



3 February, 2012

AEMC Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Lodged electronically

Dear Chairman,

Re: Transmission Frameworks Review – First Interim Report

Pacific Hydro welcomes the opportunity to provide comments to the First Interim Report delivered under the Transmission Frameworks Review (TFR).

Pacific Hydro is a wholly Australian owned renewable energy company. We have nearly 20 years experience in project finance, development and operation in renewable energy industries in Australia, Chile and Brazil.

As a leading Australian renewable energy company with investment and jobs which can be materially affected by climate change, renewable energy and energy market policy and regulatory settings, we have a strong interest in the Commission's evolving approach to transmission frameworks.

Transmission frameworks and regulatory settings particularly in relation to connection assets are critically important to renewable generation investment considerations. Importantly, it is the emerging generators that will drive substantial investment and change in the energy market in the coming decades. As such, we believe that the views of emerging generators should be taken into serious consideration to ensure that balanced, fair and efficient policy outcomes are delivered for market participants and consumers.

Fundamentally, we consider that the Transmission Framework Review Interim Report has not delivered a reform proposal that would deliver improved comprehensive market outcomes. As such we offer only qualified support for elements of the options canvassed in the Report.

Pacific Hydro *does* consider there is a need for the Commission to provide more clarity on connections to ensure that the most cost effective and efficient consumer oriented outcome is achieved. In essence this would ensure clarity and transparency regarding who pays for what, when and under which circumstances assets can be transferred to the shared network.

Whether the above issues can be adequately accommodated through one (or some) of the proposals outlined in this Report has been impossible to assess in sufficient detail – given the breadth of this review and the volume of work associated with it – to provide a fully qualified response.

As such, this response provides *comments* on the issues raised by the reform proposals and options as well as reference to the generator experience in navigating the transmission framework.

This response addresses the following issues:

1. Climate change policy reference and the energy market objective.
2. Rationale (and extent of) reform needed for the transmission framework.
3. The options and proposals outlined in the Interim Report on:
 - 3.1 Congestion options
 - 3.2 Planning
 - 3.3 Connection arrangements.
4. Network extensions
5. Summary of responses to the Interim Report
6. Conclusion

Yours sincerely



Lane Crockett
General Manager Australia
Pacific Hydro

1. Climate change policy reference in the market objective

Pacific Hydro considers that this review (and any other market reform) needs to have regard to the fact that climate change policy is now fundamentally linked to the energy market via the Renewable Energy Target *and* the Clean Energy Future legislation.

The National Electricity Objective (NEO) as yet does not acknowledge the environment within the objective, to ensure ecologically *sustainable* delivery of energy to society. This fundamentally creates a divergence in the constitution of energy market investment signals to deliver on climate change and emissions reduction outcomes. This position has been highlighted in numerous Government reviews including the recent report to the Department of Climate Change and Energy Efficiency which noted:

“The regulatory objectives underlying the NEM, **could constitute an obstacle to effective adaptation of the regulatory framework** for the supply of electricity to climate change...Based on the current regulatory objectives, the extent to which climate change can be taken into account in decisions relating to investment in network infrastructure and demand management under the regulatory framework will depend upon whether a link between climate change and security and reliability of supply can be clearly established.”¹

The link between climate change and security and reliability of supply is a driver of climate change policy responses and adaptation strategies for critical infrastructure. Reports from the IPCC (2007, 2011), Sir Nicholas Stern (2007) and Professor Ross Garnaut (2008, 2011) all make clear that increasing climatic change will impact upon critical infrastructure and without adaptation in policy, adaptation in practice will not occur in sufficient time.

Governments' policy responses to climate change implicitly and explicitly emphasise that this is a clear public policy concern and needs to be addressed by mitigation and adaptation policies and measures.

There are two major signals driving energy market investment that exist external to the energy market and its legislation – the 20% Renewable Energy Target for 2020 and the Clean Energy legislation which is based around the (bipartisan) target to deliver a 5% carbon emissions reduction target for 2020.

The adoption of the RET and the passage of the carbon legislation recognise that Australia must reduce its emissions and transition away from highly polluting energy sources. While a full transition may take decades to achieve, it has already started. There are existing and emerging technologies available that will deliver low and zero emissions energy to meet the national emissions reduction targets while ensuring stable energy supply (network reliability) is maintained through effective and efficient system management.

