Certification of the Distribution Loss factors (DLFs) proposed by the Victorian electricity distributors for the financial year 2010-11

5 March 2010

# Victorian Electricity Distribution Businesses



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# Certification of the DLFs for the Victorian Distribution Business 2010-11

PB reviewed the proposed DLFs prepared by Powercor Australia Ltd to determine whether they have been prepared in accordance with the requirements of the National Electricity Rules.

Consistent with the reviews undertaken previously by the Essential Services Commission of Victoria, PB has assessed whether the proposed DLFs:

- are based on appropriate data
- accord with the correct methodology, and
- are a fair statement of the applicable loss factors for the DNSP.

The review involved:

- determining the approved calculation methodology that applies and a desk top review of the businesses proposed submission to AER against this methodology
- a meeting with each DNSP to assess data integrity and to clarify any aspects of the DLF calculation.

In our opinion, the proposed DLFs comply with the approved calculation methodology and are consistent with the requirements of clause 3.6.3 of the National Electricity Rules.

Yours sincerely

Peler & USIL

Peter Walshe Principal Consultant Parsons Brinckerhoff Australia Pty Limited



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# 1. Introduction

### 1.1 Purpose of this report

The Victorian DNSPs – Jemena Electricity Networks (Vic) Ltd, CitiPower Pty, Powercor Australia Ltd, SPI Electricity (referred to as SP AusNet) and United Energy Distribution – are required to submit their proposed distribution loss factors (DLFs) for the financial year 2010-11 to the Australian Energy Regulator (AER) for approval.

The DLFs must be calculated in accordance with the *Calculation Methodology for Distribution Loss Factors (DLFs) for the Victorian Jurisdiction* and must be independently certified.

This report outlines Parsons Brinkerhoff (PB)'s findings from our review of the proposed DLFs.

# 1.2 Background

DLFs are used to adjust customer's metered electricity consumption data to allow for energy losses in the electricity distribution network.

The National Electricity Rules require that DLFs should be allocated to:

- each embedded generator of actual generation of more than 10MW individual sitespecific DLFs are to be determined according to the generator's actual location within the network
- each large customer consuming more than 40 GWh per annum or with a peak demand of 10MW or more – individual site specific DLFs are to be determined according to the customers' actual location on the network
- all other customers and embedded generators. For this category of customer / generator network average DLFs are to be allocated according to the type of connection points within the distribution network.

The distributors' proposals are summarised in part 2 of this report.

### 1.3 PB's review methodology

The proposed DLFs must be independently certified that they are based on appropriate data, the correct methodology and that the results are a fair statement of the applicable loss factors for each DNSP.

The Victorian distributors have engaged PB to undertake this independent certification. This report contains PB's analysis of the proposed DLFs.

PB has undertaken a common assessment of all five DNSPs submissions to determine whether the methodology results in a fair statement of applicable loss factors in the Victorian region.

The methodology adopted by PB for this review included:

- determining the approved calculation methodology that applies
- receiving each DNSP's proposed submission to the AER
- a desktop review of the DNSPs proposed submissions against the ESC methodology
- a telephone meeting with each DNSP to assess data integrity and to clarify any aspects of the DLF calculation
- assessment of any clarifying information provided.

### 1.4 Structure of this report

The remainder of this report is structure as follows:

- Part 2 provides the details of the DLFs proposed by the DNSPs for the 2010-11 financial year
- Part 3 provides the details of PB's assessment of the proposed DLFs
- Appendix A provides PB's terms of reference.

# 2. Proposed DLFs for the 2010-11 financial year

The distributors' proposed DLFs for the financial year 2010-11 are shown in Tables 2.1, 2.2 and 2.3.

# 2.1 Proposed site-specific DLFs for large customers

The proposed DLFs for large load customers are given in Table 2.1.

