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8 March 2012

Mr Chris Pattas
General Manager
Network South Branch
Australian Energy Regulator
GPO Box 520
MELBOURNE VIC 3001

Dear Chris,

Distribution Loss Factors 2012/2013

Clause 3.6.3 of the National Electricity Rules (NER) requires Distribution Network Service Providers (DNSPs) to determine distribution loss factors (DLFs) to apply in the next financial year and provide these to AEMO for publication by 1 April in each year. Before providing the distribution loss factors to AEMO for publication, the DNSP is required to obtain the approval of the Australian Energy Regulator (AER) for the distribution loss factors. Accordingly, Jemena Electricity Networks (Vic) Ltd (JEN) submits its DLFs for 2012/2013 for approval.

The average DLFs to apply in the financial year 2012/2013 are as follows:

Average DLFs	A	B	C	D	E
Short sub transmission	1.0058	1.0113	1.0260	1.0382	1.0448
Long sub transmission	1.0247	1.0302	1.0449	1.0571	1.0637

JEN has adopted the methodology published by the Essential Services Commission (ESC) in February 2007 for the determination of distribution loss factors. This methodology is based on the methodology jointly developed by the Victorian distribution businesses, having regard to the principles of clause 3.6.3 (h) of the NER and is consistent with the methodology used for the calculation of DLFs in previous years.

Attached for the AER's consideration and approval are:

a. Attachment 1 – Distribution Loss Factors for JEN for the year 2012/2013:

   A. Network Average DLFs for Customers and Embedded Generators
   B. Site Specific DLFs for Large Customers
   C. Site Specific DLFs for Large Embedded Generators

b. Attachment 2 – Reconciliation of the network losses for the year 2010/11 in accordance with Clause 3.6.3(h)(2) of the NER.

c. Attachment 3 – JEN's MSATS codes.

d. Attachment 4 – The methodology paper published by the ESC – Guidance Paper: Calculation Methodology for Distribution Loss Factors for the Victorian Jurisdiction (14 February 2007).

e. Attachment 5 – Certification report by an independent expert that the proposed DLFs have been determined in accordance with the published methodology.

Should you require further information or clarification on the matters discussed in this submission please contact Gabriel Wan on telephone (03) 8544 9615 or me on (03) 8544 9442.

Yours sincerely

Siva Moorthy
Manager Network Regulation & Compliance

Attachment 1 – Jemena Electricity Networks DLFs 2012/13

A. Network Average DLFs for Customers and Embedded Generators

Network DLFs for 2012/13 for AER's Approval

	DLF A	DLF B	DLF C	DLF D	DLF E
Short Sub-transmission	1.0058	1.0113	1.0260	1.0382	1.0448
Long Sub-transmission	1.0247	1.0302	1.0449	1.0571	1.0637

The 2010/2011 financial year data shown below was used in the process of calculating the 2012/2013 forward looking DLFs above:

Energy Procured in 2010/11 (MWh)

Energy obtained from transmission connections	4,865,965
Energy obtained from embedded generation and other distributors	-264,305
Total Energy Procured	4,601,660

Energy Supplied in 2010/11 (MWh)

Total annual energy supplied	4,441,569
Less supply from other distributors	11,569
Net Energy Supplied (pa)	4,430,000

Net Metered Energy Supplied in 2010/11 (MWh)

	DLF A	DLF B	DLF C	DLF D	DLF E	Total
Short Subtransmission	369,264	0	731,968	1,157,189	1,983,382	4,241,804
Long Subtransmission	0	0	0	0	188,196	188,196

Calculated Losses in 2010/11 (MWh)

	DLF A	DLF B	DLF C	DLF D	DLF E	Total
Short Subtransmission	1860	0	18805	46431	92624	159,720
Long Subtransmission	0	0	0	0	11933	11,933

Network DLF based on data from 2010/11

	DLF A	DLF B	DLF C	DLF D	DLF E
Short Subtransmission	1.0050	1.0104	1.0257	1.0401	1.0467
Long Subtransmission	1.0217	1.0271	1.0424	1.0568	1.0634

B. Site Specific DLFs for Large Customers

Qualified Customers Site Specific DLF for year 2012/13

NMI	DLF
VDDD000495	1.0101
6001280255	1.0058
VDDD000244	1.0113
VDDD000134	1.0133
VDDD000136	1.0028

C. Site Specific DLF2012-13 for Large Embedded Generators

Somerton Power Station (Connected to SMTS-SSS-ST-SMTS 66kV Loop)

Distribution Loss Factor for Somerton Power Station (SPS) for the Period it is Operating.

