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11 March, 2011

Mr Chris Pattas
General Manager Network Regulation South
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

email: AERInquiry@ aer.gov.au

Dear Mr Pattas

Proposed 2011-12 Distribution Loss Factors

Powercor Australia has completed a review of its proposed Distribution Loss Factors (*DLF's*) for 2011-12 taking into account clause 3.6.3 of the National Electricity Rules including:-

- Site specific *DLF's* for end users with load of more than 40 GWh or a demand of more than 10MW;
- Site specific *DLF's* for generators over 10MW;

The 2011-12 loss factors are based on forecast sales and demand data with estimated losses derived from an average top down loss of 6.84% (average of last 5 years) of sales.

The proposed *DLF's* set out in the attached have been calculated in accordance with the Victorian Essential Services Commission's "Guidance Paper, Calculation Methodology for Distribution Loss Factors (DLFs) for the Victorian Jurisdiction", 14 February 2007. For large embedded generators, Powercor has published its own methodology paper and consulted through the usual AEMO processes (see Appendix A).

The actual top down losses for 2009-10 have been calculated to be 6.73% of sales. See attached reconciliation for 2009-10.

Powercor Australia has identified nineteen end use customers and four generators that qualify for site specific *DLF's* as set out in this submission. The site specific loss factors for these connection points have been calculated taking into account the characteristics of their specific supply arrangements and their electricity consumption characteristics. The information set out in relation site specific customers and generators should be treated confidentially as it provides sensitive information.

Please also find attached a report from Parsons Brinkerhoff Australia Pty Limited (**PB**) who have reviewed and certified the proposed *DLF*'s. The report states that **PB** is satisfied that the proposed *DLF*'s meet the requirements of clause 3.6.3 of the National Electricity Rules and are consistent with the methodology developed by the Victorian Essential Services Commission and the methodology developed by Powercor for large embedded generation.

Please give me a call on telephone 9683 4469 if you require further information or wish to discuss any aspect of this submission.

Yours Sincerely

[signed]

Matthew Serpell
Manager Network Pricing

2011-12 DLF Proposal**11 March 2011****Company Name: Powercor Australia Ltd****Forecast Energy Procured 2011-12 (MWh)**

Energy obtained from transmission connections	11,091,070
Energy obtained from embedded generation	593,232
Energy obtained from ETSA	8,181
Total Energy Procured 2011-12	11,692,483

Forecast Energy Supplied 2011-12 (MWh)	10,944,021
Forecast Losses 2011-12	748,462
Forecast Losses 2011/12 as % of Forecast Sales	6.84%

Forecast Energy Supplied 2011-12 (MWh)

	DLF A	DLF B	DLF C	DLF D	DLF E	Total
Short Subtrans.	1,018,137	35,352	940,000	975,072	2,583,191	5,551,754
Long Subtrans.	177,980	0	690,503	782,185	3,741,600	5,392,268

Forecast Annual Distribution Losses 2011-12 (MWh)

	DLF A	DLF B	DLF C	DLF D	DLF E	Total
Short Subtrans.	23,543	28,505	106,539	93,031	24,046	275,665
Long Subtrans.	172,781	33,920	126,778	110,703	28,614	472,796

Powercor 2011-2012 DLF Proposal cont.

Network Average DLFs for General Customers

	DLF A	DLF B	DLF C	DLF D	DLF E
Approved 2010/11 DLFs					
Short Subtrans.	1.0038	1.0105	1.0360	1.0620	1.0706
Long Subtrans.	1.0348	1.0415	1.0670	1.0930	1.1016
Proposed 2011/12 DLFs					
Short Subtrans.	1.0047	1.0112	1.0360	1.0612	1.0695
Long Subtrans.	1.0332	1.0397	1.0645	1.0897	1.0980
% Difference					
Short Subtrans.	0.090%	0.069%	0.000%	-0.075%	-0.103%
Long Subtrans.	-0.155%	-0.173%	-0.234%	-0.302%	-0.327%
DLFCodes					
Short Subtrans.	KAS	KBS	KCS	KDS	KES
Long Subtrans.	KAL	KBL	KCL	KDL	KEL

Definitions: DLF A is the distribution loss factor to be applied to a second tier customer or pool customer connected to either a 66kV or a 22kV subtransmission line.

DLF B is the distribution loss factor to be applied to a second tier customer or pool customer connected to the lower voltage side of a zone substation

DLF C is the distribution loss factor to be applied to a second tier customer or pool customer connected to a distribution line at voltages of 22kV, 11kV or 6.6kV.

DLF D is the distribution loss factor to be applied to a second tier customer or pool customer connected to the lower voltage terminals of a distribution transformer.

DLF E is the distribution loss factor to be applied to a second tier customer or pool customer connected to low voltage lines of 240/415 V

Powercor 2011-2012 DLF Proposal cont.

