Final Decision

Distribution Annual Planning Report Template V1.0

June 2017

AUSTRALIAN ENERGY REGULATOR

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Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
DAPR	Distribution Annual Planning Report
DNSP	Distribution Network Service Provider
KV	Kilovolt
MW	Megawatt
MWh	Megawatt hour
MVA	Mega Volt Amp
POE	Probability of exceedance
RIN	Regulatory Information Notice

1 Introduction and Overview

This Distribution Annual Planning Report (DAPR) template will deliver non-network service providers the useable and consistent information they need to make informed commercial decisions when offering solutions to Distribution Network Service Providers (DNSPs) to address identified network needs.[1]

The declining cost of technology and communications is creating more opportunities for non-network service providers. If a non-network solution can be installed ahead of a network solution at a lower cost, it will result in improved services and lower network prices and be in the long-term interest of consumers. However the ability for non-network service providers to deliver solutions can be compromised by the quality and timeliness of information released by DNSPs in their DAPRs.

This template will alleviate some of those challenges and is step towards delivering a vibrant and active distributed energy market.

We must develop the DAPR template in line with the Australian Energy Markets Commission (AEMC) final determination on the Local Generator Network Credit National Electricity Rule (Rule) change[2].

The Rules require that we publish a template by 30 June 2017 with, among other information:

- The name and location of network assets where a limitation has been identified;
- The timing of the limitation;
- The proposed solution;
- The estimated cost;
- The amount by which peak demand would need to be reduced to defer the proposed solution and the dollar value of each year of deferral.

While most of this information is already provided in DAPRs, the useability of the information in 150-plus page PDF documents, supported by 1000-plus page appendices, makes the process of identifying non-network investment opportunities challenging. Further, the consistency of how that information is provided makes the task of identifying investment opportunities for non-network businesses challenging.

DAPRs have grown in length over the past 10 years, reflecting greater reporting and compliance obligations imposed on DNSPs. However, the way that information is presented to the market, and the way the Rules require that information to be published, has not kept up with the information age.

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[1] This DAPR template satisfies the requirement for the AER to develop a Distribution System Limitation Template under Rule 5.13.3.

[2] AEMC, Local Generator Network Credit Rule Change, 8 December 2016

DNSPs have previously raised concerns with the AER that while they have considered providing information in a more information-age ready format, they were concerned that the AER would take compliance action for not providing the information in the DAPR document itself.

To that end, we are committed to DNSPs providing information in a consistent format as a substitute for providing information in lengthy PDF documents providing that the DAPR documents themselves continue to highlight key changes from the previous year's DAPR and where investment opportunities exist.

We see this template as a living document and we will expect to make amendments on the template:

- Following our review of every DNSPs non-network engagement strategy in 2017-18,
- Once we have understood how DNSPs have complied with this template by the end of 2017;
- To complement any changes made to the Regulatory Investment Test for Distribution (RIT-D) following the Australian Energy Market Commission's (AEMC) Replacement expenditure planning arrangements (repex) rule change and our workshops on best practice risk assessment and asset retirement decision making, which we will conduct in the second half of 2017;
- If there are any matters arising from a similar review of TNSP Annual Planning Reports that we will soon commence our consultation on.

2 Stakeholder engagement

On 1 May 2017, we circulated a Consultation Paper to all DNSPs and a number of non-network providers outlining our proposed approach to the DAPR template. That was followed by a workshop convened on Friday 19 May in Sydney where we discussed the template and a range of issues, including consistency in terminology and the non-network engagement strategies that the DNSPs must produce.

We requested feedback on the draft template and received many comments informing our final decision.

We welcome ongoing feedback from any interested party to help shape this System Limitation Template over time and to deliver the necessary information.

