

Jemena Electricity Networks (Vic) Ltd

kVA Demand Review Policy

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kVA Demand Review Policy

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Authorisation

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History

Rev No	Date	Description of changes	Author
1	15/01/2017	Initial Policy	Sanket Shah

Owning Functional Area

Business Function Owner:	Pricing, Strategy & Revenue
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Review Details

Review Period:	Revision Date/Last Review Date + 1 years
NEXT Review Due:	15/03/2018

1. INTRODUCTION

1.1 OUTLINE

This document sets out JEN's Policy for reviewing a customer's billable kVA demand post 01 January 2017 for those large business customers whose tariff includes a demand component. The policy describes the initial setting of the billable kVA demand. It also defines the requirements that customers, or their representatives, must comply with when requesting a review of the customer's billable kVA demand at a particular supply point, and how JEN will respond to such requests.

2. KVA DEMAND VALUE

2.1 INITIAL SETTING OF KVA DEMAND VALUE

The initial demand is the value of demand in kVA that will be assigned to the customer as at 01 January 2017 at 00:00.

To calculate the kVA figure, JEN needs to use the kW and kVAR readings for the supply point.

kVA for a site can be calculated from the kW and kVAr readings from a supply point

$$kVA = \sqrt{kW^2 + kVAr^2} \quad \text{Power Factor (PF)} = \frac{kW}{kVA}$$

Note: The unit of measure kiloWatt (kW) is a measure of active power, kilovolt-Ampere (kVA) is a measure of apparent power and kVAr is a measure of reactive power.

2.1.1 WHERE CONTRACTED DEMAND EXCEEDS ACTUAL DEMAND

Where a contractual agreement exists between JEN and the customer, and the actual kW demand is below contracted demand, JEN will convert the contracted kW demand to set the initial kVA billable demand. To do this, Jemena will apply the power factor recorded at the highest actual kVA reading achieved by the customer from 01 January 2016 to 31 December 2016.

Also, from 1 January 2017, Jemena will (pursuant to clause 32(b) of the Connection Works Contract), amend the demand details currently set out in the Connection Works Contract from a value specified in kW to a value in kVA.

Example: A customer's contract demand is 300 kW. That customer's highest actual kVA between 01 January 2016 and 31 December 2016 is 247 kVA. At the time that maximum kVA is measured, the customer's kW reading is 185 kW, which is below the 300 kW contracted value. Based on these figures, the customer's power factor at that point was 0.75. JEN would then set the initial contract demand to 400 kVA (300 kW / 0.75 = 400 kVA). JEN would also amend the connection works contract to a new kVA value of 400 kVA.

2.1.2 WHERE ACTUAL DEMAND EXCEEDS OR IS EQUAL TO CONTRACTED DEMAND

Where a contractual agreement exists between JEN and the customer and the actual kW demand is equal to or above the contracted demand, JEN will set the initial kVA demand to be the highest kVA demand achieved by the site from 01 January 2016 to 31 December 2016.

Also, from 1 January 2017, Jemena will (pursuant to clause 32(b) of the Connection Works Contract), convert the demand details currently set out in the Connection Works Contract from a value specified in kW to a value in kVA. To do this, JEN will use the power factor recorded at the highest kVA demand achieved by the site between 1 January 2016 and 31 December 2016.

Example: A customer's contract demand is 300 kW. That customer's highest actual kVA between 1 January 2016 and 31 December 2016 is 667 kVA. At the time that maximum kVA is measured, the customer's kW reading is 500 kW (above the 300 kW contracted value). Based on these figures, the customer's power factor at that point was 0.75. JEN would then set the initial billable demand to 667 kVA. JEN would also amend the connection works contract to a new kVA value of 400 kVA (300 kW / 0.75 = 400 kVA).

2.1.3 NO CONTRACTUAL AGREEMENT BETWEEN JEN AND THE CUSTOMER

Where there is no contractual agreement between JEN and the customer, JEN will set the initial kVA demand to be the highest kVA demand achieved by the site between 1 January 2016 and 31 December 2016.

2.2 ONGOING KVA DEMAND VALUE

From 01 January 2017, demand on all large sites will be measured in kVA. After the initial billable demand is set, the billable demand for each month will be the greater of:

- the highest kVA demand achieved by the site for that month, and
- the billable demand applied in the previous month (or initial billable demand in the case of January 2017).

