QUARTERLY SERVICE QUALITY REPORT
JULY TO SEPTEMBER, 2003

ENERGEX LIMITED

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Quarterly service quality report

Introduction

ENERGEX recognises that electricity is an essential part of daily life, and is committed to delivering excellent service to its electricity customers.

This report describes the quality of ENERGEX's service to the customers of its electricity distribution network.

This report is in five sections:

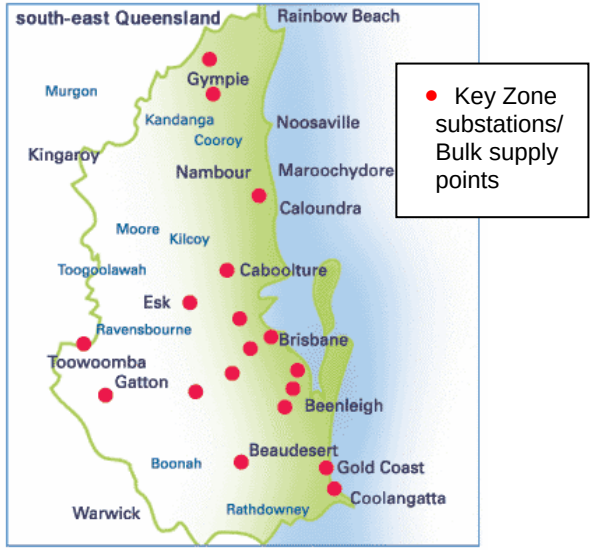
- sections 1 and 2 provide background information about the period for which performance is being reported, and the number of distribution customers supplied by ENERGEX;
- section 3 reports on the reliability of ENERGEX's electricity supply;
- section 4 reports on the quality of electricity supply; and
- section 5 reports on a range of measures of customer service.

This report is produced four times a year, covering January to March, April to June, July to September, and October to December. In addition, once a year, ENERGEX provides additional background information on the state of its distribution network, including information on the size of the network, the total amount of electricity supplied to customers, and areas of the network where reliability is low.

About ENERGEX's distribution network

This report focuses on the performance of ENERGEX's distribution network. The distribution network is the network of poles, wires, underground cables, and transformers that takes electricity from the high voltage wires operated by the electricity transmission company, and delivers them to customers' factories, shops, and houses in south-east Queensland.

ENERGEX provides distribution and retail electricity services to customers in south-east Queensland, in a region stretching from Gympie in the north to Gatton in the west and Coolangatta in the south.



Map of ENERGEX's electricity distribution network

Within this supply area, ENERGEX supplies electricity to more than 1.15 million customers, including around 750,000 urban customers, and almost 400,000 rural customers.

Measuring ENERGEX's distribution system performance

ENERGEX measures the quality of its performance in three areas:

- *reliability of supply* (how often electricity supply is interrupted, and for how long);
- *quality of supply* (for example, whether electricity is supplied at a constant voltage); and
- *customer service* (for example, customer calls, attending appointments punctually, providing notice of maintenance outages, and handle complaints and feedback properly).

These measures are described more fully below. There are explanatory notes at the back of this report that describe some of the measures in more detail, and discuss how ENERGEX records and reports the measures.

Reliability of supply (section 3)

A key measure of service quality is reliability of supply. ENERGEX operates a predominantly overhead distribution network. There are a range of causes for interruptions on such a network, including severe storms, lightning strikes, trees touching wires, high winds, and birds and bats flying into wires. ENERGEX manages the network to minimise these interruptions, and to restore power as quickly as possible following an interruption.

ENERGEX reports three measures of reliability:

- the total number of *minutes* in the last year when supply was interrupted, on average per customer. In the report, this is called by its industry name, SAIDI (System Average Interruption Duration Index). SAIDI gives a picture of how many minutes in a year, on average, that customers were without power.
- the total number of *times* in the last year when supply was interrupted, on average per customer. This is known as SAIFI (System Average Interruption Frequency Index). SAIFI gives a good picture of how frequently supply was interrupted.
- the average length of each supply interruption experienced by customers. This is known as CAIDI (Customer Average Interruption Duration Index). CAIDI provides a good measure of how quickly power was restored following an interruption.

ENERGEX breaks these figures down to provide a picture of supply reliability in different areas of the network - the central business district, urban areas, and rural areas. ENERGEX also reports on unplanned and planned interruptions. Unplanned interruptions are caused by events such as storms or animals climbing on wires. Planned interruptions are interruptions required to enable ENERGEX to carry out maintenance or upgrading work on the distribution network.

