



**Essential Services Commission
of South Australia**

**RESPONSE TO CONSUMER ISSUES WITH
PRE-PAYMENT METERS FINAL REPORT
BY EZIKEY GROUP PTY. LTD., JUNE 2004**

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RESPONSE TO ESCOSA CONSUMER ISSUES WITH PRE-PAYMENT METERS – FINAL REPORT

1 INTRODUCTION

1.1 SUMMARY

Energy retailers should continue to be encouraged to look at new ways for consumers to pay for their energy. In Australia the general desire from the key stakeholders is for consumers to have choice, with more flexible payment plans and options. Prepayment metering is a very real and potentially popular payment option for a number of consumers in South Australia, and this was proven in the EziKey/AGL prepayment metering trial conducted in Adelaide in 2002 which achieved extremely high consumer satisfaction levels.

Prepayment meters change the current concept of purchasing energy. Instead of consumers using a quarter of power in advance and then receiving an account, consumers pay for energy as they use it, having more control, as they can see at any time how much energy they are using and what it is costing.

Whilst the ESCOSA report talks a lot about overseas PPM experience, Tasmania should be seen as the case study for successful rollout of prepayment for the purposes of this review. Tasmania is one of the few places in the world that offers prepayment as a true consumer choice. This is how such a product should be rolled out in Australia. Over 15% of the Tasmanian residential consumer base has opted for 'Aurora PAY AS YOU GO' and numbers are still growing rapidly. Satisfaction levels are currently at 94%.

Based on the Tasmanian experience, EziKey believes ***prepayment should be an unregulated product offering from the energy retailer. Prepayment should always be a consumer choice and be promoted as simply another payment option in addition to the retailer's normal range of options. Prepayment should never be forced on a consumer. It must also be easy for consumers to revert to the safety net tariffs.***

Prepayment, coupled with Time of Use (TOU) pricing where consumers pay different energy rates at different timeslots in the day, gives consumers real opportunity to save money and/or shift usage to take advantage of the more economical timeslots. Consumers are given the choice as to when they use their energy and TOU gives them more control over their energy costs.

Two Way smart card prepayment is the most appropriate for the Australian market as consumers still have the necessary information available to them including full consumption history. Most importantly, ***some two way prepayment metering systems are able to bring back 'Meter Status' information enabling the retailer to quickly identify consumers who appear to be suffering financial difficulty*** (those consumers who are continually in emergency credit mode, load limiting mode or self-disconnected). This provides the opportunity to discuss with individuals the suitability of prepayment as a solution for them.

1.2 WHO IS EZIKEY GROUP

EziKey Group is a wholly owned subsidiary of Aurora Energy set up to provide a complete electricity and gas prepayment solution to energy retailers in the national market. EziKey has formed a partnership with the metering company Actaris International after a worldwide search for the most suitable prepayment system for the Australian environment.

Aurora's PAY AS YOU GO product has been extremely successful in Tasmania and utilities around the country have approached Aurora seeking advice on how to go about implementing a prepayment solution. Aurora sees prepayment as an exciting new product offering, however they know how difficult it is to establish from scratch due to the presence of technology-only companies – hence there was a real need for an expert prepayment metering service provider to support utilities in their prepayment initiatives by providing a 'turn-key' solution including implementation and marketing assistance, the provision of a Point of Sale recharging network and a full back office bureau and data management service. Aurora could have avoided costly pilots and the development of internal service capability if such a service provider had existed.

EziKey staff have over nine years of experience in prepayment metering in the Australian environment. EziKey has conducted extensive research into prepayment systems from around the world and constantly monitors new developments. Responses in this paper are based on this experience and knowledge.

This response from EziKey Group is structured around the summary tables found on Pages 6-14 of the ESCOSA report.

2 ABILITY OF THE CONSUMER TO MAKE INFORMED DECISIONS

KEY POINT SUMMARY:

- **At the end of the day, PPM is a consumer choice and it is up to the individual consumer to choose whether or not PPM is suitable for them.**
- **When provided with information on PPMs, those consumers who may see this method of transacting inconvenient will not opt for this payment method.**
- **PPM consumers are generally well informed and able to closely monitor their energy usage and costs – there is no need for retailers to provide an accurate comparison against standard tariffs as consumers are able to compare average daily cost with previous bills.**
- **A Two Way system is the most appropriate for the Australian Market. Two Way PPM consumers are still able to access a large amount of information including full consumption history.**
- **There are additional costs involved with a retailer offering PPMs – some of these costs will need to be built into the PPM tariff to make it a viable offering.**
- **Retailers should be encouraged to offer TOU pricing with PPMs.**
- **PPM pricing & fees should be unregulated – the onus should be on the retailer to offer pricing that is attractive to the market.**

2.1 INADEQUATE INFORMATION PROVIDED

Consumers should be able to make an informed choice as to whether or not to opt for a prepayment metering product. When making a decision, the retailer should make a number of things clear including:

- Tariffs
- Point of Sale Agents
- How the system works
- Safety features, e.g. emergency credit, non-disconnect periods
- What to do if going on holidays
- What to do on moving out of the premises

Retailers should also provide a telephone service whereby consumers can gain more information prior to making a decision.

It is also recommended that consumers are given a 'trial period'. In Tasmania, consumers are given a three month period whereby if they are not satisfied with the product they can revert to standard metering and billing arrangements at no cost. This enables them to test the product and see what they are paying on the prepayment tariff (they can compare this to the 'Average Daily Cost' figure from previous bills).

