DRAFT DECISION

Tariff structure statement proposal

SA Power Networks

August 2016
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### Glossary

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<th>Term</th>
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<tbody>
<tr>
<td>CoAG Energy Council</td>
<td>The Council of Australian Governments Energy Council, the policy making council for the electricity industry, comprised of Commonwealth, state and territory governments.</td>
</tr>
<tr>
<td>Consumption tariff (usage tariff)</td>
<td>A tariff based on energy consumed (measured in kWh) during a billing cycle.</td>
</tr>
<tr>
<td>Declining block tariff</td>
<td>A tariff structure in which the per unit price of energy decreases in steps as energy consumption increases past set thresholds.</td>
</tr>
<tr>
<td>Demand charge</td>
<td>A tariff component based on the maximum amount of electricity used (measured in kW or kVA), usually falling within a defined charging window or at any given time, and usually reset either at the end of a month or a billing cycle.</td>
</tr>
<tr>
<td>Demand tariff</td>
<td>A form of tariff that incorporates a demand charge component.</td>
</tr>
<tr>
<td>Distributor</td>
<td>A Distribution Network Service Provider.</td>
</tr>
<tr>
<td>Fixed charge</td>
<td>A tariff component usually based on a per day fixed price amount for connection to the network.</td>
</tr>
<tr>
<td>Flat tariff</td>
<td>A tariff incorporating a per unit consumption charge that does not vary regardless of how much electricity is consumed or when consumption occurs.</td>
</tr>
<tr>
<td>Flat usage charge</td>
<td>A per unit consumption charge that does not vary regardless of how much electricity is consumed or when consumption occurs.</td>
</tr>
<tr>
<td>Inclining block tariff</td>
<td>A tariff structure in which the per unit price of energy increases in steps as energy consumption increases past set thresholds.</td>
</tr>
<tr>
<td>Interval meter</td>
<td>A meter capable of measuring electricity usage in specific time intervals, such as 30 minute blocks.</td>
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<tr>
<td>LRMC</td>
<td>Long Run Marginal Cost. Defined in the National Electricity Rules as follows:</td>
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<tr>
<td></td>
<td>&quot;the cost of an incremental change in demand for direct control services provided by a Distribution Network Service Provider over a period of time in which all factors of production required to provide those direct control services can be varied&quot;.</td>
</tr>
<tr>
<td>Minimum demand charge</td>
<td>Where a customer is charged for a minimum level of demand during the month or billing period, irrespective of whether their actual demand reaches that level.</td>
</tr>
<tr>
<td>NEO</td>
<td>The National Electricity Objective, defined in the National Electricity Law as follows:</td>
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|                                           | "to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—
(a) price, quality, safety, reliability and security of supply of electricity; and
(b) the reliability, safety and security of the national electricity system".                                                                 |
| Network pricing objective                 | The network pricing objective is that the tariffs that a distributor charges in respect of its provision of direct control services to a retail customer should reflect the distributor’s efficient costs of providing those services to the retail customer. |
| NER, the Rules                            | National Electricity Rules.                                                                                                                                                                                     |
| Smart meter                               | A digital meter which records consumption in short intervals such as 30 minute blocks and is capable of being read remotely. May facilitate other services (e.g. in-home information display; load control). |
| Tariff                                    | A tariff is levied on a customer in return for use of an electricity network. A single
<table>
<thead>
<tr>
<th>Term</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariff assignment policy</td>
<td>Policies and procedures a distributor will apply in assigning retail customers to tariffs or reassigning retail customers from one tariff to another.</td>
</tr>
<tr>
<td>Tariff class assignment policy</td>
<td>Policies and procedures a distributor will apply in assigning retail customers to tariff classes or reassigning retail customers from one tariff class to another.</td>
</tr>
<tr>
<td>Tariff structure</td>
<td>Tariff structure is the shape, form or design of a tariff, including its different components (charges) and how they may interact.</td>
</tr>
<tr>
<td>Tariff charging parameter</td>
<td>The manner in which a tariff component, or charge, is determined (e.g. a fixed charge is a fixed dollar amount per day).</td>
</tr>
<tr>
<td>Tariff class</td>
<td>A class of retail customers for one or more direct control services who are subject to a particular tariff or particular tariffs.</td>
</tr>
<tr>
<td>Time of use tariff</td>
<td>A tariff incorporating usage charges with varying levels applicable at different times of the day, days of the week, or seasons. A time-of-use tariff will have defined charging windows in which these different usage charges apply. These charging windows might be labelled the 'peak' window, 'shoulder' window, and 'off-peak' window.</td>
</tr>
<tr>
<td>Usage charge</td>
<td>A tariff component based on energy consumed (measured in kWh). Usage charges may be flat, inclining with consumption, declining with consumption, variable depending on the time at which consumption occurs, or some combination of these.</td>
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Request for submissions

This document sets out the Australian Energy Regulator’s (AER) draft decision on the proposed tariff structure statement submitted to us by SA Power Networks (SAPN).

Copies of the proposed tariff structure statement are available on the AER’s website www.aer.gov.au.

We invite submissions from interested parties on our draft decision.

Submissions on our draft decision should be emailed to satss2016@aer.gov.au before 5pm on Tuesday, 4 October 2016.

Enquiries may be emailed to the same AER email address. Alternatively, submissions may be mailed to:

Mr Chris Pattas,
General Manager, Networks
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

We prefer all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non–confidential version of the submission.

All non-confidential submissions will be placed on the AER website.
Draft decision

SA Power Networks

Our draft decision is to not approve the tariff structure statement submitted to us by SA Power Networks (SAPN) as we do not consider it to be fully compliant with the rules.

This draft decision sets out why and in what respect we consider the proposed tariff structure statement submitted by SAPN to be non-compliant. We invite further submissions from stakeholders to assist us in arriving at our final decision.

Overall assessment

SA Power Networks

Our draft decision is to not approve the tariff structure statement submitted by SAPN in December 2015. This is because there are some elements of SAPN's proposal which we are not satisfied contribute to the achievement of compliance with the distribution pricing principles. There are also elements where insufficient detail has been provided to enable us to make a decision.

Completeness of tariff structure statement

SAPN's tariff statement proposal largely incorporates each of the required elements:

- tariff classes
- policies and procedures for assigning customers to tariffs
- tariff structures
- tariff charging parameters
- the approach taken in setting tariffs, and
- indicative pricing schedules.

However, we are not satisfied that elements of SAPN's tariff assignment policy and approach taken in setting tariffs are complete or have been described with sufficient clarity.
Compliance with the distribution pricing principles

There are many elements of SAPN’s proposal we are satisfied contribute towards the achievement of compliance with the distribution pricing principles. These include:

- the expansion of demand based tariffs for residential and small business customers through:
  - the mandatory assignment of new residential and small business customers on to demand tariffs, along with customers who make major alterations to their supply
  - the use of transitional demand tariffs for those new or altered supply customers who are assigned to a demand tariff—these transitional tariffs set the demand charge at a low level to moderate the impact on customers as they become familiar with demand-based pricing
  - the inclusion of more cost reflective demand tariffs which customers can voluntarily choose to opt-in to—these tariffs provide customers who may benefit the most from demand based pricing the option of choosing a tariff with higher demand charges and lower usage charges
- the charging windows during which time a customer’s electricity demand and usage will be measured for the purposes of calculating the demand and usage charges
- the tariffs offered to large business customers, and
- the tariff classes customers are assigned to including the introduction of a new distribution transformer business tariff class.

However, we are not satisfied the following elements of SAPN’s tariff structure statement contribute towards the achievement of compliance with the distribution pricing principles:

- the mandatory re-assignment of existing residential and small business customers with interval meters whose annual consumption is above a certain threshold on to the transitional demand tariffs—this re-assignment would transfer certain existing customers currently on consumption based tariffs onto demand based tariffs
- the implementation date of SAPN’s assignment policy for new and altered supply customers—we require SAPN to adjust the start date of its assignment policy to 1 December 2017 (instead of 1 July 2017) to coincide with the introduction of new metering contestability rules
• the inclusion of solar and social tariffs and the mandatory re-assignment of existing customers who match the relevant criteria on to these tariffs—these tariffs have either higher (solar) or lower (social) charges than the customer’s current tariff

• the inclusion of transitional usage tariffs and the mandatory re-assignment of existing residential and small business customers with accumulation meters whose annual consumption is above a certain threshold onto these tariffs—these transitional usage tariffs have higher charges than the customer’s current tariff

• SAPN's long run marginal cost calculation and residual cost recovery methodology.
Background

Each distributor must propose a tariff structure statement and submit it to us for assessment. Our role is to determine if a proposed tariff structure statement complies with the requirements of the National Electricity Rules (the Rules). The Rules require a tariff structure statement to include a number of specific elements, such as the structure of each tariff, charging parameters, and the policies a distributor will apply in assigning or re-assigning customers to particular tariffs. A tariff structure statement must also be consistent with the distribution pricing principles. The distribution pricing principles require distributors to set cost reflective tariffs but also to take account of the impact on customers in transitioning to more cost reflective tariffs.

The distribution pricing principles are new and result from a long process of reform initiated by Australian (Commonwealth, state and territory) governments. Those reforms are intended to establish tariffs which better reflect the costs incurred by distributors by customer decisions to use electricity at specific times or locations. This is because a distributor's forward looking costs are primarily driven by building network capacity to alleviate network congestion and provide a safe and reliable network during periods of peak demand. Network costs are not primarily driven by usage outside of peak demand periods.

Cost reflective tariffs will mean customers will be more aware of these network costs and may be able to respond, for example, by shifting some of their electricity usage out of the periods of peak demand on the network. Reducing peak demand will mean there is less need for new investment to maintain a safe and reliable electricity network. This will help defer costly network investments and place downward pressure on network charges over the longer term.

The distribution pricing principles are not prescriptive. They do not specify particular tariff structures or transitional arrangements. We consider a range of approaches are likely to comply with the distribution pricing principles. Hence, we do not seek to enforce a single approach across all distributors. Instead, we assess the particular tariff structure statement submitted by a distributor for compliance with the Rules. Each tariff structure statement should show movement towards more cost reflective tariffs, taking into account customer impacts, as the distribution pricing principles require.
The following sections summarise our key findings and conclusions from our assessment of SAPN’s tariff structure statement against the requirements of the distribution pricing principles and other tariff provisions in Part I of the NER. This discussion covers both the elements that we have approved and those we have not approved.

Completeness of tariff structure statement

A distributor must include the following elements within its tariff structure statement:

- the tariff classes into which its customers will be grouped
- the policies and procedures the distributor will apply for assigning customers to tariffs or reassigning customers from one tariff to another (including applicable restrictions)
- the structures for each proposed tariff
- the charging parameters for each proposed tariff, and
- a description of the approach that the distributor will take in setting each tariff in each annual pricing proposal during the regulatory control period.\(^6\)

A distributor must also accompany its proposed tariff structure statement with an indicative pricing schedule which sets out, for each tariff for each regulatory year of the regulatory control period, the indicative price levels determined in accordance with the tariff structure statement.\(^7\)

We are satisfied that SAPN’s tariff statement proposal contains each of the broad topics as required under the Rules, however we are not satisfied that all elements are complete or have been described with sufficient clarity.

Specifically, the following elements of SAPN’s proposed tariff structure statement did not contain sufficient information to determine precisely what was being proposed:

- it was unclear which tariffs apply to customers in the proposed new distribution transformer business tariff class
- it was unclear from SAPN’s tariff assignment/re-assignment policy precisely what type of supply alterations would and would not trigger the re-assignment of a customer to a transitional demand tariff, and
- SAPN’s long run marginal cost calculation and residual cost recovery methodologies are not entirely clear or complete
- In response to an information request we submitted to SAPN, SAPN clarified the first two matters above. However, we require SAPN to include this information in its

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\(^6\) NER, cl.6.18.1A(a)
\(^7\) NER, cl.6.18.1A(e)
revised proposal so all stakeholders are aware of SAPN's proposal on these matters.

- On the other hand, SAPN's long run marginal cost calculation and residual cost methodology remain incomplete. Because of this, we have been unable to fully assess whether these elements of SAPN's proposal contribute to the achievement of compliance with the distribution pricing principles. We require SAPN to more fully outline these matters in its revised proposal.

### Compliance with distribution pricing principles

A distributor's tariff structure statement proposal must comply with the distribution pricing principles and other applicable requirements in the Rules.\(^8\)

We briefly explain our reasons for our assessment below. Further details are provided in chapter 4 (tariff structures), chapter 5 (tariff levels) and chapter 6 (tariff assignment policies), respectively.

**Application of demand tariffs to residential and small business customers**

We approve the move to demand tariffs for residential and small business customers in SAPN's tariff structure statement, subject to a few specific concerns around tariff assignment policy and some other implementation issues. We are satisfied that demand tariffs contribute to the achievement of compliance with the distribution pricing principles.

Demand tariffs have been commonly adopted by distributors from Victoria, Queensland, South Australia, The Australian Capital Territory and Tasmania as the type of tariff they will use to signal efficient network costs to residential and small business customers.

We are satisfied that demand based tariffs are more cost reflective compared to existing consumption based tariffs. Under a consumption tariff, a customer is primarily charged based on the total amount of electricity they consume, rather than when they consume that electricity. Whereas demand tariffs, which differ in certain ways for each distributor, all include a charge based on a customer's highest measured demand during a particular month or billing period. Demand tariffs are therefore more cost reflective because a distributor's forward looking costs are primarily driven by building network capacity to alleviate network congestion and provide a safe and reliable network during periods of peak demand.

SAPN's demand tariffs comprise demand and usage charges. The demand charge has a minimum demand level of 1kW. For the transitional demand tariff, the demand charge reflects 40 per cent of SAPN's estimate of long run marginal cost. The opt-in demand tariff has a demand charge set at 100 per cent of long run marginal cost. The

\(^8\) NER cl. 6.12.3(k)
demand charge will reflect a customer's highest 30 minute peak demand recorded within the demand charging window.\(^9\) SAPN's proposed charging windows provide signals to customers about the times when the network is most likely to be congested, or facing peak demand. The highest 30 minute interval is reset each month, which provides customers with the incentive and opportunity to reduce their bills if they shift their electricity usage to lower their highest 30 minute peak demand in future months.

Further discussion of the demand tariffs can be found in section 4.1 and below.

**Tariff assignment policy for residential and small business customers**

SAPN's assignment policy is a key part of their overall tariff structure statement proposal package. It attempts to move customers onto more cost reflective prices whilst taking into account existing customers' situations and metering arrangements. New customers, customers who undertake significant alterations to their supply and customers who consume over specific amounts of electricity per annum are proposed to be assigned to demand tariffs.\(^10\) Most existing customers would remain on their current consumption tariffs until a time they make a significant alteration to their electricity supply or consume over the threshold amount.

A number of stakeholders submitted comments on SAPN's proposed assignment policy. Stakeholder views ranged from outright support to recommendations that all demand tariffs should be optional for all customers.\(^11\) We have considered these varying views in forming our draft decision.

We approve SAPN's proposed assignment of new customers and customers who make significant alterations to their supply on to transitional demand tariffs. SAPN's proposed transitional tariffs set the demand component at a low rate for the duration of this first tariff statement period (reflecting approximately 40 per cent of long run marginal costs), with the intention to gradually increase the demand component over the next regulatory control period. We are satisfied SAPN's proposed assignment of these customers onto demand tariffs contributes towards the achievement of compliance with the distribution pricing principles. This is because:

- It provides customers making new investments with more cost reflective price signals—we are satisfied these types of customers are in a better position to respond to the introduction of more cost reflective tariffs through their choice of appliances, technology and other measures.

