope.

Origin believes there is potential for stakeholder apprehension associated with the ultimate arrangement to decrease the prospects of approvals being obtained for a proposed terminal station, where permitting of the proponent's stand-alone minimum might otherwise have been achievable.

It is also currently unclear as to what approvals and permits the initiating proponent may be expected to obtain towards the ultimate arrangement under AEMO's proposal. Origin considers that any ongoing permitting risk (if any) for future expansion should be at the risk of the future connecting parties who would benefit from the same. This is a particularly important consideration in light of the long term outlook proposed by AEMO for determining the ultimate arrangement; even more so in the context of the nature of probabilistic analysis contemplated, where potentially spurious data relied upon to assess the location of connection 'hubs' may overstate future requirements or otherwise distort planning decisions.

(v) Other

As alluded to above, Origin is concerned that AEMO's probabilistic analysis in relation to connection 'hubs' will be distorted to the extent that they are overly influenced by generator connection enquiries and similar inputs, where low barriers may mean the information is not sufficiently filtered to reasonably reflect likely future requirements. That being the case, the additional burdens AEMO's proposal contemplates imposing on the first mover are likely to not only unnecessarily impede that party's specific project but will then fail to deliver the desired efficiencies.

We reiterate our concern as to the timing and scope of AEMO's Connection Initiatives process, given the AEMC's TFR is already underway and incorporates a review of connection issues in any event.

We note that generation projects typically involve a lengthy development timetable and that any 'shifting of goal posts' during that process create significant difficulties for the proponent. A key concern should therefore be to ensure that implementation of any changes to the connection process are effected in a disciplined manner that includes transitional arrangements for projects that are part way through development. If AEMO's approach was to be imposed without such transitional arrangements it would potentially:

- render existing positions secured in relation to land acquisition worthless, or require the component to re-enter negotiations with landowners (where the balance of power in such discussions would shift markedly in favour of the landholders in question);
- to the extent that terminal station locations were to change, require new easements (and possibly development approvals) to be acquired for connection assets; and
- increase line length in cases where the preferred terminal station was located further away; in addition to increased costs associated with the longer line, more distant connections may necessitate higher voltage infrastructure (entailing further incremental cost, plus the possibly of additional permitting and approval requirements also).

Inconsistent application of the Rules to the connection process across different jurisdictions is a significant problem for project proponents and causes distortions in the market. In particular, the proposed process (which AEMO is already seeking to implement in Victoria despite being contrary to the existing Rules) imposes additional costs and complexities which do not apply in other states, resulting in inappropriate locational signals for new projects and, accordingly, implications for the level of future development likely to occur in Victoria.

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4. **Recommended Approach**

Despite the concerns set out above, Origin believes AEMO's proposed approach has certain merit and may be able to be accommodated if split into two elements, rather than seeking to adopt a 'one size fits all' approach. Our thinking in this regard is as follows:

- We consider the proposed approach could be adopted for new terminal stations identified through general network planning processes (for example those fundamentally driven by DNSP transmission connection planning, load forecasting, and reliability based augmentations, etc.). In respect of such terminal stations, AEMO should establish and publish optimal locations and timing of proposed facilities, determine ultimate arrangements, commence land acquisition and necessary approvals and initiate the RIT-T process without negatively impacting individual connection proponents. By default, the act of publishing terminal station plans and progressing development activities will enable connection proponents to factor that planning into their thinking and should encourage them to gravitate toward these locations as connection hubs.
- When a new terminal station is driven by a connection proponent, catering for the proposed ultimate arrangement should be a voluntary undertaking rather than an imposed requirement. This will enable the proponent to weigh up the potential benefits in the context of their overall project to determine whether they wish to speculatively invest in the additional land, permitting, etc. towards achieving AEMO's preferred outcome. As noted in AEMO's materials, potential benefits through ultimately achieving roll-in to the prescribed network could be strong motivators and encourage the first mover to seriously consider actively facilitating future connections.

Origin considers the above approach fully aligns with the principles embodied within the NER, does not necessitate any specific Rule changes to implement, can be effected in the near term and in parallel with the TFR without material risk, and leverages the work that has been done to date by AEMO (and that which is planned) to capture scale efficiencies of the benefit of the market but without detriment to any particular participant group.

We trust that the above feedback is useful and would be pleased to discuss further if required. Please direct any enquires to the undersigned.

Yours sincerely

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cc. Victorian Connection Initiatives Industry Workshop participants.