

# **Final decision**

# Transmission annual planning report guidelines

December 2018



© Commonwealth of Australia 2018

This work is copyright. In addition to any use permitted under the Copyright Act 1968, all material contained within this work is provided under a Creative Commons Attributions 3.0 Australia licence, with the exception of:

- the Commonwealth Coat of Arms
- the ACCC and AER logos
- any illustration, diagram, photograph or graphic over which the Australian Competition and Consumer Commission does not hold copyright, but which may be part of or contained within this publication. The details of the relevant licence conditions are available on the Creative Commons website, as is the full legal code for the CC BY 3.0 AU licence.

Requests and inquiries concerning reproduction and rights should be addressed to the Director, Corporate Communications,

Australian Competition and Consumer Commission, GPO Box 3131, Canberra ACT 2601 or publishing.unit@accc.gov.au.

Inquiries about this publication should be addressed to:

Australian Energy Regulator GPO Box 520 Melbourne Vic 3001

Tel: 1300 585165

Email: <u>AERInquiry@aer.gov.au</u> AER Reference: 64667 – D18/181975

#### Amendment Record

Version	Date	Pages
1	18 December 2018	18

# Contents

Sh	ortened forms1
1	Overview2
2	Background3
3	Consideration of stakeholder submissions5
	3.1. Confidentiality5
	3.2. Consistency and clarity of terminology6
4	TAPR Guideline7
	4.1. Transmission connection point data7
	4.2. Transmission line segment data10
	4.3. New generator connections data13
AS	Summary of and response to submissions14

# **Shortened forms**

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
DAPR	distribution annual planning report
DNSP	distribution network service provider
DSN	declared shared network
ENA	Energy Networks Australia
ISP	integrated system plan
KV	kilovolt
MVA	mega volt ampere
MWh	megawatt hour
NEM	National Electricity Market
NER	National Electricity Rules
NSP	network service provider
POE	probability of exceedance
RIT	regulatory investment test
TAPR	transmission annual planning report
TNSP	transmission network service provider
VCR	value of customer reliability
WACC	weighted average cost of capital

# 1 Overview

This final decision sets out the Australian Energy Regulator's (AER's) reasons for the transmission annual planning report (TAPR) guidelines, including how they incorporate stakeholder views. The TAPR guidelines will lead transmission network service providers (TNSPs) to provide generators and large transmission customers with the practical and consistent information that they need to make informed connection decisions. The TAPR guidelines will also lead TNSPs to provide non-network service providers with information to assist with how they may be able to offer alternative non-network solutions to identified transmission needs.

The combination of declining renewable generation costs, retiring thermal generation plant and government incentives is resulting in over 40,000 MW of proposed renewable generation connections to the transmission system in the short term.<sup>1</sup> At the same time, the declining cost of technology is creating more opportunities for non-network service providers.

However, generators, large transmission customers and non-network service providers face the challenge of accessing and comparing different information types and detail across the TAPRs and other information sources, leading to increased costs and potentially inefficient investment decisions.

The TAPR guidelines will address some of the challenges by requiring TNSPs to publish a set of consistent and easy to access information ('TAPR data') to complement the TAPR documents that they have been publishing on 30 June each year.

This final decision sets out our reasoning for the TAPR guidelines, which require TNSPs to publish and keep available on their website TAPR data. This data must include the following key information:

- Historic<sup>2</sup> and forecast demand at each connection point; and
- Information about the location and size of applicant generator connections.

The TAPR guidelines provide data requirements and set out how this TAPR data should be prepared. However, they do not prescribe the format that the information should be released to the market. This is similar to the distribution annual planning report (DAPR) template (or the 'system limitations template')<sup>3</sup>, which complements distribution network service providers' (DNSPs') DAPRs.

<sup>&</sup>lt;sup>1</sup> AEMO, Generation Information page, 1 July 2018.

<sup>&</sup>lt;sup>2</sup> We do not require TNSPs to re-publish historical information as long as they have kept it available on their websites in a previous TAPR template. As such, we envisage the majority of historic data will be published in the inaugural TAPR template.