While the incumbent thermal generators are situated on transmission systems that were designed for the efficient delivery of their power to the load centres, the provision of *new generation* in the market is often located in weaker parts of the network designed for regional loads.

As recognised by the Transmission Frameworks Review, the transmission system is facing increased congestion which will occur as more renewable generation connects to meet the

¹ The Role of Regulation in Facilitating or Constraining Adaptation to Climate Change for Australian Infrastructure. Maddocks 2012. p. 67

RET. The NEM design is highly suited to the variable nature of renewable energy, but it is far from clear that providing a form of firm access will aid or hinder in the delivery of the RET.

While some may argue that congestion effects specifically from generation connecting in areas that are not close to a load centre is a *distortion*, from our perspective the effect amplifies the clear need to ensure the market objective aligns with policy goals for the energy system which includes reducing emissions at a national level.

If the AEMC, and other market institutions, continue to fail to recognise that transforming our energy generation will *necessarily* impact other parts of the market (such as transmission investment) we will continue to see misalignment in network investment by planners, transmission owners and the (mostly renewable) new entrant generators.

2. Rationale (and extent) of reform needed for the transmission framework

The Commission has stated that it is yet to determine whether there is evidence to warrant substantial reforms to the existing arrangements.

In responding to the report items in this submission Pacific Hydro has tried to highlight the specific issues arising from its experience of connecting projects to the grid.

2.1 Generator-network asset owner connection negotiation

Connection negotiations are fraught with inconsistencies. They exist between generator and NSP, between different NSPs in different regions and are inconsistently supported by jurisdictional regulations.

Generators are presently paying higher than necessary connection costs in many regions due to TNSPs increasing the amount of work they claim as non-contestable works during negotiations, (negotiated transmission services).

In our view a top priority in this review is to set clear boundaries as to what can be delivered through contestable works and non-contestable works when it comes to connection assets². This is very well defined in Victoria, where as in other jurisdictions there is no clear dividing line between who can build what.

Outside Victoria, NSPs have been known to exploit the inconsistency and insist on maximising their area of build in a connection which leads to higher connection costs. This is further confounded by the TNSP insisting on referring to “transmission services” with respect to those defined in chapter 6A – a chapter into which generators had limited input – while a generator wants to clearly follow the requirements set out in chapter 5.

Chapter 5 has a strong role, in our view, in outlining what constitutes contestable and non-contestable works and is extremely important in being able to control costs for connection and to simplify the connection negotiations.

Thus far, chapter 6A has failed to recognise this cost control function and has in fact *confused* rather than *clarified* what can and cannot be built and provided by others. It works in Victoria (see inset below) because contestable and non-contestable have been defined and are understood on equal terms by all network service providers and generators.

² It should be noted that this discussion is confined to shallow connection elements. Deep augmentations should be open to contestable works dependent on the cost and type of augmentation that warrants this approach.

The criteria used in Victoria (by AEMO and previously through VENCORP) are that the overall augmentation must be of a value greater than \$10m and a component of the augmentation (for example, the terminal station) must be electrically separable from the existing network assets. The augmentation is divided into contestable and non-contestable works based on what is electrically separable from the network. The division must also consider practical issues related to the impact of particular assets on the existing network.

There should be no question as to who has the right to build (and control the build of) what part of the assets necessary to connect.

Contestable (connection) works have been related to chapter 6A as being a *non-regulated transmission service*, even if the proponent builds, owns and operates it, and one could question how it is actually a *service per se*.

Negotiated transmission services form the non-contestable parts of the works – that is what the TNSP insists that they have to build. As discussed in Chapter 12, it is not clear how the service relates to the rules as the definition is unclear. While a negotiated service is meant to conform to a transparent framework (the *negotiated transmission services framework*), there is little, if any, transparency about the pricing outcomes that proponents receive through the process.

In our view (and from experience), a generator can control connection costs better if they are able to manage as much of the connection requirement as possible. We suggest that the more clarity there is around who can build what, and to what extent it can be managed by the proponent, the better, provided that the proponent is building to the expected we do not expect any barriers to this principle. Our experience confirms this is the case. For example, Pacific Hydro has contracted the same HV electrical contractors as a TNSP, requiring the work to be built to the same standards. It should also be fairly straightforward to transfer assets (once built) to the TNSP, for them to be part of the shared network if required. Any issues associated with network owners rejecting this should be resolved similar to the process for private networks.

