Jemena Gas Networks (NSW) Ltd

2015-20 Access Arrangement

Response to the AER's draft decision and revised proposal

Appendix 4.8 - Letter from Epitomy - meter data loggers

Public

27 February 2015

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EPITOMY Pty Ltd
Automated Meter Reading Systems & Meters
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A.B.N. 64 109 812 179

To: Mr Fred Khalil. Jemena Asset Management.

From: Paul Dowling, Managing Director, Epitomy Pty Ltd.

December 9-2014.

Subject: MDL Replacement & Operational Functionality.

The following is a brief description of what was previously referred to as The MDL, or, Meter Data Logger. It is commonly referred to now as the RMU 32, or 32 Channel Remote Meter Reading Unit.

For some 18 years AGL / Jemena Asset Management has been purchasing the MDL from Epitomy Pty Ltd & what was formerly Layson Pty Ltd.

As the Name Implies, the MDL collects outputs from meters via a cable system. It converts this output into metering data, stores that data & transmits the data to a central collection point, generally by use of a copper telephone line & a 56K modem Installed at the site of the MDL system. The data is in the form of meter identification & meter readings. Other forms of transmission are available, but phone line is the most common, with "on demand" being the norm.

Each MDL can accommodate 32 meter outputs & can be networked such that 32 MDL's can be accessed from a single point, allowing for transmission of 1024 meter readings.

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Moreton Bay Regional Council

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The Language we communicate with the MDL is known as ASCII & this is functioned by a communications protocol known as RS 232.

Each MDL has an RS 232 outlet & any MDL in a network can have a 56K modem installed. There is No Master / Slave arrangement.

Basically there are 4 main parts to our unit.

1. The Metal housing.
2. The power supply.
3. The connector boards for connecting meter wiring to the MDL.
4. The Processing board, which is the Electronic Brain of the unit.

Parts 2, 3, & 4 are Modular, in that each part can be replaced without the need to replace the entire unit. But there are issues with parts availability concerning the Version 4 & version 6.1 units.

<u>Replacement Philosophy:</u>

Over the time we have been supplying the MDL's there have been 3 basic Mechanical designs. MDL Version 4. MDL Version 6.1, & MDL Version 6.6, which is the current version.

The unit is Very reliable, & history shows parts replacement has been limited to Transformers in the earlier units, and an occasional Processor board.

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We have overcome the transformer issue by designing a transformer with an inbuilt thermal fuse, & by designing upgraded processor boards which are retrofittable into older units.

The areas your MDL"s are located in are relatively clean & dust free, therefore corrosion & the like is of little consequence.

However, over time there will certainly be an increase in component failure, as there is with any Electronic circuitry. There is no "Real" Industry guidelines for replacement of componentry, however we consider it would be prudent to implement a replacement strategy based on a 15 year life cycle.

I would offer the following advice as to Replacement strategy.

I would start replacing the Version 4 units first, as they are the oldest. This would require the unit to be removed & the smaller Version 6.6 Installed. We can still provide the common parts for breakdowns & the like.

As the Version 4 rollout is complete, then start on the Version 6.1. This is also a complete replacement process but the current 6.6 Version is the same physical size so replacement should provide no real issues. Parts are difficult to get for the 6,1, & mechanically, it is very difficult to repair.

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As indicated earlier, the Version 6.6 is totally modular, and as time comes to upgrade, Individual parts such as connector boards, Processor boards can be easily changed. This option would limit the cost.

NBN Compatibility:

A this point in time we are not aware of any device that will connect the MDL with the NBN, however we are working with a Company to develop a retrofittable device to replace the 56K modems currently used. This will ensure compatibility moving forward.

Trusting this Information is helpful.

Yours faithfully:

Paul Dowling.

Epitomy Pty Ltd.

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