<sup>&</sup>lt;sup>3</sup> AER, *Final decision: Distribution annual planning report template v1.0.* June 2017.

## 2 Background

We are required to publish TAPR guidelines under clause 5.14B.1 of the National Electricity Rules (NER). This obligation arose from the transmission connection and planning arrangements rule determination of May 2017.<sup>4</sup> The TAPR guidelines aim to support the consistent provision of information by TNSPs across the National Electricity Market (NEM). We also welcome ongoing feedback from any interested party to help improve the TAPR guidelines over time in delivering the necessary information.

Our earlier work on TAPR improvement formed the basis for the rule change and had already encouraged TNSPs to start making efforts to take a more consistent approach to developing TAPRs. This work entailed collaborating with TNSPs in 2014 by holding an industry wide workshop to improve the quality of the content of TAPRs, with a similar workshop convened with DNSPs in 2015. After this, we held one-on-one meetings with network service providers (NSPs) to outline our views of any shortcomings compared to the rule requirements (and to drive improvements through improvement action plans that each NSP agreed to).

Since that work, we have continued on a number of related reviews, including:

- In June 2016, we proposed a 'repex rule change'<sup>5</sup>, which was finalised by the Australian Energy Market Commission (AEMC) in July 2017. The repex rule change requires NSPs to provide information on all planned asset retirements in their annual planning reports and extends the regulatory investment tests (RITs) to replacement decisions.<sup>6</sup>
- In June 2017, following informal consultation with DNSPs and non-network providers, we
  published the system limitations template to improve the consistency and useability of
  DAPRs across the NEM. The system limitations template also improves the information
  that non-network providers need to identify and propose solutions to address identified
  network needs.
- Following the repex rule change, several NSPs requested guidance on how to undertake quantified risk assessments required to demonstrate efficient asset retirements. In October 2017, we held a workshop with all NSPs to outline our views on the new obligations. On 7 September 2018, we published a draft 'industry practice application note' on asset replacement planning<sup>7</sup>, which was followed by a stakeholder forum on 25 September 2018 and a submission period that closed on 18 October 2018.<sup>8</sup> We plan to finalise this application note before February 2019.
- In December 2017, we commenced a large-scale review of the RIT application guidelines. On 14 December 2018, we finalised this review by publishing amended RIT

<sup>&</sup>lt;sup>4</sup> AEMC, *Rule determination: National electricity amendment (transmission connection and planning arrangements) rule* 2017, May 2017, pp. 108–10.

<sup>&</sup>lt;sup>5</sup> AER, Request for rule change — Replacement expenditure planning arrangements, 30 June 2016.

<sup>&</sup>lt;sup>6</sup> AEMC, *Rule determination: National electricity amendment (replacement expenditure planning arrangements) rule 2017*, 18 July 2017, p. i.

AER, Draft industry practice application note: Asset replacement planning, September 2018.

<sup>&</sup>lt;sup>8</sup> For a summary of the discussion at the stakeholder forum, see AER, *AER asset replacement forum: Discussion summary*, September 2018.

application guidelines.<sup>9</sup> Among other things, the amended guidance encourages RIT proponents to provide transparent and user-friendly data to stakeholders, as well as to use their TAPRs and DAPRs to undertake early engagement on investment proposals.

Also, in July 2018, the Australian Energy Market Operator (AEMO) published its inaugural Integrated System Plan (ISP).<sup>10</sup> The ISP was recommended by the Independent Review into the Future Security of the NEM to facilitate the efficient development and connection of renewable energy zones across the NEM.<sup>11</sup>

Because of these interrelated reviews, the development of the TAPR guidelines experienced a small delay. However, we consider it is in the best interest of consumers that we take a considered approach.

<sup>&</sup>lt;sup>9</sup> AER, *RIT–T application guidelines*, 14 December 2018; AER, *RIT–T application guidelines*, 14 December 2018.

<sup>&</sup>lt;sup>10</sup> AEMO, Integrated system plan for the National Electricity Market, July 2018.