2.1.1 Dispute resolution and recourse

There is no objective arbiter involved to adjudicate on whether a connection agreement and its associated costs (which are eventually passed onto consumers) are efficient.

It is our experience that these negotiations are not conducted with each party on an equal footing and can lead to non-efficient and increased connection costs.

The proposals outlined in the Interim Report to improve connection appear limited in that most of the issues arise over non-regulated assets. That is, the focus is on connection assets built by the generator (or a third party) and the interface to negotiated transmission services which are represented as being very expensive. As there is no directive that ensures that the TNSP cannot insist that works must be negotiated transmission service (ie: delivered by them), this plays out into higher connection costs.

2.2 Necessary reform

In our view, the Victorian approach to contestability (noted above) should be rolled out consistently across the NEM to enable as much as possible of the connection assets and shared network augmentations to be competitively delivered.

While we agree that improving the dispute mechanisms could help, it is likely that in the majority of cases parties will avoid dispute due to the cost and time involved. Improving mechanisms

without addressing the root cause (in definitional confusion) will be unlikely to create substantial or effective outcomes.

We recommend that the Commission target improvements to the negotiated transmission services which involve enforcement of consistent approaches, transparency in pricing and affirm the ability for a proponent to question how costs were derived.

Current experience of consumer network service charges would indicate that the national regulator itself has limited capacity to ensure that network costs are kept down (efficiently). Pacific Hydro is not certain that regulating connections (prescribing them) would lead to better cost outcomes as it is clear that in many regions the cost of prescribed services (to consumers) has escalated significantly. While the AER has not yet been provided with the tools to ensure that capital expenditure by TNSPs is accurately allocated and used in the 5 year reset period, we question whether pursuing this for the broader market is a good approach.

All of the above emphasises our concerns that any proposal which could see a planning role for the NEM undertaken on a *for-profit* basis is most likely to lead to high cost outcomes. In our view this outcome would in effect fundamentally contradict the NEO as it would not ensure that investment is made such that consumers are provided with the least cost outcome.

3. Transmission Frameworks Reform options and proposals in the Interim Report

The Interim Report outlined five specific options in relation to network access/congestion; enhancements to the transmission planning; and proposals on improving connection arrangements.

While we acknowledge that the AEMC has released this document as a “First Interim Report”, it is challenging to determine how these policy propositions will impact on our business without detailed modelling and adequate time in which to make a well informed assessment. Therefore, it is difficult to identify any *one* option or proposal as preferred.

We also note that that committing to, or supporting, radical change on access *in advance* of knowing the outcome of the proposals being considered is highly risky. We are particularly concerned that the impact of the planning arrangements (so outlined) could lead to serious questions over governance.

In our view, subsequent decisions that are made on the planning arrangements have the potential to radically alter how a generator would approach the outcomes of policy Options 3, 4 and 5 and indeed would affect whether we could support any of these options at all.

3.1 Congestion Options

3.1.1 Option 1 – An open access regime (status quo)

While we acknowledge that this Option suggests it retains the ‘status quo’ it also proposes to remove Rule 5.4A. While rule 5.4A has not been implemented in full – it is one of the few rules that enable a generator to endeavour to keep a TNSP to account for connections that can impact others.

Removal of this rule and associated case-history would be detrimental to the outcomes for generators and – by extension via the cost pass through to consumers.

While connection bodies may try to avoid using “power transfer capability” and obfuscate the clauses concerning connection capability, we would be highly concerned with any diminution of

the capacity of generators or NEM institutions to hold these bodies to account to ensure that the NEO is delivered and consumers receive efficient, least cost network solutions. The preliminary submission from GDF –Suez is a common sense approach to try to enable the principles behind 5.4A work. Some consideration should be given to their suggestions.

Position: Pacific Hydro could potentially support Option 1 *if* 5.4A is retained.

3.1.2 Option 2 – Open access with congestion pricing

We do not consider this option actually addresses (or resolves) the problem – which is increased network constraints.

