Demand Tariffs and the Proportional Concession – 'Managing the Risks' Briefing Paper

Tariff Reform

Cost reflective tariffs are being developed and implemented by distribution businesses across Australia in response to a decision by the Australian Energy Market Commission (AEMC). By more closely aligning the charges for electricity consumption with the costs of electricity consumption, the fairness and efficiency of the electricity distribution system can be improved.

The AEMC have set a new pricing objective for distribution businesses so prices reflect the efficient costs of providing network services to each consumer. Distribution businesses must comply with four new pricing principles to achieve this objective:

- Each network tariff must be based on the long run marginal cost of providing the service;
- Distortions to price signals that encourage efficient use of the network by consumers must be minimal;
- Network businesses must consider the impact on consumers of changes in network prices and develop price structures that are able to be understood by consumers, and;
- In general, network tariffs must comply with any jurisdictional pricing obligations imposed by state or territory governments.

SAPN's Monthly Demand Tariff

In South Australia, SA Power Networks is still developing its range of cost reflective tariffs. During 2012/13, SA Power Networks commenced a small scale pilot of capacity pricing for small customers equipped with interval meters. The trial incentivised participants to manage their demand during summer in the afternoon/early evening peak period. The trial resulted in the introduction in 2014/15 of the opt-in residential monthly demand tariff.

The low voltage residential monthly demand tariff has been available to eligible residential customers taking supply at less than 1kV since 1 July 2014. Customers on this tariff require a Type 1-5 NEM compliant meter read at least monthly:

> "Metered energy consumption is charged at a single rate. The maximum kW demand (measured over a half hour interval) between 4pm and 9pm on any day in the month is used to bill the monthly demand. A higher price applies for the five summer months (November to March) than the winter months (April to October)."[1]

[1] SA Power Networks (2015) SA Power Networks Annual Pricing Proposal 2014-2015 at http://www.aer.gov.au/sites/default/files/SA%20Power%20Networks%20Distribution%E2%80%942014%E2%80%9315%20Revised%20annual%20network%20pricing%20proposal.pdf: p.21.

In its Regulatory Proposal 2015-20, SA Power Networks had proposed to require new customers and customers who alter their supply arrangements to utilise the monthly demand tariff from 1 July 2017. SA Power Networks estimates this will be between 10-14,000 customers per annum.

Expected Outcomes for Consumers of Demand Tariffs

From 1 July 2015, distribution businesses will be required to develop network prices that are cost reflective and send efficient pricing signals to consumers.

Moving to network prices that better reflect the way that individual consumers use network services will result in some consumers facing lower network prices and some consumers facing higher network prices than under current price structures. While the majority of consumers are expected to benefit from these changes though lower network prices in the medium to longer term, the key factors that will decide how much consumers pay will be their individual load profiles and the value they place on using energy at different times.

There are considerable differences between how individual consumers choose to use energy. Two households might look the same, with similar incomes and the same family size, but because of the appliances they have and the different lifestyles they lead they may have very different load profiles, i.e. the amount of electricity they use at different times of the day.

The design of network pricing structures is too blunt a tool to use in response to concerns about the potential impact of electricity prices on vulnerable consumers. Appropriately targeted concession and hardship schemes are a more effective approach.

Complementary Concession Reform

While the losers from tariff reform will be a minority, there is no doubt that some vulnerable consumers will fall in to the category of those who pay more than under current price structures. The current flat concession structure in South Australia will be unable to respond to the changed pricing environment in a flexible and reflective way.

The proportional energy concession scheme currently operating in Victoria is a more preferable arrangement for a cost reflective tariff environment. The “Annual Electricity Concession” is available to help ease cost of living pressures by providing concession cardholders with a discount of 17.5 per cent off household electricity bills. The concession applies to electricity costs all year round and is calculated based on the remaining account balance once any retailer discounts and/or solar credits have been applied.