<sup>&</sup>lt;sup>11</sup> See recommendation 5.1 of the Commonwealth of Australia, *Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future*, June 2017.

## **3** Consideration of stakeholder submissions

This section sets out how the TAPR guidelines account for the submissions we received on the draft TAPR guidelines. These include submissions from:

- TransGrid;
- Energy Networks Australia (ENA);
- AEMO; and
- EnergyAustralia.

We have provided a summary of and response to these submissions in Attachment A, and have also published these submissions on our website.<sup>12</sup>

The key areas of the TAPR guidelines that we received submissions on relate to potential confidentiality issues as well as consistency and clarity of terminology. This section outlines our positon on these issues.

Moreover, AEMO's submission suggested amendments to recognise arrangements specific to where it is the planner and procurer of transmission services for the declared shared network (DSN) in Victoria. Following from AEMO's suggestion, the TAPR guidelines specify that references to 'transmission connection points' and 'transmission line segments' are to be interpreted in Victoria as 'transmission terminal stations' and 'transmission lines between terminal stations', respectively.

#### 3.1 Confidentiality

Stakeholders raised concerns on the additional information requirements for new connections in the TAPRs as proposed by our draft TAPR guidelines. In its submission to our draft TAPR guidelines, ENA noted that the new connection information is confidential under the NER and cannot be provided as the draft TAPR guidelines proposed. TransGrid, AEMO, and EnergyAustralia have raised similar concerns citing that the provision of new connection information may be commercially sensitive and hence only non-confidential information should be published.

We understand the concerns raised by the stakeholders and have therefore made amendments for these final TAPR guidelines. Firstly, we have limited the scope of the connection information requirements so that they only apply to new connections for generators (which have recently been, and are expected to continue to be, the primary source of additional network loading). We are not requiring information on new load connections as this has not been a material issue to date, and is not expected to be so in the future.

Secondly, the TAPR guidelines now require that, where information that would otherwise be required to be published is subject to confidentiality requirements under the NER, the TNSP

<sup>&</sup>lt;sup>12</sup> AER, *Transmission annual planning report guideline*, <u>https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/transmission-annual-planning-report-guideline/draft-decision.</u>

must instead publish that information as an unidentified component of an aggregated sum.<sup>13</sup> The TNSP must only aggregate the information to the extent necessary to maintain the confidentiality of the information.

#### 3.2 Consistency and clarity of terminology

The final TAPR guidelines incorporate suggestions from ENA and AEMO to increase the clarity and consistency of our guidance. For instance, we have:

- Clarified that information is required for transmission connection points (terminal stations) and transmission line segments (where there are multiple segments between terminal stations) subject to historical and emerging network limitations.
- Defined the data rules and ensured that appropriate units of measurement were cited in the template that forms the TAPR guideline (see sections 4.1 to 4.3).
- Incorporated text to explain the different data rules into the template itself rather than in separate explanatory text to ensure there is consistency and clarity between the text and data rules.

<sup>&</sup>lt;sup>13</sup> NER clause 8.6.2(k).

# 4 **TAPR Guideline**

Transmission connection points in the NEM with associated transmission lines are significantly fewer in number compared to the distribution network connection points. The volume of information required to be published by TNSPs is also significantly less as the TAPR guidelines are confined to information on emerging limitations.

TNSPs are to publish, and keep up to date if published online, three years of historical information for connection points and transmission lines. This will assist connecting parties understand how their connections might affect the network loading and whether any augmentations would be needed to facilitate their connections. For connecting generators, this will also provide information on the potential for congestion.

We propose that information be published on emerging limitations of the transmission network, which will facilitate non-network service providers in identifying and proposing alternative options to address identified needs.

We also propose that information on emerging limitations be specific and targeted at where the limitation will occur at a connection point or on a transmission line. This information only needs to be provided if there is an emerging constraint or if an impending asset retirement leads to a network constraint.

New connection information must be updated as soon as practicable. The TAPR guidelines require at least annual updating of this information, but we would encourage more frequent updating of this information via website links.