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\(^11\) Submissions on customer assignments were received from: the Clean Energy Council, South Australian Council of Social Services, Small business commissioner of SA, SA department of State Development, Energy Networks Association, AGL, Energy Consumers Australia, Red and Lumo Energy, the Australian PV Institute and Business SA.
• It initially uses a transitional and low demand charge—we are satisfied that this transitional arrangement will assist customers in responding to more cost reflective tariffs as they become more accustomed to demand based pricing.

However, we do not approve SAPN's proposed re-assignment of existing customers with interval meters who consume over the specified threshold amounts—20MWh per annum for residential and 40MWh per annum for small business customers. We are not satisfied SAPN's proposed re-assignment of these customers from their current consumption tariffs to demand tariffs contributes towards the achievement of compliance with the distribution pricing principles. This is because:

• SAPN has not established a basis in the distribution pricing principles for treating residential and small business customers who consume over the thresholds differently from customers with consumption below the thresholds. For example, SAPN has not demonstrated whether these customers impose greater costs on the network compared to others under the threshold, or are better able to mitigate the impacts from being re-assigned to a demand tariff.12

• Under SAPN's distribution determination, metering arrangements can only be used as a basis for assigning customers to tariffs if that metering was provided because SAPN was required to do so under a regulatory obligation. However, SAPN has proposed to re-assign some customers with interval meters to new tariffs even though these meters may not have been required because of a regulatory obligation. This is contrary to the requirements of the SAPN distribution determination.13

Further discussion on the assignment of residential and small business customers can be found in section 6.2.

Commencement date of new tariff assignment policy

We do not approve SAPN's proposed date (1 July 2017) to mandatorily assign customers to transitional demand tariffs, as we are not satisfied SAPN's proposed commencement date contributes to the achievement of compliance with the Rules. We require SAPN to adjust the commencement date to no earlier than 1 December 2017.

As noted above, under SAPN's distribution determination, for customers with interval meters, their metering arrangements can only be used as a basis for assigning customers if that metering was provided due to a regulatory obligation.14 The date of 1 December 2017 aligns with the introduction of the new metering competition rules. These rules require any new meter installed after this date to be a remotely read smart

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12 NER, cl.6.18.5(a); NER, cl.6.18.5(h)(3);
13 AER, Final Decision - SA Power Networks determination 2015-16 to 2019-20, Attachment 14 - Control mechanism, October 2015, pp.21-24
14 AER, Final Decision - SA Power Networks determination 2015-16 to 2019-20, Attachment 14 - Control mechanism, October 2015, pp.21-24
manner. Accordingly, it provides the requisite regulatory obligation to be used as a basis for assigning customers based on their metering arrangements.

Further discussion on mandatory assignments can be found in section 6.2.

**Demand charging windows**

We approve SAPN's proposed demand charging windows. We are satisfied SAPN's proposed demand charging windows for residential and small business customers contributes towards the achievement of compliance with the distribution pricing principles.

The charging windows differ for residential and small business customers. The mandatory and opt-in demand charging windows also differ for small business customers. The demand charging window for residential customers occurs 7 days a week, for small business customers it only occurs on workdays.\(^{15}\)

Some stakeholders raised concerns around customers’ ability to understand and respond to SAPN’s particular charging windows.\(^ {16}\) We have considered these submissions. However, we are satisfied that SAPN's proposed charging windows reflect times of peak demand and therefore contribute towards the achievement of compliance with the distribution pricing principles.

Further discussion on charging windows are discussed in section 4.2.

**Large business customer tariffs**

We approve SAPN's proposed tariffs for large customers. We are satisfied SAPN's proposed tariffs for large customers (high voltage, major business and distribution transformer business) contribute towards the achievement of compliance with the distribution pricing principles.

SAPN has been transitioning its large customers onto tariffs that better reflect costs for a number of years and its large business tariffs generally already incorporate either agreed or actual kVA demand charges which we consider relatively cost reflective.\(^ {17}\)

Further discussion on SAPN's proposed tariffs for large business customers can be found in section 4.3.

**Tariff classes**

We approve SAPN's proposed tariff classes. We are satisfied SAPN's proposed tariff classes contribute towards the achievement of compliance with the distribution pricing principles. This is because we are satisfied SAPN's proposed tariff classes' group


\(^{16}\) Submissions on charging windows were received from: Energy Australia, Origin, AGL, Business SA, Energy Consumers Australia, Australian PV Institute, Consumers SA and Business SA.

similar customers together which take into account their connection to and use of the
network.

SAPN proposed five tariff classes. This includes a newly created tariff class—the
distribution transformer tariff class.\(^\text{18}\) Previously, these customers were part of the low
voltage business tariff class. SAPN has proposed this tariff class to better reflect the
characteristics and demands on the network of these particular customers.

Further discussion on the tariff classes can be found in chapter 6.1.

**Social and solar tariffs**

We do not approve SAPN’s proposed social and solar tariffs. We are not satisfied
SAPN’s proposed social and solar tariffs contribute to the achievement of compliance
with the Rules.

SAPN originally proposed these tariffs as part of its 2015/16 annual pricing proposal.
We did not approve these tariffs at that time. SAPN appealed our decision to the
Federal Court. As at December 2015, when SAPN submitted its tariff structure
statement proposal, the result of the appeal was not known. The Federal Court has
since upheld our decision not to approve these tariffs.

SAPN has not submitted any new information in support of these tariffs since the
resolution of the Federal Court case. For example, SAPN has not submitted any new
information that specifically addressed how these customers’ use of and connection to
the network result in these customers contributing significantly different costs on the
network. We therefore have no reason to depart from our previous assessment, which
was to not approve these tariffs.

Further discussion on the social and solar tariffs can be found in section 4.1.2.

**Transitional usage tariffs**

We do not approve SAPN’s proposed transitional usage tariffs. We are not satisfied
SAPN’s proposed transitional usage tariffs contribute towards the achievement of
compliance with the distribution pricing principles.

SAPN’s proposed to re-assign existing customers with accumulation meters who
consume over the specified threshold amounts—20MWh per annum for residential and
40MWh per annum for small business customers—on to transitional usage tariffs.
These transitional usage tariffs are consumption based tariffs, but with higher charges
than the customer’s current consumption tariffs.

We are not satisfied SAPN’s proposed re-assignment of these customers from their
current consumption tariffs to a more expensive form of consumption tariff contributes
towards the achievement of compliance with the distribution pricing principles. This is

because SAPN has not established a basis in the distribution pricing principles for treating residential and small business customers who consume over the thresholds differently from customers with consumption below the thresholds. For example, SAPN has not demonstrated whether these customers impose greater costs on the network compared to others under the threshold, or are better able to mitigate the impacts from being re-assigned to a transitional tariff.\textsuperscript{19}

Further discussion on the transitional usage tariffs can be found in section 4.1.3.

**Long run marginal cost calculation**

We approve SAPN's proposed long run marginal cost methodology, which is to use the average incremental cost methodology with a 10 year forecast period. We are satisfied this methodology contributes towards the achievement of compliance with the distribution pricing principles.

However, we do not approve SAPN's proposed long run marginal cost calculation. SAPN's long run marginal cost calculation was for the period 2010-2020. That is, SAPN continued to use the same long run marginal cost calculations it prepared around 5 years ago, with only minor updates. However, this means that its calculation:

- includes data for the (now) historical period of 2010 to 2015—this is not consistent with estimates of long run marginal cost which are meant to reflect a distributor's forward looking costs, and
- includes out-of-date data for the forecast period 2015 to 2020—these forecasts were prepared around 5 years ago and do not reflect the more recent forecasts from the AER's latest distribution determination for SAPN.

SAPN acknowledged in its proposal the need to update these calculations. And SAPN has indicated that updated calculations will be submitted in its revised tariff structure statement.

Further discussion on long run marginal cost can be found in chapter 5.1.

**Residual cost allocation methodology**

We do not approve SAPN's proposed residual cost allocation methodology. This is because SAPN provided insufficient detail on its methodology to enable us to make an assessment against the distribution pricing principles.

SAPN's proposal does not clearly outline what its residual costs are and how it plans to recover them. The Rules require distributors to recover residual costs in ways that do not distort the forward looking price signal which is provided to customers, while also taking into account customer impact.\textsuperscript{20} A key element of SAPN's proposed demand tariff structure is that most demand tariffs do not have a fixed charge. Fixed charges

\textsuperscript{19} NER, cl.6.18.5(a); NER, cl.6.18.5(h)(3)

\textsuperscript{20} NER, cl.6.18.5(g)(3)
are a common way used by most distributors to recover a portion of residual costs because, by their nature, fixed charges are unlikely to distort a customer's consumption patterns. While the absence of fixed charges is not necessarily a problem, it is important that whatever alternative ways SAPN proposes to recover residual costs are consistent with the distribution pricing principles.

We note that the majority of SAPN’s demand tariffs include a minimum demand charge of 1kW. And so it is possible that SAPN intends for some residual costs to be recovered through this mechanism. However, SAPN’s proposal does not outline to what extent residual costs are recovered through the minimum demand charge.

We submitted an information request to SAPN seeking further information on its residual cost recovery methodology. In response, SAPN stated:

- it is currently revising its long run marginal cost forecast which includes what its residual costs are and how they will be recovered, and
- it will provide further information on its allocation and recovery of residual costs in its revised tariff structure statement.

Further discussion on residual cost recovery can be found in chapter 5.2.5.1.

Future direction

This is the first tariff structure statement submitted by SAPN. The move to cost reflective pricing will take time to implement. The distribution pricing principles require movement towards more cost reflective tariffs with every tariff statement proposal over upcoming regulatory control periods.

In the discussion above, we identified elements of SAPN’s tariff structure statement which we are not satisfied contribute to the achievement of compliance with the distribution pricing principles.

There are some elements of SAPN’s proposal which comply with the distribution pricing principles but which, in our view, would benefit from further consideration. We identify these matters to provide guidance to SAPN, and the industry more generally, on our views on the direction the industry should be heading in order to maintain compliance with the distribution pricing principles in the future. Accordingly, in each round of tariff structure statements, we expect distributors to propose additional reforms in order to be compliant with the rules.

We encourage SAPN to make further improvements in the following areas in the further round of tariff structure statements:

- Greater integration between SAPN’s network pricing, network planning and demand management strategies (see discussion in chapter 1)
- Reconsideration of the use of a 30 minute window to measure demand (see discussion in section 4.1.6)
- Refinements to its charging windows (see discussion in section 4.2)
- Inclusion of replacement capital within SAPN's long run marginal cost estimates (see discussion in section 5.1)

Our process

The following table sets out how this tariff structure statement process flows on from the Power of Choice reform program and will flow into the first annual pricing approval process.

In appendix A, we list the stakeholders who have made written submissions on our issues paper from March and attended our public forum in April. We outline and consider the stakeholder views we’ve received throughout this decision under each topic the particular stakeholder views relate.

We request written submissions on our draft decision by 4 October 2016.

Table 1-1    Tariff reform—Key timeframes

<table>
<thead>
<tr>
<th>Reform milestones</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rule change process</strong></td>
<td></td>
</tr>
<tr>
<td>AEMC recommends reforms to distribution pricing through Power of Choice review</td>
<td>November 2012</td>
</tr>
<tr>
<td>COAG Energy Council proposes distribution pricing rule change to AEMC</td>
<td>September 2013</td>
</tr>
<tr>
<td>AEMC makes final rule determination on distribution pricing rule change</td>
<td>November 2014</td>
</tr>
<tr>
<td><strong>Tariff structure statement process</strong></td>
<td></td>
</tr>
<tr>
<td>SAPN submits tariff structure proposal to AER</td>
<td>3 December 2015</td>
</tr>
<tr>
<td>AER publishes issues paper</td>
<td>11 March 2016</td>
</tr>
<tr>
<td>AER hosts public forum on SAPN's proposal</td>
<td>5 April 2016</td>
</tr>
<tr>
<td>Stakeholders' submissions on SAPN's proposal and AER's issues paper closed</td>
<td>28 April 2016</td>
</tr>
<tr>
<td>AER publishes draft decision</td>
<td>2 August 2016</td>
</tr>
<tr>
<td>SAPN's revised proposal and stakeholders' submissions on AER's draft decision due</td>
<td>4 October 2016</td>
</tr>
<tr>
<td>Stakeholders' submissions on SAPN's revised proposal and other stakeholders' submissions due</td>
<td>25 October 2016</td>
</tr>
<tr>
<td>AER publishes final decision</td>
<td>27 February 2017</td>
</tr>
</tbody>
</table>
First annual pricing proposal process to apply tariff structure statement

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAPN submits annual pricing proposal</td>
<td>31 March 2017</td>
</tr>
<tr>
<td>AER publishes decision</td>
<td>17 May 2017</td>
</tr>
<tr>
<td>New tariffs take effect</td>
<td>1 July 2017</td>
</tr>
</tbody>
</table>

Source: AEMC, National Electricity Rules, AER analysis.
1 Background

The requirement for distributors to prepare a tariff structure statement arises from a long process of reform to the National Electricity Rules (the Rules) governing distribution network pricing. The purpose of the reforms is to empower consumers to make informed choices by:

- Providing better price signals—tariffs that reflect what it costs to use electricity at different times so customers can make informed decisions and better manage their bills.
- Transitioning to greater cost reflectivity—requiring distributors to explicitly consider the impact of tariff changes on customers and to engage with customers (and their representatives) and retailers in developing tariff proposals.
- Managing future expectations—providing guidance for retailers, customers and suppliers of services such as local generation, batteries and demand management by setting out the distributor's tariff approaches for a set period of time.

Why is network tariff reform important?

Distribution tariffs historically have not varied according to the time when electricity is used. But distribution costs reflect the maximum demand the network must cater for at key points in time. This means existing network tariffs don't reflect network costs. Most existing tariffs send price signals that don't inform customers about the costs imposed on distribution networks in peak demand periods.

Lifestyle changes, including increased use of air conditioners, means consumers now use relatively more of their electricity at peak times, even if overall energy consumption has declined. Network costs have increased in recent years as distributors invest in additional infrastructure upgrades to meet the higher peak demand. This increased investment has been a factor driving electricity price rises in recent years.

Moving to tariffs that reflect electricity use during peak demand periods will make pricing for electricity more transparent. Those who use electricity at peak times will pay rates better reflecting the costs created by their use. Those who use less power in peak demand periods and more at other times will benefit from lower network prices during non-peak times. And, if consumers take heed of these price signals, network investment requirements will likely be lower than they otherwise would be, reducing upwards pressure on electricity prices for everyone.

What are the key concepts to understand?

This draft decision incorporates concepts which may be unfamiliar to some readers. In this section we provide descriptions of the more commonly used concepts. Readers familiar with electricity network regulation and terminology may choose to skip to the next section.

**Difference between consumption and demand**
Electricity consumption is the total amount of electricity consumed (used) over a period of time. For example, a typical Australian household might use around 7,000 kWh of electricity over 12 months. Demand means the amount of electricity used at a single point in time. Peak demand is the maximum amount of electricity used at a single point in time over a defined time period, often a day or a year. A typical Australian household might have its yearly peak demand of around 5 kW, either on a hot summer afternoon when air conditioning is used, or on a winter evening when electric heating is used. That is, the household's annual peak demand is 5 kW.

