OSISDC
Parliament of Victoria
Spring St
East Melbourne VIC 3002

7 December 2011

To The Committee,

RE: Inquiry into Growing the Suburbs: Infrastructure and Business Development in Outer Suburban Melbourne

Thank you for inviting us to make a submission addressing the Terms of Reference of this inquiry. Please find attached to this letter a submission from Jemena Electricity Networks (JEN) addressing the following parts of the Terms of Reference:

(a) identify existing public and private infrastructure provision, including schools, hospitals, commercial and shopping precincts, transport and roads, telecommunications, water and power; and
(b) assess the capacity of existing infrastructure to accommodate increased population growth.

If you have any queries please do not hesitate to contact Peter Wong, Manager Network Strategy & Technology, on (03) 8544 9244 or by email to peter.wong@jemena.com.au.

Yours sincerely,

Richard Twisk
General Manager Electricity Networks
SUBMISSION to the Outer Suburban/Interface Services and Development Committee (OSISDC)

Inquiry into Growing the Suburbs: Infrastructure and Business Development in Outer Suburban Melbourne

Jemena Electricity Networks (JEN) Ltd has a distribution network that supplies electricity to over 310,000 customers (about 88 per cent residential) in a 950 km² area of Melbourne's city and north-western suburbs, with Melbourne Airport at the approximate physical centre. The figure below illustrates the geographical area that is covered by JEN.

Figure 1: Geographic Overview of Jemena Electricity Networks

The network area borders with that of each of the other electricity distribution businesses in Victoria: CitiPower, Powercor, SP AusNet and United Energy
Distribution, as well as interconnecting with the transmission network owned by SP AusNet, and planned by Australian Energy Market Operator (AEMO).

JEN's asset management strategy and processes involve consideration of:
- Existing asset utilisation and capacity to meet load growth;
- The connection of new customers;
- Managing existing asset performance and condition;
- Strategies for asset maintenance, refurbishment and replacement; and
- Managing network safety and environmental risks.

JEN has in place a detailed business process to assess the capacity of existing electricity infrastructure to accommodate growth and to deliver achievable outcomes for supply reliability and power quality consistent with community expectations. The process starts with a 10 year electricity demand forecast which incorporates forecast of economic and population growth and local developments. JEN has obligations to connect new customer to its network ranging from individual properties, to urban residential developments, through to new large commercial and industrial customers.

JEN's current 5-year forecast indicates that electricity summer peak demand will continue to grow at an average annual rate of 2.5% across the JEN supply area. The corresponding customer number growth is 1.5% per annum. Electricity network investment plan has been developed to ensure that infrastructure is continually developed to supply the increasing electricity demand while maintaining standards of reliability consistent with Regulatory expectations.

The following is a list of key initiatives relating to JEN's future demand planning for the period 2011-2015:

(a) Reinforce network supply capacity by establishing two new zone substations at Broadmeadows South and Tullamarine to meet rapid growth in industrial, commercial and residential developments;
(b) Continue the strategic plan of converting the Preston and East Preston network from 6.6kV to 22kV to increase supply capability as well as replacing ageing assets; and
(c) Purchase and install nine new power transformers within existing zone substations to increase supply capacity

Apart from investing to accommodate electricity demand growth, JEN is also making substantial investment in asset replacement and upgrade plans to ensure the current high level of supply reliability is maintained. The key objectives of these plans are to replace or renew assets that have reached the end of their economic life, and to upgrade assets to ensure asset integrity or improve service levels. Asset replacement projects are identified within life cycle management plans through routine maintenance and inspection,
regulatory compliance, historical data and condition monitoring. In addition to upgrading overloaded substations, these projects include pole top replacement program, increased condition monitoring for aged assets, building security and bushfire management.

In summary, JEN has in place business processes to ensure its power distribution infrastructure will have adequate capacity to accommodate population growth, while ensuring that aged infrastructure is renewed at end-of-life to meet the reliability and safety requirements of the customers in its supply area. From a long-term planning perspective, JEN welcomes the opportunity to learn from government planning bodies about strategies that promote population and business growth in particular regions that JEN services. Such information can assist JEN to plan for long-term investment such as land and easement acquisition which is essential for the development of new electricity infrastructure.