8 August 2013

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

Dear Mr Pierce,

RE: National Electricity Amendment (Connecting Embedded Generators) Rule 2013 (ERC0147)

1. Introduction and background

The Victorian DBs (CitiPower and Powercor Australia, United Energy, SP AusNet and Jemena Electricity Networks) welcome this opportunity to respond to the Commission's draft Rule determination[1] regarding the arrangements for embedded generation proponents to connect to distribution networks.

The Australian Energy Market Commission (the Commission) has proposed Rule changes in response to a Rule change request submitted by ClimateWorks Australia, Seed Advisory and the Property Council of Australia on 18 April 2012.

1.1 Overview of the Rule change request

The Rule change request raised the following issues regarding the current connection framework as well as the particular needs of embedded generation proponents:

- **Connection process and terms & conditions**

  The Rule change proponents argued that the existing connection processes under Chapters 5 and 5A of the NER are not sufficiently prescriptive to provide certainty to connection applicants. The uncertainty relates to whether applications would be successful; the timeframe for considering applications; and the overall costs of connection.

  The proponents considered that standard terms and conditions would assist embedded generators in anticipating the requirements and costs associated with connection. The proponents commented that the terms and conditions for connection vary significantly between distributors, and are regarded as 'onerous, one sided and not negotiable'.

[1] AEMC, Draft Determination, National Electricity Amendment (Connecting Embedded Generators) Rule 2013, 27 June 2013.

- **Technical requirements**

  Technical requirements or standards for distribution networks are determined in accordance with jurisdictional and local requirements. As a result, the technical standards that apply to embedded generator connections also vary between distributors. The proponents considered that at times these technical requirements are not clearly and comprehensively identified at the beginning of the connection process. In addition, the proponents expressed concern that DNSPs' technical requirements sometimes precluded exports of electricity to the grid.

- **Connection and augmentation costs**

  The proponents raised concerns regarding the augmentation costs associated with the connection of an embedded generator. The proponents argued that the current arrangements lacked clarity and transparency regarding the allocation of shared network costs, and the resulting connection costs were sometimes regarded as prohibitively expensive.

The Commission's draft determination concurred with the proponents that embedded generators have sometimes faced difficulties in negotiating access to a distribution network. The Commission noted that many embedded generation proponents are relatively inexperienced in the details and operation of the Rules. In contrast, DNSPs have an extensive understanding of the Rules, as this is a core part of their business operation. Overall, the Commission has concluded that there is a need to improve the operation and clarity of certain aspects of Chapter 5 of the Rules.

1.2 Overview of the Commission's draft Rule

To address the issues raised by the proponents, the draft determination proposes a Rule that contains the following features:

- **Information pack.** Each DNSP would be required to publish an 'information pack' to guide connection applicants on the process requirements, provide examples of connection costs, and a model connection agreement. This is intended to improve the clarity and transparency of the connection requirements and allow applicants to participate more effectively in the connection process.

- **Enquiry process.** A new two-stage connection enquiry process would be introduced, comprising a preliminary enquiry stage followed by a detailed enquiry stage. For connections that do not require shared network augmentation, the detailed enquiry is to be completed within three months. These provisions are intended to improve the timeliness and certainty of connection enquires.

- **Application process.** A revised connection application process would require a distributor to make a connection offer within 20 business days for 'agreed projects'. An agreed project refers to the project parameters, access standards and technical requirements for a proposed connection that the DNSP has provided to the proponent following the completion of the detailed enquiry phase.

- **Technical information.** The draft determination would require each distributor to publish a register of plant and equipment associated with generating plant that

meets its minimum access standards for connection. This proposal is intended to increase transparency and allow connection applicants to better understand the relevant requirements in connecting to a distribution network.

- **Expert appraisal process.** The draft Rule would allow the connection applicant to appoint an independent engineer to assess the reasonableness of any technical requirements and aid in the resolution of technical disputes. It is proposed that the costs of an independent engineer would be shared equally between the connection applicant and the distributor.

- **Enquiry fee.** The draft Rule would allow distributors to charge an enquiry fee for preparing detailed enquiry responses. The enquiry fee is to recover the reasonable costs incurred by a distributor. The draft determination noted that this charge differs from the consultancy style 'fee-for-service' arrangements proposed under the Rule change request. The draft Rule allows the connection applicant to enter into commercial arrangements with DNSPs for such services.

- **Exporting to the grid.** The draft Rule would not provide embedded generators with an automatic right to export electricity into the distribution network. The draft determination noted that the connection application process would conclude whether the network is able to safely and reliability accommodate electricity exports by embedded generators. The Commission also highlighted that distributors are already required to use reasonable endeavours to provide an applicant with the access arrangements they seek.

- **Shared network augmentation costs.** The draft Rule would not exempt embedded generators from contributing to shared network augmentation costs. The Commission noted that appropriate price signals are achieved by allocating costs to parties that benefit from a service. In addition, if embedded generators were exempt from contributing to shared network augmentation costs, other users of the network would have to bear these costs.

1.3 Overview of Victorian DBs' response

The Victorian DBs support the overall direction and purpose of the Commission's draft determination. We recognise the valuable contribution that embedded generation can make to the network, and to this end we will continue to engage constructively with proponents in good faith. In addition, the Victorian DBs recognise that improvements can and should be made to the existing connection arrangements for embedded generation. The establishment of a framework that is specifically focused on the needs of embedded generators is appropriate given their particular characteristics and the importance of ensuring that all connecting parties are treated equitably.

In this latter regard, the Victorian DBs are particularly conscious of the importance of ensuring that the playing field is neither tilted in favour nor against embedded generators. The Victorian DBs therefore welcome the Commission's recognition that embedded generators should not be exempt from contributing to the costs of shared network augmentations. Similarly, embedded generators should not enjoy an automatic right to export generation to the network. Such a right would not have regard to the technical limitations of the existing network or the costs of addressing these limitations.

In broad terms, the Commission's Rule must seek to balance the interests of embedded generators with those of other network customers. In addition to ensuring that costs are attributed appropriately across all distribution customers, including embedded generators, care must also be taken to ensure that the likely costs of applying the new framework does not outweigh the benefits. A further concern is that the timeframes envisaged by the Rules must be realistic and allow sufficient time for important issues to be resolved.