A good analogy for electricity consumption compared to electricity demand is a river flowing under a bridge. Annual electricity consumption is equivalent to the total water volume flowing under the bridge during a year. Electricity demand is equivalent to the volume of water under the bridge at a single point in time. Peak electricity demand is equivalent to the time when the largest volume of water is flowing under the bridge.

Long run marginal cost and residual costs

An important feature of this draft decision is the concept of long run marginal cost. Long run marginal cost is equivalent to the forward looking cost of a distributor providing one more unit of service, measured over a period of time sufficient for all factors of production to be varied. Long run marginal cost could also be described as a distributor's forward looking costs that are responsive to changes in electricity consumption.

The Rules require network tariffs to be based on long run marginal cost. However, not all of a distributor's costs are forward looking and responsive to changes in electricity consumption. Hence, if network tariffs only reflected long run marginal cost, distributors would not recover all their costs. Costs not covered by a distributor's long run marginal cost are called ‘residual costs’. The Rules require network tariffs to recover residual costs in a way that minimises distortions to the price signals for efficient usage that would result from tariffs reflecting only long run marginal costs.

Types of network tariffs

A network ‘tariff’ is the combination of charges paid by a network customer in return for network services. Historically, most small customers in Australia have been on either a flat usage tariff or a block tariff (tiered pricing):

- **Flat tariff**—usually consists of a fixed charge and flat usage charge. That is, usage is charged the same price no matter how much electricity the customer uses.
- **Inclining block tariff**—usually consists of a fixed charge and a series of block charges where the price changes depending on the size of the customer's total consumption.
consumption. The first consumption block is charged the lowest price, and each successive block of consumption is charged at a higher rate.

- **Declining block tariff**—usually consists of a fixed charge and a series of block charges where the price changes depending on the size of the customer's total consumption. The first consumption block is charged the highest price, and each successive block of consumption is charged at a lower rate. A declining block tariff is the reverse of an inclining block tariff.

Flat tariffs or inclining block tariffs are relatively common. Declining block tariffs are relatively uncommon.

A different type of tariff is a **time-of-use (TOU) tariff**. Time-of-use tariffs usually also have a fixed charge component. Time-of-use tariffs apply a different price depending on when the customer consumes electricity. A time-of-use tariff will have defined charging windows when different rates apply. These charging windows might be labelled the 'peak' window, 'shoulder' window, and 'off-peak' window. The highest usage rate applies to consumption during the peak window, and the lowest usage rate applies to consumption during the off-peak window.

A **demand tariff** includes a charge based on the customer's highest measured demand at a single point in time during the billing period. Often, demand charges will be limited to the highest demand measured during charging windows. Typically, charging windows will coincide with the peak demand times for the whole network or for specific customer types (e.g. residential or small business customers). Demand tariffs usually also include fixed charges and usage charges.

**Critical peak pricing** is another tariff variant. Under this approach a distributor can specify periods of critical network peak demand, and will set prices particularly high for any demand or consumption that occurs during the specified critical peak event. This approach is generally in use currently only for larger businesses which can moderate consumption (e.g. by shutting down part of a production line) or use their own generation assets as a substitute for network electricity.

Distributors sometimes offer combinations of a **primary tariff**, such as those listed above, with **secondary tariffs**, such as **load control tariffs**. These tariffs typically apply a lower rate to electricity used for certain appliances in return for using those appliances during off peak times. For example, off peak hot water. In other cases a lower rate may apply to customers who allow a distributor to remotely cycle appliances on and off during peak demand periods. For example, air conditioning during high demand hot summer afternoons. Distributors will often limit secondary tariffs to customers on specified primary tariffs such as flat usage tariffs or block tariffs.

In addition to tariffs, distributors sometimes seek to influence network demand by offering **rebates** (partial refunds) to customers in return for demand reductions made by the customer during specific time periods. Rebates may be linked to critical peak demand times or to specific geographic areas or both.

**Metering and tariffs**
Flat tariffs or block tariffs can be applied to customers with basic **accumulation meters** (type 6 meters). This is because to calculate the tariff, it is only necessary to know the customer's total consumption, not when that consumption has occurred. Whereas **interval** (type 5) or **smart meters** (type 4) can facilitate time-of-use or demand tariffs. This is because interval and smart meters measure both when and how much electricity a customer has consumed, which is necessary to calculate a time-of-use tariff or demand tariff.

A **manually read meter** (generally an accumulation or interval meter) must be read in person at the customer's premises. A **remotely read meter** requires the meter to have communications functionality, radio or digital communications, generally associated with smart meters.

**Degree of choice in network tariff assignment**

An element of a tariff statement is the policies and procedures a distributor will apply to assign customers to tariffs.25 These policies and procedures should include certainty around whether a tariff is a 'mandatory' tariff, 'opt-out' tariff or 'opt-in' tariff for particular customer types:

- **A mandatory tariff**—the only tariff available for customers of a particular type. For example, industrial customers connected to the high voltage network and whose annual consumption falls within a particular range may be required to be assigned a demand tariff and there may be no other tariff options they can choose from.

- **An opt-out tariff**—the customer is assigned to this tariff by default, but may voluntarily choose to be re-assigned to a different tariff. For example, a residential customer may by default be assigned to a block tariff, but could choose to switch to a time-of-use tariff.

- **An opt-in tariff**—the customer can choose to be re-assigned to this tariff, but is by default assigned to some other tariff. This is the opposite of an opt-out tariff. In the previous example, the time-of-use tariff would be described as an opt-in tariff.

It is important that tariff statements are clear about which of their proposed tariffs are mandatory, opt-out and opt-in, and for which customer types.

To assign customers to one of the various tariffs offered by a distributor requires also that the distributor group customers into types, or classes. Customer classes might be based on a customer's connection type or metering arrangements, their annual usage, or whether the customer is a new or existing customer.

**Tariff structure and charging parameters**

**Tariff structure** incorporates the charges that make up a tariff. For example, a demand tariff typically comprises a fixed charge, a usage charge and a demand

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25 NER, cl.6.18.1A(a)(2).
charge. How those charges are applied to a customer reflect the tariff’s charging parameters. Examples of charging parameters include:

- how frequently a charge is applied to a customer
- the times during which usage or demand is measured to calculate a charge
- variations in charges and how those variations are triggered.

Charging parameters may be varied to match the purpose of the distributor when designing the tariff. For example, the demand charge within a demand tariff may target the time of a distributor’s broad network peak, a local regional peak, or a customer class peak (e.g. residential customers).

To illustrate charging parameters linked to charges, Table 3 sets out the three usual charges for a demand tariff. Alongside those usual charges are typical parameters for each charge.

### Table 2  Example demand tariff and charging parameters

<table>
<thead>
<tr>
<th>Charge</th>
<th>Charging parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed charge</td>
<td>Applied once per customer per billing period. Does not vary with customer usage or demand.</td>
</tr>
<tr>
<td>Usage charge</td>
<td>Calculated using the total electricity consumed by the customer over the billing period.</td>
</tr>
<tr>
<td>Demand charge</td>
<td>Calculated based on the customer’s highest demand recorded during the demand charging window 3pm to 8pm on weekdays.</td>
</tr>
</tbody>
</table>

Any of the charges described in Table 1 may vary according to the time of day, day of the week or time of the year. For example, any of the fixed charge, usage charge or demand charge could be higher in summer months and lower in non–summer months.

**How does the tariff structure statement fit into the regulatory process?**

Tariff statements are a new element of the Rules. Generally, tariff statements will be submitted to us by distributors with their distribution or revenue proposals every five (usually) years. These revenue proposals set out the total amount of revenue required from their customers to run their networks over a regulatory period (typically 5 years). As part of our distribution determination process we will publish, assess and invite feedback on a tariff statement along with a revenue proposal. An approved tariff statement will then apply to the distributors’ tariffs for the coming five year regulatory control period.

In this case, for the first tariff statements for each distributor, the Rules require tariff statements be submitted outside the distribution determination process (excluding

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26 NER, cl. 6.8.2.
This is simply because of the timing of the introduction of tariff statements to the regulatory framework compared to the timing of most distribution determinations.

The timing of TasNetworks’ distribution determination means that TasNetworks’ tariff statement is able to be submitted with its distribution determination. Other distributors, in South Australia, Victoria, New South Wales, the Australian Capital Territory and Queensland, are required to submit tariff statements in advance of their next distribution determination. Initial tariff statements for these distributors will apply for abbreviated periods, reflecting the time remaining until their next distribution determination.

Once approved, a tariff statement will guide a distributor in shaping its annual pricing proposals, submitted to us prior to each regulatory year. The annual pricing proposal is where a distributor reflects our distribution determination into tariffs. We check that total expected revenue to be earned in the coming regulatory year is consistent with the annual revenue we have determined for that year.

We will now also check that an annual pricing proposal is consistent with a distributor’s approved tariff statement. A distributor may not propose a tariff which was not included in its approved tariff statement. Nor may a distributor materially vary the parameters of a tariff from that described in its approved tariff statement. This provides retailers, customers and other stakeholders with certainty about the structure of tariffs to be charged in each year of the regulatory control period.

Approved tariff statements address tariffs for both standard control services and alternative control services. However, in practice the tariffs for alternative control services are almost entirely dealt with by our distribution determinations and the annual tariff approval process. There is relatively little regulatory role left for tariff statements in the context of alternative control services. Tariffs for fee based and quoted services are set on an individual customer specific basis, so typically reflect the costs that each user imposes on the distributor to provide the service. For this reason distributors deal with alternative control services in their tariff statements relatively briefly and for completeness. For the same reason our tariff structure decisions will focus on standard control services and make little comment on a distributor’s alternative control services.

How does network tariff reform interact with other reforms?

Network tariff reform is commencing at the same time as reforms to provision of metering services and access to customer information. These related reforms have implications for network tariffs, including the pace at which tariffs can evolve to become more cost reflective.

For metering, changes to the Rules will remove the existing barrier to third parties supplying accumulation and interval meters to customers. The same wave of changes

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27 NER, cl. 11.73.2.
To metering arrangements will establish new minimum specifications to improve performance for all new meters compared to most meters currently in use. In effect, all new meters will incorporate functionality equivalent to smart meters. This will see better meter functionality progressively taken up across distribution networks and facilitate broader use of more cost reflective pricing over time.

Consumers may engage an energy services provider or retailer to use their consumption information to recommend bundled energy plans. In recognition of how customer energy usage information might be used, reforms have been introduced to make it easier to obtain access to this information. Consumers may now access their consumption data from their distributor and retailer. They may also authorise other parties, such as retailers, to do so on their behalf. These reforms will not only help customers but also assist energy service providers in developing tailored and innovative energy products and services.

How does network pricing interact with network planning and demand management?

Demand pressures can be addressed by sending price signals to encourage customers (and retailers) to reduce demand, consistent with the aims of tariff reform. Alternatively, demand pressures can be addressed by network expenditure, as has been the case in the recent past. Another option, which distributors are required by the Rules to consider, is the use of demand management initiatives. These can include rebates for customers who reduce their consumption. Or distributors can install or utilise generation assets in areas where the associated cost is less than the cost of network investment to meet local area demand.

While not explicitly required of distributors by the Rules, we consider it useful for tariff statements to describe the distributor’s approach to integrating tariff reform, network investment and demand management. Such discussion will position tariff statements within the broader context of how distributors intend to respond to demand and service challenges. Also, while the Rules require distributors to consider the time and location varying nature of network cost drivers, difficulties with locational pricing suggest a larger role for demand management initiatives to address local network demand pressures.

An example of this is United Energy proposing to apply rebates for customers in selected locations within its network, to encourage demand reductions that will limit peak demand. This will alleviate, or postpone, the need for more costly network upgrades to those areas where network constraints may be likely in the near term, and still ensure continuing electricity supply and reliability.

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28 Australian Energy Markets Commission, National Electricity Amendment (Customer access to information about their energy consumption) Rule 2014, Final Determination, 6 November 2014.
SAPN has not outlined in its tariff structure statement proposal how its proposed network pricing strategy fits into its overall network plan. We consider SAPN's tariff structure statement would benefit from including this information.

Including this information, highlighting how they envisage the proposed tariffs will affect future network plans while also outlining any demand management options, would allow stakeholders to see how the tariff structure statement ties in to SAPN's bigger picture for the future of their network.
2 Rule requirements

The Rules’ amended pricing provisions have three aims, to provide:

- better signals of the cost drivers of distribution networks
- explicit consideration of tariff change impacts on retail customers
- transparency and greater certainty on tariff strategies for a regulatory period.

A new network pricing objective is the focus for distributors when developing their network prices. This objective is that: 30

the tariffs that a distributor charges for provision of direct control services to a retail customer should reflect the distributors' efficient costs of providing those services to the retail customer

A tariff structure statement is part of the new tariff arrangements. It should show how a distributor applied the distribution pricing principles 31 to develop its price structures and indicative price levels for the coming five year regulatory period. A distributor must submit its proposed tariff structure statement to us for assessment.

Generally, a distributor will be required to submit its proposed tariff structure statement when submitting its regulatory proposal. 32 The Rules required submission of a tariff structure statement outside the regulatory proposal process this time because of the timing of the rule changes. 33

Tariff Structure Statement requirements

There are two separate sets of requirements for tariff structure statements. First, the Rules set out a number of elements that an approved tariff structure statement must contain. Second, a tariff structure statement must also reflect the distribution pricing principles.

What must a tariff structure statement contain?

The Rules require a tariff structure statement to include: 34

- the tariff classes into which retail customers for direct control services will be divided

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30 NER, cl. 6.18.5(a).
31 This is a reference to the Rules’ pricing principles for direct control services, alternatively described in this paper as the “distribution pricing principles”; NER, cl. 6.18.5(e)–(j).
32 NER, cl. 6.8.2(a).
33 NER, cl. 11.76.2(a).
34 NER, cl. 6.18.1A(a).
• the policies and procedures the distributor will apply for assigning retail customers to tariffs or reassigning retail customers from one tariff to another

• structures for each proposed tariff

• charging parameters for each proposed tariff

• a description of the approach that the distributor will take in setting each tariff in each pricing proposal.

A tariff structure statement must be accompanied by an indicative pricing schedule.35

**What must a tariff structure statement comply with?**

A tariff structure statement must comply with the distribution pricing principles, which may be summarised as:

• for each tariff class, expected revenue to be recovered from customers must be between the stand alone cost of serving those customers and the avoidable cost of not serving those customers36

• each tariff must be based on the long run marginal cost of serving those customers, with the method of calculation and its application determined with regard to the costs and benefits and customer location37

• expected revenue from each tariff must reflect the distributor's efficient costs, permit the distributor to recover revenue consistent with the applicable distribution determination and minimise distortions to efficient price signals38

• distributors must consider the impact on retail customers of tariff changes and may vary from efficient tariffs, having regard to:39
  
  - the desirability for efficient tariffs and the need for a reasonable transition period (that may extend over one or more regulatory periods)
  
  - the extent of customer choice of tariffs
  
  - the extent to which customers can mitigate tariff impacts by their consumption

• tariff structures must be understandable by retail customers40

• tariffs must otherwise comply with the Rules and all applicable regulatory instruments.41

35 NER, cl. 6.8.2(d1).
36 NER, cl. 6.18.5(e).
37 NER, cl. 6.18.5(f).
38 NER, cl. 6.18.5(g).
39 NER, cl.6.18.5(h).
40 NER, cl. 6.18.5(i).
41 NER, cl. 6.18.5(j); this requirement includes jurisdictional requirements.
The distribution pricing principles are not prescriptive. They do not specify particular tariff structures or transitional arrangements. In practice, this means a range of approaches are likely to be consistent with the distribution pricing principles. In making our assessment, in general terms, we consider the distribution pricing principles require tariff structure statements to demonstrate movement towards more cost reflective tariffs, taking into account customer impacts.42

Our role in approving a distributor’s tariff statement

We must approve a distributor's tariff structure statement unless we are satisfied that the proposed tariff structure statement does not comply with the distribution pricing principles or other applicable requirements of the Rules.43 In Queensland, the distributors' tariff structure statements must also comply with the uniform tariff policy.