To provide a clearer picture of ENERGEX's performance, the reliability statistics report separately on interruptions caused by the failure of the generation or transmission system, or by major natural events. Generation interruptions are caused by the shut-down of power stations, while transmission interruptions are caused by the failure of the high voltage transmission wires. These activities are carried out by power generation and transmission companies, and are outside ENERGEX's control. Major natural events are

widespread storms and flooding or other natural disasters which affect at least 5 per cent of ENERGEX's customers.

Quality of supply (section 4)

Another important measure of ENERGEX's performance is its ability to supply electricity at a constant voltage (generally 240 volts) and to a standard technical specification in order to meet the needs of customers' electrical equipment.

This report lists instances where customers have reported fluctuations in the quality of supply, based on problems in the operation of electrical equipment. As different types of quality of supply problems can affect electrical equipment differently, the variations are classified into nine categories based on the particular symptoms experienced by the customer.

Five of the categories relate to voltage fluctuations, based on whether the voltage was above or below standard voltage, and how long the fluctuation lasted for. These are low supply voltage, voltage dips – minor, voltage dips – severe, voltage swell, and voltage spike. Voltage fluctuations can be caused by events such as large customer loads on the network, sudden switching on or off of heavy loads by customers or ENERGEX, wiring faults, and lightning strikes. The report includes some cases where the quality of supply problems, on investigation, are found to be due to faults in the customer's equipment. ENERGEX also reports instances where supply is not in a smooth continuous waveform, which can occur when too much of a certain type of load is connected to a particular circuit. ENERGEX reports on quality of supply problems associated with symptoms of TV or radio interference, and with audible noises from appliances or lights that are not consistent with normal operation, and also has a category to record other types of complaints that cannot be classified into one of the above categories.

Customer service (section 5)

Providing good customer service is an important measure of service performance. ENERGEX deals on a daily basis with customers on a variety of matters, including new connections, information on interruptions, planned interruptions, fixing street lights, and handling complaints, and recognises the importance of providing excellent customer service.

ENERGEX has put in place a range of service guarantees to customers. Under the guarantees, ENERGEX promises to provide services as specified or pay a penalty (called a guaranteed service level or GSL payment). ENERGEX has also developed a range of service standards which do not have payment penalties but are still recognised as critical to good service.

The service guarantees and the service standards relate to important areas of service such as connecting customers' electricity as agreed with the customer, providing customers with adequate notice of planned interruptions, and attending to supply interruptions promptly.

This report provides information on a range of areas of customer service, including some areas covered by service guarantees. The areas covered are:

- *network call centre performance*. ENERGEX reports a number of call centre performance measures, including how promptly calls are answered, the number of abandoned calls, and any times when callers are not able to get through because there are too many prior calls in the system waiting to be answered ("capacity overload" events);
- *appointment punctuality*. ENERGEX reports how many times ENERGEX employees are more than 15 minutes late for appointments with customers;
- *timely provision of connections*. ENERGEX reports on any instances of delays in new connections or reconnections. Reconnections cover situations where electricity is reconnected to a household after a period of disconnection (eg due to vacancy);
- *time taken to fix technical supply faults*. Technical supply faults occur when a customer experiences a problem with the quality of supply. A quality of supply problem occurs when the electricity supply stays on, but fluctuates from the standard level, for example flickering lights or low voltage;
- *maintaining street lights*. ENERGEX reports on the average time to repair faulty street lights, and instances of delay. One of ENERGEX's service standards is a commitment to repair 95 per cent of failed streetlights under ENERGEX's control within three business days and 100 per cent within five business days after receiving notification, or as agreed with the customer;
- *making payments where guaranteed service levels are not maintained*. ENERGEX reports on the number of GSL payments for not meeting service guarantees, and the amount paid out;
- *providing adequate notice of any planned interruptions*. ENERGEX reports on any occasions when it has failed to give two clear business days' notice of a planned interruption, and instances where the planned interruption was longer than notified; and
- *resolving complaints promptly*. ENERGEX reports complaints broken down into a range of categories, and the average time to resolve each of these categories of complaint. ENERGEX also reports on the number of complaints resolved within 20 days and instances of repeat complaint (that is further, higher level complaints about the same matter).

