

## Disclosure of Pricing Methodologies

As required under the Electricity Information Disclosure Requirements 2004

### CLAUSE 27

The following information is disclosed under the above Regulations

#### METHODS AS AT 1 APRIL 2005

##### Statement of Intent

Centralines followed the Ministry of Commerce Electricity disclosure Guidelines for calculating Line Charges by linking prices directly to specific costs. Centralines Limited deviated from the guidelines only in allocating prices. The guidelines allocated prices in specific load groups, whereas Centralines Limited calculated prices in direct proportion to the amount of electricity used by the customer.

##### Pricing Objectives

Apart from the regulatory requirements of disclosure, prices should meet objectives that are appropriate for a commercial monopoly. An appropriate list is provided below which was taken from the E.S.A.'s "Guide to derivation of line charges".

- Reflect network cost structure and values as far as practical.
- Be fair and equitable.
- Encourage minimisation of cost that will provide maximum network service.
- Be transparent and auditable.
- Be workable, sustainable, stable and plausible.
- Support competitive electricity prices.
- Provide an adequate return on the Network asset.

The methodology contained in this report attempts to meet these objectives.

##### Revenue Requirement

The total revenue requirement is made up of the following components:

Revenue Requirement	
Transpower Charges	\$ 1,834,640
Operations and Maintenance	\$ 1,168,500
Administration and Corporate Costs	\$ 693,000
Depreciation	\$ 1,904,500
Returns (pre tax and discount)	\$ 1,875,300
<b>Total Revenue Requirement</b>	<b>\$ 7,475,940</b>
Less: Income from Capital Contributions	-\$ 350,000
<b>Line Charge Revenue Requirement</b>	<b>\$ 7,125,940</b>

Obviously not all costs should be allocated on the same basis as not all have the same cost drivers. Thus, from our total network cost, we need to divide up costs into appropriate categories. The following categories are appropriate.

## 1. Corporate Services

The guidelines define this cost as including: "financial management of developing and running the network", and includes: Customer Services, Accounting and Finance, Divisional General Management, Board Costs.

## 2. Network Costs

These are all costs that are directly incurred on the network.

- (a) Lines operations, maintenance and reconstruction
- (b) Faults
- (c) Switchgear and transformer maintenance
- (d) Regulation and compliance
- (e) Depreciation
- (f) Finance Cost
- (g) Management Cost
- (h) Rate of Return

## 3. Transmission Charges

Annual budgeted charges incurred from Transpower for transmission services.

### Pricing Methodology

The first stage is to allocate network costs. The fairest way to charge customers is to allocate costs on the proportion that they incur them. Certain drivers drive network costs, as follows.

Corporate Services:            Driver =        ICP's  
All other network costs:    Driver =        Capacity

However, consistent with our philosophy of minimising fixed costs to all consumers, we have allocated a proportion of corporate services costs as fixed costs, and the remainder as variable. We have used annual consumption as a proxy for capacity requirements for each customer, and therefore have allocated all variable costs in proportion to consumption after making appropriate allowances for losses.

Our revenue requirement for our own network services is therefore allocated as follows:

- (i)    \$/ICP/yr        (fixed charge)
- (ii)   c/kWh        (variable charge)

Allocation of Revenue Requirement	Fixed	Variable
Transpower Charges		\$ 1,834,640
Operations and Maintenance		\$ 1,168,500
Administration and Corporate Costs		
- fixed proportion	407,669	
- variable proportion		\$ 285,332
Depreciation		\$ 1,904,500
Returns (pre tax and discount)		\$ 1,875,300
Revenue Requirement	407,669	\$ 7,068,271
Less: Income from Capital Contributions		-\$ 350,000
Line Charge Revenue Requirement	407,669	\$ 6,718,271

The cost of recovery of Transpower's services is based on consumer usage. Our approach is to divide total costs by total units passed through the network to derive a c/kWh rate. Our line charge tariff includes this Transpower component.

Costs can be allocated in many different ways in order to derive line charges. The above methodology has not taken into account many other factors that influence costs however it is simple, workable, equitable and transparent.

### Consumer Groups

We currently have 9 tariff groups, of which 6 reflect individual prices derived for specific customers. Centralines no longer distinguishes between domestic and commercial customers and therefore our two general groups are made up of those who consume less than 200,000 kWh per annum (CH1 and CH2), and those that consume more than 200,000 kWh per annum but less than 600,000 kWh per annum (CH3). All consumers which consume more than 600,000 kWh per annum have specific prices.

