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Clean Energy Council

Clean Energy Council submission to the Tasmanian Economic Regulator: A Fair and Reasonable Feed-in Tariff for Tasmanian Small Customers

Executive Summary

The days of incentive-based feed-in tariff offers are behind us. Australia's solar industry does not seek a return to the days of 1:1 feed-in tariffs. All we seek is the right to compete at a fair price.

For rooftop solar to compete at a fair price governments must regulate to ensure that:

- Solar systems can connect to the grid and export electricity, provided they meet a transparent set of standards and requirements; and
- Retailers pay a benefit-reflective feed-in tariff, which includes a critical peak payment.

Solar systems with energy storage can compete to supply electricity reliably at critical peak periods. The right regulatory framework will reduce peak demand, encourage efficient investment and reduce the cost of system augmentation – all of which will deliver lower electricity costs.

Distribution businesses are increasingly placing limitations on grid connection, which is an unnecessary barrier to competition. Newer and larger, more sophisticated solar PV systems can assist with grid management. The technologies are available now, but have never been required by relevant standards or distributors and there are no incentives for them to be used. The Clean Energy Council (CEC) is working with its members, distribution businesses, governments, regulators, market operators and researchers to develop a strategy to address these concerns. We aim to engage all sides of the industry to reveal optimal solutions for a rapidly evolving electricity supply chain.

To ensure that Tasmanians can enjoy the economic benefits of distributed generation and storage the Tasmanian Economic Regulator and the Tasmanian Government should:

- Recognise the benefits of distributed generation and storage and that aligning incentives with costs and benefits will encourage efficient investment and reduce electricity costs for everyone.
- Base the feed-in tariff on the system-wide benefits of distributed generation and storage.
- Support the staged introduction of smart meters, commencing with solar customers and others who choose to opt in.
- Regulate for benefit-reflective feed-in tariffs.
- Regulate to allow distributed generation and storage to compete on fair terms, especially at critical peak periods.
- Provide access to information for early adopters of time of use pricing.
- Reduce or remove barriers to competition by distributed generation and storage.

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1. Recognise the benefits of distributed generation and storage

The solar PV industry is a significant employer in Tasmania. CEC estimates that there are currently about 460 full-time equivalent jobs in the solar PV industry in Tasmania. There are 132 accredited system designers and installers in Tasmania. Over the 2013 financial year they were responsible for the design and installation of more than 6,600 solar PV systems, with a total capacity of about 24.3 MW. In total there are more than 15,600 solar systems installed in Tasmania with a total generating capacity of about 43.7 MW.

A fair and efficient framework for electricity feed-in tariffs will deliver benefits to consumers and the economy and will drive innovation and industry development.

Distributed generation, distributed storage, improved energy management capability and improved metering can together make a very significant contribution to reducing electricity costs by:

- Reducing average wholesale electricity prices;
- Reducing wholesale electricity prices at critical peak periods;
- Reducing transmission losses;
- Enabling deferment or avoidance of investment in network augmentation; and
- Contributing to network management and grid stability.

Distributed generation and storage can deliver significant economic benefits through the avoided costs of distribution network capacity augmentation. Embedded generation can be a substitute for capacity augmentation that would otherwise be required to meet an increase in demand in a given locality from additional production by central generators (ACIL Tasman, 2012).

Network costs are around forty to fifty per cent of an average household's electricity bill, so any cost pressures on the network have a major impact on people. The Productivity Commission (2013) has noted that distributed generation can relieve network congestion, meet peak demand and improve system reliability, thereby avoiding or deferring network investment. However, the absence of a benefit-reflective incentive for distributed generation has limited the economic benefits of distributed generation "as existing time-invariant tariffs do not encourage householders to orient units to the west to maximise generation in periods of peak demand late in the summer afternoon". To address this the Productivity Commission recommended that state and territory governments should "change the feed-in tariffs for any uncontracted small-scale distributed generators exporting power into the grid, so that their tariffs reflect the wholesale market prices at the time of energy production, and the (net) value to network businesses from reducing loads on their equipment at critical peak periods".

