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29 September 2010

Mr John Pierce
Chairman
Australian Energy Market Commission

Lodged via www.aemc.gov.au

Dear Mr Pierce

NGF Submission to Transmission Frameworks Review, Issues Paper

The NGF welcomes the opportunity to respond to the Australian Energy Market Commission's Transmission Frameworks Review in the form of a submission in response to the Issues Paper.

Our submission reflects our significant expertise and experience as National Electricity Market participants, our detailed discussions with other market participants, transmission bodies, regulatory agencies, and independent economic analyses.

However, while this submission builds upon our previous consideration of these issues in related reviews, including the recent Review of Energy Market Frameworks in light of Climate Change Policies, our current positions reflect that this is the first stage of the review and the National Generators Forum is supportive of further dialogue before finalising its positions.

In that regard, at this stage we have chosen to focus on issue identification and providing support to the analysis presented in the issues paper and reemphasised some of our earlier concerns with the Australian Energy Market Commission's proposed transmission charging model. .

We look forward to your positive consideration of the attached submission and the formulation and consideration of a broad range of options in the second stage of the review process and through our representation on the consultative committee.

Yours faithfully,



Malcolm Roberts
Executive Director



Submission in response to:

Australian Energy Market Commission
Transmission Frameworks Review
Issues Paper of 18 August 2010

Introduction

Our submission to the Australian Energy Market Commission (AEMC) reflects our significant expertise and experience as National Electricity Market participants, our detailed discussions with other market participants, transmission bodies, regulatory agencies, and independent economic analyses.

The National Generators Forum has chosen to comment on issues at a broad level. This is a consequence of the varied impacts across the NEM of the existing transmission frameworks. Hence, individual members represent a range of views on the need for change or satisfaction with the status quo. Some of these differences draw upon the common experiences within specific regions, for example Queensland compared with Victoria, while other reflect individual business models or locations.

Therefore, while this submission builds upon our previous consideration of these issues in related reviews, including the recent Review of Energy Market Frameworks in light of Climate Change Policies, our current positions reflect that this is the first stage of the review and the NGF is yet to finalise its position as to whether changes to the current transmission frameworks are required.

Organisation Information

The NGF directly represents the 22 major power generators in the National Electricity Market (NEM). The installed capacity of the members is almost 48,000 MW, with an asset value of more than \$40 billion. Annual sales are over 202,000 GWh, having a value of about \$7 billion. This is about 96% of the total Australian market.

NGF members are publicly and privately owned businesses which generate electricity for sale and trade under the NER, and whose generating capacity is at least 300 MW. The Chief Executives of these businesses form the Board of National Generators Forum Ltd.

The purpose of the NGF is to be the respected market generator industry body recognised for excellence in influencing the development of Australian energy markets. Working Groups for the Market, Environment and Greenhouse carry out research and policy development activities in these spheres.

The NGF is committed to a competitive market which promotes efficient investment in new capacity. Reliability and safety of the electricity network is essential to consumers. The NGF is also committed to protecting the environment, including abatement of carbon dioxide emissions.

Discussion

The Australian Energy Market Commission outlines a number of headline issues in the Issues Paper. The NGF makes the following high-level points which generally support those identified by the AEMC.

- We support the need for a holistic vision for transmission moving forward and the role it plays in meeting the needs of load and generators and supporting competitive outcomes.
- Substantial new investment in all stages of the supply chain for electricity is required over the next decade; especially in the context of climate change policies, but also to maintain secure and reliable electricity.
- Transmission frameworks need to be responsive to the needs of load and generation and as such transmission network service providers (TNSPs) will need to respond accordingly. This includes ensuring investment in transmission is timely and efficient.
- Changing generation and demand patterns may alter the way in which networks are utilised and may alter network investment patterns.
- The risk of inefficient transmission investment, especially in the context of climate change policies, is significant and needs to be carefully considered.
- Maximising network capacity and interconnector capacity is essential; however, it would be inefficient to build out all congestion.
- For some participants in the generation sector, congestion creates uncertainties regarding network access and undermines investment and commercial decisions.
- Incentives on market participants, including TNSPs, are possible measures available to seek to reduce the presence of congestion and maximise network capacity.
- Generators do not pay the costs of financing investment in the shared network; however, a range of other signals do exist which impact on locational decisions and transmission costs, including congestion, and hence financing new transmission investment may not be the most significant locational consideration.
- Any proposed changes need to provide integrated solutions (this was not the case with the AEMC's earlier G-TUOS proposal) and need to be proportionate to the problem being addressed.