3 Draft template

The draft DAPR template sets out requirements for DNSPs to provide the following information:

Constraint type and driver – whether it was driven by an augmentation or replacement decision, related to a reliability requirement or a power factor requirement;

Location of constraint – the geographic location;

System element – whether it was a sub-transmission line, zone substation, or distribution feeder;

Customer number and type – breakdown of industrial, commercial or residential customers;

Constraint outlook – requested detailed information on demand forecast; asset ratings; power quality, operational limitations, asset conditions, performance measurements, market benefits, environmental and safety risk

Preferred network solution – the type and cost of the network solution;

Proposed timing – proposed timing of the network solution;

Deferred peak demand – how much peak demand would need to be deferred by to make a non-network solution viable;

Emergency generation – what emergency generation is available at the location;

Historic use of existing emergency response – how much the emergency generation has been used

Historic load trace – a typical load trace of network location;

Historic asset utilisation – how much the asset has been utilised;

Historic outage – information on historic outages.

4 Matters raised in submissions and at the workshop

The main matters raised at the forum and in response to the template were:

4.1 Timeframes

Replacement expenditure rule change – the AEMC is finalising consultation on the repex rule change. Questions were raised on whether DNSPs must publish information relating to replacement expenditure given the content is unclear as the template will be published ahead of the new rules being finalised.

Time to implement the templates – questions were raised about the timeframes required to implement the DAPR template for those DNSPs who must publish their DAPR in 2017.

4.2 Compliance

Information requirements – questions were raised about the compliance implications if the AER compelled information which does not exist to be published (e.g. voltage information).

Supplementing the DAPR – clarity was sought on whether DNSPs could place information in the DAPR template rather than the DAPR document and remain compliant with their Rule obligations.

4.3 Information requirements

Consistent definitions – questions were raised about the limited consistency between DNSPs on information reported, (e.g. some publish feeder information and others do not) and inconsistent approaches (e.g. some report project capital costs only while others report capital and operating costs).

Replacement expenditure – questions were raised about the value of publishing repex information because it is considered unlikely that a non-network business could address the identified need.

RIT-D threshold – questions were raised about the need to publish information on projects which were forecast to cost less than the RIT-D threshold.

Confidential information – questions were raised about whether exemptions could be granted for DNSPs to not publish information identifying customers who had commercially sensitive contracts.

Information format – clarity was sought as to the format of the information and how it is to be published (e.g. .xlsx, .csv).

Non-network engagement – questions were raised about the effectiveness of the non-network engagement strategies.

5 Our changes and views on matters raised

Thanks to the feedback, we propose the following changes:

5.1 Timeframes

Replacement expenditure rule change – we consider that sufficient notice has been provided by the AEMC on the direction of the Rule change. While the Rule change is still under review, at the time of writing, the AEMC is proposing that DNSPs must publish in its DAPR a list of asset retirements[3]. Where that asset retirement leads to an investment need, such as a like-for-like replacement or a replacement which could be addressed by combining a network and non-network solution, then the DNSP will be required to publish information in its DAPR. The draft rule also requires that the new annual planning report requirements will apply for the next scheduled annual planning reports. As a result, the DNSPs should be collecting this information already. Assuming that the AEMC releases its final decision by mid 2017, as per its current schedule, all DNSPs will need to be compliant by 31 December 2017. Therefore, any business who publishes the 2017 DAPR before the end of the year and has not released this information must issue a supplement with additional information. We will work with businesses once the repex rule change is finalised to ensure that they provide useable information to non-network businesses.

Time to implement the changes – the information that we require businesses publish in the template will not impose a significant burden on DNSPs and therefore it comes into effect from 1 July 2017 and must be published in every DAPR that is released after that date. The information must also be published at the same time that the DAPR is released.

5.2 Compliance

Information requirements – all DNSPs must comply with all the information requirements set out in the DAPR template. Where a DNSP does not currently collect or publish the information, they must write to us seeking a formal exemption from publishing the information and set out their plan to comply with the information requirements in 2018.

