

8 March 2012

Mrs Jenny Doyle
Acting General Manager Regulatory Affairs
Ergon Energy Corporation Limited
PO Box 15107
City East QLD 4002

Dear Jenny,

REVIEW OF ERGON ENERGY DISTRIBUTION LOSS FACTORS FOR 2012/13

Intelligent Energy Systems Pty Ltd (IES) has undertaken a review (audit) of the Distribution Loss Factors (DLFs) for 2012/13 financial year calculated by Ergon Energy Corporation Limited (Ergon Energy). The IES audit examined the proposed DLFs with regard to their consistency with Ergon Energy's published methodology which is the published methodology operating in Queensland as at 31 December 2011.

Ergon Energy provided IES with the document "Distribution Loss Factors – 2012", dated February 2012, and supporting spreadsheets for review. Ergon's report described its forecast methodology, DLF calculation methodology for independently calculated customers (ICCs), tariff class customers and embedded generators. The report also included proposed DLFs for ICCs and tariff class customers, sources of data, summary data for losses and sales at the various voltage levels for 2012/13, and reconciliation figures for 2010/11.

The supporting spreadsheets were comprehensive and well set out showing the calculation of series and shunt losses, energy flows, workings of the DLF values, and reconciliation of the total forecast energy sales and purchases for 2012/13 with the calculated DLFs. A spreadsheet showing the historical reconciliation for financial year 2010/11 was also provided. Historical reconciliations were included for Ergon Energy's East and West zones both separately and combined. As Ergon Energy consolidates losses into two price zones – (East and West zones) a reconciliation of losses has appropriately been conducted into the two zones.

Ergon Energy's submission was clear and concise, the calculations consistent with the published methodology and, DLF values correctly determined. The



proposed DLFs for tariff class customers for the East and West zones are shown in Table 1 and their percentage differences (between 2011/12 and 2012/13) in Table 2. Table 3 details the tariff class DLFs for 2012/13 for the Mt Isa region. The percentage differences between the 2011/12 and 2012/13 DLFs for Mt Isa are detailed in Table 4. DLFs for ICCs are shown in Table 5 along with the existing DLFs and the percentage changes based on the new calculated 2012/13 values. DLFs for Embedded generators are shown in Table 6, this table also indicates the percentage differences between existing and newly calculated DLFs.

The changes in the DLFs proposed for tariff class customers in the East zone compared to the current DLFs vary from between -0.12 % and 0.69% from the 2011/12 values. The changes in the DLFs proposed for tariff class customers in the West zone compared to the current DLFs vary from between 1.41% and 4.19% from the 2011/12 values. The difference in DLFs for the West Zone is due to the transfer of network assets between Tarong and Columboola to the TNSP which have increased the calculated loss factors. Theoretically the TLF associated with loads in the West zone will be less than it was before the asset transfer, resulting in a similar final (TLF + DLF) outcome for customers in the West.

There was only one increase in DLF values for Ergon Energy's ICCs which was greater than 1% from last year's DLFs, this increase was explained to the satisfaction of IES. The majority of DLFs for ICCs either remained the same or decreased in value. These DLFs changes will in the main not have significant impacts on Ergon Energy's ICCs energy costs for 2012/13. Any changes to DLFs for Embedded generators changes have been explained to the satisfaction of IES.

IES has examined the data provided by Ergon Energy (in the form of spreadsheets) and are of the opinion that they have estimated their projections in accordance with the published methodology and DLFs values correctly determined.

When calculating its distribution loss factors, Ergon Energy has used a forward-looking approach which utilises forecast sales and purchase figures produced for Planning, Network Pricing and Statutory purposes. Ergon Energy provides an overview of the forecasting procedure in its report whereby 10 year forecasts are produced using a regression analysis of up to 15 years of historical data. Due to the various cross checks in its own organisation and by an independent consultant, IES believes that the forecasts are robust and are applicable to the calculation of DLFs.

Ergon Energy has carried out a reconciliation of losses for financial year 2010/11 in accordance with the National Electricity Rules' requirements. A separate reconciliation was conducted for each of the East and West zones. It found when applying the 2010/11 DLFs to its actual sales figures for 2010/11, reconciled (calculated) energy dispatched in both the East and West zones were closely matched.

Ergon Energy has also calculated DLFs for the Mt Isa region. These DLFs have been calculated in accordance with the same methodology as the DLFs for the East and West zones, similarly these results are valid.

In summary, IES are of the opinion that the DLFs calculated by Ergon Energy for 2012/13 as shown in Tables 1, 3, 5 and 6 are consistent with the published methodology and, DLF values correctly determined.