Determining the appropriate role of transmission

Networks exist to minimise the costs of electricity supply by allowing electricity produced with low cost fuel in one location to be consumed in another location. In the NEM, this occurs via the actions of unique participants dependent on each other to ensure supply is delivered to those that desire it. Specifically, individual generators, rely on the availability of transmission networks to compete against each other to get their product to market.

While the NEM arrangements explicitly consider the needs of consumers and are driven by the desire to minimise total energy costs, the needs of individual generators who drive wholesale competition are not explicitly considered nor is the magnitude of the risk. This imbalance, considering the asymmetric risks faced by generators should transmission not be available, seems inappropriate.

This is particularly the case given the very limited ability for generators to hedge against transmission risks and as such the NGF welcomes options to improve the manner in which generators are able to use and rely on the transmission system.

As it pertains to any transmission vision options the NGF would like to advance the following criteria:

1. minimises total cost to consumers;
2. commercial over regulatory outcomes;
3. clarity of roles for parties involved in transmission – Australian Energy Regulator, TNSPs, Australian Energy Market Operator and National Transmission Planner;
4. clearly defined services and service providers with known responsibilities and accountabilities;
5. provide appropriate investor certainty;
6. support efficient decentralised decision-making in generation;
7. provide known costs at time of connection;
8. provide funding for new transmission investment; and
9. ensure new transmission investment matches the preferences of new generation investment and support existing market participants.

These elements combined provide a useful guide for ensuring a transmission framework which maximises competition in the wholesale contract market, supports decentralised decision-making in the competitive supply side of the NEM, decreases risk and induces investment, increases regulatory certainty and ultimately reduces prices.

Key issues for efficient investment

The customer is best served by a NEM structure which ensures that:

- (a) the least cost energy is delivered from the energy producer to the customer; and
- (b) meets the NEO and promotes efficiency, including dynamic efficiency¹.

This can only be measured by considering the total delivered cost of energy for their project from fuel source through to delivery of the product at the Regional Reference Node (RRN).

We have previously indicated that in order to achieve the National Electricity Objective the NEM:

- should be competitive;
- customers should be able to choose which supplier (including generators and retailers) they will trade with;
- should facilitate access to the interconnected transmission and distribution network; and
- be non-discriminatory between location, fuel type and existing participants and new entrants.²

This occurs via:

- exchange between electricity producers and electricity consumers through the spot market;
- wholesale contract market operation to manage financial risk and encourage competition;
- price signals for future investment in generation and transmission³;
- decentralised decision-making based on legitimate price signals⁴; and
- transparent provision of all necessary information in a timely manner.

Consideration need be given to:

- trade in the wholesale financial market may be reduced by preventing generators from competing with their full capacity - which creates stranded asset risk, reduces liquidity and impedes risk allocation (the potential risk of congestion creates an unwillingness to trade, reducing liquidity regardless of whether or not that congestion binds);

¹ The AEMC noted in the Final report of the Congestion Management Review that dynamic efficiency should be addressed in future reviews.

² National Electricity Code Administrator at <http://www.neca.com.au/NEM/index.html>

³ NEMMCO (2008), *An introduction to Australia's national electricity market*

⁴ Biggar, Darryl (2009), *A framework for analysing transmission policies in the light of climate change policies*.

- whether the NER do not encourage efficient, decentralised, and coordinated transmission and generation investment decision making through the competitive supply side of the NEM;
- generators are not provided with full range of price signals at the time they are making their own investment decisions to drive dynamic efficiency and when congestion occurs operation decisions do not drive productive efficiency – however the extent to which this impacts upon overall efficiency is the subject of debate amongst NGF members; and
- transmission investment fails to meet the needs of new and existing entrants, including there being no legal or economic incentive for TNSPs to invest in transmission that is primarily for the benefit of relieving congestion.

