ETSA Utilities

Delivering energy to South Australians

ETSA Utilities ABN 13 332 330 749
a partnership of

CKI Utilities Holdings Pty Ltd
ABN 54 091 142 389

HEI Utilities Holdings Pty Ltd
ABN 58 091 142 362

CKI/HEI Utilities Distribution Pty Ltd
ABN 19 091 143 336

each incorporated in Australia

CKI Utilities Development Limited
ARBN 65 093 718 686

HEI Utilities Development Limited
ARBN 82 093 718 551

each incorporated in The Bahamas

13 March 2008

Vani Rao
Network Regulation South
Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Dear Vani,

REVIEW OF DISTRIBUTION LOSS FACTORS FOR 2008/09

As required by clause 3.6.3 (i) of the National ElectricityR ules (NER), ETSA Utilities seeks approval from the AER for the distribution loss factors (DLF's) described below to apply in the financial year 2008/09. ETSA Utilities understands that, following the AER's approval, the AER will notify NEMMCO of the distribution loss factors to apply in 2008/09. ETSA Utilities has also forwarded a copy of this submissiont o the SouthA ustralian jurisdictional regulator, ESCOSA.

The methodology applied to calculate the DLFs for 2008/09 is the same as that applied in previous DLF submissions to ESCOSA. We understand that ESCOSA will advise the AER of this submission's compliance with the existing policies.

Distribution Losses Outcome 2006/07

Actual distribution losses are calculated by subtracting sales from purchases for energy usage. For the first time, ETSA Utilities has included generation from small photovoltaic installations which are now at about 2GWh (0.02% of total electricity 'purchases'). The resulting distribution losses were calculated to be 716 GWh (5.98% of purchases). However, the distribution losses recovered by the 2006/07 distribution loss factors recovered 727 GWh of losses, 11 GWh above the actual losses (Attachment 1).

The table below details the actual losses over the past seven years and forecasts the 2007/08 and 2008/09 losses. The net over recovery at 30 June 2007 was 42 GWh. The net over/(under) recovery is projected to decline to zero over the coming three to four years if the proposed distribution connection point class and site specific loss factors are used in 2008/09. The zero net over/(under) recovery target is in line with the policy adopted since ESCOSA have been involved in approving DLF's.

	Actual Distribution losses GWh	Losses as a percentage of purchases	Losses recovered by DLF's GWh	Losses Recovered as a percentage of purchases	Over (Under) recovery of actual Losses GWh	Balance Over (Under) recovery of actual Losses GWh
1999/00	627	5.95%	670	6.36%	43	43
2000/01	721	6.55%	699	6.35%	-22	21
2001/02	584	5.44%	650	6.05%	66	87
2002/03	642	5.80%	679	6.13%	37	124
2003/04	692	6.19%	637	5.70%	-55	69
2004/05	666	5.96%	641	5.74%	-25	44
2005/06	718	6.15%	706	6.04%	-13	31
2006/07	716	5.98%	727	6.07%	11	42
Estimated 2007/08		6.15%		6.07%	-10	32
Forecast 2008/09		6.05%		6.00%	-7	25

Site Specific Loss Factors 2008/09

The National Electricity Rules (NER) requires ETSA Utilities to calculate site specific distribution loss factors for all distribution connection points with an annual consumption greater than 40 GWh orf orecast peak load greater than 10 MW (clause 3.6.3 (b) (2) (i) B).

These calculations have been performed using typical customer and network load configurations to determine an average loss factor. The site specific distribution loss factor calculations were undertaken in March 2003 for their first inclusion in our loss factors. ETSA Utilities reviews the site specific distribution loss factors for application each year. We propose the same site specific loss factors apply in 2008/09 as there has been negligible change.

Connection points not of a type described in clause 3.6.3 (b) (2) (i) of the NER have been assigned to a class of distribution connection points based on their voltage and location. Typically, this loss-factor allocation is consistent with the distribution tariff used (see the table below).

Distribution Loss Factors 2008/09

Site specific distribution loss factors have been tabled below. The actual GWh distribution losses determined at each site isu sed in the calculation for the overall distribution loss factors.

The distribution loss factors for 2008/09 for each oft he distribution connection point classes were calculated with reference to achieving a net over/(under) recovery of losses of approximately zero in the coming three to four years. The historic differential in loss factors between voltage levels has been retained from previous loss factor calculations, representing the average level of losses incurred on each voltages egment in a state-wide distribution system.

Applying these principles to 2006/07 sales data (the latest complete data available) indicates the target level of lossest o recover should be 718 GWh (derived as 6.05% of 11,978 GWh purchased less 6.6 GWh over recovery).