Information that the TAPR guidelines direct TNSPs to publish should be published in a structured format that is easily ingested by commonly used IT applications. Sections 4.1 to 4.3 set out this information, which includes data on:

- transmission connection points;
- transmission line segments; and
- new generator connections.

#### 4.1 Transmission connection point data

For each transmission connection point with actual or forecast network limitations over the forecast period, the following information is required. Note for the DSN in Victoria, a transmission connection point refers to a transmission terminal station.

For information that is subject to a confidentiality obligation under the NER, or is otherwise information about an individual user, the TNSP must instead publish that information as an unidentified component of an aggregated sum.<sup>14</sup> The TNSP must only aggregate the information to the extent necessary to maintain the confidentiality of the information.

<sup>&</sup>lt;sup>14</sup> In the case of NER confidentiality obligations, see NER clause 8.6.2(k).

Field Name	Rule	Data Type	Units	Description – Other information
Constrained connection point ID	TGCP001	Text		Name of the transmission connection point and TNSP unique ID.
Constraint primary driver	TGCP002	Text		Information must be supplied on what technical, regulatory or legal requirement is giving rise to the constraint. A primary driver may be capacity, reliability, power quality, operational, stability, reactive support, compliance, asset condition and performance, market benefit, environmental, safety or other. Further detail should be provided in the TAPR document to complement this TAPR data.
Constraint investment type	TGCP003	Text		The type may be augmentation, asset retirement, asset renewal, or operational investment.
Constrained connection point location	TGCP004	Float	Decimal degrees	Latitude and longitude of the constrained transmission connection point must be sufficiently accurate for identifying the asset location.
Annual energy and peak demand of residential customers affected	TGCP005	Integer	MWh, MW	Total annual energy consumption and maximum demand of the residential customers connected to the connection point.
Annual energy and peak demand of industrial customers affected	TGCP006	Integer	MWh, MW	The total number of industrial customers that are connected to the connection point— may require liaising with relevant DNSP(s).
Annual energy and peak demand of commercial customers affected	TGCP007	Integer	MWh, MW	The total number of commercial customers that are connected to the connection point— may require liaising with relevant DNSP(s).
Forecast 10% and 50% Probability of Exceedance (POE) peak demand on maximum demand day	TGCP008	Series	YYYY; MVA	Ten year forecast. The 10% and 50% POE peak demand forecast as well as the forecast daily demand profile expressed in MVA. This should be for the historical maximum demand and minimum demand day for each connection point with historical or emerging limitations.
Maximum demand on minimum demand day	TGCP009	Series	YYYY; MW	The maximum demand on the minimum demand day of the year.
Forecast daily demand profile on maximum	TGCP010	Series	YYYY; MW	See previous.

demand day				
Forecast daily demand profile on minimum demand day	TGCP011	Series	YYYY; MW	See previous.
Voltage level	TGCP012	Integer	kV	Highest operational voltage level of the assets involved at the constraint.
Forecast maximum load at risk per year	TGCP013	Series		Maximum load at risk per year for all years constraint is forecast to occur (leave blank if not applicable).
Connection point load duration curve data	TGCP014	Series		Half hourly data for annual load duration curve.
				Provide brief description of the project, its scope and anticipated effect on the constraint: Free text.
Preferred investment— Description	TGCP015	Text		This will inform non-network providers of what sort of network investment (capex or opex) the TNSP is contemplating to address the need.
Preferred investment — Capital cost	TGCP016	Series	YYYY, \$ millions (nominal)	This will inform non-network providers of the annual magnitude of network investment the TNSP is contemplating to address the need.
Preferred investment — Annual network operating cost	TGCP017	Series	YYYY, \$ (nominal)	Annual operating costs (including overheads).
Preferred investment— Cost accuracy	TGCP018	Integer	%	Use 0.15 for +/-15%.
				The timing for delivery of the solution. It will provide non-network providers sufficient information on when a solution is required.
Preferred investment— Proposed timing	TGCP019	Integer	ΜΜ-ΥΥΥΥ	Where it contains multiple timings for various stages, list timings of each stage.
Demand reduction required to defer investment by 1 year	TGCP020	Integer	MVA	Applicable for capacity driven investment.
Annual deferral value	TGCP021	Series	YYYY, \$ (nominal)	Applicable for capacity driven investment.
Load transfer capacity	TGCP022	Series	YYYY, MVA	Required if the connection point is subject to a constraint or an investment is being considered/taking place that would provide