The Victorian DBs consider that the majority of the Commission's proposals can reasonably be expected to deliver a net benefit to customers in accordance with the National Electricity Objective. However, there are a number of aspects of the Commission's draft Rule where we consider that changes are warranted to better balance the costs and benefits of implementing the proposal. The table below provides a summary of the Victorian DBs' position.

Topic or matter	Victorian DBs' position
Multiple connection processes under the Rules	The proposed arrangements provide connection frameworks for embedded generators in both Chapter 5A and Chapter 5. These arrangements, whilst probably workable, appear to be unduly complex, and may lead to increased confusion and lack of clarity. The underlying purpose of these arrangements should be clarified. In addition, to ensure that applications are processed as efficiently as possible, it would be helpful if the Rules were to expressly direct a connection applicant to the most appropriate connection process.
Information pack	The Rule should clarify that the cost examples, fees and the model connection agreements are provided for illustrative purposes only. This addition will manage expectations and avoid confusion.
Preliminary enquiry stage	The scope of the information that that DNSPs are required to provide in response to a preliminary enquiry is too onerous, especially given the proposed timeframes of 15 business days. The Victorian DBs recommend that the response requirements should be reduced accordingly.
Timeframes	The Victorian DBs are concerned that the timeframes proposed for conducting the detailed enquiry stage and completing a connection offer are inadequate. The Victorian DBs have proposed more realistic timeframes, which are consistent with their current Licence obligations, that will enable material issues to be resolved.
Register of generating plant that meets minimum access standards	The proposed register will increase the costs and regulatory burden borne by DNSPs, and is likely to provide limited, if any, net benefit to connection applicants. The requirements set out in the draft new clause 5.4.5 should not be included in the final Rule.
Technical network access requirements	The Victorian DBs concur with the Commission that specifying an obligation for DNSPs to provide connection applicants with those minimum technical requirements necessary to maintain system security and reliability of supply should enhance transparency and certainty for connection applicants. However, the scope of the preliminary response is unduly onerous. We therefore suggest that the items that cannot reasonably be addressed within the timeframes for preparation of a preliminary enquiry response be excluded.

Topic or matter	Victorian DBs' position
Independent engineering expert appraisal for technical dispute	The Victorian DBs accept that the Commission's proposals should assist parties to reach agreement on the technical requirements that must be met in order to ensure compliance with the technical standards and requirements stipulated in the Rules and Jurisdictional instruments. However, changes are required to the draft Rule to ensure that the scope of the expert's appraisal is appropriate. In addition, we suggest that the Rules should state that the costs of a vexatious or frivolous dispute will be allocated entirely to the party responsible.
Automatic right to export	The Victorian DBs support the Commission's draft determination that the Rules should not be amended to entitle embedded generators to export electricity to the distribution network. The Commission's position is soundly based.
Enquiry and connection application fees	We concur with the reasoning set out in the draft determination regarding arrangements for charging enquiry fees and connection application fees. However, there are a number of drafting issues in relation to the process for setting these fees that need to be resolved.
Augmentation costs associated with connection to the network	The Commission's conclusion that embedded generators should not be exempt from contributing to the costs of shared network augmentations is well founded and consistent with the principles underpinning the NEM. We welcome the clarification provided by the draft determination regarding the recovery of augmentation costs associated with connection of embedded generation to the network.
Implementation and transition arrangements	The proposed transition arrangements appear to be practicable and are generally acceptable to the Victorian DBs

The Victorian DBs note that the drafting of the proposed Rule changes is quite complex. Notwithstanding the detailed drafting comments set out this submission, we consider there would be merit in the Commission allowing all parties to undertake a further detailed review of the Rule changes prior to their finalisation. The scope of this review would be limited to identifying any errors, inconsistencies or unintended consequences in the drafting of the Rule change.

1.4 Structure of this submission

The remainder of this submission sets out our comments in further detail, including a number of suggested changes to the draft Rule. The submission broadly follows the structure of the Commission's draft determination:

- Section 2 addresses matters relating to the scope and application of the proposed Rule, and the existence under the Rules of multiple connection processes.

- Section 3 addresses the connection process under the draft Rule, including the connection enquiry and connection application stages.

- Section 4 discusses issues arising in relation to the technical standards for connecting embedded generators to distribution networks.

- Section 5 comments on connection charges and the cost of network augmentation.

- Section 6 addresses implementation and transition arrangements.

Further detailed comments on the draft Rules are set out in the Attachment.

2. Multiple connection processes under the Rules

The draft determination states that chapter 5 of the Rules is applicable to embedded generators who are not registered participants. The Commission explains that[2]:

> "The existing clause 5.1.2(b) is amended by the draft Rule to clarify that any person who is not registered with AEMO (nor has no intention to do so) can ask an NSP to comply with Part A of Chapter 5 in seeking a connection agreement. If such a request is made then the process for connection must be followed through to its completion under Chapter 5. The amendment seeks to clarify the opt-in process that existed in Chapter 5."

The Victorian DBs have carefully reviewed the draft Rule and determination, and while we consider that the proposed arrangements are likely to be workable, we also consider that the drafting is unduly complex. This complexity may lead to increased confusion and lack of clarity regarding the overall framework. It would be helpful therefore if the underlying purpose for these arrangements was explained more clearly by the Commission.

In particular, it appears that the Commission's intention is that retail customers (whether as micro-embedded generators or non-registered embedded generators) or real estate developers (as non-registered embedded generators), as well as "any person" generally can request the connection process specified in Chapter 5 to apply instead of going through the Chapter 5A process.

A potential area of confusion relates to clause 5.3.1A which provides that, in relation to an embedded generator, the new clause 5.3A applies rather than clauses 5.3.2 to 5.3.5 "unless otherwise provided". The qualification of this provision with the words "otherwise provided" is unhelpful as it suggests that for connection of embedded generators, clauses 5.3.2 to 5.3.5 might apply, notwithstanding that it is difficult to see where this situation may arise.

The Commission notes[3]:

> "These [proposed] amendments will allow persons seeking to connect embedded generators to a distribution network to use the Chapter 5 process for connection. However, it ensures that non-registered embedded generators who choose to seek a

---

2 Ibid, page 16.

3 Ibid, page 16.

> connection under the Chapter 5 process are not able to switch to the Chapter 5A process mid-way through, should that be available to that person. The intent of this clarification is to provide for regulatory certainty. It is not to mandate that one connection process must be used over the other."