The proposed 2008/09 loss factors to be applied to the distribution connection point classes will decrease slightly below those applied in 2007/08. Attachment 2 contains the detailed calculation of losses to be recovered.

The tables below contain the distribution loss factors to be applied in the 2008/09 financial year.

Distribution Connection Point Class DLFs

Class	Tariff	MSATS DLF Code	2008/09 DLF	2007/08 DLF
Low Voltage	Unmetered	NLV2	1.0790	1.0799
	Residential	NLV2	1.0790	1.0799
	Controlled Load	NLV2	1.0790	1.0799
	Business Single Rate	NLV2	1.0790	1.0799
	Business Two Rate	NLV2	1.0790	1.0799
Low Voltage T/F	Medium LV	NLV1	1.0640	1.0649
	LV Demand	NLV1	1.0640	1.0649
	Large LV Demand	NLV1	1.0640	1.0649
HV	HV	NHV1	1.0401	1.0409
Substatio	Substation	NZS1	1.0211	1.0219

Site Specific DLF

Distribution Connection Point	NMI	MSATS DLF Code	2008/09 DLF	2007/08 DLF
	2001000378	NBA1	1.0000	1.0000
	2001000608	NAC2	1.0135	1.0135
	2002112609	NKC4	1.0057	1.0057
	2002133131	NGM2	1.0115	1.0115
	SAAAAAA018	NPS1	1.0000	1.0000
	SAAAAAA019	NPS2	1.0069	1.0069
	SAAAAAA021	NPS3	1.0069	1.0069
	SAAAAAA022	NGM1	1.0107	1.0107
	SAAAAAA024	NAB1	1.0077	1.0077
	SAAAAAA026	NAC1	1.0218	1.0218
	SAAAAAA029	NMM1	1.0145	1.0145
	SAAAAAA035	NGT1	1.0048	1.0048
	SAAAAAA084	NOS1	1.0000	1.0000
	SAAAAAA438	NIF1	1.0091	1.0091
	SAAAAAB557	NOS2	1.0000	1.0000

Embedded Generators

In accordance with clause 3.6.3 (b) (2) (i) A, ETSA Utilities has previously calculated site specific distribution loss factors to apply to embedded generators at Lonsdale, Starfish Hill, Canunda and Angaston. These individual calculations were reviewed by ESCOSA at that time and approved

ETSA Utilities reviewed all site specific distribution loss factors for Embedded Generators for application in 2008/09a nd proposes to the AER that they remain unchanged from the 2007/08 factors.

	NMI	MSATS DLF Code	2008/09 DLF	2007/08 DLF
	2001000647	NCL1	1.0226	1.0226
	2001000734	NSHW	1.0092	1.0092
	2002108658	NCDW	0.9721	0.9721
	2002108660	NAS1	0.9900	0.9900
	2002108661	NAS2	0.9900	0.9900

The smaller embedded generators (land fill gas, mini-hydro and other plant less than 10MW) are assigned to a distribution loss factor according to the voltage of their connection/metering point. Many of these are connected to high voltage whilst the small photo-voltaic installations are automatically assigned the same low voltage distribution loss factora s the related customer load

If you have any queries on this subject, please call Peter Bucki on 8404 5679.

Yours sincerely,

E R Lindner

Eric Lindner
GENERAL MANAGER REGULATION and COMPANY SECRETARY

cc Bob Burgstad, Director Technical,E SCOSA

2006/07 Actual Sales, Purchases and Losses

Purchases From ElectraNet 06/07	11,627.998
Distributed Generation (incl losses)	349.837
Total Purchases	**11,977.835**

	MSATS DLF Code	Sales	DLF Applied	Losses Recovered
Unmetered	NLV2	107.967	7.99%	8.627
Residential	NLV2	3,527.479	7.99%	281.846
Controlled Load (HW)	NLV2	719.350	7.99%	57.476
Bus Single	NLV2	870.620	7.99%	69.563
Bus 2 rate	NLV2	1,648.344	7.99%	131.703
Med LV	NLV1	12.560	6.49%	0.815
LV T/F	NLV1	1,832.919	6.49%	118.956
Lge LV	NLV1	127.259	6.49%	8.259
HV	NHV1	934.903	4.09%	38.238
S/Stn Non Loc	NZS1	153.614	2.19%	3.364
S/Stn Loc		629.493		6.495
Subtran Loc		697.206		1.585
Total		**11,261.713**		**726.925**

Losses Recovered from DLF's	726.925
% Sales	6.45%
% Purchases	6.07%
Losses Actual	716.122
% Sales	6.36%
% Purchases	5.98%