We make one holistic determination to approve or refuse to approve the distributor's tariff statement. Our analysis on each element of the distributor's tariff structure statement contributes to our overall determination.

What happens when a distributor submits a proposed tariff statement?

The Rules require us to publish a proposed tariff structure statement and invite submissions.44 We then assess a proposed tariff structure statement for its compliance with the distribution pricing principles. Taking into account submissions and any supporting information submitted by the distributor, we will publish a draft determination on the proposed tariff structure statement.45 This will set out our reasons for making the draft determination.46 We will call for submissions on our draft determination.47

Our role is largely one of assessing for compliance. We must approve a proposed tariff structure statement unless we are satisfied that it will not comply with the distribution pricing principles or other applicable requirements of the Rules.48

What happens if a proposed tariff statement is not approved?

A distributor may submit a revised tariff structure statement no later than 45 business days after we publish our draft determination.49 Under the Rules, a distributor may only make revisions to its tariff structure statement to address matters raised by our draft determination.50 We will publish the revised tariff structure statement and again call for

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42 NER, cl 6.18.5(b) - (d).
43 NER, cl 6.12.3(k).
44 NER, cl. 6.9.3(a).
45 NER, cl. 6.10.2; cl. 11.76.2(a).
46 NER, cl. 6.10.2(a)(3); cl. 11.76.2.
47 NER, cl. 6.10.2(a)(5).
48 NER, cl. 6.12.3(k).
49 NER, cl. 6.10.3(a).
50 NER, cl. 6.10.3(b).
submissions.\textsuperscript{51} We will make a final determination on the proposed tariff structure statement in February 2017

**What happens after a tariff statement is approved**

Once approved, a tariff structure statement will remain in effect for the relevant regulatory period.\textsuperscript{52} The distributor must comply with the approved tariff structure statement when setting prices annually for direct control services.\textsuperscript{53}

We will separately assess the distributor’s annual tariff proposals for the coming 12 months. Our assessment of annual tariff proposals will be consistent with the requirements of the relevant approved tariff structure statement.

An approved tariff structure statement may only be amended within a regulatory period with our approval.\textsuperscript{54} We will approve an amendment if the distributor demonstrates that an event has occurred that was beyond its control and which it could not have foreseen so that the amended tariff structure statement materially better complies with the distribution pricing principles.\textsuperscript{55}

\textsuperscript{51} NER, cl. 6.10.3(d)(e).
\textsuperscript{52} Tariff Structure Statements may only be amended during a regulatory period, with our approval, if an event occurs that is beyond the distributors’ reasonable control and could not reasonably have been foreseeable requires a change.
\textsuperscript{53} NER, cl. 6.18.1A(c).
\textsuperscript{54} NER, cl. 6.18.1B.
\textsuperscript{55} NER, cl. 6.18.1B(d).
3 Summary of SAPN’s proposal

The residential and small business tariffs proposed by SAPN are set out in the following two tables, respectively. These tariffs comprise three main elements:

- The structure of the tariffs, for example whether charges vary according to usage, maximum demand over a period or the time at which usage occurs, and whether there is a fixed charge;
- The value of relevant tariff parameters, including fixed charges, usage charges and thresholds, and the relevant time periods (tariff windows) for charges that vary by time of day;
- The rules that determine which tariffs customers are assigned to. These may vary according to the meter type (whether accumulation meters, interval meters or smart meters) and type of connection. In addition to the tariff that customers are assigned to by default, they may choose to be assigned to other tariffs in certain circumstances.

SAPN proposed:

- Existing residential and small business customers who do not make significant alterations to their supply or consume above the threshold amount stay on the existing usage tariffs (either inclining block or time of use)—These tariffs comprise of a fixed and usage charge
- New customers and existing customers who make significant alterations to their supply or consume above the threshold amount will be placed on the transitional demand tariffs—These tariffs comprise of a demand and usage charge\(^56\)
- Any customer with a smart meter can opt-in to a cost reflective demand tariff.

\(^{56}\) A fixed charge may still apply if a customer has a type 4 or 5 meter provided by SAPN.
Table 3-1  SAPN proposed residential tariffs

<table>
<thead>
<tr>
<th>Demand tariffs</th>
<th>Demand window</th>
<th>Fixed charges</th>
<th>Demand reset</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Months of the year</td>
<td>Days of the week^57</td>
<td>Hours of the day</td>
</tr>
<tr>
<td>Residential transitional actual demand</td>
<td>Year round flat demand charge</td>
<td>7 days per week</td>
<td>4-9 PM</td>
</tr>
<tr>
<td>Residential actual demand</td>
<td>Peak demand = Nov-Mar</td>
<td>7 days per week</td>
<td>4-9 PM</td>
</tr>
<tr>
<td>Residential solar sponge demand</td>
<td>Shoulder demand = Apr-Oct</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tariff type</th>
<th>Customer type</th>
<th>Assignment</th>
<th>Meter type</th>
<th>Tariff structure</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current tariffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Residential single rate | Existing customer | • Current default tariff  
• Closed to new customers from 1 July 2017 | Type 1-6 | • Inclining block usage charge  
• Fixed charge | • Block 1 usage = First 333.3 kWh per month  
• Block 2 usage = For the balance of consumption |
| Residential actual demand | New/Existing customer | • Opt-in                                | Type 1-5 | • Seasonal demand charge  
• Flat usage charge | • Demand components specified above  
• Includes minimum demand charge = 1 kW |

^57 Christmas day not included for residential demand tariffs.
<table>
<thead>
<tr>
<th>Proposed tariffs</th>
<th>Residential transitional actual demand</th>
<th>Residential transitional usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>New/Existing customer</td>
<td>New/Existing customer</td>
<td>Existing customer</td>
</tr>
<tr>
<td>Mandatory for:</td>
<td>Mandatory for:</td>
<td>Mandatory for:</td>
</tr>
<tr>
<td>• new connections</td>
<td>• altered connections(^{58})</td>
<td>• altered connections</td>
</tr>
<tr>
<td>• altered connections(^{58})</td>
<td>• customers over annual consumption threshold (20 MWh)</td>
<td>• customers over</td>
</tr>
<tr>
<td>Type 1-5</td>
<td>Type 1-5</td>
<td>Type 6</td>
</tr>
<tr>
<td>• Flat demand charge</td>
<td>• Flat usage charge</td>
<td>• Inclining block usage charge</td>
</tr>
<tr>
<td>• Inclining block usage charge</td>
<td>• Fixed charge</td>
<td>• Same structure as single rate but with higher usage charge</td>
</tr>
</tbody>
</table>

\(^{58}\) Altered connections include physical supply changes; new inverter approval (>2.5kW) – if solar tariff was approved; new major appliance installation (>25 amps)
Table 3-2  SAPN proposed low voltage business tariffs

<table>
<thead>
<tr>
<th>Demand tariffs</th>
<th>Demand window</th>
<th>Fixed charges</th>
<th>Demand reset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly actual kW demand</td>
<td>Months of the year Days of the week</td>
<td>Hours of the day</td>
<td>Nil. Minimum demand of 1 KW applies</td>
</tr>
<tr>
<td>transition</td>
<td>• Year round flat demand charge Workdays 12-9 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly actual kW demand</td>
<td>• Peak demand = Nov-Mar. Workdays Peak = 12-9 PM Shoulder = 12-4 PM Nil. Minimum demand of 1 KW applies</td>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Off-peak demand = Apr-Oct Workdays 12-9 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual demand (kVA)</td>
<td>• Peak demand = Nov-Mar. Workdays Peak = 4-9 PM Shoulder = 12-4 PM Nil.</td>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shoulder demand = Year round Workdays 12-9 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreed kVA demand</td>
<td>• Peak demand = Nov-Mar. Workdays Peak = 12-9 PM Fixed charge applies Two block demand charge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

59 Christmas day not included for residential demand tariffs.
<table>
<thead>
<tr>
<th>Tariff type</th>
<th>Customer type</th>
<th>Assignment</th>
<th>Meter type</th>
<th>Tariff structure</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single rate</td>
<td>Existing customer</td>
<td>• Closed to new customers from 1 July 2010</td>
<td>Type 1-6</td>
<td>• Inclining block usage charge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Fixed charge</td>
<td></td>
</tr>
<tr>
<td>Two rate</td>
<td>Existing customer</td>
<td>• Closed to new customers from 1 July 2017</td>
<td>Type 1-6</td>
<td>• Time-of-use usage charge</td>
<td>• Peak usage = workdays 7am–9pm CST</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Fixed charge</td>
<td></td>
</tr>
<tr>
<td>Agreed kVA demand²⁰</td>
<td>Existing customer</td>
<td>• Opt-in</td>
<td>Type 1-5</td>
<td>• Inclining block demand charge (kVA)</td>
<td>• Customers generally take supply direct from transformer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Flat usage charge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Fixed charge</td>
<td></td>
</tr>
<tr>
<td>Actual kVA demand</td>
<td>Eligible customers</td>
<td>• Mandatory/optional</td>
<td>Type 1-5</td>
<td>• Seasonal demand charge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Flat usage charge</td>
<td></td>
</tr>
<tr>
<td>Monthly actual kVA</td>
<td>Existing customers</td>
<td>• Mandatory</td>
<td>Type 1-5</td>
<td>• Flat demand charge</td>
<td>• Only for customers reassigned in 2015 from a</td>
</tr>
<tr>
<td>demand transition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

²⁰ SAPN removed this tariff as part of their 2016-17 annual pricing proposal
<table>
<thead>
<tr>
<th>Proposed tariffs</th>
<th>Monthly actual kW demand transition</th>
<th>New/Existing customers</th>
<th>• Mandatory for new and altered connections and customers over threshold</th>
<th>Type 1-5</th>
<th>• Time-of-use usage charge</th>
<th>• Includes minimum demand charge = 1 kW.</th>
<th>usage tariff but would have been worse off</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monthly actual kW demand</td>
<td>New/Existing customers</td>
<td>• Opt-in</td>
<td>Type 1-5</td>
<td>• Flat demand charge</td>
<td>• Includes minimum demand charge = 1 kW.</td>
<td>Seasonal demand charge</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Flat usage charge</td>
<td></td>
<td>Flat usage charge</td>
</tr>
<tr>
<td></td>
<td>Transitional usage</td>
<td>Existing customer</td>
<td>• Mandatory for altered connections</td>
<td>Type 6</td>
<td>• Inclining block usage charge</td>
<td>• Same structure as Single rate but with higher usage charge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transitional two rate usage</td>
<td>Existing customer</td>
<td>• Mandatory for altered connections</td>
<td>Type 6</td>
<td>• Time-of-use usage charge</td>
<td>• Same structure as Two rate but with higher peak charge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Fixed charge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SAPN proposal

61 Altered connections include physical supply changes; new inverter approval (>2.5kW) – if solar tariff was approved; new major appliance installation (>25 amps)
4 Tariff structures

SAPN proposed that existing customers maintain their current usage tariffs. These tariffs consist of a fixed charge and usage charge. For residential customers the usage charge is an inclining block charge, for small business customers it is either an inclining block or time of use charge.

SAPN proposed to assign to a demand tariff new customers, existing customers who make significant alterations to their supply, and existing customers with interval meters whose annual consumption is above a defined threshold. SAPN also proposed that existing customers with solar PV panels, some customers on retailer hardship programs, and existing customers with accumulation meters whose annual consumption is above a defined threshold would be re-assigned to new consumption based tariffs. Other existing customers would remain on their current consumption based tariffs, unless they choose to opt in to a demand tariff.

SAPN’s proposed demand tariffs aim to better reflect their efficient costs of providing services to customers. The tariffs include a monthly maximum demand charging component. The component charges a customer based on their highest half hour use within a specific charging period. The aim of the charge is to signal to customers it’s not only how much electricity they use, but also when they use it, which determines a distributor’s forward looking costs.

4.1 Tariff design

We are satisfied that SAPN’s choice of tariff to signal efficient costs to customers—the demand tariffs—contributes towards the achievement of compliance with the distribution pricing principles. The demand tariffs show movement along the cost reflectivity spectrum, away from consumption tariffs. Consumption tariffs do not vary through time and do not encourage customers to reduce the demands they place on the network at peak times for the network.

However, we are not satisfied that the inclusion of the social and solar tariffs, or the transitional usage tariffs contribute towards the achievement of compliance with the distribution pricing principles.

4.1.1 Residential and small business demand tariffs

SAPN’s proposal includes both (mandatory) transitional and an opt-in demand tariffs. The transitional demand tariffs have a reduced demand signal set at 40% of long run marginal cost estimates and simpler charging windows.

Table 4-1 below sets out details of SAPN’s proposed opt-in and mandatory (transitional) residential demand tariffs.

---

### Table 4-1 Residential demand tariffs

<table>
<thead>
<tr>
<th>Feature</th>
<th>Optional (opt-in) demand tariffs</th>
<th>Mandatory ‘transitional’ demand tariffs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential customers – Demand tariffs</td>
<td>New and altered connections from 2017–18.⁶³ These triggers appear to require a new meter.⁶⁴ Customer’s consumption exceeds 20MWh per annum, from 2018–19. Customers without enabling meter will be assigned to transitional usage based tariff.</td>
</tr>
<tr>
<td>Assignment trigger</td>
<td>Consumer requests to be assigned to tariff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part 1: Consumption usage component ($/kWh)—single block or consumption with peak and off peak period (solar sponge option)</td>
<td>Same as the opt-in demand tariff except:</td>
</tr>
<tr>
<td></td>
<td>Part 2: Demand charge component ($kW/day) set at 100 percent of intended level.. Minimum demand charge of 1kW.</td>
<td>Part 2: Demand charge component ($kW/day)—set at 40 percent of intended level for duration of tariff structure statement period. Includes deemed minimum demand charge of 1kW.</td>
</tr>
<tr>
<td></td>
<td>Part 3: Fixed metering charge if a customer has a type 5 meter provided by SAPN.</td>
<td></td>
</tr>
<tr>
<td>Calculation</td>
<td>A customer’s demand is calculated in 30 minute intervals over a month, and the interval with the highest or maximum level of demand is used as the electricity quantity to be multiplied by a price. Every month, the calculation is reset.</td>
<td></td>
</tr>
</tbody>
</table>

---

⁶³ Alterations include physical supply changes; new inverter approval; new major appliances > 25amps; change to three phase power.

⁶⁴ Following a rule change to expand competition in metering, new and replacement meters will need to be smart meters. These meters will enable time varying and peak reflective pricing.


⁶⁶ Peak charge for demand is set at a lower price than the opt-in tariff option as demand is priced at 40% of LRMC.


Table 4-2 below sets out details of SAPN’s proposed opt-in and mandatory (transitional) small business demand tariffs.