The Victorian DBs strongly endorse the need for regulatory certainty to be provided. To this end, we suggest that as a minimum, the Rules should be amended to clarify that once a connection process has been initiated by a connection applicant under Chapter 5A, then that process must proceed to its conclusion. In other words, non-registered embedded generators who choose to seek a connection under the Chapter 5A[4] process should not be able to switch to the Chapter 5 process mid-way through.

In relation to the maintenance of the "opt-in" provisions that enable applicants to elect whether the process under Chapter 5 or Chapter 5A is to be applied, the Commission states[5]:

> "The proponents have stated that the connection process under Chapter 5 suits large generators and Chapter 5A is more suited to micro-embedded generation, particularly those that meet the requirements for a 'basic offer'. The proponents therefore considered there was a gap in the connection arrangements for installations between 10 kW and 30 MW…
>
> The Commission considers that the amendments under the draft rule provide a clearer framework than the proposed rule and the current arrangements. This would assist all parties seeking to connect to the distribution network including the non-registered participants with installations in the 10 kW to 30 MW range… In keeping with the current arrangements, all parties may elect to follow the connection process under Chapter 5.
>
> The Commission acknowledges that non-registered embedded generators would still be able to choose whether they would like to process their application to connect to the distribution network under Chapter 5 or Chapter 5A of the NER. Although, to provide regulatory certainty to all parties involved in a connection process, once an applicant has elected to initiate a connection under a certain chapter, the connection must be completed under that same chapter.
>
> At this time the Commission does not consider that it would be appropriate to mandate a specific connection process to be used. Over time, should DNSPs develop more standard offerings that address specific classes of embedded generators, embedded generators may find the Chapter 5A connection provisions preferable to those under Chapter 5."

The Victorian DBs consider that it would be more helpful if the Rules were to direct a connection applicant to the most appropriate process. By way of example, since the introduction of feed-in tariffs in 2009, over 65,000 Powercor customers and almost 7,000 CitiPower customers have installed photovoltaic solar units. It would be very onerous for such large volumes of connection applications to be handled through the Chapter 5 process. We suggest, therefore, that the Rules should expressly direct that applications to connect micro-embedded generators of the kind contemplated by

---

4 In the period prior to the National Energy Customer Framework coming into effect in Victoria, Chapter 5A does not apply in Victoria, and ESC Guidelines 14 and 15 continue to apply.

5 Ibid, page 43.

Australian Standard AS 4777 (Grid connection of energy systems via inverters) be processed under Chapter 5A.

In a similar vein, the process for assessing large or complex connections requires time to undertake the technical analysis to understand the potential impacts on other network users. The application of the Chapter 5A process to mid-scale embedded generators (potentially up to 30 MW capacity) is therefore inappropriate.

Accordingly, we suggest that the Rule should direct that applications to connect mid-scale embedded generators (of capacity greater than 30 kW, being 3 phase 10 kW inverter) be processed under Chapter 5.

3. Connection process applying to embedded generators

3.1 Provision of upfront information

The Victorian DBs support the requirement for DNSPs to publish information packs for connection applicants. Currently, the Victorian DBs provide embedded generation connection guidelines for sub transmission, high-voltage and low-voltage connections on our websites. These guidelines make it clear that connection enquiries can be vastly different in terms of cost and impacts of the network.

The key factor that drives differences in connections to the network is the location of the connection proposal. An enquiry to connect an embedded generator to a constrained part of the network may result in a very complex and expensive offer to the applicant. Consequently, DNSPs would only be able to include simplified worked examples of connection service charges and application fees in the information pack, which may be vastly different from the reality faced by the applicant. It is important, therefore, for embedded generators to understand that the fee estimates and cost examples are provided for illustrative purposes only, and this point should be noted in the Rules.

Similarly, while the Victorian DBs support the publication of model connection agreements, it must be made clear in the Rules that the model contract is not binding. In particular, the Victorian DBs consider that the Rules should provide DNSPs and embedded generators with sufficient flexibility to negotiate provisions that best suit the particular circumstances arising from the proposed connection.

The Victorian DBs welcome the Commission's conclusion that DNSPs should have flexibility in the way that the upfront information is provided. In particular, the draft Rule requires information to be made available on the DNSPs website (clause 5.3A.3(a)), and also recognises that relevant information may be provided in the demand side engagement document and the Distribution Annual Planning Report (clause 5.3A.2(b)). The Victorian DBs support the Commission's approach.

3.2 Preliminary enquiry stage

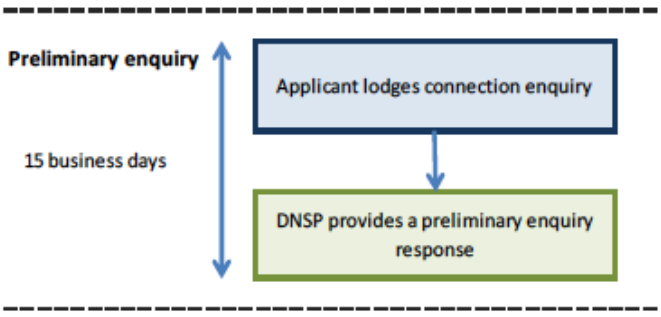
The Victorian DBs agree with the Commission that the connection application process is iterative. In particular, preliminary work is required to ensure that the applicant provides the correct information to the DNSP, so that the most appropriate and relevant information is subsequently provided by the DNSP to the applicant. The Victorian DBs therefore support the Commission's two part enquiry process, being the 'preliminary enquiry stage' followed by the 'detailed enquiry stage'.

The draft determination explains that the preliminary enquiry stage would be subject to the following timeframes:

- the DNSP acknowledges the receipt of the enquiry within two business days;
- the DNSP provides the preliminary enquiry response within 15 business days; and
- the preliminary enquiry response would remain valid for three months (after which time the DNSP could request the applicant to submit a new connection enquiry).

Figure 5.1 from the draft determination (reproduced below) sets out the steps and the Commission's proposed timelines for the preliminary enquiry stage.

Figure 5.1 The preliminary enquiry stage



At the end of the 15 business day period, the DNSP would be required to provide the connection applicant with the information set out in Schedule 5.4A. That information is referred to in the draft Rule as the preliminary response. The Victorian DBs note that the 15 day timeframe necessitates that the contents of the preliminary response will be "generic" and will not involve great detail or extensive network investigation.