NMI	MSATS DLF Code	Network Tariff	Usage Jul-Dec 2006 kWh	Usage Jan-Jun 2007 kWh	Usage 2006/07 GWh	Individual DLF 2006/07	Individual Losses GWh 2006/07
2001000378	NBA1	Subtran	47,207,830	47,847,052	95.055	1.0000	-
2002112609	NKC4	Subtran	143,779,237	134,204,982	277.984	1.0057	1.585
SAAAAAA018	NPS1	Subtran	69,489,659	80,022,906	149.513	1.0000	-
SAAAAAA084	NOS1	Subtran	77,472,081	69,827,514	147.300	1.0000	-
SAAAAAB557	NOS2	Subtran	13,855,153	13,499,554	27.355	1.0000	-
2001000608	NAC2	S/Stn	21,143,506	22,050,017	43.194	1.0135	0.583
2002133131	NGM2	S/Stn	11,987,748	30,098,108	42.086	1.0115	0.484
SAAAAAA019	NPS2	S/Stn	13,075,790	14,314,747	27.391	1.0069	0.189
SAAAAAA021	NPS3	S/Stn	42,791,933	47,210,616	90.003	1.0069	0.621
SAAAAAA022	NGM1	S/Stn	53,963,943	30,144,822	84.109	1.0107	0.900
SAAAAAA024	NAB1	S/Stn	74,422,916	69,959,800	144.383	1.0077	1.112
SAAAAAA026	NAC1	S/Stn	30,435,884	32,200,322	62.636	1.0218	1.365
SAAAAAA029	NMMA	S/Stn	18,151,021	18,627,387	36.778	1.0145	0.533
SAAAAAA035	NGT1	S/Stn	22,943,240	21,858,810	44.802	1.0048	0.215
SAAAAAA438	NIF1	S/Stn	26,813,928	27,298,146	54.112	1.0091	0.492
					1,326.699		8.080

Distribution Loss Factors for 2008/09

Total Purchases 2006/07	**11,977.84**	
Losses Forecast 2008/09	6.05%	
Underlying Losses	724.659	
plus over / (under) recovery	-6.566	
Losses recovered by DLF's	**718.093**	**6.00%**

	MSATS DLF Code	Sales 2006/07 (GWh)	New DLF 08/09	Losses Recovered via DLF (GWh)
Unmetered	NLV2	107.967	1.0790	8.529
Residential	NLV2	3,527.479	1.0790	278.671
Controlled Load (HW)	NLV2	719.350	1.0790	56.829
Bus Single	NLV2	870.620	1.0790	68.779
Bus 2 rate	NLV2	1,648.344	1.0790	130.219
Med LV	NLV1	12.560	1.0640	0.804
LV T/F	NLV1	1,832.919	1.0640	117.307
Lge LV	NLV1	127.259	1.0640	8.145
HV	NHV1	934.903	1.0401	37.490
S/Stn Non Loc	NZS1	153.614	1.0211	3.241
S/Stn Loc		629.493		6.495
Subtran Loc		697.206		1.585
Total Sales		**11,261.713**		**718.093**

NMI	MSATS DLF Code	Network Tariff	Usage Jul-Dec 2006 kWh	Usage Jan-Jun 2007 kWh	Usage 2006/07 GWh	Individual DLF 2008/09	Individual Losses GWh 2008/09
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2002112609	NKC4	Subtran	143,779,237	134,204,982	277.984	1.0057	1.585
SAAAAAA018	NPS1	Subtran	69,489,659	80,022,906	149.513	1.0000	-
SAAAAAA084	NOS1	Subtran	77,472,081	69,827,514	147.300	1.0000	-
SAAAAAB557	NOS2	Subtran	13,855,153	13,499,554	27.355	1.0000	-
2001000608	NAC2	S/Stn	21,143,506	22,050,017	43.194	1.0135	0.583
2002133131	NGM2	S/Stn	11,987,748	30,098,108	42.086	1.0115	0.484
SAAAAAA019	NPS2	S/Stn	13,075,790	14,314,747	27.391	1.0069	0.189
SAAAAAA021	NPS3	S/Stn	42,791,933	47,210,616	90.003	1.0069	0.621
SAAAAAA022	NGM1	S/Stn	53,963,943	30,144,822	84.109	1.0107	0.900
SAAAAAA024	NAB1	S/Stn	74,422,916	69,959,800	144.383	1.0077	1.112
SAAAAAA026	NAC1	S/Stn	30,435,884	32,200,322	62.636	1.0218	1.365
SAAAAAA029	NMMA	S/Stn	18,151,021	18,627,387	36.778	1.0145	0.533
SAAAAAA035	NGT1	S/Stn	22,943,240	21,858,810	44.802	1.0048	0.215
SAAAAAA438	NIF1	S/Stn	26,813,928	27,298,146	54.112	1.0091	0.492
					1,326.699		8.080