Media Release
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An Energy System that Works for Consumers

Onsite generation like solar panels can save Australian electricity customers money but it can also cost them money if not managed carefully, the Energy Networks Association (ENA) said today.

On the eve of the biennial conference *Energy Networks 2014,* ENA CEO John Bradley said energy networks were achieving a transformation in the use of onsite or 'embedded' generation with almost 1.2 million solar photovoltaic (PV) connections to the network in just 6 years.

"Small scale, embedded generation is turning the traditional electricity supply system on its head, with power now flowing back into the network from households and businesses," Mr Bradley said.

"Given the electricity grid was designed to transport bulk supply from large generators, it's revolutionary to see nearly 1.2 million new generators connected, with the ability to sell their surplus energy."

Mr Bradley said embedded generation connections can provide significant benefits including relieving the pressure for network investment to expand capacity and electricity distributors are carefully managing the connection process to protect consumers from potential risks to safety, power quality and reliability and impacts on their electrical equipment.

"Embedded generation, such as solar PV, is now a mainstream choice for both individual consumers and distribution networks, and consequently government and regulatory frameworks need to adjust," Mr Bradley said.

"Solar panel installations have been a runaway juggernaut, exceeding all expectations. Just 3 years ago, the Australian Energy Market Commission (AEMC) forecast Solar PV output would reach 3,170 GWh by 2020 but output today is already estimated at over 3,200 GWh."

Mr Bradley said despite the success of installations, electricity customers were continuing to pay higher bills to subsidise solar, through the cost of the Small Scale Renewable Energy Scheme, which has been estimated by the AEMC to cost consumers $4.4 billion by 2020 and inflated feed-in tariffs.

"The review of the Renewable Energy Target is an opportunity to remove the distorting effect of the Small Scale Renewable Energy Scheme and new forms of assistance such as the Million Solar Roofs, Solar Towns and Solar Schools programs should be carefully targeted."

Mr Bradley said long-term studies such as CSIROs Future Grid Forum showed the potential for significant increases in the use of embedded generation.

"However, the Future Grid Forum analysis highlights the high cost to our electricity customers if we end up with excess onsite generation, which could result in customer bills which are 30%, or $600, higher by 2050.

"While new technology created the potential for customers to consider 'disconnecting' from the Grid over time, the central network would remain competitive because of the services it can offer consumers.

"The falling cost of battery storage and PV may facilitate a more efficient electricity system if consumers minimise their peak consumption – the key driver of network costs," Mr Bradley said.

"It may soon be possible for an average customer to 'cut the cord' and disconnect from the Grid, but it is unlikely to be the cheapest option.

""Not only does disconnection remove the ability to sell any excess energy, there are a range of reliability, quality efficiency benefits provided by the grid.

"The US Electric Power and Research Institute (EPRI) recently estimated that the cost of a customer supplying these grid services would be 3 to 8 times as much as taking them from the Grid." Mr Bradley said.

Key trends in embedded generation and its transformational effect on electricity supply are detailed in *Enabling Embedded Generation – Turning Australian electricity on its head* to be released at the Energy Networks 2014.

Ends.

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