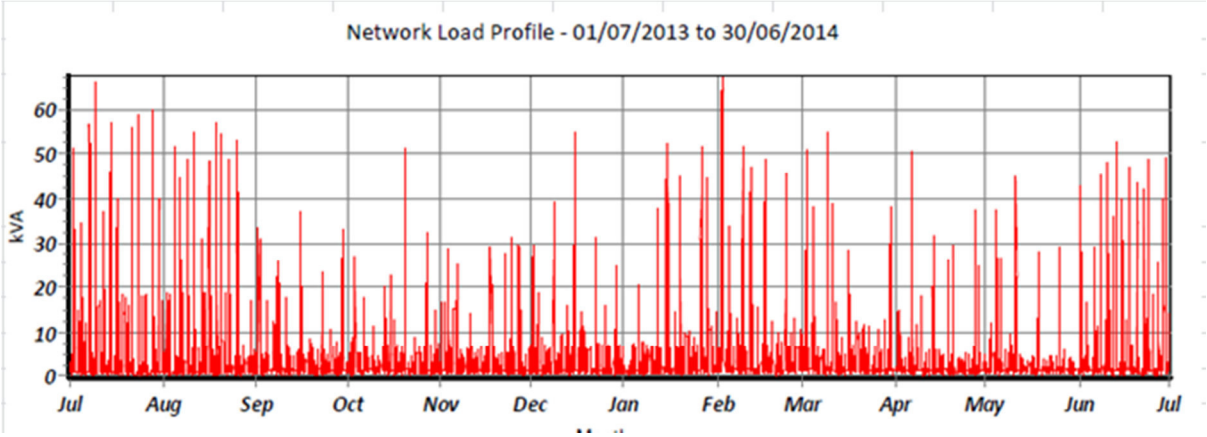
On 1 December 2013 the Victorian Department of Human Services introduced the “Excess Electricity Concession”. Concession households with annual electricity bills of more than $2,763 need to apply for the Excess Electricity Concession to continue to receive the 17.5 per cent concession on energy consumed above this amount. Recipients of the “Life Support Concession” and/or the “Medical Cooling Concession” are exempt from the need to apply for the Excess Electricity Concession.

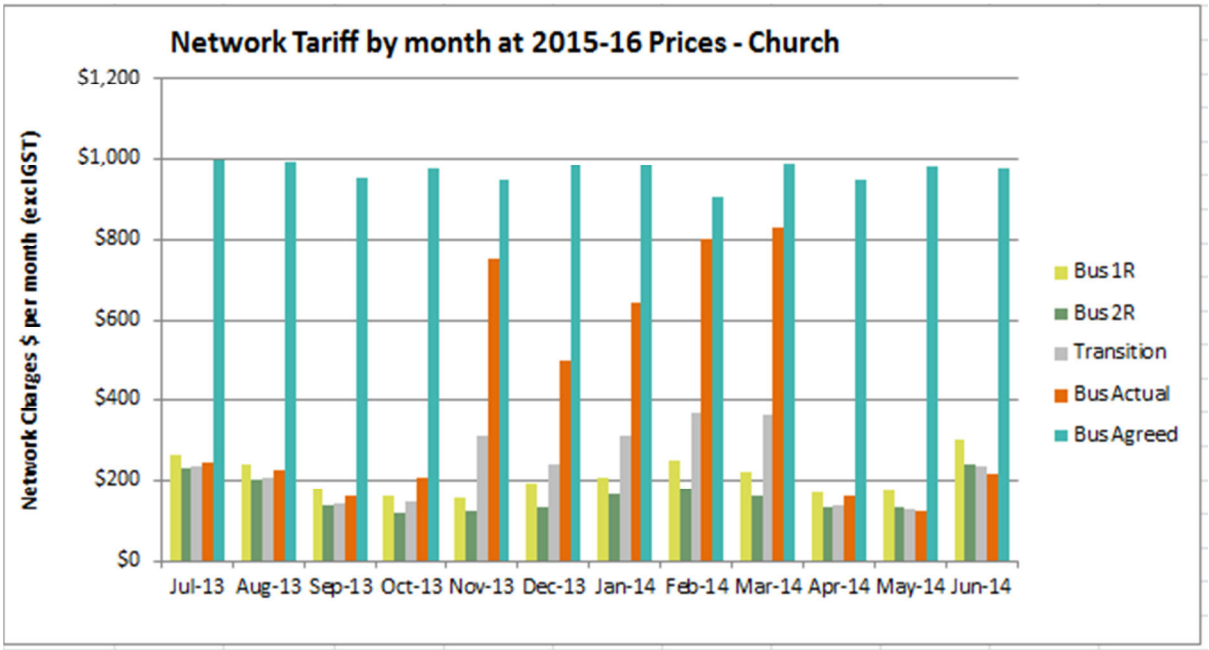
SACOSS supports the introduction of a proportional energy concession in South Australia.