In addition to the fact that this option does not address the problem of increased constraints, it may actually increase the incentive to over-connect a connection asset. The result would likely increase the potential congestion and potential profit to the connection asset owner. Therefore, we question how this option could be in the best interests of consumers, let alone generators.

Position: Pacific Hydro does not support Option 2.

3.1.3 Option 3 – Generator Reliability Standards (G-TUOS)

This proposal appears to be designed to increase costs and would seem to favour TNSPs. As noted under Option 2, the result would likely increase the potential profit to the connection asset owner. Therefore, we question how this option could be in the best interests of consumers, let alone generators as increased costs to generators will eventually pass through to consumers.

We do not understand what is meant by the stated intent to “deliver a transmission reliability standard for generators”. Generators pay for delivery of the connection and services associated with connection (and a level of reliability in that service) under the current provisions. It is far from certain that a transmission reliability standard for generators would drive lower costs. Implicitly, it would seem to increase *both* the cost of the connection and ongoing ‘service’ costs. Again, we would question whether this option has any chance to deliver the most efficient (and least cost) outcomes for consumers, let alone generators.

In our view, reliability of the *network* is what generators and customers are paying for in their extant service/connection charges. Thus, if a constraint is causing higher cost generation to be dispatched, should there not be an existing argument on which to base a need to alleviate the constraint? Indeed, we would then query whether this threshold is being observed by network owners already and whether they are addressing it through their present arrangements.

This option particularly favours network owners, and would do so especially if the “for-profit planning” joint venture idea is pursued further by the AEMC as a real possibility. Conversely, a not-for-profit planning body would identify reliability issues in the shared network and could direct that decisions (and connection arrangements) ensure that the market objective is optimised.

Position: Pacific Hydro does not support this option based on its current form.

3.1.4 Option 4 – Regional option firm access

Option 4 may have some merit, however we could *only* support a variation of this model if the “not-for-profit” planning institution proposal was pursued further and the details were developed to allow us sufficient information and time to properly analyse the impact on our business.

Pacific Hydro would consider supporting a variation of this model if the “not-for-profit” planning institution proposal was pursued seriously by the AEMC. However, we cannot support this

option until further modelling is provided so that the impact on existing (and future) generation projects can be fully understood.

Our understanding of the proposal is that the firm access offerings are likely to undercut the renewable energy target and could confound the progress to reducing emissions in the energy sector, contrary to the policy goals of the Renewable Energy Target, the Clean Energy Future legislation and the broader goal to reduce the nation's emissions

The assumption that non-firm generators offer into the market at below cost ignores renewable energy generators in the semi-scheduled situation who are price takers, while not at the market floor, they are often bid in at a negative price. For example an existing generator may claim (or pay for) firm access and another renewable generator (a price taker with a fixed bid) could be continuously undercut by the firm generator (bidding out of merit order) because the firm generator could bid in such a way as to ensure that the constraint bound and hence triggered compensation when the renewable generator was operating. This could clearly lead to undesirable and perverse outcomes.

Position: Pacific Hydro could not support Option 4 in its current form, given the likely effect and impact on the delivery of the RET. It is also difficult to make any assessment on this option in advance of understanding the preferred approach on planning.

3.1.5 Option 5 – National locational marginal pricing

In our view Option 5 would be likely lead to the highest implementation costs due to the 'radical' nature of the change. Such costs must be considered as they will eventually be passed through to consumers.

The introduction of fully firm transmission rights would undoubtedly entrench those generators with the firmest capability and the strongest trading rooms. The premise behind the access payment under Option 5 being the System Marginal Price (SMP) less the Locational Marginal Price (LMP) is concerning. With recent fluctuations in marginal loss factors being quite significant, it would be extremely difficult to predict changes to LMPs against the single SMP. Also given the size and length of our transmission system anything relating to a single node for the SMP will create winners and losers. This is contradictory to fair and efficient economic regulatory approaches as it may suit an ideal dispatch algorithm but is unlikely to provide strong locational signals. The proposal from International Power in their preliminary submission sounds more logical and could with appropriate planning outcomes be more reasonable to implement.

As noted by other submissions to the AEMC in response to this Report, there are some aspects of the current market arrangements that provide limited locational signals, but the cost of providing access in terms of maintaining the adequacy of the shared network capability by augmentation as necessary is not effectively signalled. International Power noted in their preliminary submission that:

"The concern is that the application of (inflated) average marginal loss factors in settlement is leading to *over-signalling* for the network in particular areas.