Supplementing the DAPR – our preference is for more information to be included in machine readable formats. Our mandated information should be considered a minimum requirement. We support information, such as tables and data, being moved from the DAPR to a source that is easily ingested by computers – with appropriate description and linkages in the DAPR document. We will monitor how DNSPs publish the information this year and may make minor improvements or issue clarifications in early 2018.

[3] AEMC, Replacement Expenditure Arrangements, April 2017

5.3 Information requirements

Consistent definitions – This matter requires further exploration. We will be exploring the issue of consistency further over the next 12 months and issuing any updates to the template to clarify information requirements on an as needs basis.

Replacement expenditure – We consider that non-network businesses can provide solutions to address some repex, (e.g. replace two transformers with one transformer and demand-side) therefore repex information must be published in the template.

RIT-D threshold – We consider that non-network solutions lend themselves more to projects below the RIT-D threshold, therefore we will not impose a minimum dollar threshold.

Confidentiality – Where a confidentiality claim is made for non-publication of information, we will accept the claim if we are of the opinion that:

- the disclosure of the information would cause detriment to the DNSP or to the person who provided the information to the DNSP; and
- the public benefit in disclosing the information does not outweigh that detriment.

If we accept the confidentiality claim, the DNSP is not required to publish that information.

Information format – We will not be prescribing the format the information must be published in. The template will instead consist of a series of information and rules that DNSPs must comply with. They can choose how to best present the information (e.g. in an excel document, a database or a data visualisation tool). We have provided an example in Appendix 1 setting out how we consider this information should be published.

Non-network engagement – We consider that DNSPs must improve their non-network engagement. This will be a focus for us in 2017-18. We will be registering with every business to receive the information updates to understand what type of information DNSPs provide to non-network businesses and how frequently they engage with non-network providers to understand what improvements can be made.

6 Summary of changes from draft template

Constraint type and driver	DNSPs must choose one from the following being the primary driver of the proposed investment: capacity; reliability; asset condition; performance; safety; environment; power quality; voltage
Location of constraint	Will specify longitude and latitude
System element	DNSPs must choose one of the following: transmission connection point; zone substation; sub-transmission line; feeder
Customer number and type	Replaced with requirement to publish residential information only. Focuses on total residential customer numbers and percentage of affected customers.
Constraint outlook	Recast to focus on existing asset rating and 5-year demand forecast. Removed information on power quality, operational limitations, asset conditions, performance measurements, market benefits, environmental and safety risk.
Preferred network solution	Clarified that it must include all costs: capex, opex and contingency costs. Brief description required
Proposed timing	No change
Deferral peak demand amount and annual deferral value	No change
Emergency generation	No change
Historic use of existing emergency response	No change. Note that it might be subject to confidentiality requirements.
Historic load trace	Clarified that 3 years historic data must be provided.
Historic asset utilisation	Specifying that 3 years historic data must be provided.
Historic outage at location	Removed. Already provided as part of the RIN

New information

Asset ID	Allows for cross referencing to RIN Sustained Interruptions sheet from Category Analysis template

7 Distribution System Limitation Template 1.0

A Distribution Network Service Provider must post the information required to be published in this System Limitations Template on its website at the same time that it publishes its Distribution Annual Planning Report.

Field Name	Rule	Data Type	Units	Other information
Constraint primary driver	DT001	Text		Choose one of: capacity; reliability; asset condition; performance; safety; environment; power quality; voltage
Location of constraint (start)	DT002	Integer	Decimal degrees	
Location of constraint (end)	DT003	Integer	Decimal degrees	
Asset ID	DT004	Text		Consistent with RIN Sustained Interruptions sheet from Category Analysis template
Network Element	DT005	Text		Choose one of: Transmission connection point; zone substation; sub-transmission line; feeder
Residential customers affected	DT006	Integer	Total number of customers affected	
Residential customers affected	DT006_a	Integer	% of total customers affected	
Asset rating	DT007	Series	YYYY; MVA	Forecast 5-year asset rating
Asset rating	DT007_a	Series	YYYY; MW	Forecast 5-year asset rating
Forecast Demand	DT008	Series	YYYY; MVA	Forecast 5-year maximum demand, 10% and 50% POE