**Table 4-2 Small business demand tariffs**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Small business customers – Demand tariffs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Optional (opt-in) demand tariffs</td>
</tr>
<tr>
<td>Assignment trigger</td>
<td>Consumer requests to be assigned to tariff</td>
</tr>
<tr>
<td>Charging parameters</td>
<td>Part 1: Consumption usage component ($/kWh)—single block.</td>
</tr>
<tr>
<td></td>
<td>Part 2: Demand charge component ($kW/day)—set at 100 percent of intended level. Minimum demand charge of 1kW.</td>
</tr>
<tr>
<td></td>
<td>Part 3: Fixed metering charge if customer has a type 5 meter provided by SAPN.</td>
</tr>
<tr>
<td>Charging windows</td>
<td>Peak charge (November–March)</td>
</tr>
<tr>
<td></td>
<td>Shoulder charge (April–October)</td>
</tr>
<tr>
<td></td>
<td>Day: peak &amp; shoulder rates apply workdays. Weekends/Public holidays excluded.</td>
</tr>
<tr>
<td></td>
<td>Time: Peak applies from 12:00–9pm;</td>
</tr>
<tr>
<td></td>
<td>shoulder applies from 12:00–4pm. (^{71})</td>
</tr>
<tr>
<td>Calculation</td>
<td>A customer’s demand is calculated in 30 minute intervals over a month,</td>
</tr>
</tbody>
</table>

\(^{69}\) Alterations include physical supply changes; new inverter approval; new major appliances > 25amps.

\(^{70}\) Following a rule change to expand competition in metering, new and replacement meters will need to be smart meters.


and the interval with the highest or maximum level of demand is used as the electricity quantity to be multiplied by a price. Every month, the calculation is reset.

Source: SA Power Networks Tariff Structure Statement proposal

A number of stakeholder submissions commented on SAPN’s demand tariff design:

- The South Australian Department of State Development supported SAPN’s proposal to introduce demand tariffs. It submitted customers will have greater incentive to adjust their usage patterns when subject to a demand charge. It also submitted the shift away from consumption based tariffs will begin to remove existing cross subsidies caused by non-cost reflective prices.73

- Energy Consumers Australia (ECA), whilst raising some specific issues on charging windows, submitted that the proposed demand tariffs for residential and small business customers are a good start in the move towards cost reflective prices.74

- Retailers such as Origin, Red and Lumo Energy, AGL and Energy Australia were generally supportive of demand tariffs as a means of moving towards cost reflective pricing.75 AGL raised concerns with a few of the proposed triggers and also questioned the complexity of the charging windows, however overall were supportive of the general tariff reforms and the tariff structures proposed.76 Red and Lumo Energy submitted they were supportive of demand tariffs, but want them introduced on an opt-in basis.77

- A private citizen submitted that time of use tariffs would be a more efficient pricing structure. He questioned the application of the proposed long run marginal cost methodology at the customer level which SAPN used to base their demand tariffs on. He also submitted that due to the complex structure of demand tariffs, it’s questionable that customers would have full knowledge of their decisions regarding appliance use.78

- Solar citizens submitted that increasing network peak demand could be managed by targeting large users and offering positive and negative incentives to decrease their load at peak times. They also questioned how clear the demand price signal

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74 Energy Consumers Australia, Submission to the AER on SA Power Networks Tariff Structure Statement, May 2016, p. 5.
76 AGL, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, pp. 2-4.
78 John Herbst, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, pp. 4-5.
sent to customers will be and how customers would be able to respond without additional measures in place such as ‘ghost billing’.\textsuperscript{79} \textsuperscript{80}

In response to submissions, we accept there are concerns about a customer's ability to recognise and respond to the demand price signal. We have considered this issue, as a customer requires this information in a timely manner, to be able to efficiently adjust their behaviour and manage their demand in an appropriate way. This concern exists for any tariff a distributor offers and doesn't provide customers with real time data on usage and impacts. However, the inclusion of charging windows in the demand tariff provide customers a general signal as to the key times that lead to peak demand and place stress on the network.

Overall, SAPN's proposed demand tariffs incorporate a demand charge based on averaged costs. There are other tariff options that could be considered which provide sharper price signals however, we acknowledge that this is the first step in tariff reform and thus, further steps should take place in subsequent tariff structure statement proposals.

The Rules do not favour any specific tariff design. Tariffs that better reflect distributors' efficient costs are required for compliance with the distribution pricing principles. As SAPN's demand tariffs for residential and small business customers move towards better cost reflectivity in their tariff structures we are satisfied they contribute towards the achievement of compliance with the distribution pricing principles.

\subsection*{4.1.2 Social and solar tariffs}

We are not satisfied that SAPN's proposed social and solar tariffs contribute towards the achievement of the Rules. SAPN previously proposed these tariffs as part of their 2015/16 annual pricing proposal. We did not approve these tariffs then as we considered they were not compliant with the Rules. SAPN's tariffs treated customers with micro generation facilities less favourably than other customers and allocated customers to tariffs on a basis other than their connection, usage and/or metering characteristics.\textsuperscript{81} SAPN then appealed our decision.\textsuperscript{82} Before the appeal process was completed, SAPN was required to submit their tariff structure statement. Within the proposed tariff structure statement SAPN acknowledged the court's decision would impact their proposal.

On 23 December 2015 the Federal Court upheld our previous decision not to approve these tariffs. In response to our issues paper, SAPN submitted that it is considering the

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{79} Ghost billing would allow customers to see what their retail bill would be if they were assigned to a different tariff, while remaining on their current tariff.
\item \textsuperscript{80} Solar citizens, \textit{Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016}, pp. 1-2.
\item \textsuperscript{81} Metering is only a relevant characteristic if provided through a regulatory obligation.
\item \textsuperscript{82} SA Power Networks, \textit{Tariff Structure Statement overview paper}, p. 7.
\end{itemize}
\end{footnotesize}
Federal Court judgement and will include a response to the judgement in its revised tariff structure statement proposal.\textsuperscript{83}

We will consider any revised proposal by SAPN on these matters as part of our final decision.

### 4.1.3 Transitional usage tariffs

We are not satisfied that SAPN has shown how the proposed transitional usage tariffs contribute towards the achievement of compliance with the distribution pricing principles.

These usage tariffs, which simply charge customers a higher price for their energy consumption, do not include charging parameters which signal times of network congestion to customers. SAPN also hasn’t outlined how the tariffs reflect their efficient costs of providing services to these customers.

SAPN proposed transitional usage tariffs for customers in its residential, small business and distribution transformer business tariff classes. The tariff has a usage charge (either flat or time of use) and a fixed charge. The usage charge has been elevated above normal levels compared to existing usage tariffs. Our considerations on the assignment of customers to these tariffs can be found in chapter 6.2 below.

If SAPN wish to include these tariffs in their revised proposal or future tariff structure statements, we encourage them to provide information which highlights how these tariffs comply with the distribution pricing principles, in that:

- they reflect their efficient costs of providing services to these customers; and
- they take into account impacts on customers

As SAPN has not provided this information in their tariff structure statement proposal we are not satisfied that the transitional usage tariffs contribute towards the achievement of the distribution pricing principles.

### 4.1.4 Existing customers

SAPN proposed to allow most existing customers who do not undertake a major alteration to supply or consume over the threshold amount to remain on their existing tariffs.\textsuperscript{84} We approve of this approach. It allows customers who have made investment decisions on current tariffs protection who would have no opportunity to respond before being subjected to cost reflective pricing.

We have not attempted to assess the inclining block tariff against the distribution pricing principles in terms of cost reflectivity. These tariffs are not cost reflective, just as

\textsuperscript{83} SA Power Networks, Submission to AER on AER Issues Paper, April 2016, pp. 2-3.

\textsuperscript{84} SA Power Networks, Tariff Structure Statement overview paper, p. 27.
any block or flat rate tariff is not cost reflective. However, SAPN are taking steps to move away from usage based tariffs. SAPN proposed to:

- close these tariffs to new customers from 1 July 2017
- make minimal adjustments to the price of each block
- take an active approach to move customers off these tariffs (the proposed trigger and threshold assignments).

### 4.1.5 Minimum demand charge

We are satisfied that SAPN’s proposal to include a minimum demand charge of 1kW for the proposed demand tariffs for residential and business customers contributes towards the achievement of compliance with the distribution pricing principles. The level of the charge is low enough that costs recovered do not distort the demand price signal, as required by the Rules.

The demand tariffs for residential and small business customers proposed by SAPN do not include a fixed charge (besides a fixed metering charge for customers with a type 5 meter supplied by SAPN). It does however include a minimum demand charge of 1kW. This effectively works as a fixed charge; it is a charge that SAPN will recover every month regardless of a customer’s actual demand recorded in the demand charging window during the billing period.

Table 4-3 below highlights the price that the minimum demand charge will be in 2019-20 (the final year of the proposed tariff structure statement).

**Table 4-3 Minimum demand charges**

<table>
<thead>
<tr>
<th></th>
<th>Summer demand ($/kW/day)</th>
<th>Non-summer demand ($/kW/day)</th>
<th>Min. monthly summer demand charge ($)</th>
<th>Min. monthly non-summer demand charge ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>monthly actual kW demand</td>
<td>0.4938</td>
<td>0.2469</td>
<td>$15.31</td>
<td>$7.65</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>monthly actual</td>
<td>0.1732</td>
<td>0.1732</td>
<td>$5.37</td>
<td>$5.37</td>
</tr>
</tbody>
</table>

---

85 Based on the indicative prices provided as part of the tariff structure statement
86 NER, cl. 6.18.5(g)(3).
87 SA Power Networks, *Tariff Structure Statement overview paper*, p. 34.
88 Assumes 31 days in a month for all calculations
89 SAPN has also proposed a Residential monthly actual kW demand Solar Sponge tariff with the same demand charges.
SAPN has offered demand tariffs to its residential customers since 2014/15. The tariffs had a minimum demand charge of 1.5 KW. This is now being reduced to 1kW as part of their proposal.90

Submissions from AGL91 and the Australian PV Institute (APVI)92 did not support the proposed 1kW minimum demand charge. They submitted a fixed charge is more transparent and does not cloud any price signal being provided (especially for small customers). The SA small business commissioner questioned why certain costs need to be recovered by a minimum demand or fixed charge. Business SA submitted that the minimum demand charge is similar in price to the current supply charge, but generally businesses would welcome a removal of fixed charges.93

A minimum charge for demand is equivalent to a fixed charge. Customers are unable to avoid the charge, regardless of their consumption behaviour. The minimum charge proposed by SAPN is minimal. As shown in Table 4-3 a customer in a summer month on an opt-in demand tariff will only be charge $15.31 if their demand for the month is not greater than 1kW. This equates to approximately $0.50 a day. The charge is less for customers on the mandated transitional demand tariffs.

We are satisfied that using a minimum demand charge to recover residual costs contributes to achievement of compliance with the distribution pricing principles. We do not have sufficient information to determine whether SAPN's methodology to calculate residual costs complies with the Rules. As the demand tariffs have no fixed charges, and the minimum demand charge would be aimed at recovering some of these costs, we are seeking further information from SAPN in their revised proposal to address this.

Further discussion on SAPN's residual costs and their recovery can be found in chapter 5.2 below.

90 SA Power Networks, Tariff Structure Statement overview paper, p. 34.
91 AGL, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, pg.3.
92 Australian PV Institute, Submission to the AER on SA Power Networks Tariff Structure Statement and AER Issues Paper, May 2016, pp.13-14.
4.1.6 30 minute peak demand measurement period

SAPN proposed to calculate a customer’s maximum demand to be the highest use recorded within a 30 minute period that falls within its proposed peak charging window during the month. We approve of this basis of charging in this initial phase of tariff reform.

An alternative approach would be to average a customer’s top several demand periods during the month (that falls within the peak charging window). SAPN noted they are considering using an average over four adjacent half-hour intervals. 94 We observe that Ergon Energy has proposed to average the four highest demand periods as the basis of calculating the demand charge for its residential customers. While we accept SAPN’s approach of using a single 30 minute period, we also consider there are potential benefits in Ergon Energy’s averaging approach. We would be interested in working through this issue with the industry and stakeholders in the lead up to the next round of tariff structure statements.

The potential differences in these approaches relate to the extent to which they:

- send price signals to customers that are more closely aligned with the network’s co-incident demand
- enable customers to respond to price signals, and
- avoid or manage the potential for a customer to face ‘bill shock’.

It is not an individual customer’s peak demand that drives network costs, but the extent to which that customer’s peak demand contributes towards network congestion and the network’s co-incident demand. That is why SAPN’s proposed approach only records a customer’s highest 30 minute demand period if it falls within the peak charging window. However, the network’s co-incident demand may not be on the same day as an individual customer’s highest demand. Ergon Energy’s averaging approach increases the probability that a customer’s highest demand will coincide with the day, or days, on which the network’s peak demand also occurs.

We encourage distributors to collect data during this first tariff structure statement period (2017-2020) that demonstrates the extent to which customers’ peak demand typically occurs at the same time as the network also experiences peak demand. This should provide a useful basis for determining if the second and subsequent tariff structure statements should make a change to averaging a customer’s highest demand days, similar to Ergon Energy’s approach.

The use of a single period or averaging approach may also have an impact on a customer’s ability to respond to price signals. Price signals aim to elicit an informed and considered response by consumers. If a customer has automatic appliances (e.g. air-conditioner or battery storage is programmed to respond to peak demand periods),

94 SA Power Networks, Tariff Structure Statement Overview paper, p.36.
then responding price signals might be straightforward. However, in the absence of automatic appliances, there is the potential for residential and small business customer’s peak demand periods to occur more by accident than design, especially initially, as these customers gradually become more familiar with demand signals and the amount of electricity different appliances consume. If a customer’s top 30 minute demand window occurs by accident in one month, they will have a heightened incentive to understand their electricity usage the following month to avoid a repeat situation. Whereas an averaging approach might assist a customer in responding within the month, rather than waiting until the next month. For similar reasons, an averaging approach may also assist a customer to avoid or manage ‘bill shock’.

Notwithstanding these potential issues, we consider SAPN’s proposed approach of using a single 30 min period adequately manages customer impact as:

- The demand component, for the transitional demand tariff, is set at a low level in this tariff structure statement proposal (below long run marginal cost), which means the impact on a customers’ bill is reduced
- The demand component, for the opt-in demand tariffs, while set to reflect long run marginal cost is offered on a voluntarily opt-in basis only, which means only customers who choose to be exposed to the higher demand charge will face those price signals

### 4.2 Charging windows

We are satisfied that SAPN’s proposed charging windows for residential and small business customers contribute towards the achievement of compliance with the distribution pricing principles. They reflect times of overall network stress and incorporate times either side of the peak which aid in avoiding issues surrounding customers shifting load and creating new peaks.

We however consider that SAPN’s revised proposal would benefit from clearer explanations as to the rationale of why certain aspects of their charging windows have been selected. During our analysis of the proposal we found that certain links between rationale, in terms of charging windows (time), days of the week and months of the year, were not as clear as would be expected. We suggest SAPN include further information on these aspects of their proposal which will clearly highlight what the drivers of their proposed charging windows are and how they relate to overall network demand as well as trying to incorporate localised issues.

SAPN proposed different charging windows for residential and small business demand tariffs. They proposed to modify the windows of the mandatory transitional demand tariffs to manage customer impacts. These tariffs have simpler charging windows with the price of demand set at 40% of long run marginal cost estimates. Figure 4-1 below

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highlights the differences in charging windows for the four kW demand tariffs for residential and small business customers."}

**Figure 4-1 Charging windows**

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Charging window design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business networks peak at noon through to mid-afternoon</td>
<td>Peak charging window for small business = 12-9pm.</td>
</tr>
<tr>
<td>Residential networks peak in the evening</td>
<td>Peak charging window for residential = 4-9pm</td>
</tr>
<tr>
<td>Heatwaves are the main cause of network peaks and can occur on any day of the week</td>
<td>Residential charging window = 7 days a week. Small business charging window = Workdays.</td>
</tr>
</tbody>
</table>

Source: SA Power Networks Tariff Structure Statement proposal.