There is an inconsistency, which the AEMC could address as part of this review, between the requirement for efficient dispatch, requiring marginal loss factors, and the requirements for efficient locational signalling, requiring average loss factors.

There is also a real frustration with the frequently applied changes to loss factors which affect project economics (sometimes dramatically). Indeed, such changes continuing to occur acts as a disincentive especially for new-entrant generators to pay for upgrades and improvements to

networks while there remains a significant risk that other generators connecting subsequently can devalue the investment as well as affecting congestion and capacity in the network.”

The option would preference whichever incumbent market participants reside favourably located to a strong LMP and in close proximity to the notional SMP node as their price variability is likely to be minimal. All investment in other areas would be subject to significantly altered project economics. Again, as noted under Options 2 and 3, the result would likely increase overall costs through creating a trading instrument, further complexity and greater transferral of wealth. Therefore, we question how this option could be in the best interests of consumers given the implementation costs of such a change as well as the operation of this option. These increased costs would eventually pass through to consumers and, in our view, be contrary to the achievement of the NEO.

Position: Pacific Hydro does not support this Option 5 in its current form and would prefer further work be done on considering the approach outlined in International Power’s preliminary submission.

3.2 Planning

The Interim Report considers both iterative and substantial reform of planning arrangements.

The four substantial reform options outlined for planning are:

1. Enhanced coordination of the NTNDP and APRs.
2. Harmonised regime based on the South Australian arrangements.
3. A single NEM-wide transmission planner and procurer.
4. Joint-venture planning body established by TNSPs.

Pacific Hydro considers that the not for profit planning approach has been effectively demonstrated in Victoria and that this model (in contrast to other jurisdictions) ensures that costs to consumers are held at reasonable levels. Evidence suggests that this approach ensures that transmission planning tools are used to target efficient outcomes for consumers. We are aware of examples where planning is done by the network owners that deliver higher cost outcomes than an equivalent Victorian experience.

Pacific Hydro is wary of any proposal to install a for-profit planning body as it appears to contradict the market objective at a fundamental level. Indeed, it is hard to see how “for-profit planning” would ensure lower costs.

Therefore, Pacific Hydro favours Option 3.

However, we note that even if the planner is a not-for-profit body there should be due consideration given to the commercial implications of their decisions so that unnecessary delays and complications be avoided. We also concede that processes and risks which cause additional connection contracts to be required could be simplified, but this should (in our view) be addressed by the planner.

3.3 Connection arrangements

Pacific Hydro does not favour any of the proposed approaches to the reform of connection arrangements. While there are certainly a number of *improvements* that could be made (also noted in our comments), we are not convinced that the proposals, in isolation, are the right approach.

Pacific Hydro would also like the Commission to note on the following comments on a number of issues noted in the Interim Report relating to connection arrangements:

Firstly, as noted above, there are significant differences in the way in which connection arrangements are pursued in different jurisdictions which results in inefficiency for generators and planners

Secondly, the report notes that transmission owners frequently do not accept “build and transfer” proposals due to taxation implications and/or claim that they do not accept outside bids could build to “their standard”. The issue of built to standard is discussed above (at 2.1). With regard to taxation implications, our experience suggests that the implications can be addressed and are not an insurmountable hurdle for completing a connection arrangement.

3.3.1 Contestable works

As discussed earlier, the ambiguity about services referred to in the AEMC report (Ch 12, pp 159-161) could be resolved if the language between chapter 6A and chapter 5 was aligned and the matter of who can build what and to what extent was made clearer.

Fundamentally, it is our view that the generator ought to be able to build as much of the connection service as possible.

The example given in Box 12.2 (p. 158) is grossly simplified as it outlines the perspective, and prevailing approach, of the TNSPs regarding construction. In Victoria it would be possible for the substation (the blue box) to be built through a contestable competitive process. The negotiated service would be undertaken by the TNSP to cut the existing line into the substation. This approach is, in our view, more economically efficient and, we believe, delivers better overall outcomes to consumers.

With respect to whether the provision of a service includes the underlying assets, TNSPs have adopted the position that “negotiated transmission services” equates to non-contestable works. This position has led to disproportionate effects on the total cost of project delivery – to the advantage of service providers – and subsequent pass through to consumers.