However, the Victorian DBs are concerned that the preliminary response requirements include a number of provisions that would require completion of detailed design work. It is not appropriate to undertake detailed design work at the preliminary enquiry stage. Moreover, it could not be completed within the 15 business day timeframe. In addition, DNSPs will not necessarily be able to reach a definitive conclusion on many of the provisions within the suggested timeframe.

The Victorian DBs also note that Schedule 5.4A(m) requires a description of the how the DNSP proposes to amend the model connection agreement for the proposed applicant. The Victorian DBs question whether it is reasonable to expect the DNSP to commit legal resources to this consideration at the preliminary enquiry stage. Furthermore, it is highly unlikely that the DNSP will have sufficient information to assess the likely scope of the connection application and its implications, if any, for appropriateness of the model contract.

In light of the above comments, the Victorian DBs consider that the preliminary response provisions should be amended to better reflect the nature of a preliminary

enquiry. For the overwhelming majority of enquiries the requirement that DNSPs 'must provide' the level of information set out in S5.4A is too onerous. The Victorian DBs therefore propose that S5.4A and 5.5A.7 should be amended so that the requirement is to provide the information where practicable.

In the absence of this qualification, the Victorian DBs consider that the following clauses should be removed: S5.4A(a), (b), (c), and (d). In any event, for the reasons already set out above, S5.4A(m) should be deleted.

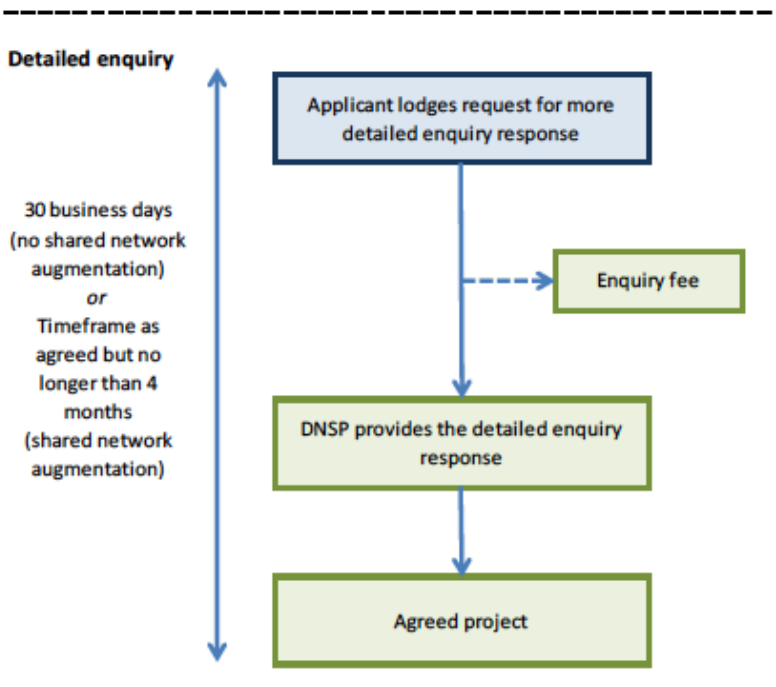
In addition to the above amendments, the draft Rule should clarify that the 15 business day timeframe for completing the preliminary enquiry stage does not commence until all of the necessary information required by the DNSP has been received. As noted in the Attachment, the current provisions are unclear in this regard.

3.3 Detailed enquiry stage

The draft determination explains that the purpose of the detailed enquiry stage is to allow applicants with specific project proposals to obtain detailed information. This information should provide the applicant with an understanding of the technical requirements for connection and the range and magnitude of potential charges. The detailed enquiry response is intended to build on the preliminary enquiry response and provide more in-depth analysis.

Figure 5.2 from the draft determination (reproduced below) sets out the steps and the Commission's proposed timelines for the detailed enquiry stage.

Figure 5.2 The detailed enquiry stage



The Victorian DBs note that the detailed enquiry stage is, in practice, likely to be highly iterative and interactive between the DNSP and the connection applicant.

For mid-scale embedded generators, the Victorian DBs usually require applicants to engage technical consultants to undertake studies, establish design requirements, assess protection requirements, augmentation requirements etc, and interact with the DNSP.

This stage also requires detailed design and planning of the proposed connection by the DNSP, as well as an assessment of the appropriate equipment and standards to be met. The export of power onto the network by the embedded generator will also need to be assessed in terms of voltages, harmonics, fault levels and the impacts on other residential and commercial customers. The functional scope, should it involve capital expenditure by the DNSP, would then need to be approved through the DNSP's internal governance channels. Similarly, the draft connection agreement would also need to be assessed against the relevant safety requirements, environmental and other protection requirements, legal requirements as well as communication and monitoring requirements.

The draft Rule sets out the following maximum timeframes:

- Unless otherwise agreed, the DNSP has 30 business days to respond in the detailed enquiry stage, where no shared network augmentation is required for connection (clause 5.3A.8(c)).

- Following the receipt of an application to connect, the DNSP has 20 business days to make a connection offer for an 'agreed project' (clause 5.3.6(a)(2)) and up to 4 months otherwise (clause 5.3.6(a)(3)).

While the Victorian DBs support the clarification of timeframes, it is in the interests of both parties that the timeframes are reasonably achievable. The Victorian DBs are concerned that the proposed timeframes are unrealistic for the following reasons:

- The presence of shared network augmentation is not the only factor that might necessitate longer timeframes. Each connection is unique and many factors could potentially determine the level of complexity associated with achieving an 'agreed project'. Such factors are likely to include but not be limited to the size of the project, the type of generator to be connected, and location.

- Allowing 'no longer than 4 months' for the detailed enquiry stage is unrealistic. Complex projects can take up to a year to agree scope, especially if consultation with other parties is required.

- It is imperative that the timeframes do not preclude the DNSPs from fully assessing the risks associated with the proposed connection and ensuring that it does not negatively impact the supply of services to other network users.

- 20 days to make a connection offer for an 'agreed project' is unrealistic. For example, it may be insufficient to finalise the connection charges.

To address these matters, the Victorian DBs propose that the timeframes should be increased as follows:

- the maximum timeframe, unless otherwise agreed, for completing the detailed enquiry stage if there is no shared network augmentation should be extended to 40 business days from 30 business days;

- the maximum timeframe, unless otherwise agreed, to make a connection offer for an agreed project should be extended to 65 business days from 20 business days, which is consistent with clause 7.1 of the Victorian Electricity Distribution Licence; and

- the maximum timeframe, unless otherwise agreed, to make a connection offer for connections that are not 'agreed projects' should be extended to 6 months from 4 months. The proposed maximum timeframe is contingent on there being a 'stop the clock' provision for the time it takes proponents to respond to requests to provide any further information needed by the DNSP to enable it to make a connection offer.