				load transfer capacity.
Historic load trace	TGCP023	Series	HH:MM DD/MM/YYYY MW; MVA	Historic load trace must be provided for the past 3 years and deliver information at a maximum 30 minute intervals (e.g. 5 minute intervals might also be appropriate); uncleansed. It must be expressed in MW and MVA.
Historic connection point rating	TGCP024	Series	HH:MM DD/MM/YYYY MVA	The summer and winter ratings for the past 3 years at that connection point. This must be for major components at connection points with historical or emerging network limitations.
Limitation asset	TGPC025	Text		Information must be supplied on the specific asset(s) leading to the constraint, where applicable.
Unplanned outages	TGPC026	Integer	DD/MM/YYYY MVA	This must include unplanned outage date, cause, duration and quantified consequence for the past 3 years.
Maximum fault level	TGPC027	Integer	MVA	This must be for connection points with historical or emerging network limitations. Low fault current or 'system strength' issues should be covered more broadly in the TAPR document.
Annual economic cost of constraint	TGPC028	Float	\$ millions	Economic cost of constraint expressed in \$ millions. For example the expected annual cost of unserved energy, cost of safety risk, cost of operational constraint, or cost of wholesale energy cost increase caused by the constraint (where applicable).
VCR	TGPC029	Float	\$/MWh	VCR value applied to assess the impact of this constraint. Data to be expressed as \$/MWh (weighted by customer type).
Annual expected unserved energy	TGPC030		MWh	Expressed as MWh per annum, where applicable.

#### 4.2 Transmission line segment data

TNSPs should provide the following information for each transmission line segment with historical and emerging network limitations. For the DSN in Victoria, a transmission line segment reflects transmission segment between terminal stations with historical and emerging network limitations.

For information that is subject to a confidentiality obligation under the NER, or is otherwise information about an individual user, the TNSP must instead publish that information as an

unidentified component of an aggregated sum.<sup>15</sup> The TNSP must only aggregate the information to the extent necessary to maintain the confidentiality of the information.

Relevant fields may be left blank where no emerging constraint has been identified on the transmission line segment.

Field Name	Rule	Data Type	Units	Description – other information
				Name of the transmission line subject to any historical or emerging constraints, including the TNSP unique ID and the connection point ID at each end of the line.
Transmission line ID	TGTL001	Text		E.g. Rome-Milan 275kV, TS123, S1, S3.
Constraint primary driver	TGTL002	Text		Information must be supplied on what technical or legal requirement is giving rise to the constraint. A primary driver may be capacity, reliability, power quality, operational, stability, reactive support, compliance, asset condition and performance, market benefit, environmental, safety or other. Further detail would be provided in the TAPR document.
Location of constraint (start)	TGTL003	Integer	Decimal degrees	Latitude and longitude of the connection points at the beginning of the transmission line segment.
Location of constraint (end)	TGTL004	Integer	Decimal degrees	Latitude and longitude of the connection points at the end of the transmission line segment.
Asset rating	TGTL005	Series	YYYY; MVA	Forecast 10-year asset rating.
Forecast demand	TGTL006	Series	YYYY ; MVA	Forecast 10-year maximum line load, 10% and 50% POE.
Voltage level	TGTL007	Integer	kV	Operational voltage level of the assets involved at the constraint.
Maximum load at risk per year	TGTL008	Series	YYYY; MVA and MW	Maximum load at risk per year for all years constraint is forecast to occur (leave blank if not applicable).
Energy at risk	TGTL009	Series	YYYY; MWh	For all years the constraint is forecast to occur.
Preferred investment— Description	TGTL010	Text		Provide brief description of the project and its scope: Free text.

 $<sup>^{15}\,</sup>$  In the case of NER confidentiality obligations, see NER clause 8.6.2(k).