2.2 INABILITY TO COMPARE TARIFFS

Prepayment consumers are generally well informed and able to closely monitor their energy usage and costs. The Actaris prepayment meters provide the consumer with an amount of information including:

- Rates & charges & standing charges
- Emergency credit amount and threshold
- Any debt or miscellaneous charges to be paid in amount per week
- Total energy consumption
- Energy consumption by Time of Use rate
- Amount to repay if in debt
- Consumers can easily monitor their Average daily cost and relative running costs for different appliances

Because consumers have ready access to this information , there is no need for the retailer to provide a comparison of pricing against the available standard tariff, particularly with a Time of Use (TOU) tariff. Consumers are able to compare average daily costs on prepayment with the average daily cost from previous bills. With TOU it is difficult for a retailer to make an accurate comparison because outcomes depend on a number of variables including :

- When a consumer is home during the day,
- What appliances they have,
- Their ability to shift usage between timeslots, and
- Depending on the pricing structure:
 - weekday usage compared to weekend usage
 - summer usage versus winter usage

In Tasmania, the onus is on the consumer to assess whether or not they will be better or worse off price-wise within a few broad guidelines/indications provided by Aurora staff. There is also the safety net of a 3 month trial period where they can revert to standard metering free of charge if they are not fully satisfied.

2.3 LOSS OF ELECTRICITY BILL INFORMATION

Most, if not all prepayment systems have a display screen enabling consumers to monitor their usage and costs minute by minute – it is easy for them to monitor daily energy costs and they are able to determine relative running costs for various appliances. The default display is the amount of credit remaining in dollars and cents. From the Tasmanian experience, consumers quickly become aware of which appliances cost more to run and what electricity costs them on a day to day and weekly basis.

With regard to consumer information, *two-way* prepayment consumers still have access to information such as:

- the time and date
- current pricing rate being applied
- total credit which has been entered into the meter
- fixed charges in \$ per week
- total energy consumption, being the sum of consumption on all rates
- meter readings in kWh for each rate
- the emergency credit amount available and at what level of credit it becomes available
- debt charge per week (if applicable) – the amount of debt to be paid each week until the debt is cleared.

They also have access to full consumption history details - all the information is stored in the back office system so consumers can still make inquiries on previous consumption, Time of Use (TOU) profile history, transactions, etc. and retailers can provide statements, usage comparisons, etc.

The current Regulations deal with consumer billing – issues including frequency, content, billing period and payment methods. This will not apply to prepayment metering as there is no more need for consumer bills.

2.4 PPM TARIFFS & FIXED COSTS ARE HIGHER THAN OTHER OPTIONS, & COST NOT COMMENSURATE WITH A LESSER SERVICE

There are additional costs involved with a retailer providing a prepayment product.

If a retailer develops prepayment and manages it in-house, there is substantial additional capital outlay. Costs involved would include metering hardware, software licence fees, staff costs involved in running the system, the cost of conducting technology searches and trials, and the POS network equipment, set up, commission and day-to-day management.

There are also costs involved with consumer meter installation and removal and marketing the product.

With the EziKey back office bureau model the costs are an EziKey fee per metering point per year, a transaction fee, a POS Agent Commission (EziKey sets up and manages the POS network), meter hardware costs, meter installation and removal, and marketing.

Some of the additional prepayment costs may need to be built into the prepayment tariff to make it a viable offering.

From a retailer's perspective, TOU provides the opportunity to offer pricing to incentivise consumers to shift their load and reduce overall energy purchasing costs. It can also be used as a demand management tool.

A carefully constructed TOU tariff will enable consumers to effectively manage their energy costs. Consumers are given the choice as to when they use their energy and can shift usage to reduce overall costs. Some consumers will pay more than on the standard tariffs, some will pay less and some will pay about the same. TOU coupled with prepayment metering has proven very popular in Tasmania where trial research results show:

- 95% of prepayment consumers are aware they have TOU pricing
- 94% are aware they can save money by changing usage patterns
- 90% like the TOU pricing

Whether or not consumers take advantage of the TOU, they appreciate choice it provides. Consumers can run appliances such as dishwashers, clothes dryers, and washing machines in the more economical timeslots and even tasks such as ironing at the cheaper times will help save money.

EziKey recommends that retailers have the opportunity to offer TOU with their prepayment product and because it will be a product of choice, pricing should be unregulated.

Each retailer has a different cost to serve and benefits from offering prepayment will vary. Retailers should be given the opportunity to devise appropriate pricing for their prepayment product. They will have to offer pricing that is attractive to the market while being able to reflect additional costs incurred.

Evidence shows there are a number of consumers who do not see prepayment as a 'lesser service' and in fact prefer to transact by this method. ***At the end of the day, prepayment is a consumer choice and it is up to the consumer to choose whether or not prepayment is the payment option for them*** – whether they end up paying more or less

than on the standard tariffs. Some consumers will see added value/benefit from the opportunity to pay smaller amounts rather than having the burden of paying large quarterly bills - they feel more in control of their budget and what they are spending/using.