Distributor	National Metering Identifier	DLF for 2010-11
	VAAA000673	1.0181
CitiDowor	VAAA000577	1.0140
bwercor ED	VAAA000574	1.0132
	VAAA000431	1.0158
	VCCCAF0002	1.0008
	VCCCAF0001	1.0081
	VCCCDA0031	1.0009
	VCCCGD0001	1.0009
	VCCCGJ0001	1.0021
	VCCCDA0022	1.0013
	VCCCRD0007	1.0095
Doworoor	VCCCDA0025	1.0085
Powercor	VCCCAB0003	1.0183
	VCCCAD0001	1.0107
	6203764760	1.0084
	VCCCSE0004	1.0561
	VCCCGE0019	1.0093
	VCCCBC0025	1.0289
	VCCCTE0002	1.0568
	VCCCSB0012	1.0564
	VEEE0PD8AD	1.0143
	VEEE0TF39Q	1.0165
	VEEE0BG4Q3	1.0240
UED	VEEEONDNEX	1.0246
	VEEE08KH3V	1.0092
	VEEE0C8AW1	1.0058
	VDDD000495	1.0085
lomona	6001280255	1.0056
Jemena	VDDD000244	1.0117
	VDDD000134	1.0137

# Table 2.1Proposed site-specific DLFs for large load customers for the 2010-11financial year

	VDDD000136	1.0031
	VBBB000073	1.0047
	VBBB000058	1.0280
SP AusNet	VBBB000161	1.0081
	VBBB000096	1.0614
	VBBB000097	1.0664

# 2.2 Proposed site-specific DLFs for embedded generators

The proposed DLFs for large embedded generators exporting more than 10MW for the 2010-11 financial year are shown in Table 2.2.

# Table 2.2Proposed site-specific DLFs for large embedded generators for the2010-11 financial year

Distributor	Generator	National Metering Identifier	DLF for 2010-11
CitiPower	none		
	Challicum Hills Wind Farm	6203661632	1.0129
Powercor	Codrington Wind Farm	6203008781	1.0357
	Yambuk Wind Farm	6203690629	1.0357
UED	Clayton Generator	6407649172	1.0134
Jemena	Somerton Power Station		0.9864
	Alinta No1 Generator at Bairnsdale	6305010110	1.0449
	Alinta No2 Generator at Bairnsdale	6305651897	1.0449
	Toora Windfarm	6305656070	1.0792
SP AusNet	Wonthaggi Windfarm	6305721689	1.0704
	Esso Longford Generator	VBBB002342	1.0693
	Clover Power Station 1	VMBTWZCLG1	0.9874
	Clover Power Station 2	VMBTWZCLG2	0.9874
	Rubicon Group of Generators	VTTSWZRUBX	1.0462

# 2.3 Proposed network average DLFs for other customers and embedded generators with less than 10MW output

The proposed DLFs for network average customers and embedded generators smaller than 10 MW are given in Table 2.3.

	Distribution Loss factors							
Distributor	Туре	DLF-A	DLF-B	DLF-C	DLF-D	DLF-E		
CHID	Short sub- transmission	1.0033	1.0113	1.0166	1.0399	1.0451		
CitiPower	Long sub- transmission	n/a	n/a	n/a	n/a	n/a		
Powercor	Short sub- transmission	1.0038	1.0105	1.0360	1.0620	1.0706		
TOWCICO	Long sub- transmission	1.0348	1.0415	1.0670	1.0930	1.1016		
UED	Short sub- transmission	1.0061	1.0139	1.0221	1.0490	1.0657		
OLD	Long sub- transmission	1.0298	1.0376	1.0458	1.0727	1.0894		
Jemena	Short sub- transmission	1.0054	1.0109	1.0272	1.0415	1.0479		
Jemena	Long sub- transmission	1.0233	1.0288	1.0451	1.0594	1.0659		
SD AucNot	Short sub- transmission	1.0053	1.0136	1.0373	1.0602	1.0684		
SP AusNet	Long sub- transmission	1.0376	1.0460	1.0697	1.0926	1.1007		

#### Table 2.3Proposed network average DLFs for the 2010-11 financial year

Notes:

- DLF-A is the distribution loss factor to be applied to a second tier customer or market customer connected to a sub-transmission line at 66 kV or 22 kV.
- DLF-B is the distribution loss factor to be applied to a second tier customer or market customer connected to the lower voltage side of a zone substation at 22 kV, 11 kV or 6.6 kV.
- DLF-C is the distribution loss factor to be applied to a second tier customer or market customer connected to a distribution line from a zone substation at voltage of 22 kV, 11 kV or 6.6 kV.
- DLF-D is the distribution loss factor to be applied to a second tier customer or market customer connected to the lower voltage terminals of a distribution transformer at 240/415 V.
- DLF-E is the distribution loss factor to be applied to a second tier customer or market customer connected to a low voltage line at 240/415 V.
- Separate DLFs are also calculated for each DLF category A to E depending on whether the length
  of the sub-transmission line supplying the customer upstream of the customer's connection point is
  'short' or 'long'.