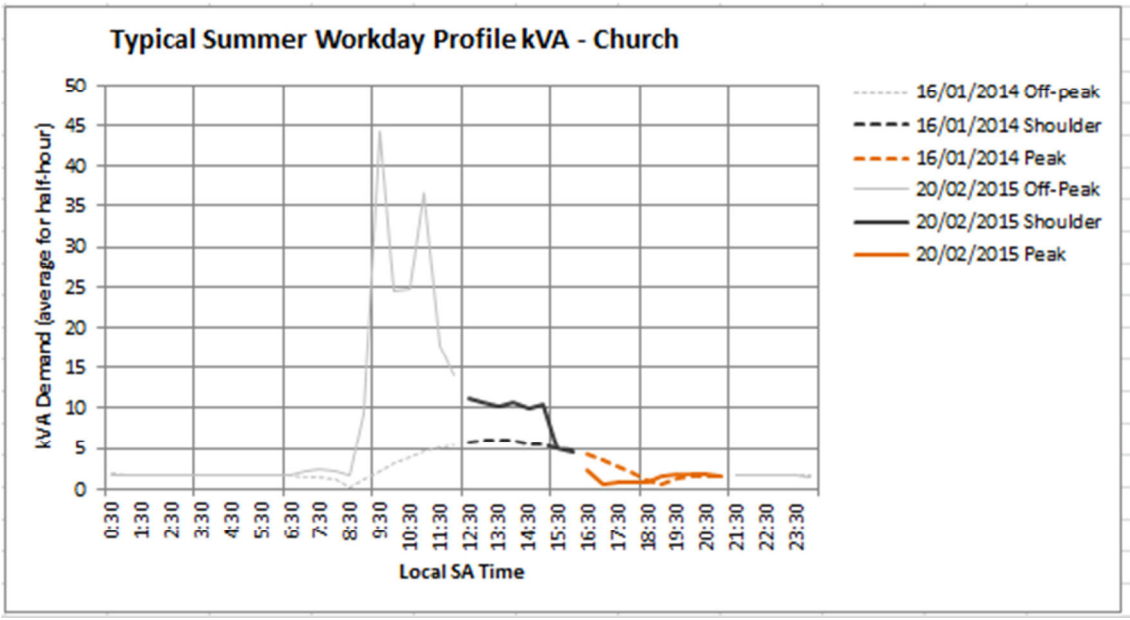
Appendix B: Case Studies

(Source: SA Power Networks Business Case Studies)