AEMC G-TUOS proposal

We note that the AEMC previously considered G-TUOS a possible solution to locational signals. We have previously indicated that we believed the G-TUOS proposal:

- does not provide appropriate investor certainty;
- does not support decentralised decision-making;
- does not provide a credible long-run locational transmission cost signal;
- does not ensure new transmission investment matches the preferences of new generation investment given; and
- Is an inefficient incumbency tax and is not appropriate.

We direct the AEMC to our submission in response to the 2nd Interim Report of the Review of Energy Markets Frameworks in light of Climate Change for a more detailed critique.

Removal of 5.4A

Previously, the AEMC contended that individual access negotiations are unable to work in practice as it is difficult to identify the “causer” of reduced access on the shared network.⁵

The NGF would suggest that the causer of the congestion can be readily identified at time of connection when it concerns a new entrant. The system can be measured under normal conditions subject to a measurement being agreed.

We suggest that ambiguities in the NER have undermined 5.4A. This, and an unwillingness to recognise transfer capabilities, and not 5.4A itself has undermined negotiated financial access.

While the NGF is not formally endorsing this model in isolation at this stage, 5.4A should be progressed as an option within the Options Paper stage of the TFR.

⁵AEMC presentation to NGF, CEC and Geothermal Association, 15 July 2009

Regulatory Investment Test for Transmission

The NGF acknowledges the recent work done by the AEMC to improve the RIT-T.

We support the changes to the RIT-T that amalgamate both reliability and market benefits. The revised RIT-T requires augmentations to maximise the present value of net economic benefits – subject to meeting relevant reliability standards. We hope these changes to the RIT-T will enable TNSPs to undertake more market benefit augmentations. In addition, we submit the inclusion of market benefits like “options values” and “competition benefits” to the RIT-T should help justify some additional market benefit augmentations.

However, we remain concerned that the RIT-T does not appropriately account for a range of benefits that arise in the competitive sector from specific augmentations. For instance, the primary concerns for generators – market revenue – is not considered in the context of a RIT-T nor is the augmentations impact of generator contractual positions.

The NGF views this as a critical part of this review. As such, we support consideration of widening the range and ability of the RIT-T to capture all the of the market benefits and costs in augmentations assessments. The NGF supports further consideration of these options to better account for competition benefits for individual generators in the Options Paper.

Economic regulation of TNSPs

The Issues Paper discusses the lack of an ex-post prudency test on assets that pass into the Regulated Asset base (RAB) of the TNSPs. We consider there is little relevance in applying such a test to the TNSPs and certainly no case for removing assets from the RAB.

It is wholly unreasonable to expect all investment by TNSPs to be efficient (for instance recent recommendations in terms of SENEs which consider large scale options for remote entry may ultimately prove inefficient) and the likelihood of inefficient investment will increase as proactive planning increases. The RIT-T expressly requires TNSPs to make investment decisions with the most accurate and reasonable assumptions available at the time. Applying an ex-post test to an ex-ante decision is measuring foresight against hindsight – hardly fair.

Applying a test would also force the TNSPs to be conservative with investments that may have strategic or market benefits, probably resulting in opportunities for efficient investment being missed. This is because the test would only apply to investments that were made.

We consider the AER’s role and that of participants is to be involved to ensure the RIT-T provides the very best investment decision at the time. The focus of the regulatory process should to ensure the RIT-T is administered correctly and consistently. Should investments prove to be inefficient then this indicates the RIT-T process needs reforming, not that the TNSP be penalised.

In summary, we believe the very incentives from directly regulating the TNSP and DNSPs may in practice inhibit some desirable characteristics outlined in the Issues Paper. Introducing incentives to encourage these licensees to bear risk or become more accountable to externalities placed on other industry participants will dampen the incentives of direct regulation, which lowers risk and creates a stable investment environment.

TNSPs exposure to congestion

The NGF submits that TNSP could at some level be exposed to the cost of congestion as a result of their investment decisions. We consider that this can be achieved either two ways:

- Consideration of the potential for exposing TNSPs to the market costs of congestion.

The NGF notes that this would involve the overhaul of the service target performance incentive scheme (STPIS) to ensure that TNSPs could realistically face financial consequences associated with the impact of congestion. The NGF conceives this could represent exposure to market prices when generators are constrained off. While we believe TNSPs will pay closer attention to this than any service performance incentive scheme we acknowledge that such exposure needs to be proportionate to the TNSPs ability to manage or build out emerging congestion and consistent with overall efficiency objectives.