A short sub-transmission line is defined as:

- a radial sub-transmission line where the route length of the line is less than 20 km, or
- a sub-transmission line in a loop where the total route length of all lines in the loop is less than 40 km.

All other sub-transmission lines are defined as 'long sub-transmission'

# 3. PB's findings

This section sets out PB's analysis and findings.

# 3.1 Assessment of the proposed DLFs

Consistent with previous assessments of DNSP's proposed DLFs undertaken by the ESC, PB has adopted the following approach when assessing whether the proposed DLFs are a fair statement of the applicable loss factors for each DNSP:

- For load customers that the price impact on customers due to changes in DLFs represents no greater than a one per cent increase in energy cost. The Commission may allow for increases in site-specific DLF of more than one per cent for some large customers if the change would better reflect their share of network losses.
- For embedded generators that the calculated DLFs are based on sound assumptions about the operations of the generators.
- That distributors have taken into consideration their previous forecast errors in overall loss levels by examining the trend of reconciliation errors over time.
- That the overall levels of network losses of each distributor are reasonable.

In undertaking its review PB had regard to these considerations and also reviewed the following topics:

#### Calculation methodology

The Rules state that DLFs must be "*derived, in accordance with the methodology determined by the AER or the Distribution Network Service Provider*"<sup>1</sup>. In previous years all of the Victorian DNSPs adopted the methodology developed by the Essential Services Commission of Victoria<sup>2</sup>. As the AER has not established its own methodology, each DNSP has this year adopted the previous calculation methodology as its own.

All distributors stated that the proposed DLFs have been calculated in accordance with the calculation methodology approved by the ESC in previous years. PB discussed how each DNSP calculates the DLFs with respect to the three category types – large embedded generators, large site specific customers and average demand customers. PB confirms that each of the DNSPs undertook the appropriate level of calculation for each customer type.

#### Sales forecasts

PB notes that the Australian Energy Market Operator's forecast sales growth for the year 2010-11 (projected in 2009) shows a reduction in the growth it estimated in 2008<sup>3</sup>. PB would expect that a fall in growth would be associated with a corresponding fall in losses. PB undertook an investigation as to how the forecast drop in growth might affect network

<sup>1</sup> National Electricity Rules Clause3.6.3

- <sup>2</sup> Essential Services commission of Victoria, 14 February 2007, Calculation Methodology for Distribution Loss Factors (DLFs) for the Victorian Jurisdiction
   <sup>3</sup> A Service Commission of Victorian Jurisdiction
- Australian Energy Market Operator 2009, Electricity Statement of Opportunities, Section 3.2.3

utilisation and corresponding losses. PB is satisfied that the losses forecasts undertaken by the DNSPs adequately factors in the drop in sales and corresponding forecast drop in losses.

PB notes that originally SP AusNet's sales growth forecast was high compared to the other DNSPs and compared to the AEMO forecast. PB questioned this growth rate and SP AusNet revised this to align with the NIEIR forecast. The corresponding DLFs were also revised in accordance with the new growth forecast and the new figures are contained in this report.

#### Treatment of theft and metering inaccuracy

PB notes that all five Victorian distribution businesses have modified their methodology for calculating DLFs since 2008-09. Previously electricity sales forecasts were adjusted down by a factor to account for theft and meter inaccuracies before the DLF calculation was undertaken. Following a working group on this matter all distribution business no longer make an adjustment to the sales forecasts to account for theft and/or meter inaccuracies. The DLFs now calculated therefore include electrical energy losses and sales losses.

PB understands that this approach is consistent with that adopted by other DNSPs.

### 3.2 Price impact on load customers

A high price impact on a local customer may indicate a failure of the DLF calculation methodology to provide an appropriate loss factor. In past reviews the ESC adopted a threshold that price increases should be less than one per cent. PB considers that this threshold is reasonable and has also adopted it.

Table 3.1 and Table 3.2 present the changes in the DLF values for the 2010-11 financial year for large load customers and network average customers from the current (2009-10) financial year respectively, based on the proposed DLFs. The tables show that the impact on all customers of the proposed DLFs for 2010-11 does not result in price increases of greater than one per cent.