				This will inform non-network providers of what sort of network investment the TNSP is contemplating to address the need.
Preferred investment— Capital cost	TGTL011	Series	YYYY, \$ (nominal)	This will inform non-network providers of the magnitude of network investment the TNSP is contemplating to address the need.
Preferred investment — Annual operating cost	TGTL012	Series	YYYY, \$ (nominal)	Annual operating costs (including overheads).
Preferred investment — Cost accuracy	TGTL013	Integer	%	Use 0.15 for +/-15%.
Preferred investment— Proposed timing	TGTL014	Integer	MMM-YY	Anticipated solution delivery timing. This will provide non-network providers sufficient information on when a solution is required. Where it contains multiple timings for various stages, list timings of each stage.
Demand reduction required to defer investment by1 year	TGTL015	Series	Connection point, MVA	The total amount of load reduction required at affected connection points to defer the investment by one year. Applicable for capacity driven investment.
Annual deferral value	TGTL016	Series	YYYY, \$ (nominal)	Applicable for capacity driven investment.
				The greater value of load measured at either end of the line. This will inform non- network providers of how the load has flowed through the network.
Historic line load trace	TGTL017	Series	HH:MM DD/MM/YYYY MVA, MW	Maximum 30 minute intervals (e.g. 5 minute intervals might also be appropriate); 3 years historic information; uncleansed. It must be expressed in MW and MVA. Must highlight load switching.
Historic line rating	TGTL018	Series	HH:MM DD/MM/YYYY MVA	The summer and winter ratings for the past 3 years.
Annual economic cost of constraint	TGTL019	Series	YYYY, \$ (nominal)	Expressed in \$ millions. For example the expected annual cost of unserved energy, cost of safety risk, cost of operational constraint, or cost of wholesale energy cost increase caused by the constraint (where applicable).
VCR	TGTL020	Float	\$/MWh	VCR value applied to assess the impact of this constraint. Data to be expressed as \$/MWh (weighted by customer type relevant to any unserved energy risk).

Annual constraint duration	TGTL021	Float		Expressed as the number of hours the constraint is expected to last and how long the solution is required for, including a load duration curve where applicable.
Constraint duration on peak demand day	TGTL022	Float	hours	See previous.

#### 4.3 New generator connections data

This must include information on the proposed generator size, technology and approximate location for every connection application or new (that is, completed over the last 12 months) connection agreement. For information that is subject to a confidentiality obligation under the NER, or is otherwise confidential information about an individual user, the TNSP must instead publish that information as an unidentified component of an aggregated sum.<sup>16</sup> The TNSP must only aggregate information to the extent necessary to maintain the confidentiality of the new generation connection information. This means that the TNSP must publish:

- in the case of three or more new generation connections at a connection point, by three separate generation operators, aggregated new generation connection information for that connection point;
- otherwise, in the case of three or more new generation connections at multiple connection points, by three separate unrelated generation operators, new generation connection information for a geographic area consisting of those connection points.

Field Name	Rule	Data Type	Units	Other information
Approximate generator size	TGNC001	Integer	MW, MVAr	Non-confidential or redacted. E.g. aggregate multiple generators at the same connection point or in a geographic area where necessary to avoid revealing confidential information.
Approximate generator location	TGNC002	Text		Name of the transmission connection point and TNSP unique ID, or if only one generator then the sum of generation in a geographic area.
Associated generator type and technology	TGNC003	Text		Non-confidential or redacted.
Connection status	TGNC004	Text		Application or Connection Agreement in Place.

 $<sup>^{16}</sup>$  In the case of NER confidentiality obligations, see NER clause 8.6.2(k).