- Increasing the TNSPs revenue at risk under the current STPIS to 10% or similar of their regulated revenue

The NGF understands TNSPs are regulated under a revenue cap form of regulation. This provides incentives to TNSPs that allows them to earn up to a maximum allowed revenue (MAR). The MAR is based on forecast efficient costs. During the regulatory control period, a TNSP can maximise its profits by reducing its costs below the forecast levels. Whilst the costs reductions could occur because of improved efficiency, they could also result from reduced service quality. Therefore, a TNSP may have an incentive to maximise its profits at the expense of service quality delivered to its customers and the market.

The AER introduced the STPIS to minimise the incentive to reduce costs below forecast levels at the expense of service quality by linking regulated revenues to defined performance standards. The scheme is made up of two parts:

- the service component which provides incentives for TNSPs to minimise the number and duration of loss of supply events and to maximise circuit availability; and
- the market impact component which provides an incentive for TNSPs to minimise the market impact of outages.

The maximum revenue increment or decrement that a TNSP may earn under the service component is 1% of its Maximum Average Revenue (MAR). And, the maximum revenue increment that a TNSP may earn under the market impact component is 2% of its MAR.

The NGF submits there is a need to sharpen the incentives under the under the STPIS so that the maximum revenue increment or decrement that a TNSP may earn under the service component and market impact component are revised to sharpen incentives. with appropriate upside and downside.

We believe there is scope for TNSPs to face sharper incentives regarding their impacts on the market at an operational level as a result of their investment decisions. While we do not support an ex-post prudency test we do support further investigation of incentives within the Options Paper. It is our belief that incentive regimes have a net positive benefit on the culture of TNSPs and the services they provide when appropriately balanced against reliability, security and safety requirements.

Proactive planning

The NGF supports a greater role for information provided by the market and market signals in determining transmission investment moving forward. The NGF is concerned that proactive planner is reinstituting a central planner mindset which will detract from overall market driven efficiency.

Connection arrangements

The connections framework for generators in the National Electricity Market (NEM) is challenging. The lack of clarity in the National Electricity Rules (NER) around connection arrangements results in an inconsistent application of the NER provisions by the NEM's TNSPs. As a consequence, generators seeking to connect under the NER have found that the process of negotiating connection and construction agreements varies greatly between jurisdictions. Time consuming and costly negotiations are also common.

The NGF's key concerns in this area include:

1. a lack of clarity around connection processes in the NER;
2. a lack of transparency around the allocation of "reasonable costs";
3. information sharing and/or timing issues;
4. challenges with the transmission arrangements in Victoria;
5. NSP resourcing issues and timing with respect to processing connection enquiries, applications and renegotiations for connected parties; and
6. the limited scope for dispute resolution.

Each of these is discussed in more detail below.

A fulsome discussion of connections matters forms **Attachment A**.

Key issues for efficient operation

The NGF supports the view that transmission frameworks should promote efficient dispatch outcomes while delivering reliable supply when the market values it most.

However, the NGF does not have an agreed position on the manner in which this can be achieved in the face of congestion. Nevertheless, the NGF supports greater information provision where feasible and investigation of enhanced TNSPs incentives.

Operational timescales

Any arrangements, such as the Market Impact Parameter Scheme (which allows TNSPs to reschedule outages to reduce market costs) should be conducted with the following principles:

- clear and transparent;
- understandable by those physical and financial players who will be affected;
- monitored for their impact on the spot and financial markets (where possible);
- reward TNSPs for good planning practices which enable participants to effectively manage risks of transmission outages;
- subject to strong regulatory oversight;
- compulsory, not voluntary, otherwise the regulator's power in setting the scheme is diminished;
- include options to allow operational investments to be made (such as multi-year options);
- avoid creating perverse incentives for poor performance in the first instance;
- encourage transmission businesses to minimise their overall impact on the market overtime (i.e. this would avoid the situation where a TNSP achieves its targets in the early part of the year does not have any incentive to minimise its market impact for the remainder of the year).
- reward the TNSPs for operational costs plus a small incentive, not the value of the market benefit outcome otherwise this is a wealth transfer;
- not be subject to countervailing incentives that may lead to unintended consequences;
- use force majeure provisions or processes for the incentive to remain once the target is reached.

