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Dear Julia,

**RE: Inquiry into Electricity Pricing Options**

We welcome the opportunity to provide this submission to the Committee on the Northern Territory's Energy Future, Inquiry into Electricity Pricing Options.

UE is a Victorian electricity distribution network service provider to more than 650,000 customers across east and south-east Melbourne and the Mornington Peninsula. As such the focus of this submission is on matters relating to network tariff design.

***Peak Demand – Driving Network Capacity and Design***

Networks need to be designed to manage the peak demand for electricity. Peak demand occurs for only short periods of time and is heavily dependent on weather conditions. As a result annual peak demand can vary significantly and be difficult to predict. Failure to install sufficient capacity to meet peak demand may result in customers losing supply.

While total demand has fallen in some parts of Australia, as a result of the increasing solar installations and greater customer focus on energy efficiency, the peak demand has stayed constant or risen in many areas as customers install large and more powerful air conditioners that are used only at peak times.

***Customer Behaviour – Changing Grid Usage Patterns and the Role of the Grid***

Historically there was a strong correlation between consumption profiles across consumption bands, with most customers in a consumption band having similar appliances and aggregate consumption patterns. This resulted in a strong correlation between peak and average demand in customer consumption bands. Under this paradigm and with the technology available, charging customers based on consumption and fixed charges was an efficient and effective approach.

Over the past few years there has been a significant change in the way some customer use energy. These changes have significantly weakened the correlations between average and peak consumption within consumption bands. It is likely that new and emerging technology such as batteries, EV and other distributed generation, will further erode these historical relationships.

The changes in customer consumption and generation patterns have started to change the role of the grid from a one way of supplier of energy to customers to a multi directional facilitator of energy trade.

### ***Paying a Fair Share – Everyone Uses the Grid***

All electricity customers who use the distribution network should contribute fairly to the costs of the development, maintenance and operation of the network. The historic non time varying consumption and fixed charge tariff structures charge customers based on the total energy they consume not the capacity of the network they utilise. Therefore customers do not understand the true costs of their consumption and investment decisions. This also results in customers who have not invested in new technologies, such as solar, subsidising customers who have reduce their total demand, but their use of the network capacity.

### ***Capacity Tariffs – Signalling Network Usage***

Providing customers with prices that reflect their capacity usage at peak times will reduce the cross subsidies between different groups and users and provide the signals needed for efficient investment decisions by both customers and networks. Efficiently signalling the costs of peak demand should result in lower costs to customer in the long run as networks should not need to invest as much to meet peak demand. The most efficient way to signal these costs to customers it to charge for part of the network services on the basis of the capacity at peak times.

Should you wish to discuss any element of this submission please feel free to contact me on (03) 8846 9401 or by email at [kiera.poustie@ue.com.au](mailto:kiera.poustie@ue.com.au).

Kind Regards,



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