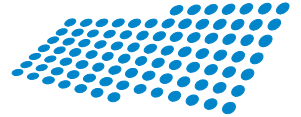


Demand Management  
Options Consultation Paper



**EnergyAustralia**<sup>™</sup>

**Demand Management  
Options for Eastern St.  
George (ESG) Area**

**July 2008**

**Responses request by 31 October 2008**

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**Demand Management Options  
for  
Eastern St. George Area  
July 2008**

**Contents**

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1	INTRODUCTION .....	1
2	CURRENT SUPPLY ARRANGEMENTS .....	2
3	SUPPLY CAPACITY AND DEMAND FORECAST .....	3
4	NETWORK INFRASTRUCTURE SOLUTION.....	4
5	REQUIRED DEMAND MANAGEMENT .....	4
6	PUBLIC CONSULTATION AND SUBMISSIONS.....	4
	6.1 Consultation .....	4
	6.2 Form of Submissions .....	4

# 1 Introduction

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EnergyAustralia invites submissions from interested companies, organisations and individuals regarding opportunities and ideas to reduce the peak electrical demand in Eastern St. George (ESG) supply area.

Growth in electricity demand in this area means that peak demands are forecast to approach the capacity of the local electricity supply network. EnergyAustralia is investigating initiatives to reduce this peak demand ("demand management" or DM) as part of a solution that will maintain reliability and levels of service more cost effectively than installing additional network infrastructure alone.

EnergyAustralia has completed a DM Screening Test and is of the opinion that cost effective DM options might be found, if explored further. On this basis it is conducting an investigation to identify and evaluate the available options.

In the context of this investigation, "Demand Management" includes measures to alter the magnitude or timing of customers' peak demand such as:

- Installation of energy efficient equipment in energy users' premises that permanently reduces peak demand
- "Fuel switching" from electricity to another fuel, such as gas
- Installation of equipment such as energy and thermal storage
- Agreements with energy users to interrupt or reduce certain loads when called upon to do so
- Agreements with energy users to run standby generators when called upon to do so
- Installation of generation or cogeneration equipment

EnergyAustralia will assess options identified through this process and then consider them alongside traditional network supply expansion options to determine the most cost effective combined strategy for implementation.

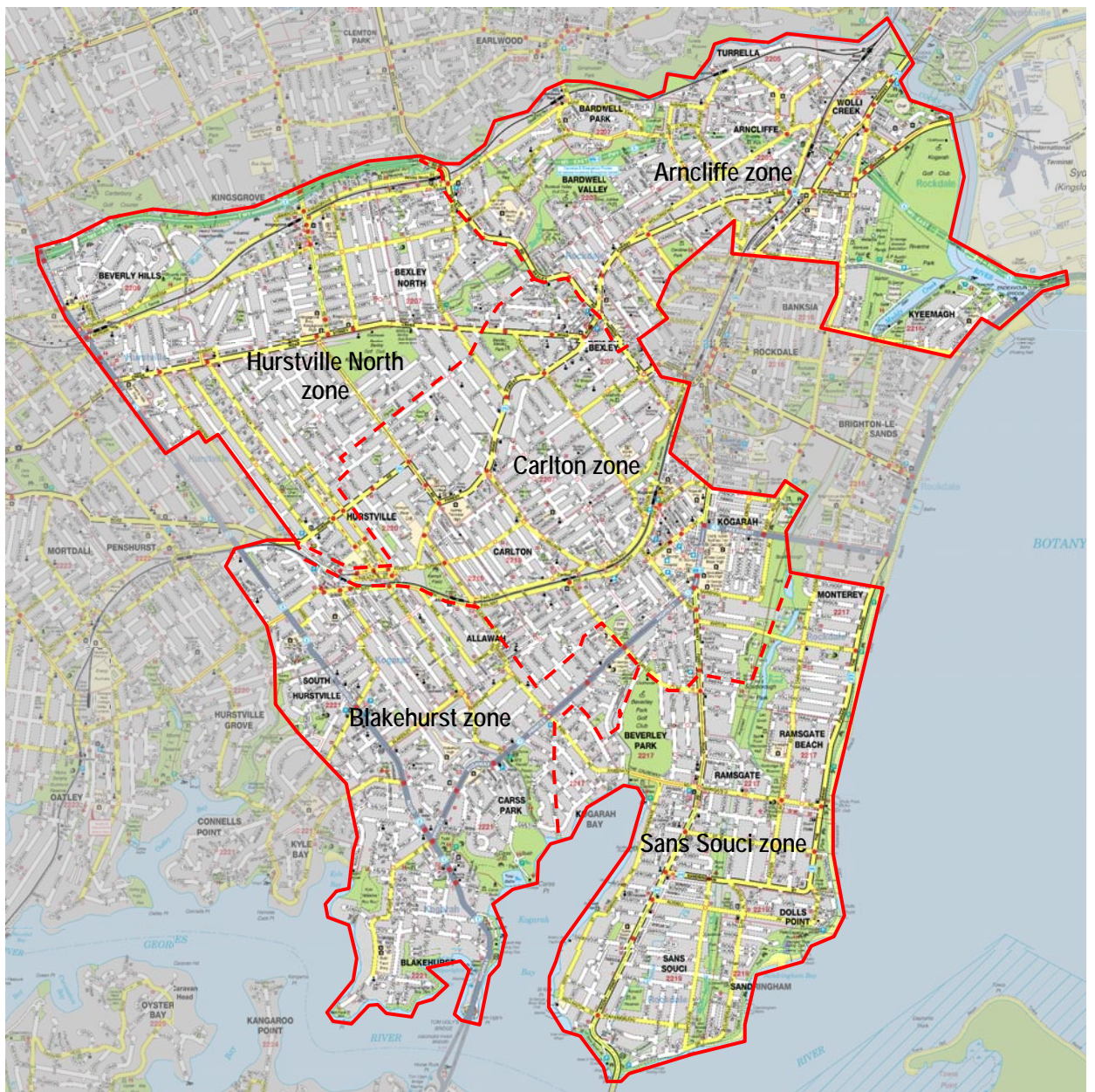
This document provides information about the nature of the demand profile in the area and the reasons we are seeking solutions.