The Victorian DBs consider that the above timeframes are more realistic and ultimately will facilitate a better outcome for embedded generators and network customers. In addition, we note that the proposed timeframes are broadly consistent with those already provided in Chapter 5A. We encourage the Commission to work closely with DNSPs in finalising the Rule change, to ensure that the timeframes in the final Rule are achievable.

The Victorian DBs also request that the Commission revisits clause S5.4B(k) which requires the DNSP to provide "any additional information relevant to the application to connect" to the applicant. A civil penalty is proposed in the event that the DNSP does not satisfy the new Rules provisions. The Victorian DBs cannot accept liability for a civil penalty where the obligation is open-ended, and the DNSP's capacity to comply will depend on the information provided by the applicant.

In addition, the Victorian DBs request that the Commission checks the consistency of draft clause 5.3A.8(g) with draft clause Schedule 5.4B(i)(4), and the accuracy of draft clauses 5.3.6(a)(2) and (3). The latter clauses should reference 5.3A.9(b)(1) and 5.3A.9(b)(2).

4. Technical requirements for connection

In considering the development of the technical requirements for the connection of embedded generators, the Commission stated[6]:

> "International literature indicates that it is often difficult to provide 'concrete' technical standards that are relevant to all network configurations and conditions. While international standards provide overarching requirements, the detailed decisions on each connection requirement still necessitate individual DNSPs to exercise their own judgement."

[6] AEMC, Draft Determination, National Electricity Amendment (Connecting Embedded Generators) Rule 2013, 27 June 2013, page 56.

The Commission noted that:

- The Department of Resources, Energy and Tourism (DRET) is currently undertaking a study into the feasibility of developing mid-scale embedded generation connection standards.

- Developing a nationally consistent set of technical requirements would involve "complexity, time and expertise"[7].

In the absence of nationally consistent technical standards, but with a view to increasing transparency, the Commission's draft determination proposes that changes to the Rules be made to:

- require DNSPs to publish a register of generating plant that meets minimum access standards;

- require DNSPs to provide information on network connection requirements as part of its preliminary response to a connection enquiry; and

- include a new dispute resolution process relating to the technical requirements.

The draft determination also examined the proponent's proposal to provide embedded generators with an automatic right to export.

The Victorian DBs' position on each of these matters is set out below.

4.1 Register of generating plant that meets minimum access standards

The Commission proposes that the Rules would be amended to require each DNSP to publish and maintain a register of generating plant that complies with its minimum technical requirements. The DNSP would be required to review this register of generating plant at a minimum every two years.

In relation to this proposal, the Commission states[8]:

> "Even in the absence of an Australian based standard, DNSPs that have connected embedded generators will know what types of generating plant have already successfully met their minimum technical requirements. Therefore, a DNSP should be able to provide this information to a connection applicant.
>
> The register would provide connection applicants with upfront information and a guide to available equipment applicable to that DNSP, but does not oblige them to use any of the equipment on the register. Alternatively, a DNSP is not obliged to accept an application to connect containing compliant equipment if specific locational limitations, or other requirements, prevent its connection."

The Victorian DBs note that the interaction between generators and the network will necessarily be different at each connection point. As recognised in the draft determination, there is a range of issues at each connection point in the network that

7 Ibid, page 57.

8 Ibid, page 61.

must be reviewed on a case-by-case basis to determine the technical connection requirements. In effect, each connection point is unique in terms of these issues. Consequently, it is the location of the connection to the network that is important in terms of the technical issues affecting the connection, and not merely the generic specifications of generating equipment.

Moreover, it is the performance of the installation as a whole, not individual items of plant, at the connection point that matters. The specification of a "compliant" individual item of plant does not necessarily assist in determining whether a particular installation will comply with the technical requirements. It is noted that the design of the installation is the responsibility of the proponent and not the DNSP.

A further important point to note is that the proposed Rule (5.4.5) requires a DNSP to establish and maintain a register of any 'plant' or associated embedded generating equipment that has been connected to its network. The term 'plant' is defined in the Rules as including all equipment involved in generating, utilising or transmitting electrical energy. In practice, it would not be possible for a DNSP to have knowledge of all such plant. The obligation to maintain a register of all such plant is therefore unduly onerous.

In light of these considerations, it is worth noting that the draft determination recognises the legitimacy of the need for DNSPs to assess, on a case by case basis, how a proposed connection may affect the safety, security, quality and reliability of the supply of electricity to other network users adjacent to the connection point[9].

It is also important to bear in mind that the network itself is continually evolving, and hence the technical issues relating to prospective equipment and connection configurations at each node in the network may change over time. Moreover, the specifications of equipment may also change through time. These considerations suggest that the proposed register may quickly become outdated, notwithstanding the proposal that it be reviewed every two years. In addition, as already noted it will not be possible for a particular DNSP to provide a reasonably comprehensive register covering all sizes and types of plant.

For these reasons, the Victorian DBs consider that in practice, the proposed register is likely to provide limited, if any, net benefit. The Victorian DBs therefore suggest that the requirements set out in the draft new clause 5.4.5 should not be included in the final Rule. In making this suggestion, we wish to emphasise that we will be able to, and are prepared to discuss with connection applicants - at the preliminary and detailed enquiry stages - details of embedded generators that have already connected to the network.

4.2 Technical network access requirements

The draft determination states:

> "The technical requirements necessary for DNSPs to assess the impact of the proposed embedded generator on the distribution network are diverse. The technical requirements to be coordinated include, but are not limited to: protection and control settings including fault level coordination and fault clearance times; metering;

[9] Ibid, page 62.

interlocking and isolation; switching and operational arrangements; and plant capabilities and conformance to existing Australian Standards."

Given that the development of a nationally consistent technical standard will take some time, the Commission's draft Rule sets out the technical requirements that DNSPs must make available to connection applicants. The Commission states that the technical requirements will be premised on the minimum access standards necessary to maintain system security and reliability of supply[10]. DNSPs will be required to make this information available as part of its preliminary response to a connection enquiry[11].