Site-Specific Distribution Loss Factors (DLF) for Large Customers (Customers with demand > 10 MW or annual energy consumption > 40 GWh)

No	NMI Number	DLF 2010-11	Proposed DLF 2011-12	% Diff.	DLF Code
1	VCCCAF0002	1.0008	1.0007	-0.010%	KAF1
2	VCCCAF0001	1.0081	1.0063	-0.179%	KAF
3	VCCDA0031	1.0009	1.0010	0.010%	KDA2
4	VCCCGD0001	1.0009	1.0009	0.000%	KGD
5	VCCCGJ0001	1.0021	1.0020	-0.010%	KGJ
6	VCCDA0022	1.0013	1.0013	0.000%	KDA
7	VCCCRD0007	1.0095	1.0117	0.218%	KRD
8	VCCDA0025	1.0085	1.0084	-0.010%	KDA1
9	VCCAB0003	1.0183	1.0158	-0.246%	KAB
10	VCCAD0001	1.0107	1.0122	0.148%	KAD
11	6203764760	1.0084	1.0087	0.030%	KGK
12	VCCSE0004	1.0561	1.0538	-0.218%	KSE
13	VCCGE0019	1.0093	1.0085	-0.079%	KGE
14	VCCBC0025	1.0289	1.0353	0.622%	KBC
15	VCCTE0002	1.0568	1.0565	-0.028%	KTE
16	VCCSB0012	1.0564	1.0542	-0.208%	KSB
17	6203803617	See Note1	1.0127	-	KBN
18	VCCBF0010	See Note1	1.0433	-	KBF
19	VCCLD0024	See Note1	1.0097	-	KLD

Notes:

1. Customer eligible for site-specific DLF for the first time in 2011/12

Site-Specific Distribution Loss Factors (DLF) for Large Embedded Generators (Generators with export power > 10 MW)

No	NMI Number	DLF 2010-11	Proposed DLF 2011-12	% Diff.	DLF Code
1	6203661632	1.0129	0.9820 ¹	-3.051% ¹	KCH
2	6203008781	1.0357	1.0342	-0.145%	KCF
3	6203690629	1.0357	1.0342	-0.145%	KYW
4	See Note 2	See Note3	0.9086	-	KOH

Notes:

1. Large difference from previous year due to change in calculation methodology for large embedded generators (see Appendix A).
2. NMI not known at time of publication
3. New generator being commissioned second half of 2011 hence DLF not applicable for 2010/11

Powercor 2011-2012 DLF Proposal cont.

Actual Energy Procured 2009/10 (MWh)

	MWh	
Energy obtained from transmission connections	11,152,285	
Energy obtained from embedded generation	396,404	
Energy obtained from ETSA	8,094	
Total Energy Procured 2009/10	11,556,783	X

RECONCILIATION - 2009/10

	MWh	
$\Sigma ME_i \times DLF_i$ for 2009/10	11,608,687	A
Actual Consumption or Sales for 2009/10	10,827,869	B
Losses recovered through application of DLFs to customers' actual consumption for 2009/10	780,818	C=A-B
Total Energy Procured 2009/10	11,556,783	X
Actual Measured Losses 2009/10	728,914	D=X-B
Actual Measured Losses 2009/10 as percentage of Sales	6.73%	E=D/B
Difference or error in overall losses	51,904	F = C - D
Difference or error in overall losses as % of total energy sales (Over-recovered)	0.48%	G = F/B

Confidential Information 01/10/2011

Confidential Information Contained

Confidential Information Contained

Confidential Information Deleted

Appendix A – Changes to Embedded Generator Distribution Loss Factor Calculation Methodology Consultation.

From: AEMO Communications [mailto:aemo.communications@aemo.com.au]
Sent: Tuesday, 18 January 2011 2:53 PM
Subject: AEMO Communication No. 552 - (CitiPower and Powercor) - NEM - CitiPower and Powercor Methodology for Deriving Distribution Loss Factors for Embedded Generators over 10MW

The following AEMO Communication is forwarded to NEM Registered Participants and interested parties on behalf of CitiPower and Powercor.

NEM - CitiPower and Powercor Methodology for Deriving Distribution Loss Factors for Embedded Generators over 10MW

CitiPower and Powercor Australia has a responsibility to derive distribution loss factors (DLF's) for embedded generating units with actual generation of more than 10MW under the provisions of clause 3.6.3 of the National Electricity Rules. CitiPower and Powercor has used the methodology stipulated in the "Guidance Paper: Calculation Methodology for Distribution Loss Factors for the Victorian Jurisdiction" published by the Victorian Essential Services Commission (ESCV) on 14th February 2007 for this purpose. CitiPower and Powercor has revised the methodology for calculating DLF's for large embedded generators using an incremental change in losses approach as a more suitable alternative. The revised methodology derives the DLF for large embedded generators as: $DLF = 1 + (\text{Annual distribution system energy losses without generator} - \text{Annual distribution system energy losses with generator}) / \text{Annual generation volume}$.

The AER has confirmed that it has not determined a methodology and therefore CitiPower and Powercor may adopt the revised methodology as an amendment to the former ESCV methodology, subject to its publication in accordance with Rule 3.6.3(g)(2) of the National Electricity Rules. The methodology has been published.

<http://www.powercor.com.au/docs/pdf/Electricity%20Networks/Powercor%20Network/Large%20Embedded%20Generation%20DLF%20Calculation%20Methodology.pdf>

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Rolf Herrmann
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