If we consider the MIPS against these criteria:

Fails:

- opaque in that outages are just rearranged, with no notice, bar the Network Outage Schedule which currently has no provision to show changes or who initiated the change;
- understandable by market participants, in how the scheme is set up but not when occurring;
- does not reward a TNSP for good planning practices;
- does not allow participants to effectively manage transmission outage risk;
- voluntary, not compulsory; and
- may not minimise market impact over time

Passes:

- avoids a perverse incentive to schedule outages at the wrong time and rearrange them;
- is not subject to countervailing incentives;
- retains an incentive once the target is reached; and
- rewards (indirectly) the TNSP for actual costs incurred in rearranging outages (although no evidence is provided that 2% of MAR is equivalent to the costs incurred).

Overall, exploring further options for information release and transparency on network availability and outages and incentivise TNSPs to adopt good planning practices should be considered as part of the Options Paper.

Connections arrangements in the National Electricity Market

The connections framework for generators in the National Electricity Market (NEM) is challenging. The lack of clarity in the National Electricity Rules (NER) around connection arrangements results in an inconsistent application of the NER provisions by the NEM's network service providers (NSP). As a consequence, generators seeking to connect under the NER have found that the process of negotiating connection and construction agreements varies greatly between jurisdictions. Time consuming and costly negotiations are also common.

The NGF's key concerns in this area include:

1. a lack of clarity around connection processes in the NER;
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3. information sharing and/or timing issues;
4. challenges with the transmission arrangements in Victoria;
5. NSP resourcing issues and timing with respect to processing connection enquiries, applications and renegotiations for connected parties; and
6. the limited scope for dispute resolution.

Each of these is discussed in more detail below.

1. Clarity in the NER around generator connection

The NGF considers there is a lack of clarity around certain NER Chapter 5 connection provisions, which results in a lack of consistency in their interpretation and application by different NSPs. Two areas of concern include:

- the lack of an express obligation for NSPs to deliver connection services to generators; and
- limited ability to assess the actual level of competition for contestable connection services.

No obligation to deliver transmission services to generators

The NER focus on the provision of shared transmission services for consumers. NSPs are obliged to design and build transmission networks to ensure consumers receive reliable electricity supply. The standard level of transmission service provided to all transmission network users is "prescribed". Grid Australia confirms this interpretation of the NER by noting that "for generators, the standard level of shared transmission service is zero."⁶

⁶ Grid Australia, "Categorisation of Transmission Services Guidelines", Version 1.0, August 2010, p.8. Available: www.gridaustralia.com.au

There appears to be an imbalance in the NER between standards for performance of transmission services and the level of service users of those services should get. The focus that the NER places on end use consumers may cause the NSPs to place a greater emphasis on delivering prescribed network services than on the provision of contestable or negotiated connection services. For example, while generators pay for contestable and negotiated connection services, the standards applicable to these services are not addressed in detail in the NER, compared with the prescribed level of shared transmission services and other prescribed transmission services. The challenges generators have experienced when engaging with NSPs on connection issues may be a consequence of this imbalance.

These issues apply equally to connected parties renegotiating agreements or wishing to progress contract variations.

The NGF considers this is a material problem in the NER. We would like to work with the AEMC during this Review to investigate options to address the imbalance.

Assessing the level of competition for contestable connection services

In principle, promoting contestable connection assets can offer market benefits for connection applicants, so long as there is effective competition to deliver these services. Grid Australia considers extensions to connect would generally be non-regulated transmission services as the works are usually full contestable.⁷ As such, an NSP's default position tends to be that extension services are contestable rather than a negotiated transmission service.

In some cases, however, competition may not be as readily available as suggested by the NSPs. In these situations, a connection applicant has limited recourse to challenge a NSP's categorisation of the connection service as contestable. Despite the aims articulated in the NER, arbitration and dispute resolution processes are costly and time-consuming and can have other adverse consequences (see Item 6 below). It is also difficult to prove ineffective levels of competition; there is no measuring stick in the NER that provides a benchmark to assess the level of competition to determine whether or not the service is contestable. Since NSPs can effectively determine the contestability of a service, provided the laws of the relevant jurisdiction permit the service to be provided by more than one NSP, connection applicants have little choice but to accept the NSP's assessment.