For one SP AusNet customer, the proposed DLF change is a reduction of 1.84%. SP AusNet advised that this was due to the changes on that part of the network where the customer is located including the interaction between embedded generation and increased customer demands in the area.

	onanges in propos	-		
Distributor	National Metering identifier	Current year DLF 2009-10	Proposed DLF 2010-11	Change
	VAAA000673	1.0181	1.0181	0.000%
CitiPower	VAAA000577	1.0152	1.0140	-0.118%
CitiPower	VAAA000574	1.0146	1.0132	-0.138%
CitiPower	VAAA000431	1.0166	1.0158	-0.079%
	VCCCAF0002	1.0011	1.0008	-0.030%
	VCCCAF0001	1.0062	1.0081	0.189%
	VCCCDA0031	1.0006	1.0009	0.030%
	VCCCGD0001	1.0012	1.0009	-0.030%
	VCCCGJ0001	1.0029	1.0021	-0.080%
	VCCCDA0022	1.0014	1.0013	-0.010%
	VCCCRD0007	1.0134	1.0095	-0.385%
Doworoor	VCCCDA0025	1.0087	1.0085	-0.020%
Powercor	VCCCAB0003	1.0158	1.0183	0.246%
	VCCCAD0001	1.0110	1.0107	-0.030%
	6203764760	1.0134	1.0084	-0.493%
	VCCCSE0004	1.0582	1.0561	-0.198%
	VCCCGE0019	1.0098	1.0093	-0.050%
	VCCCBC0025	1.0313	1.0289	-0.233%
	VCCCTE0002	1.0593	1.0568	-0.236%
	VCCCSB0012	1.0569	1.0564	-0.047%
	VEEE0PD8AD	1.0118	1.0143	0.247%
	VEEE0TF39Q	1.0138	1.0165	0.266%
Powercor UED Jemena SP AusNet	VEEE0BG4Q3	1.0229	1.0240	0.108%
	VEEE0NDNEX	1.0230	1.0246	0.156%
	VEEE08KH3V	1.0095	1.0092	-0.030%
	VAAA000574         1.0146         1.0132           VAAA000431         1.0166         1.0158           VCCCAF0002         1.0011         1.0008           VCCCAF0001         1.0062         1.0081           VCCCAF0001         1.0062         1.009           VCCCGD0001         1.0012         1.0009           VCCCGD0001         1.0029         1.0021           VCCCDA0022         1.0014         1.0013           VCCCCDA0025         1.0087         1.0085           VCCCAB0003         1.0158         1.0183           VCCCAB0003         1.0158         1.0183           VCCCAB0001         1.0110         1.0107           6203764760         1.0134         1.0084           VCCCSE0004         1.0582         1.0561           VCCCBC025         1.0313         1.0289           VCCCSE0019         1.0098         1.0093           VCCCSB0012         1.0569         1.0564           VEEE0PBAD         1.0118         1.0143           VEEE0TF39Q         1.0138         1.0165           VEEE0BG403         1.0229         1.0246           VEEE0RSH3V         1.0095         1.0092           VEEE0RSH3V         1.	1.0058	-0.119%	
	VDDD000495	1.0066	1.0085	0.189%
	6001280255	1.0048	1.0056	0.080%
Jemena	VDDD000244	1.0123	1.0117	-0.059%
Jemena	VDDD000134	1.0147	1.0137	-0.099%
	VDDD000136	1.0038	1.0031	-0.070%
	VBBB000073	1.0045	1.0047	0.020%
	VBBB000058	1.0294	1.0280	-0.136%
SP AusNet	VBBB000161	1.0080	1.0081	0.010%
	VBBB000096	1.0813	1.0614	-1.840%
	VBBB000097	n/a	1.0664	n/a

### Table 3.1 Changes in proposed DLFs for large load customers

Note: SP Ausnet VBBB000097 is a new customer and therefore does not have a DLF for 2009-10