1. Average loop loss, as determined from PSSE load flows and historical load profile, for the period when the power station is operating
   = 0.285 MW[1]

2. $ELL_{SPS\ operating\ period}$ = Energy Loop Loss for SPS operating period
   = 0.285 MW * 570 hr[2]
   = 162 MWh

3. $ELC_{SPS\ operating\ period}$ = Energy Loop Consumption (Sales) for SPS operating period
   = 79 MW[1] * 0.80 * 570hr
   = 36,024 MWh

4. $ESO_{SPS\ operating\ period}$ = Energy Sent Out by SPS for operating period
   = 100 MW[1] * 570 hr
   = 57,000 MWh

5. DLF $A_{SPS\ operating\ period}$ = 1 + Losses / Magnitude of sales less generation for SPS operating period
   = 1 + $ELL_{SPS\ operating\ period}$ / ($ELC_{SPS\ operating\ period}$ - $ESO_{SPS\ operating\ period}$)
   = 1 + 162 / (36,024 MWh - 57,000 MWh)
   = **0.9923**

[1] The load flow studies were based on a loop demand equalling 80% of forecast maximum demand (79MW * 0.80 = 63.2MW) for 2012/13 and an average generator output of 100 MW in year 2010/11.

[2] Assume generator total running hours for 2012/13 would be at similar levels as in year 2010/11.

Attachment 2

Reconciliation for year 2010/11

Qualified Site Specific Customers			
NMI	**Metered Consumption (MWh)**	**Approved DLF**	**Calculated Purchase (MWh)**
VDDD000495	168856	1.0085	170291
6001280255	142572	1.0056	143370
VDDD000244	60585	1.0117	61294
VDDD000134	72000	1.0137	72987
VDDD000136	55152	1.0031	55323

General Network Customers					
Network Level	**Approved DLF Short Sub trans-mission**	**Approved DLF Long Sub trans-mission**	**Metered energy through network level (MWh)**	**General Network Customers Sales (MWh)**	**Calculated Purchase (MWh)**
DLF A - SUB/T LINE	1.0054	1.0233	369264	2685	2699
DLF B - ZONE SUB	1.0109	1.0288	0	0	0
DLF C – HV	1.0272	1.0451	731968	599383	615687
DLF D - DIST Tx TERMINALS	1.0415	1.0594	1157189	1157189	1205212
DLF E – LV	1.0479	1.0659	2183148	2171579	2278985

Reconciliation	
Calculated Purchase based on approved DLF (MWh)	4605847
Net energy supplied (MWh)	4430000
Calculated overall losses based on approved DLF (MWh)	175847
Measured overall losses (Top Down Loss) (MWh)	171659
Reconciliation error (MWh)	4188
Reconciliation error (%)	0.09%

Attachment 3 - Jemena Electricity Networks' MSATS Codes

Region	Code	Description
VIC	CAFP	Site Specific VDDD000136
VIC	CAGP	Site Specific VDDD000134
VIC	CAPA	Site Specific 6001280255
VIC	CFMC	Site Specific VDDD000244
VIC	CHBL	Lower voltage side of ZS, long feeder
VIC	CHBS	Lower voltage side of ZS, short feeder
VIC	CHCL	Distribution line from ZS, long feeder
VIC	CHCS	Distribution line from ZS, short feeder
VIC	CLDL	LV terminals Dist Trans, long feeder
VIC	CLDS	LV terminals Dist Trans, short feeder
VIC	CLEL	LV line from Dist Trans, long feeder
VIC	CLES	LV line from Dist Trans, short feeder
VIC	CSAL	Sub-transmission line, long feeder
VIC	CSAS	Sub-transmission line, short feeder
VIC	CSOG	Generation – Somerton Generator 6001264751
VIC	CVPC	Site Specific VDDD000495

Attachment 4 – "Guidance Paper: Calculation Methodology for Distribution Loss Factors (DLFs) for the Victorian Jurisdiction (14 February 2007)"

Attached as a separate file.

Attachment 5 – Certification Report

Attached as a separate file.