Generators are constrained in their negotiating power in these situations. Obtaining a timely Connection Agreement is normally crucial for a new generation plant's commercial viability. However, there are normally tight timetables to deliver individual components of the project. Drawn out negotiations with NSPs on connection terms and conditions are often not a financially feasible option.

The NGF considers that clarification of the NER definition for a "competitive service" will go a long way to help resolve this problem and restore the balance in these negotiations. Part of this could include a mechanism to assist connection applicants in determining whether there is an effective level of competition to deliver a particular extension service.

⁷ Grid Australia, "Categorisation of Transmission Services Guidelines", p.7.

2. Transparency around “reasonable cost” allocation

It is important for a connection design to be fit for purpose, technically sound and cost effective. Connecting parties have found there can be limited transparency with regard to how NSPs arrive at the cost and technical design of a connection. While the NER specifies that NSPs can charge “reasonable costs”, there is no direct NER requirement for “reasonable” to equate to “efficient”. There is also a lack of clarity around what costs and works are directly attributable to a new connection.

Lack of information on cost allocation

As a start up project trying to achieve commercial feasibility, new connection proponents have limited access to information regarding the costs associated with a new connection or the rate that costs are incurred by the NSP in processing an Application to Connect. Experience has shown that NSPs vary in their approach to providing such information. It is important for a connection applicant to understand the elements of the connection that is being proposed under an Offer to Connect. NSPs should be required to provide details of the supporting information behind the Offer to Connect so that the proponent may be informed and be able to negotiate effectively to ensure that the connection is fit for purpose and provides value for money.

Experience has also shown that some NSPs experience delays in identifying potential further network issues. This can result in additional and unanticipated connection costs after the connection proponent has fully committed to the project. These costs are often unexpected and can be significant. For instance, telecommunication upgrade costs for protection and signalling can be very significant and are typically not quantified until later in the connection process.

There needs to be a stronger burden of proof to establish that the cost of further works are attributable solely to the new connection, and not of broader benefit to the shared network. The NGF is concerned that under the current NER, NSPs have the ability to impose additional costs on connection applicants that may be more appropriately recovered from users of prescribed services. For example, an NSP may justify contributions towards a deep network reinforcement to meet network access standards on the basis of “network security”, but does not need to provide clear evidence justifying the works. A connection applicant has limited options to contest such requirements.

Part of the solution could be a requirement for more detailed regulatory accounts. A review of NER relating to regulatory accounts may be useful.

Constrained flexibility around connection options

There have also been experiences where NSPs have limited the connection options to only those that they propose when there are other viable options. There can be many configurations that deliver a similar service and at a range of costs. While an NSP’s preferred option may be a solution which the NSP is already familiar with, alternative and technically-sound options should be considered. NSPs are required to consider a range of solutions when investigating augmentation options for the shared network. A similar principle should also apply when investigating connection options.

In other cases, generators have experienced that negotiated and non-regulated connection works have been designed and constructed as though they were regulated assets. This has resulted in an expensive connection solution that is over-engineered rather than fit-for-purpose. Where a NSP builds to the “regulated standard” there is a lack of transparency around the design parameters. Different jurisdictional standards can also mean the same connection in two different regions could cost two very different amounts. In these cases, the NSP does not appear to have a strong incentive to engage in a competitive procurement process.

3. Information sharing and timing issues

Connection proponents require information in a timely manner to help assess the viability of potential projects. Unfortunately, the NER is unclear around who is responsible for providing information, at what cost, and over what timeframe. As a consequence, experience has shown that NSPs are often reluctant to release information to a connection proponent, particularly without a Connection Investigation Agreement in place (the negotiation of which can take a significant amount of time).

Incentives to share network information

The NER places no obligations on NSPs to share network information in a timely fashion, particularly in relation to the viability and indicative costs of a specific connection. A connection proponent cannot assess accurately whether or not they have a feasible project until they have further information on the type, size and indicative costs of a connection. This can delay the connection process and result in connection applicants incurring additional and unforeseen costs further down the road. Limiting access to network information may also constrain the ability for non-NSPs to tender for the non-regulated segments of a connection service.