Distribution	Change in DLF								
Distributor	Туре	DLF-A	DLF-B	DLF-C	DLF-D	DLF-E			
CitiPower	Short sub- transmission	-0.007%	-0.046%	-0.080%	-0.100%	-0.089%			
	Long sub- transmission	n/a	n/a	n/a	n/a	n/a			
Powercor	Short sub- transmission	-0.100%	-0.099%	-0.106%	-0.132%	-0.140%			
POwercor	Long sub- transmission	-0.203%	-0.201%	-0.206%	-0.228%	-0.235%			
UED	Short sub- transmission	0.010%	-0.039%	-0.088%	-0.334%	-0.450%			
ULD	Long sub- transmission	-0.039%	-0.087%	-0.134%	-0.373%	-0.487%			
Jemena	Short sub- transmission	0.010%	0.059%	0.204%	0.288%	0.353%			
јептепа	Long sub- transmission	0.020%	0.068%	0.211%	0.142%	0.131%			
SP AusNet	Short sub- transmission	-0.030%	-0.079%	-0.010%	-0.132%	-0.187%			
	Long sub- transmission	-0.087%	-0.153%	-0.084%	-0.192%	-0.245%			

#### Table 3.2 Changes in proposed network average DLFs

### 3.3 DLFs for embedded generators

The DNSPs have retained the ESC methodology as their own for calculating the DLFs associated with large embedded generators. The methodology states that the DNSPs must adhere to the following steps:

- model the operations of the generator based on historical record or other relevant information available
- determine the relevant forecast network losses by modelling the distribution network between the generator's connection point and the transmission network connection point and the transmission network connection point for each modelled operating period of the generator
- calculate the annual overall DLF utilising a volume weighted factor based on the forecast average electrical energy loss for each modelled operating period of the generator in the financial year in which the DLF is to apply.

PB has analysed the information provided by the DNSPs and confirms that in each case these steps have been adhered to.

A change in DLF may indicate an issue with the underlying methodology. PB assessed the changes and found them all to be less than 1 per cent and therefore concludes that there is

no emerging issue with the methodology adopted for applying DLFs to large embedded generators.

Table 3.3 summarises the proposed DLFs for large embedded generators.

# Table 3.3Proposed DLFs for large embedded generators for the 2010-11financial year

Distributor	Generator	National Metering Identifier	Propos ed DLF for 2010-11	Current DLF 2009- 10	Change
CitiPower	none				
	Challicum Hills Wind Farm	6203661632	1.0129	1.0100	-0.286%
Powercor	Codrington Wind Farm	6203008781	1.0357	1.0328	-0.280%
	Yambuk Wind Farm	6203690629	1.0357	1.0328	-0.280%
UED	Clayton Generator	6407649172	1.0134	1.0121	-0.128%
Jemena	Somerton Power Station		0.9864	0.9875	0.112%
	Alinta No1 Generator at Bairnsdale	6305010110	1.0449	1.0394	-0.526%
	Alinta No2 Generator at Bairnsdale	6305651897	1.0449	1.0394	-0.526%
	Toora Windfarm	630565070	1.0792	1.0880	0.815%
SP AusNet	Wonthaggi Windfarm	6305721689	1.0704	1.0778	0.691%
	Esso Longford Generator	VBBB002342	1.0693	1.0600	-0.870%
	Clover Power Station 1	VMBTWZCLG1	0.9874	0.9882	0.081%
	Clover Power Station 2	VMBTWZCLG2	0.9874	0.9882	0.081%
	Rubicon Group of Generators	VTTSWZRUBX	1.0462	1.0415	-0.449%

### 3.4 Reconciliation of the previous forecast losses against actual

Clause 3.6.3 (h)(2) of the National Electricity Rules states that DNSPs must reconcile the losses forecast using the DLF methodology in previous years with the actual level of losses which transpired in that year.

In determining the DLFs for the next financial year, the DNSPs advised that they have undertaken reconciliation with the actual losses incurred in the previous financial year (2008-09). The results of the reconciliation process are shown in Table 3.4.

Table 3.4 shows that the DNSPs forecast error since the introduction of the forward looking DLF system have been generally less than 0.8 per cent in terms of total energy distributed. The level of forecast errors fluctuates both in size and (with the exception of CitiPower) in over and under recovery.

For all DNSPs the forecast error as a percentage of sales has declined since the previous reconciliation in 2007-08.

PB discussed with each DNSP the reconciliation undertaken and confirmed that appropriate adjustments have been incorporated into the models used to forecast losses for the 2010-11 period. PB considers that the DNSPs have demonstrated that they have taken into account the reconciliation required by clause 3.6.3(h)(2) of the Rules in calculating the proposed DLFs.