1. Administrative Data

Item No.	Measure	Descriptor	Value
1.1	*Distribution Network Service Provider*	name	ENERGEX Limited
1.2	*First day of reporting period*	date	01-7-2003
1.3	*Last day of reporting period*	date	30-9-2003

2. Aggregate Data

Item No.	Measure	Descriptor	Value
2.1[a, b]	*Total distribution customers*	number	1,165,093
	Central business district	number	2,782
	Urban	number	737,650
	Short rural	number	424,661
	Long rural	number	not applicable

Source: Network Facilities Management (NFM)

3. Reliability measures (for 12 months to end of quarter)

Item No.	Measure	Descriptor	Value
3.1[c]	*System Average Interruption Duration Index (SAIDI) – whole of network*		
	Transmission & Generation	minutes	21.381
[d]	Exclusions	minutes	20.240
	Distribution system	minutes	171.772
	Central business district	minutes	0.937
	Urban	minutes	137.298
	Short rural	minutes	232.809
	Long rural	minutes	not applicable
	Distribution system – planned	minutes	3.571
	Distribution system – unplanned	minutes	168.202
3.2 [c]	*System Average Interruption Frequency Index (SAIFI) – whole of network*		
	Transmission & Generation	number	0.268
[d]	Exclusions	number	0.065
	Distribution system	number	1.940
	Central business district	number	0.012
	Urban	number	1.748
	Short rural	number	2.285
	Long rural	number	not applicable

Item No.	Measure	Descriptor	Value
3.2 [c]	*SAIFI – whole of network (continued)*		
	Distribution system – planned	number	0.014
	Distribution system – unplanned	number	1.925
3.3 [c]	*Customer Average Interruption Duration Index (CAIDI) – whole of network*		
	Transmission & Generation	minutes	79.821
[d]	Exclusions	minutes	311.816
	Distribution system	minutes	88.564
	Central business district	minutes	80.919
	Urban	minutes	78.535
	Short rural	minutes	101.884
	Long rural	minutes	not applicable
	Distribution system – planned	minutes	246.343
	Distribution system – unplanned	minutes	87.376
3.9	*Reliability of supply complaints*	number	87

Source: NFM and Feedback Register for Organisational Growth (FROG)

4. Quality of supply data

Item No.	Measure	Descriptor	Value
Quality of supply complaints – categorised according to symptoms[e]			
4.1	*Total quality of supply complaints*	number	630
4.11	*Low supply voltage*	number	257
4.12	*Voltage dips – minor or nuisance*	number	126
4.13	*Voltage dips – severe*	number	7
4.14	*Voltage swell*	number	90
4.15	*Voltage spike*	number	2
4.16	*Waveform distortion or unbalance*	number	56
4.17	*TV or radio interference*	number	51
4.18	*Noises from appliances or lights*	number	4
4.19	*Other*	number	37

Source: Voltrac and voltage-related reports from retailers and customers

5. Customer Service

Item No.	Measure	Descriptor	Value
	Network Call Centre Performance		
5.1[f]	*Calls to the call centre*	number	835,104
	Distribution	number	312,988
	Retail	number	522,116
5.11	*Calls to the call centre answered by an operator*	number	484,281
5.12	*Calls to the call centre not answered within 30 seconds*	number	165,439
5.13	*Average time waiting to speak to an operator*	minutes:seconds	0:59
5.14[g]	*Abandoned calls*	number	44,863
		percentage	8.5
5.15[h]	*Number of instances of capacity overload*	number	2,730
	Electricity queues	number	2,730
	Loss of supply queues	number	0
	Emergency, Sales and support, E-commerce, Business Service Centre and Energy Institute queues	number	0

Source: VU_ACD (Call Scan)

Item No.	Measure	Descriptor	Value
	Appointment Punctuality		
5.2[i]	*Customer-arranged appointments*	number	12,392
5.21[i]	*Appointments not met within 15 minutes of the agreed time*	number	256

Source: Computer Aided Scheduling and Dispatch (CASAD)

Item No.	Measure	Descriptor	Value
	Timely provision of connections[j]		
5.3	*New connections made*	number	8,976
5.31	*New connections not made on agreed date*	number	471
5.32	*New connections with a one to four day delay*	number	454
5.33[k]	*Average time taken for new connections*	days	4.07
5.34	*Reconnections made*	number	7,295
5.35	*Reconnections not made on agreed date*	number	183
5.36	*Reconnections with a one to four day delay*	number	161
5.37	*Average time taken for Reconnections*	hours	4.84

Source: Service Order Management (SOM) reports

Item No.	Measure	Descriptor	Value
	Technical supply faults		
5.4[l]	*Average time taken to fix a technical supply fault*	days	10.1