# A Summary of and response to submissions

Stakeholder	Submission	AER response
AEMO	While the AER have requested more information on current and emerging constraints on transmission lines, thereby focussing on the impact of increasing demand, the majority of emerging potential constraints in Victoria are expected to be driven by generation.	The information provided in TAPRs by the TNSPs on current and emerging constraints would capture both load and generation driven constraints. This may also be useful in capturing condition driven constraints.
AEMO	AEMO proposes to only incorporate information relevant to the DSN in Victoria. This also relates to the information requested for new generation connections as DNSPs are responsible for connection point information in Victorian, which forms part of the Systems Limitation Template or Transmission Connection Planning Report.	Since there are not many constrained connection points or terminal stations and given this information is already published, it will not be unreasonable for TNSPs to publish this information in the requested formats.
AEMO	Suggests re-categorising sections 4.1.1 and 4.1.2 of the draft TAPR guidelines from 'transmission connection points' and 'transmission line segment', to 'transmission terminal stations' and 'transmission lines between terminal stations' respectively. The current categorisation does not align well with coverage of the DSN assets (e.g. assets in terminal stations that are not directly connected to connection points). The level of detail requested also appears to encompass network equipment, which would provide limited additional value to stakeholders.	The TAPR guidelines specify that, following from the DSN arrangements in Victoria, references to 'transmission connection points' and 'transmission line segments' in the TAPR guidelines shall be interpreted in Victoria as 'transmission terminal stations' and 'transmission lines between terminal stations', respectively.
AEMO	Suggests clarifying in section 4.1.1 of the draft TAPR guidelines that fault level requirements only relate to emerging constraints.	Agreed. We have clarified this in the final TAPR guidelines.
AEMO	Suggests clarifying in section 4.1.3 of the draft TAPR guidelines that only non- confidential information on new generation connections is required to be published. Also, providing forecast load duration curves for new connections may not be of high accuracy, and therefore add limited value.	The final TAPR guidelines only request non-confidential information on new generator connections, and advise TNSPs to aggregate or redact information where necessary. The final TAPR guidelines do not request forecast load duration curves for new connections.
ENA	Suggests clarifying whether information is only required on constrained transmission connections points. If unconstrained points	Agreed. We have clarified that information is required on constrained transmission

	are required, the AER should specify which fields require completion.	connection points or terminal stations.
ENA	Suggests better aligning the text in section 4 of the draft TAPR guidelines with the relevant template fields (e.g. constraint primary driver, customer number, unplanned outage, etc.).	The final TAPR guidelines include consistent template fields and explanatory text. Explanatory text is also now in the template fields rather than being separate.
ENA	It is not appropriate or proportionate to undertake risk based quantification of augex and repex as this is appropriately undertaken in RIT-Ts.	The final TAPR guidelines request TNSPs report the economic cost of constraints at transmission connection points and line segments. RIT-Ts only apply to large transmission investments, and this information helps non- network businesses respond to investments under the RIT-T cost threshold.
ENA, TransGrid	TransGrid submitted it would be more efficient if the historical information requested in the draft guidelines was more targeted. ENA submitted the historical data requested in the draft TAPR guidelines potentially raises confidentiality concerns. The AER may want to consider whether RIN data could be used in the first instance. If the AER maintains this requirement, TNSPs should have the flexibility to roll one year of historic data at a time as some TNSPs may not have captured this data and may need to amend their current collection/reporting arrangements.	Agreed. We have amended the final TAPR guidelines to reflect that only non-confidential information on new generation connections is required to be published. It is unlikely historical information for locations where investment is required is unavailable, but if it is not readily available, then we will assess this claim from a TNSP on a case by case basis.
ENA, TransGrid	Information sought on connection enquiries may give raise to confidentiality concerns. Specifically, ENA is concerned that the new connection information in section 4.1.3 of the draft TAPR guidelines might be confidential under NER clauses 5.3.8 and 8.6.	We have amended the final TAPR guidelines to reflect that only non- confidential information on new generation connections is required to be published. Sections 3.1 and 4.3 further expand to address this.
EnergyAustralia	Some consumer loads might be confidential. It would be valuable if historic load traces were only made available where this does not allow any confidential information to be inferred. An example of this may be a connection point in which a singular major load at any one time can be a substantial portion of the power being consumed.	We have amended the final TAPR guidelines to reflect that only non- confidential information on new generation connections is required to be published. Sections 3.1 and 4.3 further expand to address this.