## 2 Current Supply Arrangements

The Eastern St. George (ESG) area has six zone substations – Arncliffe, Blakehurst, Carlton, Hurstville North, Rockdale and Sans Souci. All these substations are supplied at 33kV by Peakhurst subtransmission substation (STS).

These substations in ESG area supply a large part of the Hurstville/Kogarah/Rockdale Council areas covering suburbs of Allawah, Arncliffe, Banksia, Bardwell Park, Beverley Park, Bexley, Bexley North, Blakehurst, Brighton-Le-Sands, Carlton, Carss Park, Connells Point, Dolls Point, Hurstville, Kingsgrove, Kogarah, Kyeemagh, Monterey, Ramsgate, Rockdale, Sans Souci, Sandringham, South Hurstville and Turrella. The ESG supply area is shown in Map 1.

**Map 1: Eastern St. George supply area**

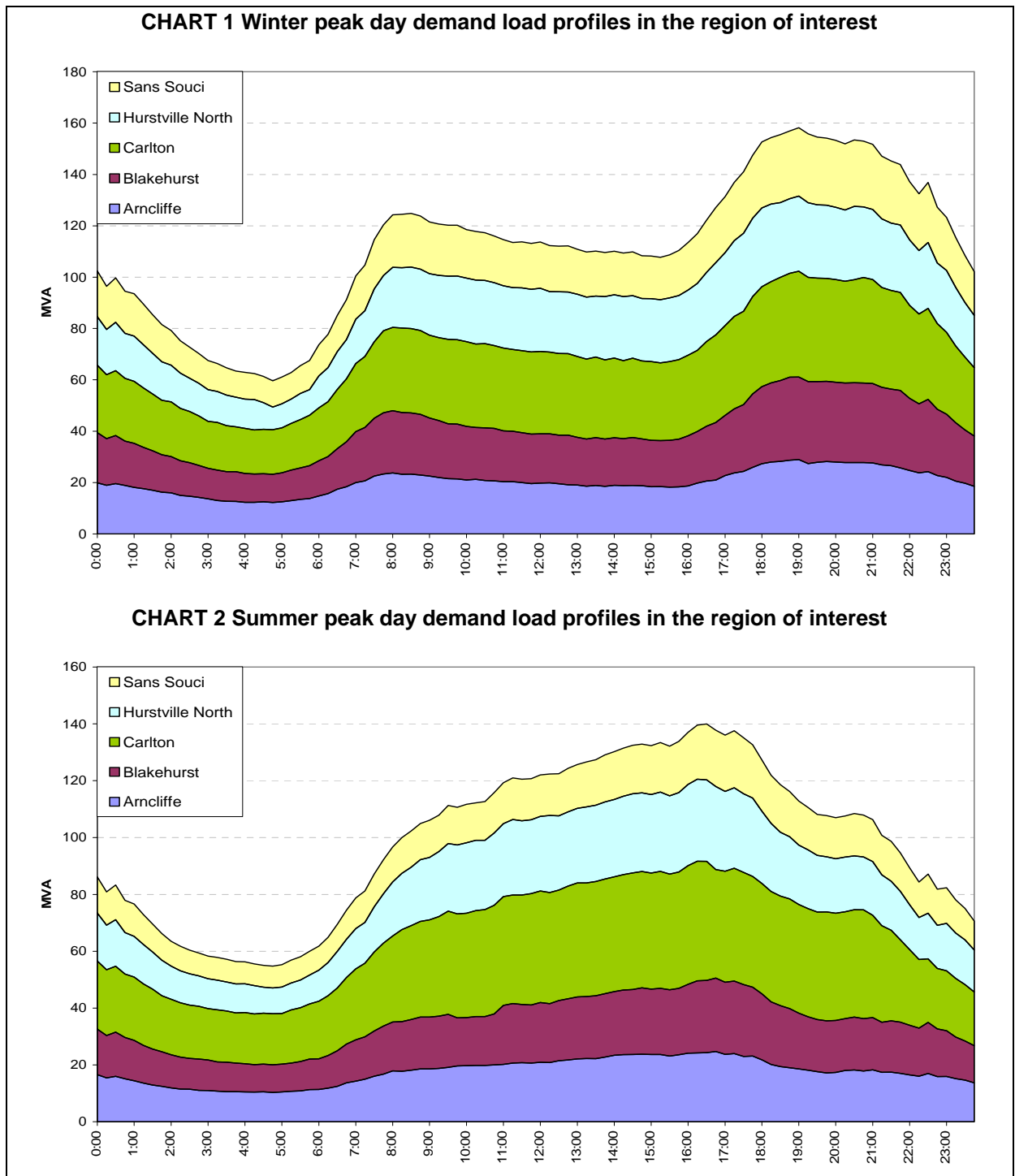


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### 3 Typical Load Profiles

The ESG area supplied by these substations has residential, retail, SME and commercial customers. Both summer and winter areas are the critical seasons.

Charts 1 & 2 show the electrical load profiles on a typical peak day in winter 2007 and summer 2006/07. The winter peak demand typically occurs on weekdays between 5:30 and 9:00pm and summer between 3:30 and 6:00 pm.



## 4 Network Infrastructure Solution

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The preferred supply side solution is to develop a new Kogarah zone substation in the area at an estimated cost of \$43m, with a further approximately \$55m to be invested in underground cabling to and from the substation. Site preparation and earthworks have already been started. Commissioning is proposed before summer 2011/12.

## 5 Required Demand Management

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If any amount of demand reduction could be identified and implemented across ESG supply area between winter 2009 and summer 2011/12, then the customers supplied by these 5 substations would have more reliable electricity supply. EA is seeking demand reductions up to 25 MVA. The demand reduction would need to target the commercial and/or residential sectors during peak times i.e. summer afternoons and late winter evenings.

## 6 Public Consultation and Submissions

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### 6.1 CONSULTATION

The intended timetable for this public consultation and investigation is:

Options Paper published:	31 July 2008
Closing date for submissions:	31 October 2008
Completion of Investigation Report:	January 2009

EnergyAustralia will examine a range of options including those identified in submissions and those resulting from its own research and investigations. Each identified option will be evaluated in terms of the amount of demand reduction it could deliver and the net cost to EnergyAustralia, and ranked by cost-effectiveness. EnergyAustralia will compare this list to the economic value of deferring the most favourable supply expansion option and determine whether enough cost effective options exist to make DM a feasible option. The results of this analysis will be made available to all bidders of DM reductions.