Source: Voltrac

Item No.	Measure	Descriptor	Value
	Street light maintenance		
5.5	*Street lights*	number	260,256
5.51	*Street lights out during period*	number	3,645
5.52[m]	*Street lights not repaired by the date agreed with the customer*	number	183
5.53[n]	*Average time taken to repair faulty street lights*	days	3.10

Source: SOM reports

Item No.	Measure	Descriptor	Value
	Guaranteed service levels (GSLs)		
5.6	*Number of GSL payments made*	number	44
5.61	*Amount paid in GSL payments*	$	2,780

Source: PeoplePact

	Interruptions		
5.7[o]	*Occasions on which the required notice of a planned interruption to supply was not given*	number	134
[o]		percentage	24
	Number of GSL payments made in relation to the failure to provide adequate notification of planned interruption	number	0
5.71[p]	*Occasions on which the duration of a planned interruption exceeded the time specified in the notification*	number	207
[p]		percentage	32

Source: A4S database and FROG

Item No.	Measure	Descriptor	Value
	Complaints management		
5.8	*Complaints*		
	staff behaviour	number	21
	condition of worksite	number	0
	damage to property	number	12
	driving	number	9
	vehicles	number	0
	poles	number	2
	streetlights	number	0
	timeliness of service delivery	number	72
	transformer	number	0
	trees	number	30
	outages	number	87
	general	number	92
	Total	number	325
5.81	*Average time taken to resolve complaints*	days	7
	staff behaviour	days	8
	condition of worksite	days	0
	damage to property	days	7

Item No.	Measure	Descriptor	Value
	driving	days	5
	vehicles	days	0
	poles	days	3
	streetlights	days	0
	timeliness of service delivery	days	5
	transformer	days	0
	trees	days	12
	outages	days	8
	general	days	6
5.82	*Complaints resolved within 20 days*	number	290
		percentage	89
5.83[q]	*Repeat complaints*	number	5
5.84[q]	*Average time taken to resolve repeat complaints*	days	7

Source: FROG

Notes to Service Quality Report

Aggregate Data

[a] This indicator reports on the number of customers in the central business district, urban, and rural areas. The numbers of customers in each area are estimated on the basis of the type of feeder that supplies these customers, being central business district, urban, short rural, and long rural feeders. ('Feeders' are the series of poles and wires, or underground cables, that supply power from a substation to individual customers.) ENERGEX does not have any long rural feeders in its network, as these feeders typically supply customers in relatively remote locations.

At present, ENERGEX estimates the numbers of customers connected to each type of feeder based on loadings on the 11 kV network and growth in billing records. ENERGEX is undertaking a three-stage project to enable it to more accurately determine the number of customers connected to each feeder, as discussed in footnote 'c' below.

[b] The classification of feeders as CBD, urban, short rural, and long rural depends on factors including the amount of electricity load carried by those feeders. Due to changes in load in 2002-03, a number of urban and rural feeders changed classification, resulting in a change in the number of customers in the urban and rural categories. Sixty-two feeders changed from urban to rural classification and 39 feeders changed from a rural to an urban classification. As a result of the changes, urban and rural short feeder performance for the September quarter 2003 does not directly compare with previous quarters.

Reliability Measures

[c] SAIDI, SAIFI, and CAIDI are three common and well-accepted measures of reliability performance. While these terms are technically defined in the equations below, in broad terms, SAIDI refers to the average number of minutes of interruption to the network per customer, SAIFI means the average number of interruptions to the network per customer, and CAIDI refers to the average time per interruption per customer.

The reported SAIDI, SAIFI and CAIDI figures are calculated on a 12-month rolling average basis according to the following equations:

$$SAIDI = \frac{\text{Sum of (Customers Interrupted x Interruption Duration)}}{\text{Annual average number of Customers}}$$

$$SAIFI = \frac{\text{Sum of (Customers Interrupted)}}{\text{Annual average number of Customers}}$$

$$CAIDI = \frac{\text{Sum of (Customers Interrupted x Interruption Duration)}}{\text{Sum of (Customers Interrupted)}}$$

These equations require information on the total number of customers. This means that if a feeder is interrupted, ENERGEX needs to be able to measure the number of customers affected in order to determine the impact of the interruption on the overall reliability of the network. At present, ENERGEX cannot identify the exact number of customers connected to every low voltage feeder. As a result, ENERGEX uses an estimate of the number of customers interrupted based on the assumption that each interrupted customer would consume 2 kVA.