2.5 RETAINING ENERGY CONCESSIONS

Some prepayment systems can handle all of the normal consumer rebates, discounts, and can accommodate voucher schemes. For normal discounts and concessions, these are usually programmed in as different pricing sets within the back office system and applied to consumers as appropriate. This might be in the form of reduced energy rates or a lower daily standing charge or a combination of both. Assistance may also take the form of a lump sum rebate, e.g. where a welfare group needs to provide a consumer with a lump sum or voucher for a particular amount.

2.5.1 Eligibility for Assistance

Consumers would go through the retailer's current standard process to prove eligibility to receive such concessions.

2.5.2 Application of Discounts/Concessions Post Installation

With a two-way system, any concessional pricing set to be applied is easily facilitated through the back office system and the consumer smart card – i.e. no site visit required and the consumer simply vends as usual without the need to do anything out of the ordinary. Once the consumer has picked up the new rates and charges from the POS Agent via the smart card, they are then programmed into their meter at home on insertion of the card. A two-way system will provide confirmation that this new pricing has taken effect for a particular consumer.

2.5.3 Application of Discounts/Concessions at Time of Meter Installation

If a consumer is eligible for a particular concession at time of meter installation, the meter is simply programmed with the appropriate pricing set at the time of installation.

2.5.4 Lump Sum Rebates/Vouchers

With a two-way system, certain consumer specific 'lump sum' rebates, credits or voucher amounts can be easily entered into the back office system. Next time a consumer visits a POS Agent, this amount will be picked up and loaded onto their meter and be added onto the existing amount of credit.

2.5.5 Community/Welfare Group Vending

With a smart card system it is possible to have POS Vending facilities in community/welfare group offices enabling these groups to recharge cards for consumers in financial difficulty. This would do away with the need for handling vouchers or handing out cash and there is no way the consumer can do anything else with the amount other than to use it as energy credit for their own meter.

2.5.6 Consumer Profiles

A two-way system has its own back office system which retains all consumer details including the tariff applied. With the Actaris system, each time a consumer vends, the tariff ID is returned from the meter so it is easy to continually check that the consumer is on the correct tariff.

2.6 INABILITY TO RETRIEVE CREDIT

When a consumer moves out of the premises it should be a simple process to 'shut down' the meter, avoiding a special disconnection visit by the energy provider. With such a feature, the consumer moving out can instigate the self-decommissioning process whereby all the final meter information can be downloaded to the smart card including a final meter read and the

amount of remaining credit. At this time also, the meter is decommissioned. This avoids utility site visits and ensures consumers can no longer use electricity once they have said they are moving out.

When a consumer moves out, with the self-decommissioning feature, they can simply take their smart card to the nearest POS Agent and they can get an accurate on-the-spot refund for the exact amount of credit that was left on the meter.

2.7 LINKING PAST DEBT AND CURRENT SUPPLY

Prepayment metering should never be forced on a consumer including issues of outstanding debt and payment difficulties. It should always be offered as simply another of the normal payment options.

Once a consumer has opted for prepayment, and if there is an outstanding debt, it should then be a matter of negotiation between the consumer and the retailer as to how the outstanding debt should be repaid – either through the prepayment meter or by any of the usual repayment options. Regardless of the method of debt collection, the amount to be repaid on a regular basis should be negotiated with the consumer.

EziKey believes that consumers with outstanding debt should not be excluded from having the option of a prepayment meter. Case studies from Tasmania show that those consumers who have paid or are paying back a debt via their meter are satisfied as it provides them with the opportunity to pay off their debt whilst keeping the power on.

Any system needs the facility to recover an outstanding consumer debt by way of an additional fixed charge that can be negotiated with the consumer as a charge per week. The meter needs to be able to automatically cease deductions once the full amount of the debt has been paid.

2.8 ENTRY, EXIT AND TRANSACTION FEES

Consumers should be made aware of all fees and charges relating to prepayment metering. EziKey believes fees associated with a prepayment product should not be regulated as the onus should be on the retailer to provide an offering that is attractive to the market place. If fees are too high, this will affect consumer takeup by default.

2.9 POTENTIAL FOR DEBT ACCUMULATION WHEN NO SERVICE PROVIDED

The charging of a daily fixed fee with a prepayment metering offering is consistent with the standard tariff offering. The issue here is that consumers need to be educated by the retailer as to what needs to be done if the consumer leaves the premises for a period of time, e.g. holidays.

In Tasmania, consumers are made aware that if they go away they need to leave enough credit on their meter to cover the fixed charge component for the period plus the running of some basic appliances such as a refrigerator and hot water cylinder. Consumers are also told that they may choose to let the meter disconnect whilst they are away but they are warned that this will affect anything they have in the fridge and they may not have hot water for a few hours on their return. This information is explained in detail in the 'how to use' brochure that all prepayment consumers are given a copy of. Consumers are quite capable of estimating daily costs as they are highly aware of what they are paying on a daily/weekly basis and the relative running costs of various appliances.

Consumers will always have the obligation to pay the usual standing charges whether prepayment or standard tariffs. To not have a fixed daily charge would mean any tariff that

only has a usage charge would have to be so high, it would not be viable and could not be calculated accurately to reflect different consumers' expected times away from the home.

The charging of a daily fixed fee is not considered an issue by EziKey, as long as the consumer is made aware of the risks of leaving the home for an extended period of time. Mandatory load limiting would not overcome the risk of disconnection as most systems require manual intervention by the consumer to invoke the feature.