Forecast Demand	DT008_a	Series	YYYY; MW	Forecast 5-year maximum demand, 10% and 50% POE
Voltage level	DT009	Integer	KV	Highest operational voltage level of the assets involved in the constraints
Maximum Load at risk	DT010	Series;	YYYY; MW	For all years constraint is forecast to occur
Energy at risk	DT011	Series;	YYYY; MWh	For all years constraint is forecast to occur
Preferred network investment	DT012	Text		Brief description: Free text
Preferred network investment capital cost	DT013	Integer	$ (real)	
Preferred annual network investment operating cost	DT013_a	Integer	$ (real)	Annual operating costs (including overheads, risk allowance and contingency allowance if included)
Preferred network investment cost accuracy	DT014_a	Integer	+%	
Preferred network investment cost accuracy	DT014_b	Integer	-%	
Proposed timing	DT015	Integer	MM/YYYY	
Demand reduction required to defer investment by 1 year	DT016	Integer	MVA	
Demand reduction required to defer investment by 1 year	DT016_a	Integer	MW	If MW data is collected
Annual Deferral Value	DT017	Integer	$ (real)	Using an appropriate VCR as an input

Load transfer capability	DT017	Integer	MVA	
Load transfer capability	DT017_a	Integer	MW	If MW data is collected
Emergency generation	DT018	Integer	MVA	
Emergency generation	DT018_a	Integer	MW	If MW data is collected
Historic use of existing emergency response	DT019	Series	DD/MM/YYYY HH:MM; MVA	
Historic use of existing emergency response	DT019_a	Series	DD/MM/YYYY HH:MM; MW	If MW data is collected
Historic load trace	DT020	Series	HH:MM DD/MM/YYYY MVA	30 minute intervals; 3 years historic information; uncleansed; (converted to MVA using nominal voltages if not available in MVA)
Historic asset rating	DT021	Series	HH:MM DD/MM/YYYY MVA;	3 years historic, 30 minute intervals uncleansed
Historic asset rating	DT021_a	Series	HH:MM DD/MM/YYYY MW;	3 years historic; 30 minute intervals, uncleansed

A.1 Example of how information could be published

The following table provides a high-level example of the type of information we expect DNSPs to publish. The information included does not reflect any individual project and is included purely for illustrative purposes.

Field Name	Other information
Constraint primary driver	Capacity
Location of constraint (start)	-33.865, 151.209
Location of constraint (end)	-37.814, 144.963.
Asset ID	RCMD 46500
Network Element	Sub-transmission line
Residential customers affected	25 000
Residential customers affected	30%
Asset rating	2018 - 50 MVA; 2019 50 MVA etc
Forecast Demand	10% POE 2018 - 58 MVA; 2019 62 MVA etc 50% POE 2018 - 40 MVA; 2019 44 MVA etc
Voltage level	66 kV
Maximum Load at risk	5 MW
Energy at risk	50 MWh
Preferred network investment	New 25 MVA transformer at Rocamadour
Preferred network investment capital cost	$10 000 000
Preferred network investment operating cost	$100 000

Preferred network investment cost accuracy	+30 %
Preferred network investment cost accuracy	-30 %
Proposed timing	06/2020
Demand reduction required to defer investment by 1 year	5 MVA
Annual Deferral Value	$500 000
Load transfer capability	10 MVA
Emergency generation	5 MVA
Historic use of existing emergency response	17:30; 20/01/2015; 10 MVA; 17:00; 26/02/2016; 5 MVA etc
Historic load trace	00:00; 01/01/2014; 08 MVA 00:30; 01/01/2014; 08 MVA 01:00; 01/01/2014; 08 MVA etc
Historic asset rating	00:00; 01/01/2014; 40 MVA 00:30; 01/01/2014; 40 MVA 01:00; 01/01/2014; 10 MVA etc