The Victorian DNSPs concur with the Commission that specifying in the Rules an obligation for DNSPs to provide connection applicants with those minimum technical requirements necessary to maintain system security and reliability of supply should enhance transparency and certainty for connection applicants. We also agree that greater transparency in the connection process and certainty to connection applicants on the specific technical requirements will lead to efficient investment in embedded generation for the long term interest of end consumers.

However, as noted in section 3.2, in many cases the DNSP is unlikely to be able to provide all the information on minimum technical requirements in the timeframe for the preparation of a preliminary enquiry response.

4.3 Independent engineering expert appraisal for technical dispute

The draft determination notes that some stakeholders have stated that the current dispute resolution process in the Rules does not meet their needs, particularly when disagreements arise in relation to technical requirements. The Commission therefore proposes that the Rules be amended to provide for the joint appointment of an independent engineering expert to assist a DNSP and a connection applicant in reaching agreement when they disagree on the technical requirements applicable to a particular connection.

In light of the views put to the Commission by some stakeholders, the Victorian DBs accept that there is merit in the Commission's proposals. That said, we note that the arrangements proposed by the Commission are not exclusive, and pursuant to clause 5.9A.1(a), a party may instead use the general dispute resolution process under clause 8.2.

We concur with the Commission that it is important for both parties to have incentives to reach agreement on the technical requirements that must be met in order to ensure compliance with the technical standards and requirements stipulated in the Rules and Jurisdictional instruments, without incurring the additional costs associated with the appointment of an independent engineer. To this end, we suggest that the Rules should provide that any party raising a dispute that is found to be frivolous, vexatious or manifestly unfounded will be liable for the full cost of an independent engineer's report.

In relation to the draft Rules provisions giving effect to the Commission's proposal we note the following:

---

10 Ibid, page 63.

11 The information requirements are set out in paragraph (a) of Schedule 5.4A.

- The obligation on the expert to use reasonable endeavours to keep confidential information confidential (clause 5.9A.4(6)(i)) is weak. A "best endeavours" obligation would be more appropriate.

- The provision of confidential information by the expert to third parties subject to a promise to the expert to keep it confidential fails to protect the rights of the holder of the information (clause 5.9A.4(6)(v)).

- The test to be applied by the expert, "reasonable in all the circumstances", is very broad and no guidance or criteria are provided as to what is "reasonable". We suggest that the Commission give further consideration to this matter.

The Victorian DBs are also concerned that providing access to a technical expert at any stage of the connection process may unduly encourage more disputes to be raised. In particular, a connection applicant may raise a dispute early in the connection process in an attempt to obtain the services of a technical expert in an advisory or design capacity. Such an outcome is reasonably likely because the draft Rules provides for 50% of the expert's costs to be borne by the DNSP.

To address these concerns, the Victorian DBs consider that access to a technical expert should only be available following the receipt by the connection applicant of a detailed response from the DNSP, in accordance with clause 5.3A.8. In addition, the draft Rule should include provisions that preclude the technical expert from acting in an advisory or design capacity. The Rules should also preclude the expert from considering commercial or regulatory issues. In addition, the parties should be able to verify that the expert's fees and costs only relate to activities that are within scope.

The Attachment to this submission provides some suggested drafting amendments for the Commission's consideration.

4.4 Automatic right to export

The proponent sought Rule changes to entitle embedded generators to export electricity to the distribution network. The draft determination considered and rejected this proposal, noting that:

- Any export of electricity to the distribution network requires consideration by the DNSP on a case-by-case basis. This consideration would include ensuring that the embedded generator connection does not unduly degrade the capability of the distribution network for all other network customers.

- The right to export is available subject to the technical and commercial decision making of the project. The embedded generator should have an appropriate agreement with the DNSP.

- An automatic right to export from an embedded generator could impose a significant cost on all network users, especially if deep augmentation costs are not paid by the connection applicant. This is unlikely to lead to efficient investment in embedded generation or the distribution network for the long term interests of consumers of electricity.

The Victorian DBs support the Commission's position on the proposal to entitle embedded generators to export electricity to the distribution network.

5. Connection charges and the cost of network augmentation

5.1 Enquiry fee

The draft determination explains that the proponents of the Rule change had proposed that the Rules should include a fee-for-service arrangement, to strengthen incentives for DNSPs to attend to connection enquiries, and to facilitate timely connection of embedded generation. In relation to this proposal, the draft determination noted that the Rules currently enable DNSPs to charge an enquiry fee to connection applicants. The Commission stated that these arrangements are reasonable and there is no reason to remove this option[12]. However, the draft Rule adds some clarification about the charging of an enquiry fee[13]. In particular, the Commission explains that[14]:

- The purpose of the enquiry fee is to allow a DNSP to recover the reasonable costs incurred in the initial investigations for the connection of an embedded generator up to the point of connection. These investigations would be specific to the enquiry being assessed by the DNSP.

- The draft Rule states that the amount of the enquiry fee should not be more than necessary to recover the reasonable costs of all work anticipated to arise from investigating and responding to a request for a detailed enquiry response.

- The enquiry fee would be additional to any connection application fee that the DNSP may charge the connection applicant.

- The general principle is that enquiry fees and connection application fees should be cost reflective.

- As these fees are project specific, the draft Rule does not oblige DNSPs to publish a set of fees on their websites. However, under the draft Rule, DNSPs will need to include details of how components of the enquiry fee were calculated in the preliminary response and in worked examples in the information pack.

The Victorian DBs concur with and support the reasoning set out in the draft determination regarding arrangements for charging enquiry fees and connection application fees.

However the Victorian DBs do not support the timing for quoting the enquiry fee to the connection applicant. In particular, Schedule 5.4A(r) requires the DNSP to set out the enquiry fee that would be payable at the next stage of the process within its

12 AEMC, Draft Determination, National Electricity Amendment (Connecting Embedded Generators) Rule 2013, 27 June 2013, page 79.

13 The new provisions are set out in clause 5.3A.4.

14 AEMC, Draft Determination, National Electricity Amendment (Connecting Embedded Generators) Rule 2013, 27 June 2013, page 79.

response to the preliminary enquiry. The fee is defined to include costs that meet the reasonable costs anticipated to be incurred by AEMO and other Network Service Providers who participate in the assessment of the application to connect will be required.

It is unrealistic to expect that DNSPs would have the ability to identify all parties that may need to be engaged in the process; engage with those parties to discuss the possible implications as well as enable those parties to identify the costs that they are likely to incur; and then respond to the applicant with estimated fees within 15 days. Accordingly, this requirement should be removed from the preliminary enquiry stage.