ENERGEX is moving to improve the reporting of its reliability measure by implementing a three-stage project to determine the actual number of customers connected to any part of the network. This will enable more accurate calculation of the reliability measures. This project is due for completion during 2003-04.

[d] The following exclusion event occurred in the rolling 12 month period used to calculate SAIDI, SAIFI, and CAIDI measures:

Date	Incident
10-11 December, 2002	Severe storm

The exclusions to SAIDI, SAIFI, and CAIDI attributable to the above exclusion event were revised upward slightly in the September quarter following minor corrections to the underlying data.

Quality of Supply Data

[e] ENERGEX uses the Voltrac system to record, investigate, and monitor quality of supply problems (with the exception of the 'voltage dips – severe' category, which is recorded and reported by Network Operations based on substantiated reports from retailers and customers). Cause categories with ENERGEX's Voltrac system are inconsistent with the Queensland Competition Authority's (QCA) quality of supply symptom reporting categories. Accordingly, the following assignment policy has been adopted:

QCA Cause Category	*Voltrac Cause Category*
4.11 Low supply voltage	Low voltage/dim lights, motor starting problem
4.12 Voltage dips – minor or nuisance	Flickering lights
4.13 Voltage dips – severe	Recorded and reported separately (see above)
4.14 Voltage swell	High voltage (bulbs blowing)
4.15 Voltage spike	Voltage spike
4.16 Waveform distortion or unbalance	Equipment maloperation
4.17 TV or radio interference	Interference (TV, VDU)
4.18 Noises from appliances or lights	Noise from appliances/equipment
4.19 Other	Other

Customer Service

Network Call Centre Performance

[f] Customers call the network with both distribution-related and retail-related enquiries. Distribution-related enquiries relate to network maintenance and operation issues such as new connections, supply interruptions, quality of supply, streetlights, and trees growing near powerlines, while retail-related enquiries relate to billing issues.

This report focuses on measuring call centre performance in relation to distribution-related calls. Given the diverse range of enquiries to these queues, it is frequently difficult to assign a particular call as either distribution-related or retail-related. Accordingly, an assumption has been taken to assign calls made to the electricity and e-commerce queues equally between distribution and retail.

[g] The number of abandoned calls provided in this report is the sum of two categories of abandonment, Pre RAN and Post RAN (RAN stands for Recorded Announcement). The Pre RAN component is the number of callers who abandon within 5 seconds and do so usually for

reasons other than the quality of service levels delivered by the Agents or Call Centre. These Pre RAN abandons are considered as being outside the influence of the Contact Centre. Post RAN abandons are those who have waited usually a longer period and choose not to wait for an Agent to answer. Pre RAN abandons are a significant proportion of the total abandoned calls provided in this report.

h ENERGEX has a highly sophisticated telephone call scan system, which is capable of measuring all incoming calls to the ENERGEX call centre, even those that result in a the incoming caller receiving an engaged signal or a recorded message that the waiting queues are full and to call again later. Every such call is counted by the system, and reported as a capacity overload event. During times such as major outages, queues can fill quickly, resulting in multiple capacity overload events in a very short space of time.

ENERGEX is committed to managing the number of staff rostered to queues to minimise capacity overload events, while ensuring there is sufficient reserve capacity to make certain emergency calls are handled speedily.

Appointment Punctuality

i ENERGEX guarantees to attend appointments on time, or pay a penalty if more than 15 minutes late. The time of appointments is as agreed with the customer.

For indicators 5.2 and 5.21, ENERGEX reports its punctuality in relation to appointments for four types of service orders: (i) reconnection of a premises after a period of vacancy; (ii) cold water complaints; (iii) change of tariff; and (iv) commercial final readings. These four services orders are centrally organised through ENERGEX's Computer-Aided Scheduling and Dispatch (CASAD) system. They are considered to be customer-arranged appointments because they typically require a customer to be present at the time that the service is performed (as opposed to other service orders such as normal meter reading activities).

Unfortunately, ENERGEX is unable to report punctuality in relation to some customer-arranged appointments made within the organisation not recorded within the CASAD system. These include non-connection service orders, and appointments made on an 'as needs' and 'one-off' basis at a business unit level, for example inspections at new developments, the negotiation of connection agreements, public relations and billing or pricing queries. Developing a single register to gather would be costly and may not produce consistent, reliable data from which appointment punctuality could be reported.