2.10 COST AND ONUS ON THE CONSUMER TO PURCHASE CREDIT

When making a decision about whether or not to opt for prepayment, consumers will be aware of what is required of them in terms of their responsibilities – i.e. they will need to regularly visit a POS Agent to recharge their card, and know where those POS Agents are. This is an educated decision and consumers will take up the product based on this. Consumers who might find this method of transacting inconvenient will not opt for prepayment.

2.11 ACCURACY OF METERS

There are prepayment meters that meet the required accuracy standard AS1284.

Most two way systems will also bring back regular information on meter faults. Two way systems will also bring back information on consumer tariffs so it is easy to continually check if consumers are on the correct tariff/concession. Consumption reports can be produced to identify consumers who have not vended for a period of time which may indicate a meter fault or consumer fraud.

3 DISCONNECTION

KEY POINT SUMMARY:

- **Load Limiting is an essential feature to guard against the risk of self-disconnection for certain consumers.**
- **Load Limiting should be applied only to consumers where there is an identified need.**
- **As a true safeguard for the consumer the system should provide emergency credit at full consumption load *before* Load Limiting becomes available.**
- **Small amounts of Emergency Credit are recommended.**

3.1 HEALTH & SAFETY IMPLICATIONS OF SUSPENDED SUPPLY, INEVITABILITY OF DISCONNECTION IN VERY VULNERABLE HOUSEHOLDS

3.1.1 Non Disconnect Periods

Most prepayment systems can be programmed so as not to allow self-disconnection during certain hours, for example overnight or on weekends. In Tasmania prepayment meters are programmed to not disconnect between the hours of 8pm and 8am even if a consumer has run out of credit and emergency credit.

3.1.2 Load Limiting – No Self-Disconnect

This is an extremely important feature – especially in getting prepayment accepted by key stakeholders - community/welfare groups in particular. It means that a consumer need not be disconnected from electricity supply, even if they have run out of credit and emergency credit on their meter. Once emergency credit runs out, the load can be limited to run some bare essential appliances but the consumer can't run anything else, for example a heater. This is one thing that the community/welfare groups have considered to be particularly attractive - the risk of consumers being 'left in the dark' is one of their biggest concerns. This functionality overcomes this issue.

3.1.3 Application of Load Limiting

EziKey believes that load limiting should not be offered to the entire prepayment consumer base but only to those consumers where there is an identified need. These may be consumers who have essential appliances such as life support equipment, or consumers who are identified by welfare/community groups or those who have been identified through the smart card prepayment back office system as being constantly in emergency credit or in disconnect mode (regular reports can be run to identify such instances).

The prepayment system used in Tasmania does not allow for load limiting so once emergency credit is used, the power is disconnected. Despite this, Aurora PAY AS YOU GO is a very popular product choice and there have been no reports of consumers experiencing problems related to continual or lengthy self-disconnection.

The risk of load limiting becoming 'standard' with prepayment meters is consumers who know they will never be completely without power will be less likely to worry about going into emergency credit and therefore less motivated to ensure the meter is topped up with enough credit. It would also increase the retailer's debt risk as any consumption in load limiting is a consumer debt.

However, load limiting is an important option for those who seriously struggle.

3.1.4 Setting the Load Limit

The load limit level should be set by the retailer. Ultimately prepayment will be a product of choice so it will be up to retailer to offer a level acceptable to consumers. If set too high, consumers could conceivably remain in load limiting mode and there will be no incentive to restore the meter to normal credit mode. This is a risk to both the retailer and the consumer as the consumer will be able to accumulate debt which defeats the purpose of prepayment meters.

Any limit set should allow consumers to run only 'essential' appliances which may consist of lights and a refrigerator and/or a hot water cylinder.

3.1.5 Separate Load Limiting and Emergency Credit

Some systems only offer the consumer *either* Emergency Credit *or* Load Limiting, i.e. if emergency credit is invoked, load limiting would automatically apply to this consumption. However, a system should offer the benefit of being able to offer consumers the true safety net of a programmable amount of emergency credit at full consumption load *before* going into load limiting mode.

3.1.6 Consumers on Life Support

Prepayment metering is generally not recommended for those consumers who rely on life support systems, however the Tasmanian experience shows that there is still strong demand from these consumers – so much so that Aurora Energy has had to draw up an agreement, to be signed by the life support consumer, to acknowledge there is an understanding of the risks involved around the potential self-disconnection of supply.

This is one solution for life support consumers, the other being the application of load limiting – with load limited to a level to cater for any essential equipment.

There are varying levels/degrees of Life Support and prepayment is not recommended for those consumers whose life depends on electricity.

3.2 AMOUNT OF EMERGENCY CREDIT

3.2.1 Emergency Credit

Emergency Credit is an essential feature for any prepayment offering. The Emergency Credit level should be set at an amount that gives consumers a reasonable time to visit a POS Agent to recharge their card. This may be 2-3 days. In Tasmania the amount of emergency credit is set to \$5. The larger the amount of emergency credit there is, the more debt a consumer can get into and the more difficult it will be for them to repay that debt.

If the emergency credit is set at a relatively large amount then it will be encouraging a large proportion of consumers to rely too heavily on emergency credit and hence get into a cycle where they cannot get back into normal credit mode. The emphasis should be on keeping a consumer in *normal* credit mode, not emergency credit mode. POS Agents will be generally open 7 days a week, public holidays and some 24x7.