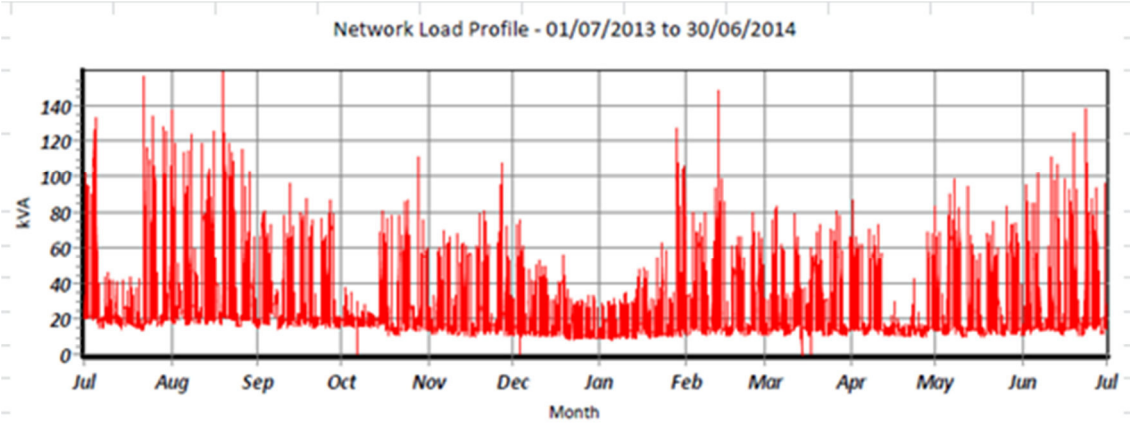
Church

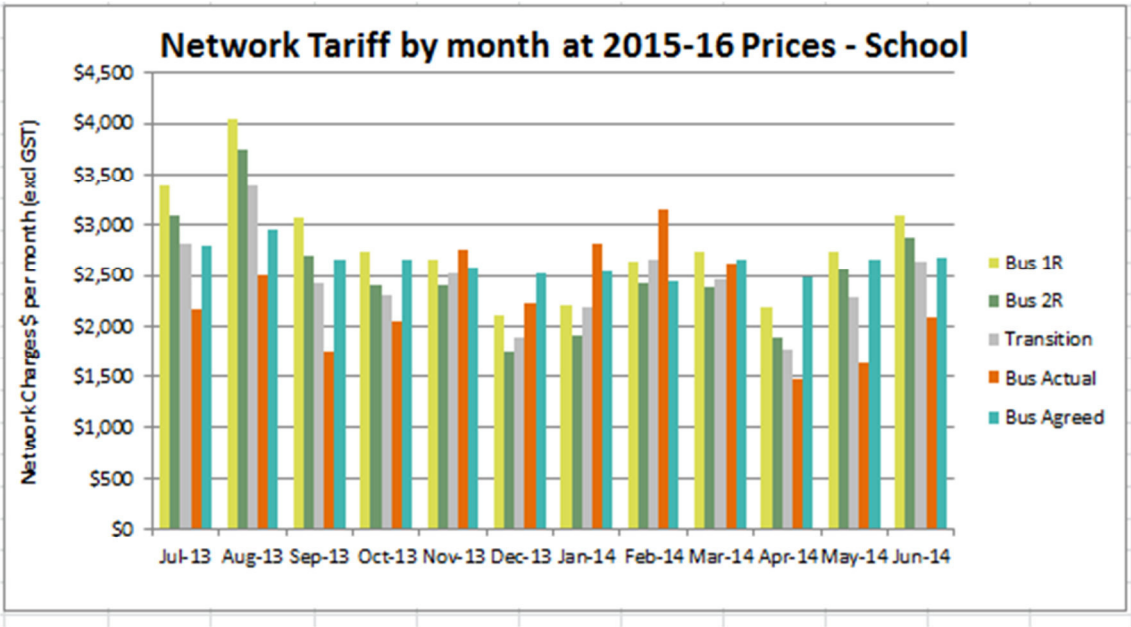


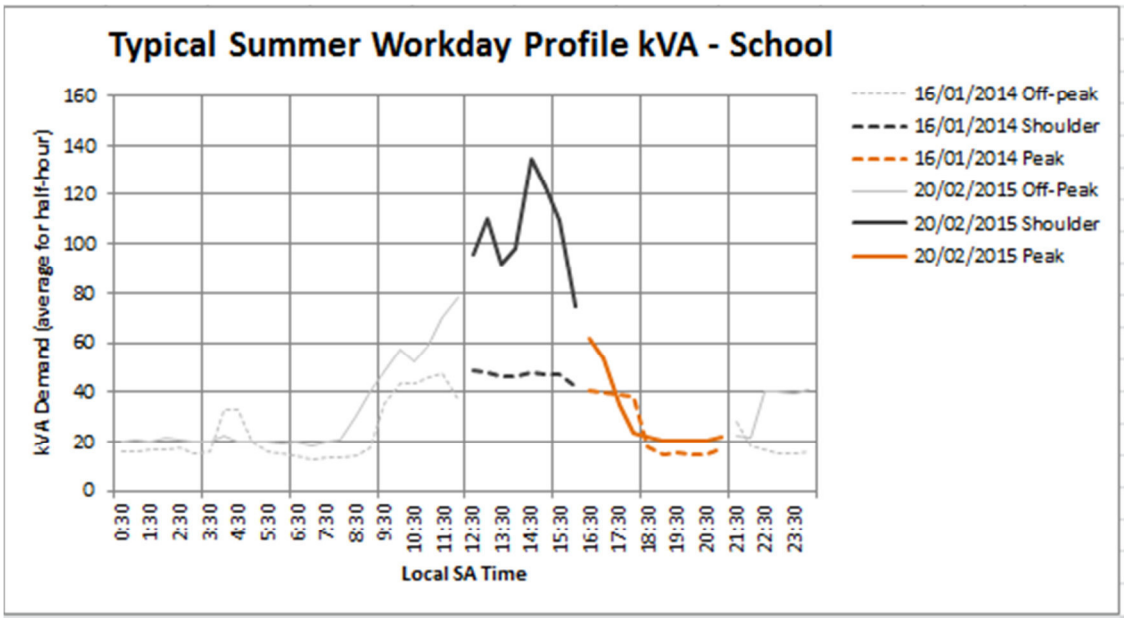




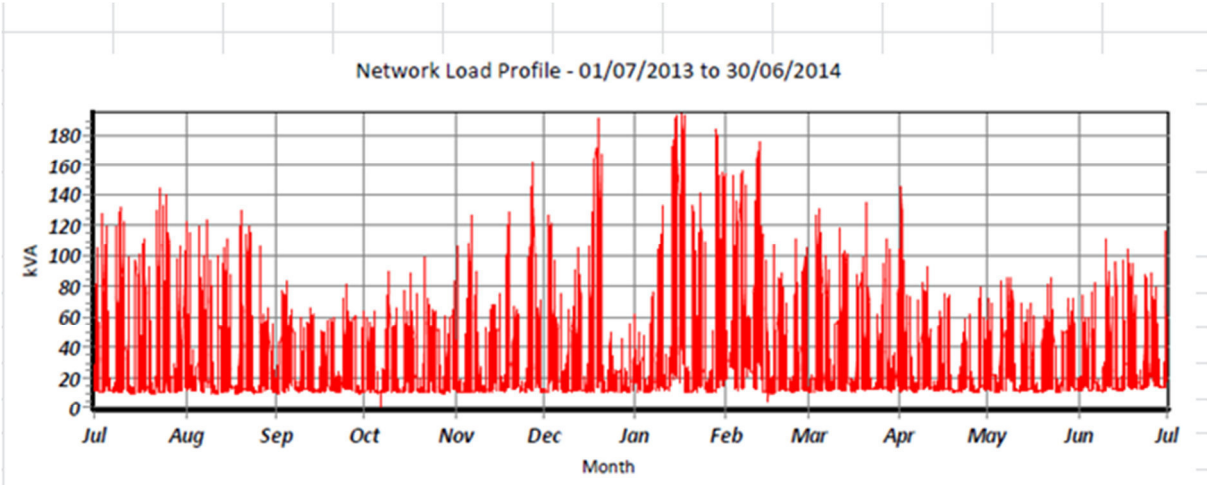
School

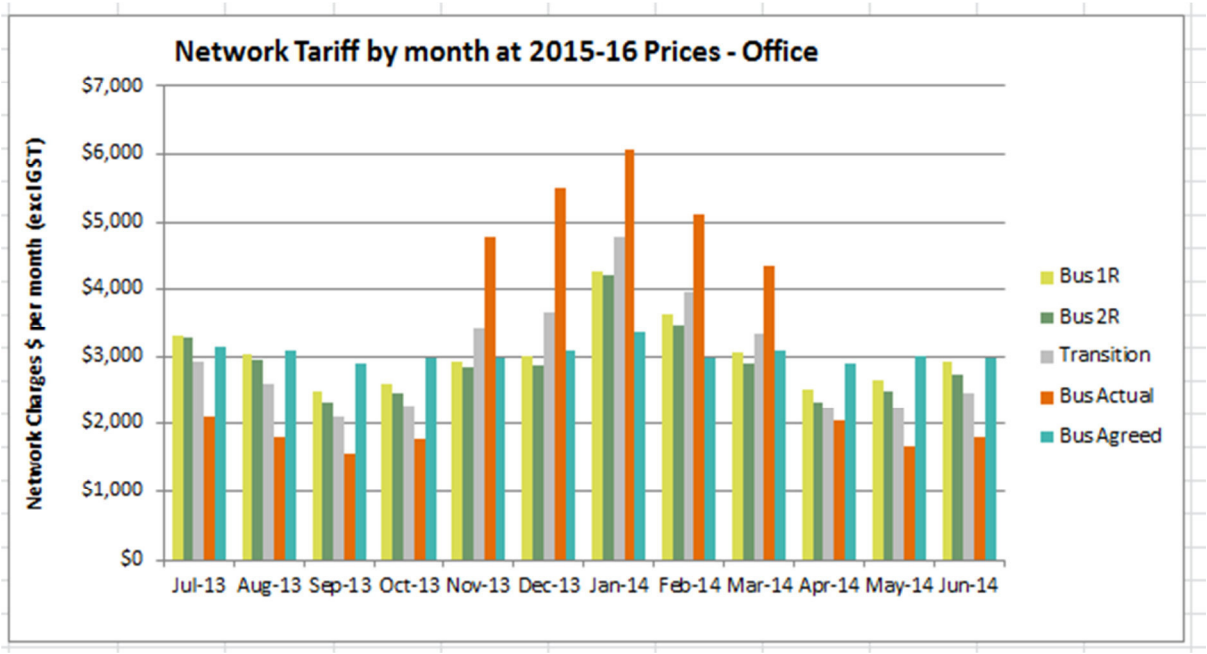