If DM is determined to be feasible, EnergyAustralia will proceed to develop the most favourable options, together with the relevant proponents or customers where applicable, so that a final decision to proceed can be made.

Respondents to this consultation paper will be kept informed about the progress of the project at key stages and may be contacted for further information if their ideas/suggestions are going to be taken to the next step of project development.

### 6.2 FORM OF SUBMISSIONS

EnergyAustralia is seeking written submissions in order to identify the broadest possible range of "demand management" opportunities to reduce peak electrical loads or increase supply from alternative sources. It will investigate whether proposed demand management options are practical, deliverable and cost effective.

Submissions should be in writing and fall into one of the following broad categories:

- Details of specific demand management opportunities that EnergyAustralia can investigate (for example, a customer may have a large electrical load that could be interrupted or that could be reduced through energy efficiency or fuel substitution).
- Proposals for demand management from parties able to implement demand reduction measures themselves. The proposal should include details of the magnitude of the demand reduction that can be achieved, how these demand reductions will be achieved, and the estimated cost to EnergyAustralia. These proposals are non-binding and will be considered along with demand management opportunities identified and investigated by EnergyAustralia.
- General views and opinions, including probable costs, as to what are the best options for EnergyAustralia to cost effectively meet the future electricity requirements of the area.

Submissions should include as much of the following information as is available:

- The name, address and contact details of the company or person making the submission.
- The name, address and contact details of the company or person responsible for the load or alternate supply (if different to above).
- The size, type and location of load(s) that can be reduced, shifted, substituted or interrupted.
- The size, type and location of generators that can be utilised if required.
- The type of action or technology proposed to reduce peak demand / provide alternate supplies.
- The time required to implement these measures and any period of notice required before loads can be interrupted or generators started.
- The approximate total cost to implement these measures and any cost savings that would accrue to the owners / operators of the equipment.
- The approximate cost of any contribution / assistance that EnergyAustralia may be required to make in order to make use of this measure for demand management.
- Other additional information to assist EnergyAustralia in investigating and evaluating demand management options.

As EnergyAustralia may be required to publish information about submissions, any commercially sensitive material and other material that the respondent making the submission does not want to be made public should be clearly identified.

Submissions should be addressed to:

Bing Liu – Demand Management Unit  
EnergyAustralia  
GPO Box 4009  
Sydney 2001

Or email to [demandmanagement@energy.com.au](mailto:demandmanagement@energy.com.au)