3.3 ONUS ON THE CONSUMER TO AVOID DISCONNECTION

Evidence shows that it does not take long for consumers to know how much energy credit they require for a given period of time. They quickly get into a routine and recharge their card on a regular basis – weekly, fortnightly or monthly and have little need to keep checking the meter. However, most systems have a warning signal relating to low credit. This can be

an audible signal or a signal on the display screen. Some systems are programmable so consumers can choose whether or not they have an audible warning.

The current regulations discuss no disconnection on weekends or public holidays. It is assumed this is meant as a safeguard for standard metering and billing arrangements where consumers have no chance of getting their power reconnected quickly after those times.

Prepayment consumers have the following safeguards:

- access to emergency credit - the amount of emergency credit is programmable by the retailer and in Tasmania, is set to last an average consumer 2-3 days
- load limiting – consumers can avoid self-disconnection altogether
- most systems can be programmed not to allow self-disconnection overnight or on certain days of the week, e.g. weekends
- EziKey would ensure there would always be POS recharging Agents who are open on weekends, public holidays and some open 24 hours, 7 days a week.

The regulations currently cater for standard metering consumers who are physically disconnected from the distribution system where, if they are disconnected on a day before a public holiday or on a Friday, Saturday or Sunday there is little chance they could get the power reconnected quickly. ***These restrictions need not apply for prepayment metering due to the dot points above.*** Emergency credit alone would get the consumer through Friday-Sunday or a public holiday. Once again, the onus is on the retailer to offer a product that is attractive to the market in terms of non-disconnect periods.

3.4 DISCONNECTION DUE TO A METER FAULT

All prepayment metering customers should be provided with operating information which details who to contact in case of meter faults and the fault management process should align with that adopted for standard metering options. In Tasmania, fault centre operators are provided with training on the operation and management of prepayment meters so they can assist customers as required.

Once identified, prepayment meter faults can be managed in a similar manner to that adopted for standard metering technologies. Meter provider staff should be trained in the installation and maintenance of the customer metering system so they are able to manage all meter faults in a timely manner.

4 OPERATION OF THE SYSTEM

KEY POINT SUMMARY:

- **Consumers must be able to make an educated decision on PPMs.**
- **The PPM system must be simple to use - there should be information readily available about how the system works, tariffs, POS Agents, and on-site training at time of installation.**

4.1 ONUS ON THE CONSUMER

When making a decision about whether or not to opt for prepayment, consumers will be aware of what is required of them in terms of their responsibilities – i.e. they will need to regularly visit a POS Agent to recharge their card, and know where those POS Agents are. This is an educated decision and consumers will take up the product based on this. Some consumers will prefer to transact this way. Consumers who might find this method of transacting inconvenient will not opt for prepayment.

It is agreed that any instructions as to the meter operation should be easy to understand.

4.2 ACCESS TO POINTS OF SALE FOR CREDIT

Consumers should be made aware of where their local POS Agents are at the time of decision making including address and opening hours.

EziKey has developed POS Agent selection criteria that it will propose and discuss with the energy retailer in the selection process. The selection criteria are based around location, convenience and opening hours. As a general rule consumers should not be expected to travel more than ten kilometres to the closest POS Agent and each POS Agent should service a minimum of 400 consumers where possible. A POS network should ensure availability, with some being accessible 24x7.

In Tasmania, a combination of newsagents, service stations and pharmacies is used for recharging Agents. Another possibility would be supermarkets. Australia Post is less of a feasible option due to a relatively high fixed transaction fee and the lack of suitable opening hours.

The energy retailer should carry the cost of the Agent facilities (EziKey provide this as part of a per meter fee).

4.3 LOCATION OF THE PPM

EziKey recommends that PPMs should only be installed where there is no danger to the consumer. Meters should only be installed where meter boxes are in a 'standard' position in terms of height.

In Tasmania, meters are installed in the consumer's current meter box. Whilst many of these meter boxes are in an outside location, 93% of APAYG consumers find their meter location convenient ('Pay as you go Trial Feedback Research Report', EMRS, November 1997). Similar feedback was obtained in a prepayment trial in South Australia.

4.4 PHYSICAL OPERATION OF THE SYSTEM, UNDERSTANDING HOW TO OPERATE THE SYSTEM

Generally, smart card prepayment systems are easy for consumers to understand and use. Research from Aurora Energy shows that 100% Aurora PAY AS YOU GO consumers find the meter easy to use (88% of find the meter 'very easy' to use and 12% find it 'quite easy' to use) - EMRS Report November 1997.

It is recommended that consumers have on-site training when the PPM is installed, access to help lines and consumer education brochures including a simple 'how to use' brochure.

5 CONSUMER CHOICE/COERCION

KEY POINT SUMMARY:

- **Prepayment Metering should be an unregulated product of choice. Consumers should be able to opt off the product at their discretion subject to the terms and conditions of any negotiated agreement.**
- **Consumers with outstanding debt should *not* be excluded from having the option of a PPM.**

5.1 COERCION TO INSTALL A PPM BECAUSE OF PAST BAD DEBTS

Given that prepayment metering should be an unregulated product of choice, consumers should be able to opt off the product at their discretion subject to the terms and conditions of any negotiated agreement. It should be an easy process to revert to standard metering and billing arrangements.

EziKey strongly recommends that prepayment metering should never be forced on an individual. It should be offered as simply another payment option and be an addition to a retailer's normal suite of payment options. It has been shown that prepayment meters appeal to a range of consumer types and forcing them on 'bad payers' will only restrict their wider appeal and create a 'social stigma'.