Our consumer groups for 2004-05 are as follows:

Tariff Category	kWhrs band p.a.		Total kWh for group (estimate)	No. of Consumers at 1 April 2005	Local Loss Factor Code
	From	To			
CH 1	0	99,999	74,000,000	7426	LFCH001
CH 2	100,000	199,999			LFCH001
CH 3	200,000	599,999	5,500,000	17	LFCH001
CH 4	600,000	799,999	1,000,000	1	LFCH001
CH 5	800,000	999,999	0	0	LFCH001
CH 6	1,000,000	9,999,999	1,100,000	1	LFCH001

<b>CH 7</b>	10,000,000	50,000,000	10,000,000	1	LFCH002
<b>CH 8</b>	10,000,000	50,000,000	22,000,000	1	LFCH003
<b>CH 9</b>	Heated Pool		800,000	1	LFCH001

### Allocation of Revenue Requirement to Consumer Groups

Our fixed charges are recovered equally from all consumers (with the exception of our two large industrial consumers CH7 and CH8) at a rate of 15 cents per day. Based on ICP numbers at the beginning of the year, this will generate \$407,669 which is equivalent to 59% of our corporate and administration costs. It is expected that new connections over the year will contribute to our target of 60% of corporate and administration costs being recovered by way of fixed charges. Our fixed charge of 15 cents per day is also compliant with the low user charge requirements imposed by the government.

Our variable charges have been set to recover total revenue of \$6.718 million as shown above. The transmission and corporate variable charges are allocated equally to all consumers, in proportion to consumption. However, large industrial users have individual prices reflecting their individual demands on the network, which exclude many of the shared assets employed to deliver energy to the smaller load groups. Thus the remainder network variable charge reflects our assessment of the proportion of network costs (made up of operations, maintenance, depreciation and returns) attributable to each load group, based on their location on the network, asset configuration and quality of supply. In addition, customers CH7 and CH8, specific allowance for the percentage of distribution losses has been made. [Please refer to the discussion on the derivation of the loss ratios below].

As a result, the total revenue requirement is allocated between customer groups as follows:

Allocation of Revenue Requirement to Load Groups	Transmission	Admin and Corporate (Fixed)	Admin and Corporate (Variable)	Network Costs (Variable)	Total Revenue Requirement
CH1 and CH2	1,186,742	406,574	184,568	3,978,890	5,756,774
CH3	88,204	931	13,718	209,928	312,781
CH4	16,037	55	2,494	27,369	45,955
CH5	-	-	-	-	-
CH6	17,641	55	2,744	15,817	36,256
CH7	160,371	-	24,942	104,188	289,500
CH8	352,815	-	54,871	241,973	649,660
CH9	12,830	55	1,995	20,135	35,015
<b>Total</b>	<b>1,834,640</b>	<b>407,669</b>	<b>285,332</b>	<b>4,598,300</b>	<b>7,125,940</b>

### Line Losses

Line losses can be described as that amount of energy that escapes from the network between the point of supply and the end customer. They can be grouped into three groups:

- Losses can arise due to the configuration and the associated components of the network. These are referred to as actual losses.
- Losses can arise due to error and differences in measurement. If meters are inaccurate then total losses will vary depending on whether meters are fast or slow. For our purposes, meters are located at points of supply and at every consumption point.
- Stolen power accounts for some losses.

The sum of these gives us recorded losses.

Centralines' loss policy is to use an average loss percentage and recover this over all units passed over the network. The loss percentage is based on retailer-reconciled information provided at the end of the financial year. Total losses are found by subtracting units sold from retailer sales information from grid exit purchase figures. The 2004-05 average loss factor was 7.35%. The loss percentage figure is adjusted annually and applied as the new loss percentage for the coming year, (i.e. a retrospective loss factor). In order to more accurately reflect the losses incurred by each customer group, Centralines uses three different loss factors for determining prices, rather than the average rate for the entire network, as follows:

- LFCH001 7.93%
- LFCH002 2.00%
- LFCH003 4.00%

The second and third loss factors noted above provide our two high volume customers with a loss figure which more accurately reflects their supply circumstances.

A copy of our tariff schedule is attached below.

Category	kWhrs p.a.		dollars / kWhr (incl Losses)		Fixed Daily Rate	Local Loss Factor Code
	From	To	Tariff	No. of Consumers		
CH 1	0	99,999	\$0.0723	7426	\$0.15	LFCH001
CH 2	100,000	199,999	\$0.0723		\$0.15	LFCH001
CH 3	200,000	599,999	\$0.0567	17	\$0.15	LFCH001
CH 4	600,000	799,999	\$0.0459	1	\$0.15	LFCH001
CH 5	800,000	999,999	\$0.0351	0	\$0.15	LFCH001
CH 6	1,000,000	9,999,999	\$0.03291	1	\$0.15	LFCH001

<b>CH 7</b>	10,000,000	50,000,000	\$0.02895	1	\$0.00	LFCH002
<b>CH 8</b>	10,000,000	50,000,000	\$0.02953	1	\$0.00	LFCH003
<b>CH 9</b>	Wpk Heated Pool		\$0.0437	1	\$0.15	LFCH001

**Note:** The above pricing methodology is however under review with a planned methodology and pricing structure change as of April 1 2006. This methodology change may incorporate ICP based billing, a higher fixed charge for those ICP's that do not qualify for the low user tariff and recommendations from the Electricity Commission on the "model approach to distribution pricing" that is currently under development.

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