Yours Sincerely

Bryan Whitlock

Senior Energy Analyst

Table 1 Ergon Energy proposed tariff class DLFs for 2012/13				
Network Level	2011/12 DLFs		Proposed 2012/13 DLFs	
	East Zone	West Zone	East Zone	West Zone
Sub-Trans Bus	1.007	1.019	1.007	1.044
Sub-Trans Line	1.018	1.072	1.016	1.091
22/11 kV Bus	1.019	1.077	1.018	1.097
22/11 kV Line	1.038	1.118	1.038	1.133
LV Bus	1.070	1.157	1.077	1.185
LV Line	1.072	1.302	1.078	1.357

Table 2	Ergon Energy percent chang	e in proposed DLFs for 2012/13
Network Level	East Zone % Change	West Zone % Change
Sub-Transmission Bus	0.00%	2.50%
Sub-Transmission Line	-0.12%	1.76%
22/11 kV Bus	-0.08%	1.82%
22/11 kV Line	-0.06%	1.41%
LV Bus	0.69%	2.38%
LV Line	0.57%	4.19%

Table 3 Ergon Energy proposed tariff class DLFs for Mt Isa for 2012/13				
Network Level	2011/12 DLF Mt Isa	2012/13 DLF Mt Isa		
Sub-Transmission Bus	1.001	1.001		
Sub-Transmission Line	1.007	1.005		
22/11 kV Bus	1.010	1.008		
22/11 kV Line	1.038	1.036		
LV Bus	1.057	1.057		
LV Line	1.073	1.079		

Table 4 Ergon Ene	rgy percent change in proposed f	VIt Isa DLFs for 2012/13
Network Level	Mt Isa % Change	
Sub-Transmission Bus	-0.01%	
Sub-Transmission Line	-0.19%	
22/11 kV Bus	-0.19%	
22/11 kV Line	-0.17%	
LV Bus	0.05%	
LV Line	0.53%	

Table 5 Ergon proposed DLFs	le 5 Ergon proposed DLFs for 2012/13 – Site Specific Customers			
NMI	DLF Code	Existing DLF 2011/12	Proposed DLF 2012/13	% Change
QDDD000005	GBSB	1.000	1.000	0.00%
QAAALV0001	GBSB	1.000	1.000	0.00%
QAAAMR0000	GBSB	1.000	1.000	0.00%
QDDD000002	GBSB	1.000	1.000	0.00%
QDDD000004	GS22	1.005	1.017	1.19%
QAAABW0000	GBSB	1.000	1.000	0.00%
QAAABW0002	GS02	1.000	1.005	0.50%
3051526875	GBSB	1.000	1.000	0.00%
3051526867	GBSB	1.000	1.000	0.00%
3051526859	GBSB	1.000	1.000	0.00%
3051526841	GBSB	1.000	1.000	0.00%
3051526883	GBSB	1.000	1.000	0.00%
3051526891	GBSB	1.000	1.000	0.00%
QDDD003345	GS77	1.010	1.007	-0.30%
QCCC000004	GS19	1.044	1.054	0.96%
QCCC001004	GS60	1.044	1.046	0.19%
QCCC000014	GS73	1.001	1.001	0.00%
QCCC000002	GS18	1.003	1.004	0.10%
QWAGW00033	GS66	1.010	1.010	0.00%
QWAGW00066	GS65	1.010	1.010	0.00%
QAAABW0001	GS51	1.005	1.003	-0.20%
QDDD000003	GS21	1.002	1.002	0.00%
QAAALV0000	GBSB	1.000	1.000	0.00%
QGGG000394	GS40	1.154	1.151	-0.26%
QAAABX0014	GS69	1.007	1.007	0.00%
QEMS000001	GS64	1.009	1.008	-0.10%
QAAALV0002	GBSB	1.000	1.000	0.00%

NMI	DLF Code	Existing DLF	Proposed DLF	%
		2011/12	2012/13	Change
QCCC000003	GBSB	1.000	1.000	0.00%
QAAALV0004	GBSB	1,000	1.000	0.00%
QAAABX0012	GS70	1.001	1.001	0.00%
QAAABX0002	GS06	1.013	1.012	-0.10%
QAAARG0000	GS14	1.004	1.006	0.20%
QCCC700300	GBSB	1.000	1.000	0.00%
QAAAMR0001	GS13	1.000	1.005	0.50%
QAAABW0042	GS63	1.033	1.034	0.10%
QAAABW0041	GS62	1.015	1.016	0.10%
QAAALX0000	GS12	1.014	1.015	0.10%
QAAABL0000	GBSB	1.000	1.000	0.00%
QAAABX0001	GS05	1.008	1.008	0.00%

NMI	Energy proposed DL DLF Code	DLF 2011/12	DLF 2012/13	% change
QEEE000547	GS26	0.997	0.996	-0.09%
QEEE000026	G\$55	0.977	0.982	0.59%
QCQPW00076	GS49	0.956	0.894	-6.49%
QFFF000010	GS29	0.958	0.973	1.51%
QFFF00000Z	GS30	0.958	0.973	1.51%
QCCC001041/3	GS67	0.973	0.974	0.07%
QDDD003206	GS71	0.999	0.999	0.07%
QDDD003340	GBSB	1.000	1.000	0.00%
QCCC001036	GS56	0.987	0.989	0.20%
QMKYW00147	GBSB	1.000	1.000	0.00%
QGGG000418	GS74	1.002	1.005	0.35%
3051393689	GS76	0.950	0.929	-2.28%
QEEE000050	GS79	0.980	0.991	1,11%
3051745577	GS80	a construction and the section of th	0.989	- Mariana magazina manana manana (Manana Saddina saddi
3051532166	GS81		0.986	