Network Load Profile - 01/07/2013 to 30/06/2014
kVA
140
120
100
80
60
40
20
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Month

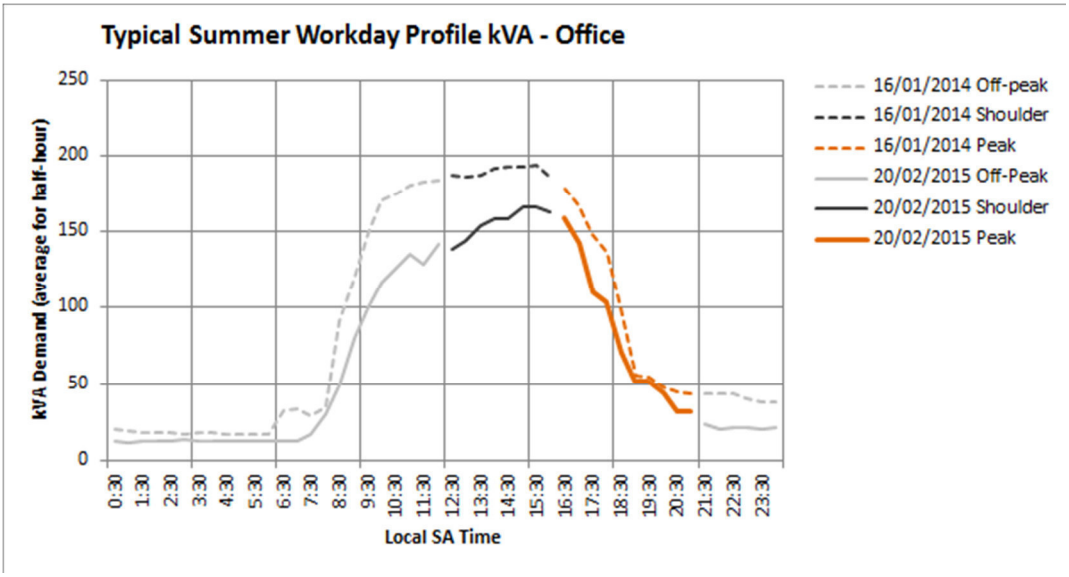

Network Tariff by month at 2015-16 Prices - School
Network Charges $ per month (excl GST)
$4,500
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Jan-14
Feb-14
Mar-14
Apr-14
May-14
Jun-14
Bus 1R
Bus 2R
Transition
Bus Actual
Bus Agreed