Timely Provision of New Connections

[j] ENERGEX guarantees to connect customer's electricity as agreed:

(i) *reconnections*: where electricity has previously been supplied to the customer, and the customer contacts ENERGEX before 1 p.m. on a business day, ENERGEX guarantees to reconnect the electricity supply within 4 hours or as agreed. After 1 p.m. the customer is offered an appointment for the next business day at no charge. An after-hours fee is required to reconnect electricity on a weekend or public holiday. (Note: Under the *Electrical Safety Act 2002*, ENERGEX is required to conduct a visual inspection when we reconnect electricity after a change of tenancy or when four weeks have elapsed since power was disconnected).

(ii) *new connections (mains are outside the customer's home or business)*: where electricity has not been previously connected to the customer, but the electricity network already exists outside the customer's home or business and a low voltage connection only is required, ENERGEX guarantees to connect electricity within three business days of all necessary paperwork being lodged.

(iii) *new connections (no mains outside customer's home or business or additional reinforcement required):* where electricity mains (ie poles and wires) don't exist or additional reinforcement works are required, ENERGEX will contact the customers within 10 business days of the date of the lodgement of all necessary paperwork to advise on what is required to make supply available.

[k] The time reported here includes the day of lodgement, and is measured from the date of lodgment of all necessary paperwork, specifically the customer's application and a Request for Initial Connection, Inspection or Metering form (Form 2). The Form 2 is normally lodged by the customer's electrician.

Technical Supply Faults

[l] This indicator reports the length of technical supply faults (defined below) repaired within the relevant quarter, including situations where the fault was reported at the end of the previous quarter.

A technical supply fault is a fault where the customer's electricity stays on but fluctuates from the normal level, for example flickering lights, low voltage. ENERGEX guarantees to investigate and respond to technical supply faults within 10 business days. However, if there is a risk to public safety or the customer's safety, ENERGEX will respond immediately.

Streetlight Maintenance

[m] ENERGEX has set itself an objective of repairing 95 per cent of all failed streetlights under its control within three business days subsequent to the date of being notified by a customer, and 100 per cent within five business days after the date of notification, or as agreed with the customer. In the absence of a specifically agreed date, the date agreed with the customer is taken to be three business days after the date of notification.

[n] The average time indicated includes the day of notification.

Interruptions

[o] ENERGEX guarantees to give customers at least 2 clear business days' notice of planned interruptions to electricity supply, except in emergency situations.

The reported data for determining indicator 5.7 is based on records of 547 jobs. Unfortunately, in the case of a further 116 jobs there was insufficient data in the planned interruption reporting system (A4S) to determine whether 2 clear business days' notice had been given. Even though ENERGEX would generally become aware through customer reports in cases where notice was not given of a planned outage, it has been decided to exclude this data rather than extrapolate percentages from existing jobs.

ENERGEX acknowledges the need to improve the quality of its reporting systems. This takes time in view of the process management issues. ENERGEX has commenced changes to the A4S database to ensure planned interruptions which have been scheduled cannot proceed until mandatory information fields are filled out.

[p] Indicator 5.71 is determined on the basis of whether the actual duration of the outage exceeded the time recorded in A4S at which reverse switching was completed. This time generally exceeds the time at which power is actually restored to customers.

The reported data for determining indicator 5.71 is based on records of 644 jobs. Unfortunately, in the case of a further 19 jobs, there was insufficient data in A4S to determine whether the duration exceeded the end time specified in the notification.

Complaints Management

[q] ENERGEX's complaints management system has been developed to deal promptly and efficiently with complaints, and to the customer's satisfaction, and so minimise the number of repeat complaints. When any complaint is registered in the system, resources are allocated to resolving the matter. The customer is contacted, often a number of times, to be provided with an update on resolution of the complaint. Prior to closing the complaint (and thereby determining the number of days to resolution), the customer is again contacted to ensure they are satisfied with the outcome. If the customer is not satisfied, the complaint is not closed, and the matter is pursued further. In this way, by involving the customer through to resolution, ENERGEX strives to minimise repeat complaints. Accordingly, given the framework of the established system and those procedures adopted, ENERGEX reports non-resolved complaints that escalate outside of the organisation as "repeat complaints" for the purpose of this report. These complaints include, for instance, complaints which a customer has referred to the Energy Consumer Protection Office, the Office of Fair Trading, or a Government Minister. The time taken to resolve repeat complaints is reported on the basis of the number of *business* days taken to resolve the complaint.