In Tasmania, consumers are given a 'trial' period whereby within three months of having the prepayment meter installed they can have the meter removed and revert to the standard arrangements free of charge. At all other times the consumer is charged a fee equal to that of the normal Connection Fee (currently around \$50).

Once a consumer has opted for prepayment, and if there is an outstanding debt, it should then be a matter of negotiation between the consumer and the retailer as to how the outstanding debt should be repaid – either through the prepayment meter or by any of the usual repayment options. Regardless of the method of debt collection, the amount to be repaid on a regular basis should be negotiated with the consumer.

EziKey believes that consumers with outstanding debt should not be excluded from having the option of a prepayment meter. Case studies from Tasmania show that those consumers who have paid or are paying back a debt via their meter are satisfied as it provides them with the opportunity to pay off their debt whilst keeping the power on.

Any system needs the facility to recover an outstanding consumer debt by way of an additional fixed charge that can be negotiated with the consumer as a charge per week. The meter needs to be able to automatically cease deductions once the full amount of the debt has been paid.

5.2 PRE EXISTING METERS

In Tasmania, a standard tariff consumer moving into new premises is charged a Connection Fee of around \$50. If there is a prepayment meter installed in those premises the consumer has a choice of either:

- keeping the meter and becoming a prepayment consumer, or
- having the prepayment meter removed and reverting to standard metering arrangements.

With the first option, consumers are provided with an incentive to keep the prepayment meter. If they decide to keep it, they only pay half the normal Connection Fee.

The second option means that the consumer can have the prepayment meter changed back to a standard credit meter for the cost of the normal Connection Fee. So, essentially, there is no real penalty for the incoming tenant wishing to revert.

It is suggested that the question of who should meet the costs involved with reversion should be a decision made by the retailer. The onus should be on the retailer to provide a product offering that is acceptable or attractive to the market.

5.3 BARRIERS TO SWITCHING TECHNOLOGY

EziKey believes that consumers with outstanding debt should *not* be excluded from having the option of a prepayment meter. Once a consumer has opted for prepayment, and if there is an outstanding debt, it should then be a matter of negotiation between the consumer and the retailer as to how the outstanding debt should be repaid – either through the prepayment meter or by any of the usual repayment options. Regardless of the method of debt collection, the amount to be repaid on a regular basis should be negotiated with the consumer.

As long as consumers are aware made aware of all fees and charges relating to prepayment metering, EziKey believes fees associated with a prepayment product should not be regulated, including any exit fee, as the onus should be on the retailer to provide an offering that is attractive to the market place. If fees are too high, this will affect consumer takeup by default.

5.4 BARRIERS TO SWITCHING RETAILER

EziKey agrees that retailers continue to be prevented from blocking consumer transfers on the basis of debt.

6 MAJOR CONSUMER PROTECTIONS

KEY POINT SUMMARY:

- **It should be a requirement that any PPM system for the Australian market has the ability to bring back 'Meter Status Data' enabling the retailer to quickly identify consumers who appear to be suffering financial difficulty.**
- **The Load Limiting feature is an extremely effective way of managing the risk of consumers 'sitting in the dark' and combined with Meter Status Data functionality, provides a complete safety net for PPMs.**
- **As a true consumer safeguard, the system should provide Emergency Credit at full consumption load *before* Load Limiting becomes available.**

6.1 HIDING FUEL RELATED POVERTY

With a number of prepayment systems available, there is a risk that consumers who might be continually in financial difficulty and potentially self-disconnect will go undetected.

Any prepayment meter installed in Australia should definitely have the capability to bring back information known as 'Meter Status Data'. Meter status data is data that is brought back every time a consumer purchases more electricity credit and it shows the state the meter was in the last time the consumer inserted their smart card, i.e. it will show if the meter was in ordinary credit mode, emergency credit mode, load limiting mode, or in disconnect mode.

This functionality is considered to be ***extremely important*** by community groups across the country. ***It enables the retailer to quickly identify consumers who appear to be suffering financial difficulty***, e.g. a consumer who is continually in emergency credit mode or is frequently disconnected or in load limiting (usually community groups or utilities aren't aware of people in severe financial difficulty until well after a full quarter, and after they have racked up a potentially unmanageable debt with the retailer).

The ability to identify PPM individuals who may be in difficulty means that these consumers can be counselled as to whether or not prepayment metering is the payment solution for them, and if not, they can switch to another payment option.

At the end of the day it is the consumer's choice as to whether or not the preference is for prepayment metering even if they may remain in emergency credit or even self-disconnect occasionally.

Consumers could be surveyed about hardship in relation to PPMs however this information may not be accurate, as often individuals will be reluctant to provide honest answers on this type of topic, and the true situation will not be revealed.

6.2 NO SAFETY NET BUILT INTO PPM

6.2.1 Load Limiting

Load Limiting is considered an extremely important feature for any PPM system – especially in getting prepayment accepted by key stakeholders - community/welfare groups in particular. It means that a consumer need not be disconnected from electricity supply, even if they have run out of credit and emergency credit on their meter. Once emergency credit runs out, the load can be limited to run some bare essential appliances but the consumer can't run anything else, for example a heater. This is one thing that the community/welfare groups have considered to be particularly attractive - the risk of consumers being 'left in the dark' is one of their biggest concerns. This functionality overcomes this issue. This should be flexible enough to be able to be applied to *all* prepayment consumers or only some areas,

groups of consumers or individual consumers.