To help resolve some of these issues, the NGF encourages the AEMC to provide greater clarity in the NER around: (1) what information a connection applicant and NSP should provide; (2) who pays for the information; and (3) the timing for release or provision of the information. This could include, for example, better definitions on the need for a connection applicant to update the relevant data at set intervals within the Connection Application Process. In the past, these data submission requirements appeared at times to be used as a means of delaying a Connection Application or Offer to Connect.

Determining Access Standards and meeting technical data requirements

NER clause 5.3.4 requires a connection proponent to provide Access Standards at the time it lodges a Connection Application. The NER requires that where a new generator will not meet the “automatic access standards” the Application to Connect must include a proposal for meeting a “negotiated access standard”. The negotiated access standard must be above the minimum access standard but may be less than the automatic access standard.

This requirement to provide Access Standards at the time of a Connection Application creates an issue for both connection applicants and NSPs. It is difficult for a connection applicant to propose access standards without first engaging with the NSP to conduct power system studies. To conduct those studies, the connection applicant needs to provide models for the proposed generator turbine. The process can only proceed once a turbine type is chosen. Having to select or nominate a turbine type at this very early stage of the project is sub-optimal, however.

A connection proponent cannot accurately assess whether or not they have a feasible project until they have further information on the type, size and indicative costs of connection. Choosing a turbine type is a key variable in that decision-making process. Since turbine type and Access Standards are related, a decision to change the turbine type can alter the Access Standards proposed at the time of a Connection Application. Currently, if an applicant proposes to use a negotiated access standard, an NSP may require the applicant to commit to that standard at the time of lodgement.

Greater flexibility in the NER around the timing for proposing and finalising Access Standards will assist connection proponents to make the most efficient investment decisions.

A connection proponent can also struggle to provide the large amount of technical data required under the NER at this stage. NER Schedule 5.5 requires a connection proponent to submit preliminary system planning data at the time of submitting a connection application. However, the challenges to provide this information are similar to those around providing Access Standards. While generators have found NSPs to be flexible around the technical data requirements at this stage of the connection process, it may be beneficial for the AEMC to review these technical data requirements, more generally, to ensure they are appropriate and feasible.

No incentives for NSPs to minimise delays

Some NSPs approach Connection Application negotiations with reasonable upfront terms for their connection and construction agreements, which can reduce the overall timetable to achieve connection. In other jurisdictions, connection timetables are significantly longer as the starting point tends to be substantially less favourable to the connection proponent and requires lengthy and costly negotiations to reach agreement.

The NER specifies no timeframes for connection applicants or NSPs to meet when it comes to processing an Application to Connect. Accordingly there are no penalties for delayed responses or inaction. At an extreme, a connection applicant may be forced to accept the NSP's standard terms and conditions (which may be highly unfavourable to it) because it requires connection and cannot take any further time to negotiate an acceptable Connection Agreement.

NGF members have also indicated that these issues apply equally to connected parties negotiating new connection agreements or progressing contract variations.

The NGF encourages the AEMC to investigate options to provide incentives for the NSPs to improve the timeliness of their responses and processing of new Connection Applications and Offers to Connect as well as negotiating new connection agreements and progressing contract variations. In the end, a more efficient connection process will deliver end use consumers with access to more competitive electricity suppliers.

4. Challenges with the transmission arrangements in Victoria

In Victoria, there is a separation between the network owner and the network operator and planner. SP AusNet is the network owner while AEMO is the network operator and planner. This arrangement significantly complicates the connection process in a number of ways.

Connection applicant electing to construct and operate a Terminal Station

It is possible in Victoria for a connection applicant to elect to construct and operate the “shared network” terminal station required to connect the power station to the existing transmission network. There are a number of impediments that effectively discourage or preclude this from occurring, however.

AEMO has indicated it would need to include a number of additional protections in its connection documents over and above what it would normally include if SP AusNet were to construct and operate the terminal station. Therefore, while the opportunity may exist, the proposed additional obligations on the generator may make it unviable. The approach is also made more challenging by the Victorian legislative restrictions on owning and operating both generation and network assets.

Unfortunately, the decision for a generator to construct a terminal station may be unavoidable if there is no other viable tender to undertake the works. In this case, the additional obligations proposed by AEMO may impose onerous and unavoidable costs on the generator, who has little or no opportunity to negotiate.