We focused on the following components when assessing SAPN’s proposed charging windows for residential and small business customers demand tariffs:

- size/time of the charging window

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96 The residential monthly actual demand solar sponge tariff has the same charging window and demand price as the "Residential" tariff in Figure 4-1.

• the difference in peak and shoulder charges ($) for summer and non-summer months
• the charging period (days of the week)

4.2.1 Size and time of the charging window

As shown above in Figure 4-1 SAPN proposed different charging windows (time) for the residential and small business customers demand tariffs. They have also proposed different windows for the transitional and optional (opt-in) tariffs specifically for small business customers.

SAPN state that charging window periods (12-9pm and 4-9pm for small business customers and residential customers, respectively) were typically when the network peaked and therefore are an appropriate time to record a customer’s demand. SAPN used two examples from 2014 and 2009 which were both during extreme weather events in South Australia. On 16 January 2014, Adelaide’s temperature peaked at 44 degrees, whilst 9 January 2009, it was 46 degrees.

From figures 2 and 3 provided in SAPN’s proposed tariff structure statement, the data highlights:

• The network peaked at 2,979 MW just after 4:30 PM on 29 January 2009
  o Residential peak = 1,813 MW at approximately 6:30 PM
  o Business peak = 1,482 MW at approximately 11:30 AM
• The network peaked at 2,790 MW just after 6:30 PM on 16 January 2014
  o Residential peak = 1,810 MW at approximately 7:30 PM
  o Business peak = 1,529 MW at approximately 10:30 AM

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98 SA Power Networks, Tariff Structure Statement overview paper, p.32.
Figure 4-3 Customer segment MW Demands on 16 January 2014

Source: SA Power Networks Tariff Structure Statement proposal

Figure 4-4 Customer segment MW Demands on 29 January 2009

Source: SA Power Networks Tariff Structure Statement proposal
Figure 4-3 and Figure 4-4 highlight that the business peak has historically occurred outside of the proposed charging windows. However, the demand levels remain very close to the peak from 9:30 am to 2:30 pm. During this period residential demand is generally low and therefore overall network demand has not yet peaked. This is highlighted specifically in Figure 4-3 as solar PV has lowered overall residential demand. SAPN currently offers kVA demand tariffs to its small business customers. Charging windows for the agreed kVA tariff prior to 2015 were 12-8pm, however due to concerns with co-incident network peaks occurring it was changed to 12-9pm. For the actual kVA tariff which commenced on 1 July 2015, the charging window has a 4-9pm peak charge which applies from November to March and a 12-4pm shoulder charge which applies all year round. Both of these tariffs highlight SAPN’s concern that small business customers contribute to the coincident network peak.

SAPN state that network peaks can occur from around midday to 9 pm. They are aware that the proposed wide charging windows will make it challenging for many customers to alter behaviour however they hold the view that the size of the window is cost reflective and necessary. This statement along with the accompanying data raises concern that the demand charging window may be too large for small business customers. The proposed opt-in demand tariff charging window occurs from 12 pm to 4 pm in non-summer months (April to October). This would indicate that after 4 pm, in non-summer months, SAPN is not as concerned about business customers contribution to peak demand.

Submissions from retailers raised concerns with the differences in charging windows for opt-in compared to mandated demand based tariffs. Energy Australia and Origin submitted that improved customer understanding from an aligned charging window would outweigh the loss of the precise seasonal changes proposed. AGL also submitted concerns specifically for small business customers.

Business SA submitted that SAPN should consider revising the charging window for small business customers to finish at 4-6pm. They believe this is a better reflection of when the majority of businesses maximum demand periods are.

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103 SAPN note that major customers load has not been included in the data.
104 SA Power Networks, Tariff Structure Statement proposal, pp.48-49.
107 Energy Australia, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 6; Origin, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 2.
We acknowledge that when looking solely at business peaks based on the graphs SAPN has included in its proposal, it could be argued that the charging window should finish at 6 or 7pm. This however only takes into account business peak demand, rather than coincident network peak demand that SAPN says it is signalling to customers through the peak demand charge.

Whilst we do not require this for compliance, we encourage SAPN to respond to stakeholder concerns as to why the small business demand charging window needs to extend beyond 6 or 7 pm, especially in non-summer months.

**The difference in peak and shoulder charges ($) for summer and non-summer months**

We are satisfied that SAPN’s proposal to send a stronger, more cost reflective price signal via the demand charge in its opt-in demand tariffs for residential and small business customers contributes towards the achievement of compliance with the distribution pricing principles.

As shown in Figure 4-1, the mandated transitional tariff has a demand charge that does not vary in price based on time of the year, whilst the opt-in tariff charges a higher price in summer months (November to March) compared to non-summer months (April to October).

Submissions received from the ECA, AGL and APVI raised concerns about cost reflectivity of non-summer month (or shoulder) demand charges.\(^\text{109}\) The APVI submission presented results based on analysis of a NSW dataset they believed to be similar to the load profiles of SAPN’s customers.

APVI’s submission focused on measuring inefficiencies of the proposed demand charges. They submitted that the current proposed charges will result in customers paying more than they should for their energy and therefore consume less than their optimum. APVI submitted, based on their analysis that households are likely being charged for network augmentation at times when their demand doesn’t necessarily affect the cost of augmentation. It concluded that this results in a customer being incentivised to reduce their demand at incorrect times which will have limited impact on reducing overall network expenditure.\(^\text{110}\)

APVI suggest these inefficiencies could decrease by removing the number of months over which the demand tariff applies and focusing the charging window on network peaks, not customer peaks.

The submissions from APVI and ECA raise valid points surrounding the cost reflectivity of SAPN’s demand tariffs in non-summer months. We believe that this argument


should only apply to the opt-in demand tariff. As this is a first step in tariff reform customer impacts need to be managed in an appropriate way, and SAPN have done this with their mandated transitional demand tariff.

If SAPN were to adopt APVI’s suggestion and limit their demand charge to summer and winter months, this would result in a higher demand price as the costs they would need to recover remains the same, however over a shorter amount of time. We are not against SAPN sending a stronger signal through their opt-in demand tariffs. However other factors such as customer understandability need to be addressed. As SAPN proposed, providing a demand charge across the year allows consistency for retailers and retail customers. As this is the first step in moving towards cost reflective pricing for residential and the majority of small business customers, we consider that SAPN has adequately balanced the requirements of the distribution pricing principles in charging for demand across the entire year.

**The charging period (days of the week)**

We are satisfied that SAPN’s proposed charging periods (days of the week) for the residential and small business customers demand tariffs contributes towards the achievement of compliance with the distribution pricing principles.

SAPN’s demand charging window period is seven days a week\(^{111}\) for residential customers and workdays for small business customers.\(^ {112}\)

SAPN argue that because their network has such a high proportion of demand serving air-conditioners, especially in certain areas such as the southern and eastern suburbs, peak demand is as much as a concern on weekends as it is weekdays.\(^ {113}\)

Submissions from Consumers SA, ECA and the South Australian Council of Social Services (SACOSS) questioned the need to include the demand charging window for residential customers on weekends and public holidays. ECA question why weekend charging is needed as the majority of business are shut and therefore the network is unlikely to peak without the additional load.\(^ {114}\)

The following graph from SAPN’s proposed tariff structure statement compares network demand across two different days (Thursday and Sunday) in January and February 2014.

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\(^{111}\) Except for Christmas day which is excluded.  
\(^{112}\) Workdays does not include weekends or public holidays.  
As can be seen in the graph, residential peak demand on the Sunday was higher than compared to the Thursday; however as business peak demand was so much lower, overall demand was lower as well. SAPN also provided additional data on network demand in response to our information request. This data showed how specific parts of the network peak on work and non-work days.

If our decision was based on this graph alone, it would be hard to see why residential customers need to have their demand charged on weekends. However, the cost of serving a customer depend not only on network peak demand but also on whether localised parts of the network are constrained at peak times. But SAPN are not able to vary prices based on location. Taking this into account, we consider that for SAPN to have regard to residential demand rather than total network demand complies with the distribution pricing principles.

### 4.3 Large business customers

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115 South Australian Treasurer, Electricity Act 1996 Section 35B Electricity Pricing Order, 11 October 1999. Cl 7.3 (f)-(h)

116 NER, cl. 6.18.5(c)(2).
We are satisfied that SAPN's proposed tariffs for large business customers contribute towards the achievement of compliance with the distribution pricing principles. SAPN's large business customer tariffs exhibit relatively strong cost reflectivity. They include kVA demand charges which vary by time and month reflecting peak demand periods on the network.\textsuperscript{117}

For the period covered by the proposal (2017-2020), SAPN has not proposed any changes to the seven current tariffs, or proposed any additional tariffs, to customers in their high voltage and major business tariff classes.

High voltage customers can elect to opt-in to tariffs via a request to their retailer.

Most major business customers exceeding 10 MVA or usage exceeding 40GWh receive locational transmission pricing. If they go below this they can request via a retailer to have postage stamp pricing.

The following tariffs are offered to high voltage customers:
- High voltage business monthly actual kVA demand tariff
- High voltage business agreed kVA demand (<400 kVA) tariff
- High voltage business agreed kVA demand tariff\textsuperscript{118}

Charging components for each of the three tariffs are presented in Table 4-4 below: \textsuperscript{119}

\textbf{Table 4-4 High voltage tariffs - charging components}

<table>
<thead>
<tr>
<th>Demand charging window</th>
<th>Monthly actual kVA demand</th>
<th>Agreed kVA demand (&lt;400 kVA)</th>
<th>Agreed kVA demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand charging period</td>
<td>Work days</td>
<td>Work days</td>
<td>Work days</td>
</tr>
<tr>
<td>Demand charge ($/kVA/day)</td>
<td>Peak = $0.3429</td>
<td>Peak block 1 = $0.3169</td>
<td>Peak = $0.2206</td>
</tr>
<tr>
<td></td>
<td>Shoulder = $0.3429</td>
<td>Peak block 2 = $0.1001</td>
<td>Additional = $0.1001</td>
</tr>
</tbody>
</table>

\textsuperscript{117} SA Power Networks, Tariff Structure Statement proposal, pp.28-29.
\textsuperscript{118} SA Power Networks, Tariff Structure Statement proposal, pp.55-56.
\textsuperscript{119} Prices are based on 2019-20 indicative prices from the tariff structure statement proposal.
The following tariffs are offered to major business customers:

- Zone substation kVA demand tariff (postage stamp TUoS)
- Zone substation kVA demand locational tariff
- Subtransmission kVA demand tariff (postage stamp TUoS)
- Subtransmission kVA demand locational tariff

Charging components for each of the three tariffs are presented in Table 4-5 below.

**Table 4-5 Major business tariffs - charging components**

<table>
<thead>
<tr>
<th>Demand charging window</th>
<th>Zone substation kVA demand tariff</th>
<th>Zone substation kVA demand locational tariff</th>
<th>Subtransmission kVA demand tariff</th>
<th>Subtransmission kVA demand locational tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand charging period</td>
<td>Anytime</td>
<td>Anytime</td>
<td>Anytime</td>
<td>Anytime</td>
</tr>
<tr>
<td>Demand charge ($/kVA/day)</td>
<td>Block 1 = $0.1956</td>
<td>Block 1 = Differs per customer</td>
<td>Block 1 = $0.1205</td>
<td>Block 1 = Differs per customer</td>
</tr>
<tr>
<td></td>
<td>Additional = $0.0944</td>
<td>Additional = $0.0944</td>
<td>Additional = $0.0193</td>
<td>Additional = $0.0193</td>
</tr>
<tr>
<td>Supply charge</td>
<td>-</td>
<td>Yes – locational</td>
<td>-</td>
<td>Yes - locational</td>
</tr>
<tr>
<td>Minimum agreed anytime</td>
<td>5,000 kVA</td>
<td>5 MVA</td>
<td>5 MVA</td>
<td>5MVA</td>
</tr>
</tbody>
</table>

Source: SA Power Networks Tariff Structure Statement proposal

121 Prices are based on 2019-20 indicative prices from the tariff structure statement proposal.
Energy Simplified hold concerns that SAPN's proposal does not do enough to encourage innovation and competition in the area of reducing demand for large businesses. They submit that large businesses have practical constraints in terms of managing demand for five summer months which results in a lack of interest in terms of demand management solutions. They suggest options such as critical peak pricing and location based incentives should be explored.\(^\text{122}\)

We are satisfied that SAPN's proposed tariff designs for their large business customers comply with the distribution pricing principles. They signal to customer's times of network stress whilst giving customers the ability to adjust behaviour and respond. We also agree with Energy Simplified's submission, that other more cost reflective options could be considered by SAPN for their large business customers. However, during this first stage of moving towards cost reflectivity for all customers we would not require this from SAPN to be compliant with the distribution pricing principles.

### 4.3.1 Distribution transformer business customers

We are satisfied that the majority of SAPN's proposed tariffs for distribution transformer business customers contribute towards the achievement of compliance with the distribution pricing principles.

The distribution transformer business tariff class is a new tariff class proposed by SAPN.\(^\text{123}\) Customers within this tariff class have been separated from the low voltage business tariff class.

The tariffs offered to customers within this tariff class include demand charges which reflect peak demand periods on the network. SAPN's proposed transitional usage tariffs, which mirror the structure of those proposed for the residential and small business tariff classes, are not cost reflective.

We do not consider the transitional usage tariffs, as discussed in chapter 4 above, contribute towards the achievement of compliance with the distribution pricing principles.

It was not clear from SAPN's proposed tariff structure statement what tariffs would be offered to distribution transformer business customers. In response to our information request SAPN responded that the following tariffs are available to customers:

| Usage charge | $0.0199/kWh | $0.0082/kWh | $0.0144/kWh | $0.0027 or $0.0200/kWh |

Source: SA Power Networks Tariff Structure Statement proposal

\(^{122}\) Energy Simplified, *Submission to the AER on SA Power Networks Tariff Structure Statement*, May 2016, pp. 1-3;  
\(^{123}\) SAPN changed the name of this tariff class to 'Large LV business' in the 2015/16 annual pricing proposal.
• Agreed kVA demand
• Monthly actual kVA demand
• Monthly actual demand transition (kVA)
• Transitional usage
• Transitional two-rate

These tariffs and their structures match what has been proposed and discussed in the small and large business customer sections above.

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124 There is a variant of this tariff specifically available for sportsgrounds where annual demand is measured over a different period.
5 Tariff levels

The distribution pricing principles require each tariff to be based on the long run marginal cost of providing the service to which it relates to the retail customers assigned to that tariff. The Rules define long run marginal cost as the cost of an incremental change in demand over a period of time in which all factors of production can be varied. This is also known as the forward-looking cost. This chapter sets out our considerations on SAPN's approach to calculating long run marginal cost, passing those costs through to customers and dealing with residual costs.

5.1 Calculation of long run marginal cost

When tariffs accurately reflect the marginal or forward-looking cost of increasing demand, consumers may make informed choices about their electricity usage. Tariff reform seeks to promote additional investment in the network by distributors only when consumers value increased demand more than the cost of delivering the additional network capacity necessary to meet that demand.

