

**Submission to ACCC**

**Inquiry into  
Retail Electricity Supply  
and Pricing**

**Submission by  
Communications Experts Group Pty Ltd**



## **1. INTRODUCTION**

This submission has been prepared by Communications Experts Group Pty Ltd who are Telecommunications consultants and who have provided engineering and consultation services to a number of West Australian organisations and persons. They also have experience in the design and implementation of large building management systems with power tariff management systems.

The Communications Experts Group Pty Ltd (CEG)'s submission relates to Section 9 of the issues that the ACCC seeks feedback on Retail and Electricity Supply.

## **2. BACKGROUND**

There are three generic methods that Electricity suppliers can extract more money from customers without changing prices when Smart Metering (or multi tariff) billing is used.. These methods are commonly used in the telecom industry so there is a wealth of information on supplier and customer behaviour that can be applied to possible tactics in the electricity supply industry.

The information provided in this submission is based on CEG's experience in the telecom market place, building management systems and Internet of Things (IoT) devices.

The issues to be discussed include:-

Section 9 bullet point 8

Any misleading or deceptive conduct or other unfair trading practices that occur in the retail electricity markets, including through price comparator websites.

Section 9 bullet point 9

Price comparator tools and in particular the role and effectiveness of government run price comparator websites.

Section 9 bullet point 1

The complexity of retail electricity offers and the way that they are presented.

Section 9 bullet point 3

Relative importance of price and non-price terms.

Section 9 bullet point 7

The adequacy of the level of information available to customers and the way this is presented.

### **3. LACK OF INFORMATION TO CUSTOMERS**

Most customers do not understand the pattern of power consumption in their residences or businesses and this inhibits them from understanding the impact of moving to a multi-tariff or smart metering system.

This lack of knowledge can cause "bill shock" when a smart meter is installed. For many households most of their power usage occurs during peak power consumption periods when the highest tariffs are being charged.

Modelling has shown that this can cause an increase in bills by as much as 30%. (See Articles by Jennifer Hewitt in the Australian Financial Review Last Quarter 2014 where her power bill increased by 25%).

A review of the Websites listed in the ACCC issues paper all failed to inform customers about potential bill increases, but gave prominence to potential savings offered by installing smart meters.

This lack of adequately displayed information about power bill increases could lead to a class action based on misleading or deceptive conduct.

### **4. PRICE COMPARATOR TOOLS AND THE COMPLEXITY OF MULTI-TARIFF TIMES AND PERIODS**

The introduction of smart meters makes it more difficult to compare prices because the following three parameters are affected by customer usage patterns.

- a) The start and stop times of the higher tariffs (e.g. if they span the entire period of customer peak power use).
- b) The duration of higher tariffs (e.g. a long duration may limit the options to delay heating or cooling).
- c) The price difference of the higher tariff with respect to the lowest tariff (a larger price difference may be acceptable if it is of short duration).

In order to make informed decisions, customers will have to know their daily power consumption profile for weekdays and weekends. The only way to get this information is to install a monitoring system or smart meter which may be expensive due to modifications to the power board. Even with this information, customers may still have difficulty in translating product descriptions into useful information that can be used to influence their choice of tariff plan.

An additional tariff issue is the introduction of more than one type of "peak tariff". It is possible to have one early morning peak tariff and an evening peak tariff. Both tariffs may have different periods, start/stop times and price increases.

The use of two or more "peak tariffs" will make it almost impossible to compare pricing plans, especially if they are combined with capped or stepped tariff plans.

It is recommended that each "peak tariff" have separate indicators, power cut-out features and override switches, to stop the exploitation of customers.

## **5. RELATIVE IMPORTANCE OF PRICE AND NON-PRICE TERMS**

As indicated in Section 4 the tariff prices are not the most important characteristics but the price difference and the non-price terms that specify the time of day and duration of peak tariffs. If "peak tariff" plans use similar formats as "mobile capped plans" then the break points and caps will further complicate the ability to compare plans.

The above is another reason why the Productivity Commission report on Data Availability and Use is even more relevant to smart meter systems.

## **6. ADEQUACY OF THE LEVEL OF INFORMATION**

In addition to warnings about "power bill shock" described in Section 1, the following are additional items of information that should be made available to customers:-

- a) A schedule of devices that should or could be turned off during "peak tariff" periods and options for maintaining a comfortable life while these devices are turned off.
- b) The impact of alternative energy sources such as gas, wood fires, battery storage systems, etc that will affect their electricity power bills.
- c) The possible costs for upgrading the power boards, new wiring and power relays to turn off devices. This may be as high as a few thousand dollars for older houses.
- d) Advice on methods and costs of obtaining information about determining their power usage or power profiles so that sufficient information is collected to enable meaningful and informed comparisons can be made.

## **7. RECOMMENDATIONS**

To prevent customers from being disadvantaged the following minimum set of standards should be applied to any smart metering device:-

### **7.1) Indication and Control Features**

- a) Each tariff level shall have a separate and clearly identifiable indicator so that the customer can easily identify which tariff is being charged at any time.
- b) Each tariff level (with the exception of the base tariff) shall have separate volt-free change over relay contacts to operate and release power relays to disable devices during higher peak periods.

The operation of the relay shall be failsafe i.e. power should be cut-off when the higher tariff is being used.

c) An override switch and indicator to enable the customer to activate devices during the higher tariff periods to meet various needs or in the event of a fault.

d) There shall be a turn on delay of 30 sec to 60 sec to enable Building Control Systems and associated IoT terminals to de-activate equipment.

There shall be a turn off delay of 30 sec to 60 sec before enabling Building Control Systems and associated IoT terminals to activate equipment.

This requirement is needed to prevent power surges or spikes unduly influencing metering processes.

e) A consistent colour scheme for customer indicators such as:-

green light - base tariff

red light - override activated

blue or yellow light - higher tariffs are in use

Failure to implement the above means that the smart metering is simply a method for increasing power prices.

## 7.2) Power Management

In many cases the business case for smart metering is to reduce power peaks. A failure to provide the above features means that customers will still use power during the peak periods and the smart metering system will not achieve its purpose.

It is recommended that smart metering systems that require customer intervention or independent timer control systems should not be allowed to be installed.

## 7.3) Auditing Power Costs

Smart metering systems that do not meet the above conditions, means that customers cannot audit or challenge a power bill in the event of a fault or incorrect setting in a smart meter.

It should be noted that the internet is an inherently unreliable transmission system that is subject to service interruptions by discarding packets without warning. It is

recommended that any smart meter that is dependent on the Internet for reliable operation should not be authorised for use, and any complaint that relates to the use of the internet that is made by the customer should automatically be accepted and compensated by the power reseller.

It is recommended that smart metering systems have connections or features that enable external recording devices to be used to audit the performance and settings of the smart meter.

#### 7.4) Future Developments in Building Control Systems

The tariff relay contacts are the most important inputs to building control systems especially the more sophisticated systems that enable customers to exercise a high degree of control over the devices in their homes or businesses using IoT terminals.

These devices and systems are also known as "Virtual Power Stations" or "behind the meter" and will play an important part in meeting climate change requirements. See "Virtual Power Stations leave coal in the dust" in the Australian Financial Review, 5 June 2017, Page 4.