Negotiating connection agreements with AEMO as the intermediary

Complexity of multiple connection agreements

A new connection in Victoria requires multiple connection agreements. The number of agreements per connection can differ depending on what network the applicant is seeking to connect to (e.g. distribution or transmission) and the complexity of the connection. For example, there are connections in place that required between *two and sixteen* Connection Agreements for a single connection point. Communication upgrades or other supporting infrastructure investments requirements can place upward pressure on the number of agreements. The lack of consistency in the number of connection agreements itself adds to the complexity and cost of obtaining a new connection in Victoria.

Limited scope to influence agreement content

There are cases where the connection applicant may also have limited to no control over the content of some of these agreements. In these circumstances, AEMO negotiates for services on behalf of the connection applicant. However, under the terms of its related Use of System Agreement with AEMO, the applicant will be liable for the services delivered under the agreements.

For example, AEMO is the responsible person in Victoria for procuring any shared transmission services that are required in relation to the connection of a new generator. AEMO procures the services by issuing an invitation to tender for the construction, ownership and operation of the service, such as a new terminal station. AEMO then negotiates and enters into a project agreement and network services agreement (amongst other documents) with the successful tender.

The connection applicant is kept at arm's length from the process. While the connecting party is given a limited opportunity to review and comment upon draft documents that form part of the tender invitation, AEMO determines and releases their final form. Upon receipt of tenders, AEMO may consult with the connecting party, but tends not to provide full access to the terms of the tenders.

The negotiations that AEMO undertakes on the connection applicant's behalf expose the applicant to significant additional risks. Unlike a commercial entity, AEMO has little incentive to push for a particular cost or risk outcome because AEMO is indifferent to the service outcome. The connection applicant bears all the risk but has little recourse should there be any delays or difficulties with delivery of these transmission services. In other jurisdictions, the connection applicant negotiates contracts for these services itself.

Third party liabilities

Another consequence of the regulatory structure in Victoria is a requirement for the connecting party to provide bank guarantees to cover AEMO's exposure in some tripartite agreements. AEMO acts as an intermediary between the connecting party and SP AusNet, for example. Where AEMO is liable to pay SP AusNet should the connecting party stop paying charges (e.g. operation and maintenance of a terminal station), AEMO requests a bank guarantee from the connecting party to cover this liability. The practice is unique to Victoria. In other regions where a connecting party deals directly with the network owner, the owner normally accepts a parent company guarantee to cover this same liability. A bank guarantee tends to be payable only if the connecting party's credit rating drops below a designated level. The regulatory structure and requirement to provide these bank guarantees imposes an additional cost to connect in Victoria, which is not applicable in other jurisdictions.

5. NSP resourcing issues

The NGF considers that NSPs may not have sufficient resources to manage and respond to unregulated (contestable) connection works. This can create bottlenecks in the national development pipelines in all regions. Proponents can experience significant delays, which can impose a material cost on new connection projects.

Possible solutions to this problem depend in its cause. If the problem is due to limited availability of qualified expertise, then there may be few options to improve the situation. However, if NSPs have the internal expertise but choose to focus on regulated asset investment rather than on connecting new generators, then there may be an issue with the NSP obligations and incentive framework in Chapter 6A of the NER. For example, it may be that some NSPs place a lower priority on generation connections because they do not have an obligation under the NER to connect generators compared to their obligations to deliver transmission services to consumers.

6. Limited scope for dispute resolution

There are various disincentives to connection applicants entering into formal disputes with NSPs. Formal disputes can delay the connection process, putting the new project on hold and potentially creating a difficult environment to conduct negotiations in the future. Applicants are therefore unlikely to initiate a dispute, placing them on an uneven footing with the NSP. The NGF submits that these reasons are more likely to account for the lack of disputes in the NEM to date, rather than this being an indication that there are no problems or challenges with the current connection regime.

That being said, the NGF considers a constructive approach is to improve and clarify the connection arrangements and processes provided under the NER rather than focusing on the dispute resolution process. Avoiding the reasons for disputes is a preferred outcome. However, investigating alternative ways to manage problems without using the official dispute resolution process may also be a worthwhile exercise and will only promote efficient and constructive working relationships, and increase the levels of cooperation and trust between generators and NSPs.