We are currently unable to form a position on SAPN's long run marginal cost calculation. SAPN's tariff structure statement proposal outlines the approach it used for the calculation, the costs included and the forecasting period. However, the cost inputs used were from a 2010 forecast. We submitted an information request to SAPN questioning why the 2010 forecast was used. SAPN responded that they are currently updating the forecast which will be included in their revised tariff structure statement. The revised calculation will include updates to the inputs used and also potential changes to costs included in the calculation. We will assess SAPN's revised cost inputs and updated calculations when received in its revised proposal.

We are satisfied that SAPN's long run marginal cost methodology, in terms of using the average incremental cost approach and also the types of costs included in the calculation sufficiently complies with the rules for this first stage of tariff reform. Accordingly, we do not require SAPN to change its methodology.

SAPN apportioned costs to tariff classes (distribution costs, PV FiT cost recovery and transmissions costs) at the asset level. Some assets were apportioned based on customer numbers, while tariff classes were only charged for asset categories they use. Fifty per cent of asset charges were allocated to the demand charging component of tariffs which is aimed to reflect SAPN's long run marginal cost.

As a transitional measure, to help in managing impacts on residential and small business customers mandatorily assigned to kW demand tariffs, SAPN will set the demand charge at 40 percent of its long run marginal cost for the period of the proposed tariff structure statement (2017-20).125 We consider SAPN linking long run

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125 SA Power Networks, Tariff Structure Statement proposal, p. 68.
marginal cost to the demand charge within its demand tariffs contributes to achievement of compliance with the distribution pricing principles.

SAPN used the average incremental cost approach to calculate their long run marginal cost estimates by voltage level for each of their five tariff classes. A forecast period of 10 years was used, however they used the forecasts identified in their 2010 regulatory proposal. Therefore the forecast period only extends to 2020 with five of the years containing actual data. SAPN has stated that it will in its revised tariff structure statement revise its long run marginal cost calculations to include the AER determined operational and capital expenditures from the 2015 final decision.\textsuperscript{126}

From SAPN’s response to our information request, it is not entirely clear if SAPN plan to update only the costs included in the long run marginal cost calculation and maintain the current time period (2010-2020), or, shift the time period to start from 2015. We request SAPN to update their calculation to include forecast figures only. If SAPN continued to use 2010 as their start date it would result in only 4 years of forecast data which we consider too short a forecasting period to be deemed 'long run'.

SAPN included forecast growth related capital expenditure, and forecast incremental growth related operating expenditure in its long run marginal cost calculation.\textsuperscript{127} As stated above, at this stage of tariff reform, we consider this reasonable. We do however encourage SAPN, when updating their forecast and included costs, to consider if asset replacement costs should also be included in the long run marginal cost calculation. SAPN has indicated in their response to our information request that they are considering the inclusion of this cost.

In the long run, the level of capacity is variable. When assets come to the end of their useful life, distributors have a choice of maintaining their current level of capacity, increasing capacity or decreasing capacity, depending on demand and use of the network. Distributors should not adopt a default position of maintaining existing capacity levels, especially where existing networks have spare capacity and where there are changing patterns of use. Replacement capex and associated opex should be included in long run marginal cost estimates to encourage network capacity to more towards the level that customers value.

The Rules do not prescribe which costs should and should not be included in long run marginal cost estimates. For this initial round of tariff structure statements we will not require replacement capex to be included in long run marginal cost calculations. If SAPN choose to include this cost in their revised proposal it would be welcomed. For future tariff structure statements we leave open the option to take a stronger position on this matter.

5.2 Recovery of residual costs

\textsuperscript{126} SA Power Networks, Tariff Structure Statement proposal, Appendix B, p.5.
\textsuperscript{127} SA Power Networks, Tariff Structure Statement proposal, Appendix B, p.4.
Not all of a distributor’s costs are forward looking and variable. Costs not captured by long run marginal cost estimates are called residual costs. Together, long run marginal costs and residual costs form a distributor’s total costs. The Rules require total costs be recovered in a way which minimises distortions to price signals for efficient usage resulting from tariffs reflecting long run marginal cost.\(^\text{128}\) In this context, non-distortionary tends to mean unresponsive to customer usage. That is, because customers cannot avoid the residual costs they are asked to pay, they should respond to long run marginal cost price signals about their usage.

SAPN have not sufficiently outlined how they intend to recover their residual costs and from which charging parameter.

SAPN state that for the majority of cost reflective tariffs the demand charging parameter recovers a proportion of the total revenue reflecting peak network use. They then recover the balance of their residual costs through a combination of fixed (if applicable) and usage charges.\(^\text{129}\)

SAPN describes its demand tariffs as either "actual" or "agreed" demand tariffs. SAPN's actual kW and kVA demand tariffs do not include fixed charges other than to cover the metering costs of Type 4 or 5 meters supplied by SAPN. By contrast, most distributors use fixed charges to recover their residual costs. The kW demand tariffs however do include a minimum monthly demand charge.\(^\text{130}\)

We requested SAPN provide a more detailed analysis on what they considered to be their forward looking and residual costs. SAPN responded stating they are currently revising their long run marginal cost forecast. They will include this, along with further detailed information on their forward looking and residual costs in their revised tariff structure statement proposal.

At this point in time, due to lack of information on residual costs and how SAPN intend to recover them, we cannot determine if the proposal is compliant.

In its revised proposal, SAPN should:

- state what it's residual costs are and how the intend to recover them, and;
- demonstrate how residual costs will be recovered from their demand tariffs for residential and small business customers.

As the demand tariffs do not have a fixed charging component and the level of minimum demand (1kW) is low, we question if it's substantial enough to recover the entirety of SAPN’s residual costs. SAPN should clearly outline how they intend to recover these costs and any distortions to the demand price signal that is occurring.

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\(^{128}\) NER, cl. 6.18.5(g)(3).


6 Tariff assignment policies

SAPN's tariff assignment policies are a key section of their proposal which shows an active commitment to transition customers onto more cost reflective tariffs as the NPO requires. SAPN proposed to include an additional tariff class and create an assignment policy which moves customers on to transitional demand tariffs at times when they:

- create a new connection to the network
- make a major alteration to their existing supply
- consume over a certain amount of electricity per year

SAPN proposed existing customers who do not make any major alterations to their supply, or consume over the threshold amount, remain on their current tariff. The proposal also provides for existing customers who have a smart meter the option to opt in to a demand tariff.

6.1 Tariff classes

We are satisfied that SAPN's proposed tariff classes, including the newly created Distribution Transformer Business tariff class, contribute towards the achievement of compliance with the distribution pricing rules.\(^\text{131}\)

SAPN's tariff classes group similar customers together which take into account their connection to and use of the network. Therefore, we are satisfied that SAPN's proposed tariff classes are compliant with the rule requirements on the assignment and re-assignment of customers to tariff classes.

SAPN proposed five tariff classes for the tariff structure statement period (2017-2020).

- Low Voltage Residential
- Low Voltage Business
- Distribution Transformer Business
- High Voltage Business
- Major Business

The Distribution Transformer Business tariff class is a new tariff class proposed by SAPN.\(^\text{132}\) Customers within this tariff class have been separated from the Low Voltage Business tariff class. SAPN state, customers assigned to the Distribution Transformer Business tariff class:

- use less network assets as they are normally connected directly to a transformer

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\(^\text{131}\) NER, cl.6.18.3.
\(^\text{132}\) SAPN changed the name of this tariff class to 'Large LV business' in the 2015/16 annual pricing proposal.
• are generally larger customers
• have load factors and demand profiles that are similar to other large business customers.\textsuperscript{133}

6.2 Residential and small business customers

We are satisfied that the following aspects of SAPN's tariff assignment proposal for residential and small business customers contribute towards the achievement of compliance with the distribution pricing principles:

• mandatory assignment of new customers to transitional demand tariffs
• mandatory assignment of customers who undergo a significant alteration to supply to transitional demand tariffs
• allowing existing customers who do not undergo any significant alteration to supply to stay on their current tariffs, and
• allowing customers to opt-in to a more cost reflective demand tariff.

However, we are not satisfied that SAPN's proposed date for mandatory assignment to demand tariffs complies with the requirements of its Distribution Determination.\textsuperscript{134} SAPN proposed the assignments take effect from 1 July 2017, which is the start of its proposed tariff statement period. Instead, we consider this change should take effect from 1 December 2017, which aligns with the timing of the AEMC's metering rule changes.

In addition, we are not satisfied that SAPN's proposal to assign customers based on annual consumption and meter type contributes towards the achievement of compliance with the distribution pricing principles, nor is it compliant with their distribution determination. As discussed in chapter 4 above, we also do not consider the transitional usage tariffs, which this assignment relates to, are complaint with the distribution pricing principles.

A customer with usage over the threshold would, depending on their metering, be assigned to either to the transitional usage or demand tariff. This process is highlighted in Figure 6-1 below. However, our 2015 determination sets out, in Appendix D.3 of Attachment 14, principles for assigning or re-assigning retail customers to tariff classes with which SAPN must comply.\textsuperscript{135} These principles include that when assigning

\textsuperscript{133} SA Power Networks, Tariff Structure Statement, p. 41.
\textsuperscript{134} AER, Final Decision - SA Power Networks determination 2015-16 to 2019-20, Attachment 14 - Control mechanism, October 2015, pp.21-24
\textsuperscript{135} These principles relate directly to the assignment/re-assignment of customers to tariff classes. However, following the decision of the Federal Court, when a distributor creates a new tariff for a specific group of customers within a tariff class and compulsorily assigns/re-assigns those customers, this can be construed as an assignment or re-assignment to a new tariff class. In this situation, we consider the principles governing assignment to tariff classes in the applicable distribution determination become relevant to the assessment of a distributor's tariff assignment.
customers, SAPN must take into account the nature and extent of the customer's usage, and the nature of the customer's connection to the network. Whether the customer has remotely-read interval metering or other similar technology installed at their premise is also a principle SAPN must take into account. However, under SAPN's distribution determination this metering principle is only relevant if the metering was installed as a result of a regulatory obligation or requirement.\textsuperscript{136} SAPN has not demonstrated that customers who consume above the thresholds have different connection or usage profiles. Nor has SAPN demonstrated that their metering was provided from a regulatory obligation.\textsuperscript{137} Therefore, we are not satisfied that SAPN's proposal complies with these principles. And we cannot approve this element of SAPN's proposal, as it does not comply with the applicable distribution determination.

SAPN's proposal also does not clearly outline:

- why the specific thresholds for residential and small business customers has been chosen, and
- why these customers should be moved onto transitional usage or demand tariffs compared to customers who consume below the threshold.

SAPN's proposal mandatorily assigns customers from 1 July 2017 to transitional demand tariffs if:

- they are a new customer
- a current customer makes a significant alteration to their current power supply
- a current residential customer consumes over 20 MWh annually
- a current small business customer consumes over 40 MWh annually.\textsuperscript{138}

SAPN outlined the following significant alterations to supply that act as triggers for customers to be mandatorily assigned to the transitional demand tariff:

- physical supply changes (e.g. 3-phase power)
- new inverter approval\textsuperscript{139}
- new major appliance installation (>25 amps - e.g. large air conditioner or electric vehicle fast-charger)\textsuperscript{140}

\textsuperscript{136} AER, \textit{Final Decision - SA Power Networks determination 2015-16 to 2019-20}, Attachment 14 - Control mechanism, October 2015, pp.21-24
\textsuperscript{137} NER, cl. 6.18.4(a)(1-2).
\textsuperscript{138} SAPN proposed to assign customers to the solar tariff who installed alterations involving inverter capacity less than 2.5kW.
\textsuperscript{139} SAPN proposed to assign customers to the solar tariff who installed alterations involving inverter capacity less than 2.5kW.
\textsuperscript{140} SA Power Networks, \textit{Tari}ff Structure Statement overview paper, p. 6.
After requesting additional information from SAPN, we note that the new major appliance trigger (>25 amps) does not require a new meter to be installed. SAPN stated that customers who trigger this alteration but do not already have, or install, a smart meter would be assigned to a transitional usage tariff.

SAPN also outlined, in response to our information request, the following scenarios which do not lead to mandatory assignment to a demand tariff:

- a change in the name of the existing account holder
- the installation of an interval meter, by either customer choice or by replacement
- the installation of battery storage.\(^{141}\)

We encourage SAPN to clearly outline all alterations to supply highlighting what does and does not lead to mandatory assignment in its revised tariff structure statement. This will provide all stakeholders with this knowledge when reviewing SAPN’s revised proposal.

SAPN’s proposal allows existing customers to stay on their current tariffs as long as they do not trigger any of the mandatory assignment clauses. We consider the proposal protects customers who have made investment decisions based on current charging arrangements, compared to new customers who will be considering new investments.

In its revised tariff structure statement SAPN should include any transition plans that will result in more customers being assigned to cost reflective prices in the future. We understand this will occur in subsequent tariff structure statements, and may change over time, however, we believe that SAPN should include their forward looking plans which will ultimately lead to all customers facing costs that reflect the costs they impose on the network.

### 6.2.1 Assignment of new customers and customers who make a significant alteration to their supply

We hold the view that distinguishing new customers from existing customers is an appropriate means to transition customers onto more cost reflective tariffs. This method protects customers who have made investments based on existing tariff structures in appliances and businesses. These customers still have the ability to opt-in to a demand tariff if they choose.

The mandatory assignment of new customers however should begin as of 1 December 2017. This will align with the commencement of the new framework for metering which requires any new or replacement meter be provided on a competitive

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\(^{141}\) Battery storage does require an inverter, however SAPN do not consider batteries to be an alteration to supply that will increase the cost of supply.
SAPN must also adjust the start date to December 1 2017 when mandatorily assigning customers who make a significant alteration to their supply.

Our distribution determination for SAPN allows assignment of customers to be based on a customer’s metering arrangements only if that metering was provided as a result of a regulatory obligation or requirement. We consider that SAPN’s mandatory assignment proposal will become compliant with its distribution determination through aligning the tariff assignment change with the commencement of the metering contestability rule change, which provides the requisite regulatory obligation.

Alignment with the metering contestability rule change also means that this change occurs in an environment where the meter is provided by or through a customer’s retailer on a competitive basis. The meter will no longer be a regulated service provided by the distributor. While the Rules prescribe minimum functional requirements for these meters, retailers can also offer customers smart meters with a range of other additional features. The installation of smart meters by retailers may increase the range of services and pricing options that are available to consumers, and therefore help consumers respond to retail packages that incorporate the new network tariffs.

SAPN’s proposed assignment policy (amended to apply from 1 December 2017) will apply to all new and altered supply customers, and is not dependant on the particular smart meter functionality customers negotiate with their retailers.

SAPN indicated, in response to an information request, that assignment of customers based on installation of an inverter would be dependent on a customer’s meter type and if the solar tariff was approved. SAPN stated that if a customer installed an inverter greater than 2.5kW they would be assigned to either the transitional demand or usage tariff (depending on their meter). If the inverter was less than 2.5kW they would be assigned to the solar tariff. As we have determined that both the solar and transitional usage tariffs do not contribute towards the achievement of compliance with the distribution pricing principles, SAPN need to outline any proposed assignment for these customers in its revised proposal.

There was a mixed response from submissions both for and against SAPN’s assignment proposals.