6.2.2 Separate Load Limiting & Emergency Credit

Some systems only offer the consumer *either* Emergency Credit *or* Load Limiting, i.e. if emergency credit is invoked, load limiting would automatically apply to this consumption. However, a system should offer the benefit of being able to offer consumers the true safety net of a programmable amount of emergency credit at full consumption load *before* going into load limiting mode.

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7 APPENDIX A - ONE WAY VERSUS TWO WAY PPM TECHNOLOGY

EziKey Group believes that the introduction of prepayment metering in SA will be successful if an appropriate system is used – one that provides:

(A) The necessary data required for the Retailer, consumers and for FRC including

- consumer details
- full consumption history so consumers can make inquiries or get statements
- spot meter reads.

(B) Appropriate functionality where

- consumers can pay off an outstanding debt via the meter
- load limiting avoids the risk of self-disconnection
- consumers can pay for their final bill and/or meter installation fee over a period of time
- the system caters for both electricity *and* gas prepayment
- there is the ability to have the same functionality for gas prepayment as for electricity – e.g. tariff/concession flexibility, emergency credit, non-disconnection periods, self-decommissioning, miscellaneous charge deduction, TOU timeslot consumption, etc.
- there are *separate* emergency credit and load limiting functions
- there is an auxiliary relay enabling control of off-peak loads.

(C) The necessary data likely to be required by key stakeholders including

- the data needed for settlements in the NEM
 - meter status information which will enable easy identification of consumers who are in difficulty, i.e. those who are continually in emergency credit mode, load limiting mode or disconnected
 - historical consumption and payment data enabling pricing outcome analysis to determine the effects of pricing on various consumer types where prices vary from the standard tariffs.
- ***A Two-way solution is the only solution that will meet these requirements.***

Prepayment Metering Systems

There are two main types of prepayment systems. One-way and Two-way. With one-way, the only information flow is the amount of credit going onto a consumer's meter. With this type of system a utility is unable to tell who the consumer is at a particular dwelling, how much energy they are using, or what they are spending.

A two-way system provides both a flow to the consumer meter as well as providing a range of information from the meter. This transfer of information is done via a smart card whenever a consumer purchases more energy credit. Importantly, with a two-way system, this flow of data occurs without intervention by the consumer, i.e. all the consumer needs to do is purchase credit and insert the smart card into the meter - data transfer is automatic and there is no need for any special actions or keying in of any special numbers or commands.

In the last 18 months, EziKey has had numerous discussions with welfare/community groups and regulatory bodies throughout Australia and all feedback points towards only a two-way system being acceptable for the Australian marketplace due to specific functionality and information requirements. Stakeholder acceptance is crucial to successful implementation of prepayment metering.

Two-Way versus One-Way

The different technologies are compared in the table below:

	ONE-WAY	TWO-WAY
Customer Details	Difficult to track customers	All customer details retained
Consumption Data	Generally none (unless manually read or customer read)	Detailed, more frequent consumption data - full history, plus daily load profiles, kWh, \$ - cust inquiries - enables pricing & consumption impact analysis
Transaction Data	Mag-stripe - no customer specific data Keypad - purchase data available	Full record of customer transactions - time, date, amount, POS Agent
Change in Meter Parameters	Site visit required for most systems, Some Keypads can remote change	No site visit required - all done via smart card
Fraud & Theft	Customer fraud generally easier Mag-stripe - risk of card theft	Difficult for customer to commit fraud, plus smart card is meter-specific - theft useless Get tamper & blackout info
Audit Trail	Minimal	Full end-to-end trail - transactions - lost cards - customer churn
Correct Customer Tariff	Difficult to track	Easy to administer, track and confirm updates
Meter Status Info	None	Full details of customer meter status - i.e. normal credit, emergency credit, disconnected or load limiting. - Very important for welfare groups
Other Customer Details	None	Full details of debt, tariffs, other fees & charges

Two-Way System Base Functionality

Consumer Details

All consumer details are retained - name, address, etc. This is crucial information for marketing purposes and for FRC at residential level.

Consumer Data

All consumer data is received regularly in terms of consumption, daily usage profiles, purchase behaviour - where, when, \$ amount of credit purchased, etc. If Time of Use pricing is offered, the system brings back information on how much energy is used during each timeslot in the day. This is an important issue from the Regulator's point of view - not just for FRC but also to enable pricing & consumption consumer impact analysis - prepayment versus standard tariffs (which is also very important from the community groups' point of view). The system also brings back information on fraud and tamper.

Remote Change of Meter Parameters

Changes to the meter parameters can all be done remotely – i.e. no site visit is required. For example, a variation in rates and charges can simply be programmed into the back office system and uploaded to the POS terminal. Next time a consumer transacts, the new rates and charges are transferred to the smart card, and ultimately the meter. Similarly if a pensioner discount is to be provided to a consumer or if the amount of emergency credit is to

be changed.

Future Activation Date

Changes to meter parameters such as new rates and charges can be transferred to the consumer's meter via their smart to activate at a certain date and time in the future. For example an increase in rates and charges can be programmed into the system up to 12 months in advance. The meter will then know to activate these new charges on, say, 12:01am on 1st July.