A number of additional drafting issues in relation to the enquiry and connection application fees are discussed in further detail in the Attachment.

5.2 Augmentation costs associated with connection to the network

The draft determination explains that the Rule change proponents sought to exempt connection applicants from paying the costs of any augmentation to the shared network that is required to facilitate the connection of embedded generation. The draft Rule does not make provision for the exemption of embedded generators paying shared network augmentation in either Chapter 5 or Chapter 5A, for the following reasons[15]:

- An underlying principle in the NEM is that those who impose a burden on the network should contribute to the cost of any resulting necessary network augmentation. The amount to be paid should reflect the costs directly attributable to the user.

- If the current Rules provisions were to be amended to exempt embedded generators from paying shared network augmentation, then the cost of connecting the embedded generator would be paid by other network users.

- This would dilute the cost-reflective price signals for a connection applicant. It also generates a cross-subsidy between different network users. The Commission considers that allocating costs to the party that benefit from the expenditure is likely to provide appropriate price signals for generators to locate efficiently and, is therefore desirable.

- The connection cost of generators connecting to the distribution system must include the impact of deep and shallow augmentation to support the efficient and optimal location of embedded generators.

- The proposal to exempt embedded generators paying for shared network augmentation also ignores that this issue, through the determination process, is already subject to regulation by the AER.

The draft determination addressed the Rule change proponents' concern that the current method for allocating shared network augmentation costs is inequitable as there is a "last in, worst dressed" approach. The Commission noted, correctly, that

[15] Ibid, pages 80-83.

the clause 6.7.1(6) of the Rules provides an avenue through which DNSPs and connection applicants are able to manage this issue[16].

The draft determination also explained that while jurisdiction-specific arrangements in Victoria currently do not permit the charging of deep augmentation charges to embedded generators that are not customers, these arrangements are likely to fall away with Victoria's implementation of the NECF[17].

The Victorian DBs welcome the clarification provided by the draft determination in relation to the recovery of augmentation costs associated with connection of embedded generation to the network.

5.3 Itemised statement of costs

The draft determination explains that the Rule change proponents requested that connection offers should include an itemised statement of connection costs. The draft determination also explains that while the Rules currently specify that an offer to connect is to contain the basis, and the terms and conditions, for determining distribution service charges, they do not specify how this information is presented to connection applicants.[18]

Accordingly the draft Rule includes an obligation on DNSPs to provide an itemised statement of charges, limited to the extent that they are relevant[19]. That is, where there are contestable services, the DNSP would be obliged to inform the connection applicant that it may obtain its own quotes from suitably qualified accredited service providers for the provision of these particular services[20].

The Victorian DBs consider that these proposals are workable, noting that the draft determination acknowledges that "specifying the provision of this information in the NER would reduce a DNSPs flexibility to offer a range of options or charges"[21].

6. Implementation and transition arrangements

The draft determination explains that under the current timetable, the final Rule determination will be published on 19 September 2013 and the Commission has identified 1 July 2014 as a reasonable date for commencement of the final rule. The Commission considers that the resulting period of approximately nine months would provide DNSPs sufficient time to develop and publish the relevant information and documents in accordance with the new provisions under the Rules[22].

The proposed transition arrangements appear to be practicable and are generally acceptable to the Victorian DBs.

---

16 Ibid, page 83.

17 Ibid, page 81.

18 Ibid, page 85.

19 The relevant clauses are 5.3.6(b2) and Schedule 5.4B(f) and (g).

20 AEMC, Draft Determination, National Electricity Amendment (Connecting Embedded Generators) Rule 2013, 27 June 2013, page 86.

21 Ibid, page 85.

22 Ibid, pages 88-89.

Closing

The Victorian DBs appreciate the opportunity to make this submission and would welcome the opportunity to discuss any of the matters raised in this submission. As already noted, the drafting of the proposed Rule changes is quite complex, and so we suggest that the Commission should provide an opportunity for all parties to undertake a detailed review of the Rule changes prior to their finalisation, to enable any errors, inconsistencies or unintended consequences in the drafting of the Rule change to be identified and rectified. In the meantime, we would welcome the opportunity of working closely with the Commission in finalising the Rule change, to ensure that the arrangements specified in the final Rule are workable.

Further detailed comments on the proposed Rules are set out in the Attachment.

If you have any questions, please contact me on (03) 8846 9856 or by email at verity.watson@ue.com.au.

Yours sincerely,

Verity Watson
Manager - Regulatory Strategy, United Energy and Multinet Gas
on behalf of the Victorian Electricity Distribution Businesses

Attachment: Victorian Distribution Businesses' detailed comments on the proposed Rules

Clause / matter	Comments / Issues
Clause 5.3.6(a)(2) and (3)	The references should be to 5.3A.**9**(b)(1) and 5.3A.**9**(b)(2).
Clause 5.3.6(a1)	This proposed clause is re-drafted so it reads: The Network Service Provider may amend the time period referred to in clause 5.3.6(a)(1) and (3) to allow for any additional time taken in excess of the period allowed in the preliminary program for the negotiation of negotiated access standards in accordance with clause 5.3.4A. A difficulty arises because current clause 5.3.6(a1) is drafted on the incorrect basis that the period for the negotiation of negotiated access standards is set out in a preliminary program, but it is actually determined by the limit in clause 5.3.4A(e) that the NSP must accept or reject a proposed negotiated access standard within 30 business days following the receipt of a proposed negotiated access standard. An amendment is required to clause 5.3.4A to make it clear that a negotiating period can extend beyond the 30 business days and is, presumably, meant to constrain the number of iterations that can take place under clause 5.3.4A(h)(3). Further difficulty arises because existing clause 5.3.6 provides that a preliminary program sets the time period for making an offer to connect (and such a preliminary program is required under new Schedule 5.4B(i)(5)) but new clause 5.3.6(a) refers to an agreed period of not more than 4 months (even though the new processes in clause 5.3A do not cater for any agreement between the DNSP and the Connection Applicant about when the offer will be made). There is inconsistency across these provisions for the responsibility and process for setting the period for making an offer to connect where the connection is not an agreed project.
Clause 5.3.6(a2)(1)	The cross-references in this clause should be to clause 5.3A.10(b) and (c), not clause 5.3A.9(c), (d) or (e).