# Table 3.4Reconciliation between actual and losses recovered through the<br/>application of DLFs in 2009-09

			2008-09			2007-08	2006-07	2005-06	2004-05
Distributor	Sales	Total level of losses recovered through the application	Actual losses	Difference (Forecast less actual losses)	Forecast error as a percentage of sales				
	MWh	of DLFs MWh	MWh		(positive number indicates over- recovery)	(positive number indicates over- recovery)	(positive number indicates over- recovery)	(positive number indicates over- recovery)	(positive number indicates over- recovery)
CitiPower	6,117,761	272,485	251,304	21,181	0.35	0.82	0.97	0.61	0.78
Powercor	10,547,505	752,523	710,838	41,685	0.40	0.53	-0.28	0.59	0.30
UED	7,889,970	446,010	445,163	847	0.01	-0.27	-0.47	-0.33	0.36
Jemena	4,388,411	164,449	171,861	-7,412	-0.17	1.14	0.12	0.44	-0.50
SP									
AusNet	7,464,966	603,132	555,115	48,017	0.64	0.79	-0.22	0.09	0.60

### 3.5 Forecast overall losses for the 2010-11 financial year

When it undertook the approval of the DLFs, the ESC consider the economic levels of losses for Victorian DNSPs should be in the range of 3 to 5 per cent of sales for urban based networks and could be as high as 10 percent of sales for distributors with predominantly rural networks.

PB believes these ranges are useful when examining network losses. PB has examined the forecast loss levels for the DNSPs and concludes that:

 the forecast losses for the urban based DNSPs CitiPower and Jemena are within the expected range  the forecast losses for the DNSPs with rural networks UED, Powercor and SP AusNet are within the range.<sup>4</sup>

This analysis is shown in Table 3.5 below.

Distributor	Overall loss as a percentage of total sales							
	2004-05 actual	2005-06 actual	2006-07 actual	2007-08 actual	2008-09 actual	2009-10 forecast	2010-11 forecast	
CitiPower	4.32	4.29	3.92	3.74	4.11	4.15	4.07	
Powercor	6.73	6.64	7.27	6.22	6.74	6.96	6.88	
UED	4.34	4.66	4.65	5.01	5.64	5.22	5.59	
Jemena	4.70	5.05	3.67	4.02	3.92	4.15	3.93	
SP AusNet	7.51	7.87	7.96	6.59	7.44	7.41	7.65	

#### Table 3.5 Overall loss levels

Note: Figures for 2004-05 to 2007-08 include an allowance for theft

### 3.6 Conclusion

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Having assessed the proposed DLFs submitted by the Victorian DNSPs, PB found that:

- The calculated DLFs are based on the correct methodology; that is the DLF Calculation Methodology published by the ESC.
- The price impact on all customers due to the proposed DLFs for 2009-10 represents no greater than one per cent increase in energy cost, indicating consistency in application of the DLF calculation methodology..
- The distributors have taken into consideration their previous forecast errors in overall loss levels as verified by the trend of reconciliation errors over time and that the levels of errors are acceptable.
- The overall levels of network losses of each distributor are within acceptable limits.

PB is satisfied that the proposed DLFs meet the requirements of clause 3.6.3 of the National Electricity Rules and are consistent with the methodology developed by the ESC.

PB notes that UED has a predominately urban network with some rural sections. Its forecast losses are appropriately at the lower end of the expected range.

# Appendix A

Terms of reference

# TERMS OF REFERENCE FOR CERTIFICATION OF VICTORIAN DISTRIBUTION BUSINESSES'

#### **DISTRIBUTION LOSS FACTOR 2010/11**

#### **Document History**

Decament metery							
REV	<b>REVISION STATUS</b>	DATE	PREPARED				
А	DRAFT	9 Dec 09	Gabriel Wan				
В	Final	19 Jan 10	Gabriel Wan				

#### 4. Background

Each year, Distribution Network Service Providers (DNSPs) must determine the distribution loss factors (DLFs) to apply for their network in the next financial year in accordance with clause 3.6.3(g) of the National Electricity Rules (NER) and provide these to AEMO for publication by 1 April in that year. The NER requires DLFs to be determined in accordance with a methodology published either by the AER or the DNSP (where the AER has not published a methodology). Before providing the distribution loss factors to AEMO for publication, DNSPs must obtain the approval of the AER for the distribution loss factors it has determined for the next financial year.

