

## CLEANaS Submission into electricity tariff reform in NSW

Dear Networks NSW CEO,

Thank you for the opportunity to provide input to the discussion regarding electricity tariff reform in NSW. **CLEANaS believes that the implementation of Local Network Charges providing reduced tariffs for electricity generation used within a defined local network area and its use with Local Electricity Trading (Virtual Net Metering) would provide a viable and more socially equitable alternative to customers leaving the grid with it's potential for greater network charges.**

CLEANaS is the Clean Energy Association of Newcastle and Surrounds, a not-for-profit association formed in 2012 by a group of locals passionate about clean energy. CLEANaS is dedicated to driving the uptake of clean energy that our region can transition from our current dependency on fossil fuels to a more competitive and sustainable local economy. We will achieve this by working with our partners to demonstrate profitable community-led and community-owned clean energy projects; raise the profile of clean energy in the local economy through education and awareness raising; and by improving access to financing mechanisms and affordable technologies so that investment and activity grow. Our initiatives must deliver a win-win for local community investors, local enterprise and, of course, our environment.

### **Submission regarding the question i)**

Centralised electricity supply has been falling which reflects reduced demand due to behavioural changes in electricity use, energy efficiency and rooftop solar PV that have to some extent been related to increased electricity charges. With less supply, cost recovery of assets puts pressure on increasing charges. These increased charges have then the potential if passed on to the consumer to reduce demand further. With the advent of battery storage tied in with the Solar Bonus Scheme ending on 31 December 2016 there is strong likelihood many customers with solar PV may elect to leave the grid further reducing demand. As the customer base diminishes, it may be less and less equitable for the customers who remain to pay for legacy infrastructure.

The current charging structure in the National Energy Market (NEM) reflects the historic model of one-way flows from large, remote generators, via the transmission and distribution systems, to the customer. Everyone except very large customers used all (or nearly all) network levels. This charging structure does not produce optimal outcomes. There is little incentive to reduce peak loads, there is no flexibility to cater for partial use of the distribution system, and the potential benefits of local energy generation and use are not rewarded.

Local generators sell at wholesale and buy back at retail prices. Therefore, there is a strong incentive for these customers (and product developers) to focus "behind the meter" & reduce grid consumption. This again has the potential for increased costs for consumers left using only grid electricity, as infrastructure costs are recouped from smaller sales volume.

Local Electricity Trading or Virtual Net Metering involves an electricity customer with on-site generation assign their 'exported' electricity to other site(s). This requires netting off generation from one site at another site on a time-of-use basis, so that Site 1 can 'sell' or assign generation to nearby Site 2. Local Electricity Trading provides an alternative to leaving the grid and provides social equity by mitigating the potential effect of spiralling customer loss from the network.

Benefits accrue to both the network and these local generators. The network provides the local generators access to bigger markets, keeps a high level of reliability, allows local generator to run systems for maximum efficiency, and supports technical requirements of consumers. In turn the local generators provides the networks with reduced transmission and distribution losses, the potential to save money on network investment, emissions reduction, increased resilience of system and technical network services.

Local Electricity Trading takes place between sites in the LV Distribution and potential HV Distribution and does not use Transmission and Subtransmission parts of the network. However, the network charges for the full network are currently levied against those wishing to partake in Local Electricity Trading. These additional charges affect the potential financial viability of Local Electricity Trading.

Local Network Charges provide reduced tariffs for electricity generation used within a defined local network area. In most circumstances, the tariff would reduce the network charge portion of electricity bills for local generators to the extent that the generation reduces long term network costs. This recognises that the generator is using only part of the electricity network, and reduces the network charge accordingly. To date reduced network tariffs have been applied most systematically in the UK. Local Network Charges should be technology neutral, calculated on performance rather than type of local generator, and applicable to range of sizes.

The introduction of reduced local network charges for partial use of the electricity network, and the implementation of local electricity trading between associated customers and generators in the same local distribution area provides a desirable alternative to customers who might otherwise choose to disconnect from the grid altogether or keep all their generation "behind the meter", drastically reducing the amount of electricity they take from the grid.

There are five 'virtual trials' of local network charges and local electricity trading currently underway in NSW, VIC, and QLD being conducted by the Institute for Sustainable Futures and funded by ARENA. Some of the expected key outcomes of these trials are: a recommended methodology for calculating local network charges, an assessment of the metering requirements and indicative costs for the introduction of local electricity trading, and economic modelling of the benefits and impacts of local network charges and local electricity trading.

Reducing network charges for local energy is a proactive approach to keeping networks competitive and managing the transition to an electricity market with high contributions from local energy. Local

electricity trading coupled with local network charges has the potential to increase renewable energy options for the local community, supporting economic growth and local procurement of energy.

Thank you for considering our submission,

Sincerely,

Alec Roberts  
CLEANaS Chair