Auditing

Provides a full end-to-end audit trail

Highly Desirable System Features/Functionality

Any system chosen for the Australian market should be one that:

- provides the necessary functionality and data to satisfy the energy retailers, regulatory bodies, community/welfare groups and consumers, and
- satisfies the requirements for FRC.

In addition to all the base functionality that a two-way system provides (as specified earlier in this paper) highly desirable additional features for a system include:

Load Limiting – No Self-Disconnect

This is an extremely important feature – especially in getting prepayment accepted by key stakeholders - community/welfare groups in particular. It means that a consumer need not be disconnected from electricity supply, even if they have run out of credit and emergency credit on their meter. Once emergency credit runs out, the load can be limited to run some bare essential appliances but the consumer can't run anything else, for example a heater. This is one thing that the community/welfare groups have considered to be particularly attractive - the risk of consumers being 'left in the dark' is one of their biggest concerns. This functionality overcomes this issue. This should be flexible enough to be able to be applied to all prepayment consumers or only some areas, groups of consumers or individual consumers.

Separate Load Limiting & Emergency Credit

Some systems only offer the consumer either Emergency Credit or Load Limiting, i.e. if emergency credit is invoked, load limiting would automatically apply to this consumption. However, a system should offer the benefit of being able to offer consumers the true safety net of a programmable amount of emergency credit at full consumption load before going into load limiting mode.

Meter Status Information

The meter should definitely have the capability to bring back information on the consumer's meter state - i.e. if a consumer was in emergency credit mode, load limiting mode, or if the consumer had self-disconnected, etc. last time the card was inserted into the meter. This functionality is considered to be very important by the community groups. It enables the retailer to identify consumers who appear to be suffering financial difficulty, e.g. a consumer who is continually in emergency credit mode or is frequently disconnected (usually community groups or utilities aren't aware of people in these situations until well after a full quarter)

Flexibility in Pricing

The system should be flexible in consumer tariffs, both in the number able to be offered as well as the tariff structure. Time of Use, flat rate and step/block tariffs are all possible. The system also needs to be able to handle a number of special tariffs, discounts & concessions.

The ability to recover outstanding debt

Any system needs to be able to recover an outstanding consumer debt by way of an additional fixed charge that can be negotiated with the consumer as a charge per week. The meter needs to be able to automatically cease deductions once the full amount of the debt has been paid.

The ability to deduct Miscellaneous Charges.

The system should allow a retailer to charge consumers for other charges, products and services at the meter over a period of time. For example, this feature could be used to deduct a meter installation fee and/or a consumer's final bill (from prior to switching to prepayment) over a period of time which means consumers would not be required to pay up-front. A consumer could pay for a new gas or electric appliance as a daily fixed charge over a period of time at the meter – say, \$1 per day over a year. Similarly, an insurance product could be charged for in the same manner.

Spot Meter Reads Capability

Spot meter readings enable an energy retailer to obtain a meter reading on a particular day each month, even though consumers may vend at different times. This spot read would be brought back next time the consumer vends and provides accurate monthly consumption figures.

Self-Decommissioning

When a consumer moves out of the premises it should be a simple process to 'shut down' the meter, avoiding a special disconnection visit by the energy provider. With such a feature, the consumer moving out can instigate the self-decommissioning process whereby all the final meter information can be downloaded to the smart card including a final meter read and the amount of remaining credit. At this time also, the meter is decommissioned. This avoids utility site visits and ensures consumers can no longer use electricity once they have said they are moving out.

Accurate & Timely Consumer Refunding

When a consumer moves out, with the self-decommissioning feature, they can simply take their smart card to the nearest POS Agent and they can get an accurate refund for the exact amount of credit that was left on the meter.

Availability of Multi-Phase Solution

The system should have a three-phase alternative for consumers who have larger electricity supply requirements, both residential and commercial, for example, air conditioning load.

8 APPENDIX B - GAS PREPAYMENT

Most of the content of this paper relates to both electricity and gas prepayment. The main variation with gas prepayment is that there is no load limiting capability.

For a consumer with electricity prepayment there is a high likelihood they will wish to pay for their gas in the same way as they will be predisposed to this method of transacting. This is evidenced in the United Kingdom where 88% of those consumers who have gas prepayment also have electricity prepayment. Prepayment provides a retailer with an excellent dual fuel offering.

There are 2 ways in which gas prepayment is possible:

a) A Separate Two-Way Gas Prepayment Meter

There are benefits for all parties in a gas prepayment meter which offers the same two-way functionality as that of electricity two-way prepayment including emergency credit, non-disconnection periods, self-decommissioning, miscellaneous charge deduction, TOU consumption data. Importantly, such a meter also offers extreme flexibility in pricing options so there is the ability to charge Time of Use, flat rate, step tariffs, etc. The consumer only needs one smart card for both electricity and gas prepayment and can simply recharge that card for separate amounts for both fuels at the POS Agent.

b) A Gas Meter with Pulse Output

Some systems enable a gas meter to be pulsed into the electricity unit however in such cases all there is, is a gas meter pulsing over which there is no control - the retailer loses the flexibility with functionality – i.e. no TOU tariffs, no emergency credit, no automatic disconnection/reconnection, no fraud detection messages, etc. and EziKey is led to believe there are high costs involved including an intrinsic safety barrier and a pulsing cable needing to be laid between the two units. This pulsing option also means that a retailer cannot offer gas prepayment in isolation of an electricity prepayment product without a separate back office system.