Related to this and discussed at the AEMC’s Melbourne forum, there is an assertion that connections in Victoria take too much time and require too many contracts. In our view these concerns can be resolved through relatively straightforward approaches. Indeed, AEMO has gone a long way to resolving that problem with their recent consultation on Victorian connections³. We support this development and strongly consider that AEMO’s approach will simplify the process and deal with some of the risk issues.

We cannot at this stage comment on Proposal 1 other than to note that project proponents will avoid the risk of dispute given there is a long term relationship at stake and the cost and time delays of a dispute are prohibitive.

In our view, Proposal 2 will not reduce the costs *unless* the actual physical nature of the boundary can be defined. While boundaries can vary according to connections and existing network topography, Victoria is at least able to address and define boundaries in a consistent manner.

In our view, the wording of this proposal should refer to clarifying which assets in a connection are contestable and which are *non*-contestable. It is the *non*-contestable works that TNSPs argue form the basis of negotiated transmission service, although there is no basis for this

³ See for example: http://www.aemo.com.au/planning/connection_initiatives.html

assumption. This also requires definition and it should be kept to a minimum (ie: what *has* to be done to interface to existing equipment).

If these definitions were made patently clear in *all* jurisdictions – and everyone obeyed the boundaries – connections ought to be cost-effectively delivered. In addition to the definition issue, it is vital that all costs that are applied by a monopoly provider be transparent.

Proposal 3 prescribing the connection to be done as prescribed works does not guarantee that costs are kept to a minimum. While prescribing the connection works for generator connections sounds appealing, it may not ensure affordable and efficient connections. Provision of network service costs to customers have increased significantly and as shown through consistent appeals, network owners only need to call for a review by the regulator (or review of a regulatory determination) to achieve a price increase. Clarification of what can be delivered by the generator through clearly defined and legal limits would be preferred.

4. Network extension and augmentation

With respect to sending a clearer message about where to connect, it ought to be noted that large generation projects are located where the resource is. To do otherwise has not yet been demonstrated to be economic.

Connection assets, which may be of the order of tens of kilometres, should be treated differently to *network extensions* which would be of the order of hundreds of kilometres perhaps with more than one connecting party. The criteria and design of network extensions versus connection assets⁴ differ markedly.

Connection assets are built and paid for by a project to service *that* project – they do not constitute a network extension as they are of limited thermal capability and are frequently radial to the existing shared network. While they form part of the transmission system, they do not add to the *transmission backbone* or *shared network*.

A network extension; that is an extension of the transmission backbone is designed to carry future growth, and extends the transmission system in manner that supports growth of both load and generation to an area which is not yet serviced by the network.

Network extensions are never fully subscribed on the day they are commissioned as they are (and should be) designed to enable future expansion. There are many examples of such extensions in each NEM region. The current debate about who can connect to such extensions, or who owns such extensions in the first place, is irrelevant if the extensions are designed consistent with meeting the predicted needs of future growth in demand and in generation.

⁴ Connection assets are built and designed to suit a particular project whether load or generator. As such, these assets are generally designed around the expected peak requirements of that plant (or load). Connection assets are built on the ability of the project to pay for the connection. There is no reason to build more than what the project needs and consequently, there is usually little thermal capacity remaining after the project is connected and operating. A subsequent connecting party to such a line would need to upgrade the line to carry their additional thermal loading or impact on the owner/original generator. Under 5.4A the original generator would expect the connecting party to only connect if the upgrade were performed and any outages caused by the connecting party would require some form of compensation for the interruption. This is an example that would fit well with International Power's proposal.

In our view, the only way that network extensions, as opposed to connection assets, would be built is if the government, or a regulator, decided that there was sufficient reason to build such an extension. This underscores the reason to consider how (at least a proportion of) such an extension should be regulated.

The present approach does not seem to allow for a prescribed network extension to unserved areas, unless the network owners can earn a higher (commercial) rate of return for such an investment (unregulated). The downfall here is that even if extension was pursued by an owner/investor (even as unregulated) they would push the risk of asset stranding to the connecting parties.