#### 5. DLF METHODOLOGY

The AER has not published a calculation methodology for determining DLFs. The AER has also advised that as it will not be publishing a methodology for determining DLFs to apply in 2010-11, DNSPs will continue to determine DLFs in accordance with their own published methodology or, where appropriate, the relevant published methodology operating in their jurisdiction as at 31 December 2007. Methodologies may be amended where necessary to better reflect the principles set out in the NER so long as the revised methodology is published by the DNSP in an accessible form and provided to the AER.

Accordingly, Victorian DNSPs will continue to determine the DLFs in accordance with the methodology published by the Essential Services Commission, Victoria (ESC)<sup>5</sup>. Refer to Appendix 1 for methodology paper.

#### 6. AER APPROVAL OF DLF

The AER has written to the Victorian DNSPs about the approval process for the 2010-11 DLFs. For approval by the AER, the DNSP is to provide to the AER:

- the DLFs in a format fit for publication by AEMO;
- a copy of the methodology (in electronic form) and
- an independent assurance/certification that the DLFs have been calculated by the application of the relevant published methodology.

#### 7. ASSURANCE / CERTIFICATION OF DLF

In previous years, the ESC has certified the DLFs prepared by Victorian DNSPs. However, with the transition from the ESC to the AER of a number of regulatory functions, the ESC is no longer able to perform this service for Victorian DNSPs. In light of this, the AER has advised that it considers that an assurance or certification provided by an auditor or a technical consultant is an acceptable alternative. The AER has also indicated that as with previous year approval process, it does not intend certification to be unduly burdensome but set at a standard sufficient for the certifying party to be confident that the

<sup>&</sup>lt;sup>5</sup> In 2007 when the ESC was responsible for approving the DLFs prior to publication by NEMMCO, the ESC published a methodology in accordance with the NER and the Victorian DNSPs have been determining DLFs in accordance with this published methodology.

appropriate data has been used, the correct methodology applied and that the results are a fair statement of the applicable loss factors for that firm.

#### 8. Scope of Work

There are five Distribution Network Service Providers (DNSPs) in Victoria, list below, and all five DNSPs have agreed to jointly engage an auditor/consultant to certify the DLFs.

- Jemena Electricity Networks (Vic) Ltd
- CitiPower Pty
- Powercor Australia
- United Energy Distribution
- SPI Electricity

The auditor/consultant is to review the DLFs proposed by the five DNSPs in accordance with the principles set out above and provide a report to each of the DNSPs certifying whether the DNSP's proposed DLFs have been calculated in accordance with the Calculation Methodology for Distribution Loss Factors (DLFs) for the Victorian Jurisdiction (14 February 2007) published by the ESC, appropriate data has been used and that the results are a fair statement of the applicable loss factors for that firm.

#### 9. Information from VICTORIAN dnsp

Documents provided:

- Guidance Paper: Calculation Methodology for Distribution Loss Factors (DLFs) for the Victorian Jurisdiction (14 February 2007)
- Victorian DNSPs' DLF 2009-10 submission to ESC.
- Review Findings Of The Distribution Loss Factors (DLFs) Proposed By The Victorian Electricity Distributors For The 2009-10 Financial Year
- Victorian DNSPs' proposed DLFs for the 2010-11 financial year.

#### 10. Deliverables

At the completion of its review the auditor/consultant will provide an independent certification report which:

- is of a professional standard capable of being submitted to the AER;
- includes a bibliography outlining all reference sources;
- summarises the expert's experience and qualifications and attach its curriculum vitae;
- identifies any person and their qualifications, who assists you in preparing the report or in carrying out any research or test for the purposes of the report;

- summarises the instructions and attaches these term of reference; and
- (without limiting the points above) carefully and clearly sets out the facts that the auditor/consultant has assumed in putting together his or her report and the basis for those assumptions.

In light of the acceptance by AER of Certification Report prepared by the ESC for the past two years, the Victorian DNSPs are of the view that a report similar to the ESC's report should be acceptable to the AER.

#### 11. Timetable

AER requires DNSPs DLF calculations and independent certification report of these calculations be submitted in electronic form by COB Friday 12 March 2010. Accordingly, the proposed timeline is as follows:

•	Friday 26 February 2010	DNSPs provide auditor/consultant with DLF calculation for certification. The information will be in the same format as those provided to the ESC in previous years.
•	Friday 5 March 2010	Auditor/consultant provides draft certification report to DNSPs.

• Wednesday 10 March 2010 Auditor/consultant provides final certification report to DNSPs.

Please note that all information submitted to the AER including the certification report will be published on the AER's website unless confidential.