Example: The initial billable demand of the site is set to 400 kVA on 1 January 2017. On 22 January the site achieves a kVA demand of 420 kVA. As a result, the billed demand for January 2017 will be 420 kVA. Over the month of February 2017, the highest demand achieved by the site in kVA is 388 kVA. This is below the January billed demand of 420 kVA and therefore, the billed demand for February 2017 will remain at 420 kVA.

3. REVIEW OF KVA DEMAND

The customer has the option to have the applicable kVA demand reviewed in case where adequate measures have been taken to improve the power factor at the site.

3.1 INSTALLATION OF POWER FACTOR CORRECTION (PFC) UNIT

3.1.1 INSTALLATION OF PFC UNIT PRIOR TO 01 JANUARY 2017

In case a PFC unit installation before 01 January 2017, the customer would need to advise JEN, in writing, of the equipment installed and the date of installation. It is advisable for the customer to provide relevant documents as evidence of installation of PFC unit.

JEN would apply the improved power factor to the kW achieved at the highest kVA from 01 January 2016 to 31 December 2016 to determine the initial kVA demand to be set on 01 January 2017.

3.1.2 INSTALLATION OF PFC UNIT POST 01 JANUARY 2017

In case a PFC unit installation after 01 January 2017, the customer would need to advise JEN, in writing, of the equipment installed and the date of installation. It would be mandatory for the customer to provide relevant documents as evidence of installation of PFC unit.

JEN would then review the site for a period of 3 calendar months to determine the improved power factor based on the recorded power factor value at the highest kVA in the review period.

If there seems to be a significant improvement (greater or equal to 5%) in the power factor, JEN will apply the improved power factor to the kW value achieved at the highest kVA in the 12 months prior to the completion of the review period to determine the new kVA value. This new kVA demand value would be applicable from the first day of the following billing period after the completion of the review period.

Example: The site currently has a poor power factor value recorded (0.75) at the highest kVA value (400 kVA) in November 2016. The kW at that instance would have been 300 kW. The customer installs a PFC unit on 01 August 2016 and informs JEN of the installation in writing and submits relevant documents. JEN reviews the site for 3 months and records a power factor of 0.95 at the highest kVA (250 kVA) during the review period. JEN will apply the improved power factor of 0.75 to the kW at the highest achieved kVA in the 12 month period prior to the completion of the review period (Nov-16 to Oct-17) i.e. 300 kW and determine the kVA value to be $300 \text{ kW} / 0.95 = 316 \text{ kVA}$. This new kVA demand value would be applied from the first day of the following billing cycle after the date of application i.e. 01 November 2017.

4 — APPLICATION FORM FOR KVA DEMAND RESET

Please use only one application per supply point. All fields are mandatory.

Please send the completed form to jentariffs@jemena.com.au

1. Customer Retailer Details

Retailer Name: _____

Postal Address: _____

Contact Name: _____

Position: _____

Contact Number: _____ Email: _____

2. Customer Details

Name on Electricity Account: _____

Address of Electricity Supply: _____

NMI: VDDD _ _ _ _ _ OR 6001 _ _ _ _ _

3. KVA Demand Reset Details

3.1 I request a reset to the Customer's Contract Demand as specified below:

Current kVA Demand: _____ kVA

Request to reset kVA Demand to: _____ kVA

3.2 Installation details of Power Factor Correction (PFC) Unit:

Include Certificate of Electrical Safety as supporting documentation for the application

Installation date of PFC Unit: ___ / ___ / ____

kVA_r capacity of installed unit: _____ kVA_r

4. Current Network Tariff

Current Network Tariff Name: _____

Current Network Tariff Code: A _____

5. Conditions for Demand Reset

- a) Please contact JEN to confirm JEN's receipt of this form if you do not receive confirmation of receipt from JEN within 5 Business Days.
- b) The Applicant (as indicated below) acknowledges that this request will be assessed in accordance with JEN's Policy for reviewing kVA Demand.
- c) Any reset of kVA Demand will not take effect until JEN advises the applicant in writing of the approval and the effective date of the reset, in accordance with JEN's Policy for reviewing kVA Demand.

6. Applicant Details

Applicant's Name: _____ (Name of the person filling the form)

Applicant's Position Title: _____

Applicant's Business Name: _____

Contact Number: _____ Email: _____

Signature: _____ Date: ____ / ____ / _____