In our view such projects should be contestable, built to planning criteria, and when completed becomes part of the shared network (prescribed). In this case the risk, or a proportion of the risk, would be allocated in part to any connecting parties (both load and/or generator) and in part to consumers. The long term view would be that such an extension would contribute significantly towards achieving the low emission transition that the nation has mandated.

The provisions for access and connection should apply to an extension only if the extension has been provided in part as a regulated network extension.

The question of access to an extension really comes to access to the capacity of the extension (it is designed for future growth) so providing that the number of connections made to the extension do not exceed the thermal loading of the extension, there is no reduction in service. Any stability issues should have been dealt with in the design of the extension.

Despite assertions to the contrary via recent decisions, there is little evidence to suggest that provisions to provide for network extensions are workable under the current transmission framework approach. This is further exacerbated by the fact that NEM institutions do not have regard to climate change through the national electricity objective. To date the only extensions have been the interconnections of Queensland and Tasmania into the NEM. Both of these interconnectors were proposed and designed prior to the market and built as regulated assets with government support.

5. Summary of Responses

While it has been impossible to assess in sufficient detail the options presented in this report, Pacific Hydro has sought to provide *comment* on the issues raised by the reform proposals and to furnish the Commission with additional understanding of the generator experience in navigating the transmission framework.

That said, key comments and responses outlined in this submission are that:

- There is a clear need to include a climate change policy reference in the national energy market objective.
- There is a need for reform of the transmission framework *in key aspects*, however we do not believe that radical changes are sufficiently justified to support the (likely very high) transitional costs or the unpredictable impact on existing and partially developed projects.
- There is a need for the Commission to provide more clarity on connections to ensure that the most efficient consumer oriented outcome is achieved through:
 - Setting clear boundaries around what can be delivered through contestable and non-contestable works (applying the Victorian approach nationally);

- Clarifying the definition of connection assets and network extensions to make it clear that connection assets are an extension of the transmission system, not the transmission network.
- Resolving the inconsistency between Chapter 5 and Chapter 6. Enhanced consistency between these Rules would also go some way to addressing ambiguity around contestable/non-contestable works;
- Improving negotiated transmission services by enforcing consistent approaches, transparency in pricing, and affirming the ability for a proponent to question TNSP proposed costs; and (then)
- Improving dispute resolution by ensuring there is an objective arbiter available to adjudicate on whether a connection agreement and its costs are efficient.
- Committing to change on access policy ahead of knowing the outcome (or preference) in relation to planning arrangements is highly risky.
 - That said, we would favour the third proposal on planning and consider that any move towards ‘for-profit’ joint venture planning body could lead to serious questions over governance and consumer outcomes
- In relation to the proposals on access Pacific Hydro would potentially support Option 1 only if Rule 5.4A is retained and believe that there is merit in exploring the IP GDF-Suez preliminary submission option. In advance of knowing the outcome on planning arrangements and in its present form we also cannot support Option 4. We do, however, consider that further modelling for future discussions may be worthwhile. We do not support Options 2, 3, or 5 in their current form.
- We support the Commission targeting greater transparency and improvements to the dispute mechanism. In our view, the Commission could by draw on the approaches taken in Victoria and further analysis of changes being pursued by AEMO.
- Network extensions appear to have been mal-interpreted and seem to assume to require the same treatment as connection assets.
 - Inappropriate interpretations of what is covered by network extensions could further exacerbate the current problem of congestion on the network.
 - Currently proposals for network extensions must go to the relevant TNSP(s) under the AEMC’s recent SENE rule change. Network extensions (including long extensions *and interconnectors*), should arguably form part of the purview of the national planning body – directly and/or indirectly – and cater to future expansion to deliver benefits to multiple proponents, customers and end consumers.

6. Conclusion

Transmission frameworks and regulatory settings particularly in relation to connection assets are crucially important to renewable generation investment considerations.

We consider that the Commission must take account of the views of emerging generators in particular to ensure that balanced, fair and efficient policy outcomes are delivered for market participants and consumers.



Pacific Hydro *does* consider there is a need for the Commission to provide more clarity on connections to ensure that the most cost effective and efficient consumer oriented outcome is achieved. In essence this would ensure clarity and transparency regarding who pays for what, when and under which circumstances assets can be transferred to the shared network.

Given the above comments, at this stage Pacific Hydro can offer only qualified support for elements of the options canvassed in the Report.