On mandated assignment of customers to demand tariffs:

- The Clean Energy Council and SACOSS did not support any form of mandatory assignment. Both organisations submitted an opt-in approach should be adopted.
The Small Business Commissioner of South Australia submitted an opt-out clause should be included in the proposal.145

- The SA Department of State Development (DSD) and the Energy Networks Association (ENA) supported SAPN’s proposal (mandated tariffs for new customers, alterations to supply and the threshold based tariffs).146

Specifically for mandated assignment to demand tariffs for new customers:

- The DSD, AGL, ECA and ENA supported the proposal to mandate demand based tariffs for new residential and small business customers.147

- Red and Lumo Energy were strongly opposed, submitting that mandating new customers will have a negative impact on the smart meter rollout.148

Specifically for mandated assignment to demand tariffs for customers who make alterations to their supply:

- Red and Lumo Energy, AGL, the Clean Energy Council and Consumers SA opposed the proposal. Their reasons included—issues of treating customers differently based on meter type and lack of information/education provided to customers that is required to adequately inform them of this change to tariff assignment.149

- The APVI opposed the new inverter approvals trigger as it considered it would unfairly target customers with solar PV systems. They however supported the large appliance trigger stating it is equivalent to a 6kW A/C load which will further increase peak load on the network.150

- Business SA submitted that SAPN should consider removing the major appliance trigger as it provides small business customers with a disincentive to install capital upgrades which may lead to business growth. They suggest if the trigger is kept, it

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145 Clean Energy Council, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 1; South Australian Council of Social Service, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 18;
146 South Australian Department of State Development, Submission to the AER on SA Power Networks Tariff Structure Statement, May 2016, p. 2; Energy Networks Association, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 2.
147 South Australian Department of State Development, Submission to the AER on SA Power Networks Tariff Structure Statement, May 2016, p. 2; AGL, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 2; Energy Consumers Australia, Submission to the AER on SA Power Networks Tariff Structure Statement, May 2016, p. 5; Energy Networks Association, Submission to the AER on SA Power Networks Tariff Structure Statement, May 2016, pp. 5-6.
149 Red and Lumo Energy, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, pp. 2-3; AGL, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 2; Clean Energy Council, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, pp. 4-5; Consumers SA, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, pp. 5-6.
150 Australian PV Institute, Submission to the AER on SA Power Networks Tariff Structure Statement, May 2016, p. 16.
should be adjusted to only include appliances such as air-conditioners that are major contributors to increases in demand.¹⁵¹

Stakeholder submissions mainly focused on the issues of the speed of transition to cost reflectivity and how customer impacts should be managed. The NPO requires distributors’ tariffs reflect their efficient costs of service. The distribution pricing principles also require that a distributor take into account customer impacts. The end result should be that all customers face cost reflective tariffs, however customers need to be transitioned over a period of time.¹⁵² A key part of this trade-off is considering how customers should be assigned onto cost reflective tariffs. SAPN has proposed factors such as meter type, the point at which significant investments are made, existing vs new customers and size of a customer (annual consumption) to determine when assignment should occur.

We consider that compliance with the distribution pricing principles could include a range of different cost reflective options with different mechanisms included to manage customer impacts. While SAPN has not included an opt-out clause for their mandated assignment to demand tariffs we observe this method has been adopted by ActewAGL in recent years with good results.¹⁵³ Business SA submitted that SAPN should consider including an opt-out option. They consider this would provide businesses with greater flexibility in terms of trialling a demand tariff to see if they are able to lower their costs.¹⁵⁴

Including an opt-out option for mandated customers may result in the transition to cost reflective pricing occurring at a slower rate, however at the same time it would provide customers another tool to use in managing the impacts of being assigned to a demand tariff.

We note that SAPN has included a range of methods to manage customers who are mandatorily assigned to demand tariffs in this tariff structure statement period, such as:

- a reduced demand charge (40% of long run marginal cost)
- simpler charging windows, and
- not differentiating the price of the demand charge by months of the year.¹⁵⁵

We consider an opt-out clause would add to the range of options, but as highlighted may impact on the speed of tariff reform. Practical implementation issues would also need to be considered. As customer impacts can be efficiently managed in a number of ways we do not seek to enforce any particular method. Distributors need to show

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¹⁵² NER, cl 6.18.5(b)-(d)
¹⁵³ ActewAGL, Submission to the AER on AER ActewAGL Issues Paper, p. 6.
how they have taken customer impacts into account and outlined the ways in which they intend to manage them to be compliant with the distribution pricing principles. As per the reasons above, we are satisfied that SAPN has done this in the proposed tariff structure statement.

### 6.2.2 Assignment of threshold customers

We are not satisfied that SAPN's proposal to assign customers based on annual consumption and meter type contributes towards the achievement of compliance with the distribution pricing principles, neither is it compliant with SAPN's distribution determination.

SAPN proposed to mandatorily assign customers to either a transitional usage or demand tariff (depending on meter type) for customers who consume over a specific amount of electricity. The assignment process is highlighted in Figure 6-1. This would come into effect from 1 July 2018.\(^{156}\)

**Figure 6-1 Threshold assignment proposal**

SAPN proposed that the consumption threshold will be triggered if the customer consumes above the threshold during any continuous 12 month period out of the previous 24 months. If 12 months is not available, then SAPN proposed to pro-rata the annual consumption based on what data they have. If a customer’s pro-rated usage is over the threshold triggers, they will then be re-assigned to either the transitional usage or transitional demand tariff, depending on the customer’s meter. This method of

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assignment would affect 9,700 small business and 4,000 residential customers. We do not know how much data SAPN has on the load profile of these customers.\textsuperscript{157}

The transitional usage tariffs have the same charging parameters as the current usage tariffs, however the usage price is set at a higher rate. As discussed in chapter 4.1 above, we consider SAPN’s proposed transitional usage tariffs do not contribute to the achievement of compliance with the distribution pricing principles.

We received the following submissions on mandated assignment to transitional usage or demand tariffs for customers whose annual consumption is above the proposed thresholds:

- AGL, Business SA, the Commissioner and Red and Lumo energy were not supportive. AGL questioned how this will function as customer consumption is constantly changing. Business SA want SAPN to clearly explain why the threshold was selected and show any evidence that smaller users (40-60MWh) contribute more to peak demand compared to larger users. The commissioner questioned its rationale and Red and Lumo energy questioned how the usage tariff for customers with type 6 meters moves towards a more cost reflective tariff.\textsuperscript{158}

We acknowledge that SAPN has used this form of assignment for its large customers historically. We consider that while it may have been an appropriate measure to move larger business customers with high annual consumption levels on to more cost reflective tariffs, the same logic may not apply for small business and residential customers. At the individual customer level, large business customers with large annual energy consumption would be likely to have a greater impact on network peak demand than small business and residential customers of the same nature.

It is unknown how much data SAPN has on the 9,700 small business and 4,000 residential customers load profiles this assignment would affect. It should not be assumed that their usage contributes to the network peak and therefore assigned to the transitional demand or usage tariffs. The new distribution pricing principles require any tariff that is designed and distinguishes between certain customers reflect the costs they impose on the network. SAPN have not shown how these customers impose greater costs on the network compared to other customers whose consumption is under the threshold.

SAPN has also not demonstrated why these specific thresholds have been chosen. It is unclear why a residential customer who consumers of 20MWh annually or small business customer who consumers over 40MWh annually should be prioritised to move onto a transitional usage or demand tariff compared to customers who consume less.

\textsuperscript{157} SA Power Networks, \textit{Tariff Structure Statement proposal overview paper}, p. 42.

We acknowledge that SAPN's proposed mandatory assignment of new and altered connection customers to demand tariffs allows the majority of customers to remain on their existing usage tariffs. SAPN's threshold assignment attempts to move some of these customers by either, assigning them onto the transitional demand tariff, or a usage tariff which is priced to encourage customers to opt-in to a demand tariff.

We consider SAPN are actively trying to increase the speed and number of customers transitioning on to cost reflective tariffs. However, SAPN have not outlined how their method of choosing an annual consumption threshold as a trigger for assignment complies with the pricing principles.

If SAPN choose to propose assignments based on annual consumption in their revised proposal they should respond to our concerns on why the specific thresholds have been chosen, how they comply with the pricing principles and why these customers should be assigned on to tariffs compared to other customers who consume below the threshold.

If SAPN decides not to use this method of assignment the relevant customer would remain on the current usage tariffs. Even so, the number of customers on usage tariffs will decline slowly as customers change over time and alter their supply arrangements.

**6.2.3 Optional opt-in demand tariffs**

SAPN's proposal included opt-in demand tariffs that were not subject to any transitional arrangements designed to manage customer impacts. SAPN has offered this type of tariff to a limited number of its residential customers since 2014–15.

We are satisfied that SAPN's proposal, which gives customers the opportunity to take up a more cost reflective demand tariff if they choose, sound. It provides customers choice in terms of the level of demand they wish to face whilst also sending sharper price signals to these customers of times of network stress periods. As the assignment to the tariff is voluntary, we consider this removes the need for any forms of transitional arrangements designed to manage customer impacts.

**6.3 Large and major business customers**

We are satisfied that SAPN's proposed assignment policies for high voltage and large business customers contribute towards the achievement of compliance with the distribution pricing principles. They assign customers to tariffs based on the costs they impose on the network while taking into account their connection and usage profiles.

SAPN have been transitioning its high voltage and major business customers onto tariffs that better reflect costs over a number of years. SAPN state this transition was completed in July 2015. Over the course of the transition SAPN reviewed customers individual circumstances, demand profiles and created additional tariffs.\(^{159}\)

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As shown in section 4, SAPN offer a number of tariffs to their larger business customers. Assignment to tariffs is generally based on connection type, annual usage thresholds and maximum demand levels. Customers can opt-in to tariffs by a request via their retailer as long as their connection and load profiles meet the required standards.

6.4 Menu of tariffs

SAPN's proposed suite of tariffs allows customers choice in terms of network tariff assignment that move along the cost reflectivity spectrum. Non-cost reflective tariffs will no longer be available for new or altered connections, however SAPN has given these customers choice in terms of the level of cost reflectivity they wish to face.

We are satisfied that SAPN's menu of tariffs contributes towards the achievement of compliance with the distribution pricing principles.

As show in section 1, SAPN included opt-in demand tariffs, which send stronger signals of network peaks, for their residential and small business customers. These tariffs send peakier signals which differ by time of day and month of the year. We consider inclusion of these tariffs in their tariff structure statement proposal contributes towards the achievement of compliance with the distribution pricing principles as it allows customers who are willing to take on greater levels of cost reflectivity the opportunity to do so.

Submissions from stakeholders were generally against the AER requiring a menu of tariffs to be mandated for compliance. Energy Australia, Consumers SA, Red and Lumo Energy and ENA disagreed with the suggestion in our issues paper that SAPN should offer a menu of tariffs. Energy Australia suggested a limited number of similar tariff options should be made available to customers. Consumers SA had issues with customer’s understandability of different tariff options.\(^{160}\)

EWOSA and ENA supported SAPN’s proposal to include both a ‘full demand’ tariff and one that has been modified to manage customer impacts. They did not push for any further tariffs to be included. SACOSS received positive feedback on a suite of tariffs, if available on an opt-in basis, whilst APVI thought more tariffs would provide more opportunity for customer impact analysis.\(^{161}\)

\(^{160}\) Energy Australia, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 6; Consumers SA, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 6; Red and Lumo Energy, Submission to the AER on SA Power Networks Tariff Structure Statement, April 2016, p. 2; Energy Networks Association, Submission to the AER on SA Power Networks Tariff Structure Statement and AER Issues paper, April 2016, pp. 2-3;

Energy Simplified submitted that SAPN’s proposed tariffs for large businesses do not do enough to encourage innovation and competition in the area of reducing businesses demand. They consider critical peak pricing should be offered to large business customers as it would be easier for business to react and respond.\(^\text{162}\)

We acknowledge stakeholders views on this topic. We understand that mandating a suite of tariffs which customers could opt-in to would be another trade off in terms of contributing towards the achievement of compliance with the distribution pricing principles but also ensuring customers can understand tariffs being offered. We consider that SAPN has found the right balance in this first round of tariff structure statements.

A Our consultation process

On 11 March 2016, we published our issues paper on SAPN’s tariff structure statement proposal. The paper summarised key aspects of SAPN’s proposal, highlighting issues we consider relevant to our assessment and invited stakeholder submissions. Submissions on the issues paper closed on 28 April 2016. We received submissions from the following stakeholders:

1. AGL
2. Australian PV Institute
3. Business SA
4. Clean Energy Council
5. Consumers SA
6. Department of State Development (South Australia)
7. Energy Australia
8. Energy and water ombudsman SA
9. Energy Consumers Australia
10. Energy Networks Association
11. Energy Simplified
12. John Herbst
13. Origin
14. Red & Lumo Energy
15. SA Power Networks
16. Small Business Commissioner of South Australia
17. Solar citizens
18. South Australian Council of Social Services

On 5 April 2016, the AER hosted a public forum on SAPN’s tariff structure statement proposal. We highlighted issues we considered relevant to our assessment and invited stakeholder commentary. Attendees registered for the public forum were:

1. 2XE
2. AGL
3. Atonray
4. Business SA
5. Consumers SA
6. Department of Industry, Innovation and Science
7. Department of State Development
On 21 April 2016, we provided SAPN with an information request covering topics such as tariff design, tariff assignment, network demand and constraints and long run marginal cost. On 6 June 2016 SAPN provided a response to our request.
B  SAPN’s customer consultation and customer impact analysis

Distributors must include in their tariff structure statements a description of how they engaged with customers and retailers in developing their proposals, including how they sought to address concerns raised during the engagement.\textsuperscript{163}

SAPN has provided this in its proposed tariff structure statement. Overall SAPN’s engagement seems transparent and thorough. They engaged with numerous stakeholders, providing targeted information and adapted information to suit stakeholders due to the differing levels of knowledge of the electricity market and tariff reform process.

We note SACOSS submitted concerns on the timing of SAPN’s engagement and their choice in continuing to engage once SAPN had submitted its proposed tariff structure statement to the AER.\textsuperscript{164} As this is the first time all parties have taken part in this process it is reasonable for SAPN to continue to raise, and attempted to resolve issues with stakeholders, throughout the tariff structure statement process.

A distributor must show how they have complied with the rules including those requiring reasonable management of customer impacts and those that require tariffs to be reasonably understandable.\textsuperscript{165}

SAPN’s proposed tariff structure statement itself does not contain a large amount of customer impact information. However we note that throughout their consultation process it developed and presented to stakeholders what appears to be a thorough analysis on customer impacts.

Specifically, SAPN published a consultation paper which included graphs highlighting distribution of impacts for different customers depending on their peak to average load profiles. Examples of these graphs can be seen in Figure B-1 below. The forecast impacts presented in the graphs are based on sample data due to the lack of metering.

\begin{center}
\footnotesize
\textsuperscript{163} NER, cl. 6.8.2(c1a)  \\
\textsuperscript{164} South Australian Council of Social Services, \textit{Submission to the AER on SA Power Networks Tariff Structure Statement}, April 2016, pp. 2-3.  \\
\textsuperscript{165} NER, cl. 6.18.5(h); NER, cl. 6.18.5(i)
\end{center}
Although the analysis has been created with sample data, which is appropriate due to the lack of smart meters in South Australia, we encourage SAPN to include this type of information in their revised and subsequent tariff structure statement proposals. We also encourage SAPN to provide real customer impacts as the number of customers with smart meters increases in the coming years. Providing this information in the tariff structure statement will ensure access to this information for all, not just those stakeholders who were included in the consultation process.