Typical Summer Workday Profile kVA - School
kVA Demand (average for half-hour)
160
140
120
100
80
60
40
20
0
0:30
1:30
2:30
3:30
4:30
5:30
6:30
7:30
8:30
9:30
10:30
11:30
12:30
13:30
14:30
15:30
16:30
17:30
18:30
19:30
20:30
21:30
22:30
23:30
Local SA Time
16/01/2014 Off-peak
16/01/2014 Shoulder
16/01/2014 Peak
20/02/2015 Off-Peak
20/02/2015 Shoulder
20/02/2015 Peak

Office


Network Load Profile - 01/07/2013 to 30/06/2014
kVA
180
160
140
120
100
80
60
40
20
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Month


Network Tariff by month at 2015-16 Prices - Office
Network Charges $ per month (exclGST)
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Jan-14
Feb-14
Mar-14
Apr-14
May-14
Jun-14
Bus 1R
Bus 2R
Transition
Bus Actual
Bus Agreed


Typical Summer Workday Profile kVA - Office
kVA Demand (average for half-hour)
250
200
150
100
50
0
0:30
1:30
2:30
3:30
4:30
5:30
6:30
7:30
8:30
9:30
10:30
11:30
12:30
13:30
14:30
15:30
16:30
17:30
18:30
19:30
20:30
21:30
22:30
23:30
Local SA Time
16/01/2014 Off-peak
16/01/2014 Shoulder
16/01/2014 Peak
20/02/2015 Off-Peak
20/02/2015 Shoulder
20/02/2015 Peak

Customer 3D

Where:
Salisbury Heights

Property type:
- Likely 3 bedroom, 2000's built

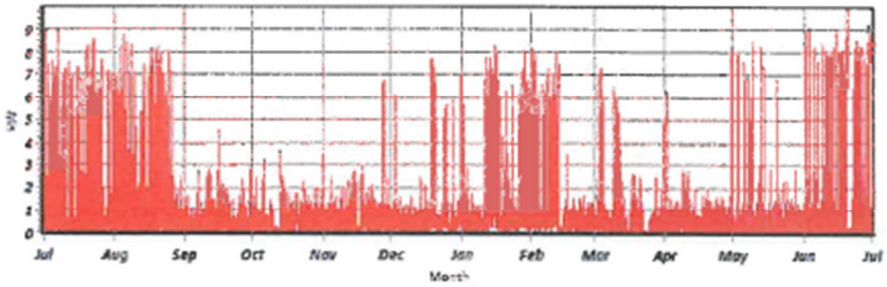
Features:
- Ducted air-conditioning
- No solar

Electricity profile:
- High energy consumption
- Very high peaks associated with heating/cooling

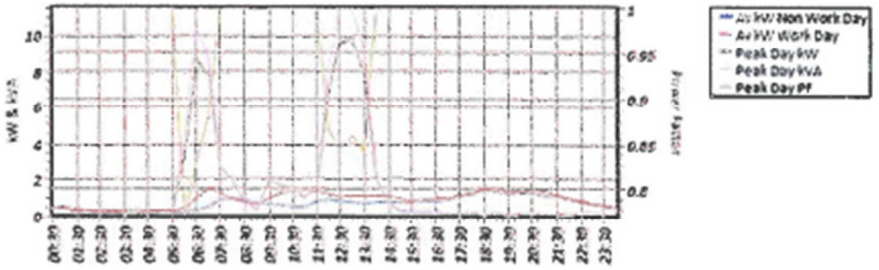
Load characteristics:
- Electric heating and cooling

Residential Demand Tariff outcome:
- $279 pa increase in network component
- $50/month increase in summer

Network Load Profile - 01/07/2013 to 30/06/2014



Daily Average, Peak, Power Factor and kVA Profiles - 19/06/2014



Statistics

Annual & Co-incidental Demand:	8.3 kW / 9.5 kVA on 15/01/2014 6:30 pm
Anytime & Co-incidental Demand:	9.9 kW / 11.5 kVA on 19/06/2014 1:00 pm

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