Clause / matter	Comments / Issues
Clause 5.3A.2(c)(2)	This clause provides that "where this rule 5.3A fixes a timeframe on the validity of the preliminary response under clause 5.3A.7 or the detailed response under clause 5.3A.8…[then the period of an independent expert appraisal is disregarded in calculating elapsed time]". That drafting should be reviewed by the Commission as rule 5.3 does not fix a timeframe for the validity of responses. This 'stop the clock' mechanism only operates to disregard the time taken in an independent expert appraisal. It does not operate in relation to a connection applicant providing further information where its enquiry is deficient (clauses 5.3A.5(f)) or consultation with other parties (clause 5.3A.6(b).) There is also no 'stop the clock' mechanism for a connection applicant providing further information where its application to connect is deficient (clauses 5.3A.9(e)). New clause 5.3.6(a2) should cater for it, but it does not.
Clause 5.3A.6(b)	The DNSP must liaise with other NSPs if they will be affected by the proposed connection and provide in the preliminary and detailed responses the requirements of other NSPs for information. It is not clear how that further information is to find its way into the process and how response times are to be relaxed in those circumstances.
The provisions dealing with third party NSPs	The provisions dealing with third party NSPs appear to be incomplete. Under clause 5.3A.5(e) one DNSP might become the central point between the connection applicant and all DNSPs potentially involved. The connection applicant can then deal directly with those other DNSPs (clause 5.3A.9(g)(1)) although the process for doing so, and importantly the impact on the main application (including how the different connection agreements will work together), is unstated. Alternatively, the connection applicant may require the DNSP to "obtain and present all necessary draft agreements" to the connection applicant, but the DNSP does not have any capacity to comply with this obligation. These provisions seem to underestimate the likely difficulties in negotiating multi-party connection agreements.

Clause / matter	Comments / Issues
Clause 5.3A.4	There is one connection enquiry to which there is preliminary response and, upon the receipt of further information identified in the preliminary response as required for preparing a detailed response, there is a detailed response. There is, however, no request as such for a detailed response – see clause 5.3A.8. This is a drafting problem because the enquiry fee is only payable if a detailed response *is requested* under clause 5.3A.8 (see clause 5.3A.4(b)). The enquiry fee, to cover only the anticipated costs of the detailed response and investigating the application to connect[23] is payable with the connection enquiry (see clause 5.3A.5(b)) even though other provisions suggest it is payable only on request for a detailed response (clauses 5.3A.4(b) and 5.3A.8(d)(1)). Presumably the latter is intended as there is no fee payable for the preliminary response. Even so, at the stage of a request for a detailed response, it will be difficult to anticipate the costs of investigating the application to connect (see clause 5.3A.4(a)(1)) because the DNSP cannot know if it will be an agreed project or not. There is an application fee for assessing the application to connect and making the offer to connect. The process for, the timing and recovery of this fee, is unclear. It seems as if it will be required before an application to connect under clause 5.3A.9 will be processed but it is not mentioned as a requirement in clause 5.3A.4 or 5.3A.9. It is not mentioned in clause 5.3.6 which sets out the content of an offer to connect or if it is to form part of the connection terms and conditions, Schedule 5.6 does not clearly allow it. This clause raises some issues with the defined term “application to connect” which seems to be broad enough to cover all stages, but elsewhere (for example clauses 5.3A.1(b)(1) and 5.3A.11) it is used more narrowly to refer to “connection application” in accordance with clause 5.3A.9. The drafting should be amended so that it allows recovery of costs incurred by the DNSP in preparing a preliminary enquiry response, a detailed response, and an offer to connect.

[23] Application to connect is a defined term, the meaning of which is ambiguous, however it is noted that in clause 5.3A.1(b)(1) a distinction is drawn between a connection enquiry and an application to connect under clause 5.3A.9.

Clause / matter	Comments / Issues
Clauses 5.3A.7(a) and 5.3A.8(f)	The drafting of clause 5.3A.7(a) is difficult to understand. All of the paragraphs of Schedule 5.4A are included but they are split up across, and within, sub-paragraphs (1) and (2). A similar issue arises under clause 5.3A.8(f).
Clause 5.3A.11	This clause should be amended as shown below: Clause 5.9A applies to any dispute between a Distribution Network Service Provider and a Connection Applicant as to the technical requirements to establish or modify a connection sought by a Connection Applicant in ~~a connection enquiry made under clause 5.3A.5 or~~ an application to connect under clause 5.3A.9.
Clause 5.9A	The scope of the independent expert's appraisal in clause 9.1 should be amended to read as follows: …without prejudice to their rights to pursue other dispute resolution processes, initiate independent expert appraisal under this rule 5.9A ~~at any time prior to execution of a connection agreement in respect of the connection sought to be established or modified~~ <u>following receipt of a detailed response under clause 5.3A.8. The independent expert may only consider whether the DNSP's detailed response under clause 5.3A.8 or its offer to connect is reasonable in the circumstances. The expert must not act in an advisory or design capacity. The expert's appraisal is limited to technical matters, and must not consider commercial, financial or regulatory issues.</u> In clause 5.9A.8, the following provision should be added: <u>The expert must provide evidence that the expert's fees and costs are reasonable and only reflect activities that are within the scope of a technical dispute under clause 5.9A.</u>
Clause 5.3A.8(d)(3)	The cross-reference in clause 5.3A.8(d)(3) to clause 5.3A.7(b) should be to clause 5.3A.8(b). It is unclear what the cross-reference in clause 5.3A.6(a)(2) is intended to be as it covers the same ground as the cross-reference in clause 5.3A.8(d)(3) (ie the provision of further information to prepare the detailed response). There should be a clause to the effect that a preliminary response is not required until deficient information in the enquiry has been remedied. That requires a cross-reference to clause 5.3A.5(f).

Clause / matter	Comments / Issues
Clause 5.3A.10(d)	To whom the TNSP's costs are to be paid under clause 5.3A.10(d) is unclear.
Clause 5.4.5	This clause should be deleted.
Clause 5.3A.7(a)	The words "where practicable" should be included in this clause as shown below: Unless agreed otherwise, a preliminary response must <u>where practicable</u> be provided within 15 business days of receipt of a connection enquiry…
Schedule 5.4A(a)	Amend the cross reference in this clause, and include the works "where practicable" as shown below: For the purposes of clause ~~5.3A.5(c)~~ <u>5.3A.7</u>, the following information must <u>where practicable</u> be included in the preliminary response…
Schedule 5.4A(m)	This clause should be deleted.