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The benefits of distributed generation will vary between distribution networks and localities within them, and over time, depending on whether capacity is constrained in that locality (Energy Networks Association, 2011). VCEC (2012) observed,

> No reliable estimates of this value currently exist – at least in the public domain. The size of the network value is difficult to determine because it will be both time and location specific, but in constrained areas of the network it is likely to be large.

A report released by the Victorian Government in 2013 (Langham et al, 2011) indicated that distributed generation,

> "was found to save consumers $437 million per annum relative to BAU, more than half of which was due to reduced expenditure on electricity delivery (networks)"

Efficient pricing will provide an incentive for investment where it will be most economically beneficial. The potential benefits of distributed generation are currently being realised to only a limited extent. Aligning electricity prices and feed-in tariffs with the costs and benefits that customers generate will enable greater economic benefits from distributed generation. This will ultimately reduce costs for all customers and across the entire economy.

2. *Base the feed-in tariff on the system-wide benefits*

Feed-in tariffs should be based on the system-wide economic benefits of distributed generation and storage and not merely the financial benefits that may be enjoyed by an electricity retailer. The Essential Services Commission (ESC, 2013b) has outlined the limitations of basing a feed-in tariff on the financial benefits enjoyed by electricity retails, stating that,

> "One limitation of this approach is that it is contingent on the structure of financial settlements in the wholesale electricity pool and of transactions between retailers and distributors or other input suppliers… the structure of transactions between retailers and distributors may not yet fully reflect principles established or proposed by relevant regulatory agencies. For example, the Australian Energy Market Commission has stated that there remain shortcomings in the existing arrangements relating to passing-on avoided Transmission Use-of-System charges to embedded generators under the National Electricity Rules. The Productivity Commission has recommended changes to the arrangements by which embedded generators are reimbursed by network businesses for savings in network costs."

The CEC agrees with the position of the Essential Services Commission that feed-in tariffs should be based on system-wide benefits where it is reasonable to do so – for example, where it is reasonable to expect some changes in the commercial arrangements relevant to the retailer. This will clearly be the case in Tasmania, where the electricity market reform process is still in its early stages.

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3. Support the staged introduction of smart meters

Tasmania's existing stock of household electricity meters are mostly accumulation meters. We understand that Tasmanian households that install solar have their old meters upgraded to new digital meters that comply with the National Minimum Functional Specification for smart meters, but without all of the functions activated. For example, the replacement meters are capable of operating as interval meters but are currently being used as manually read accumulation meters.

The Government has instructed Aurora's network business to investigate and implement, as soon as practicable, a technical metering solution that provides small customers who connect a distributed generation system with the option of off-setting their on-site electricity consumption for hot water and heating – in addition to light and power – before any electricity is exported to the grid. The Government should consider using the meter upgrade as an opportunity to continue its staged introduction of smart meters.

Smart meters will enable the new owners of the Aurora customer base to offer more flexible and innovative energy pricing deals and to help consumers better manage their electricity usage and exercise greater control over their energy bill. Being able to easily access and interpret information on energy consumption over the day is crucial to aid consumers to take action to modify their electricity consumption. Remote load management capability enables tariff offers that incorporate energy management functions such as remote control of air conditioner cycling, pool pumps, hot water and provision of battery-stored energy to the grid. Appropriate functionality is fundamental to capture the full value of demand side measures. The Productivity Commission (2013) has recommended that a minimum technical standard for advanced metering infrastructure (including smart meters) should incorporate capacities for:

- Interoperability with add-on technologies that distributors, retailers and third parties may wish to offer customers;
- Open access to information for distributors, retailers and third parties, subject to privacy provisions; and
- Direct load control.

In Victoria, a lack of comprehensive stakeholder and customer engagement led to resistance from customers and concerns regarding safety, cost, privacy and health risks. Government, customers and industry must all be engaged prior to and during deployment to ensure benefits can be realized.

To avoid the resistance experienced in Victoria, smart meters should be available on an 'opt in' basis for Tasmanian electricity customers and as a standard feature for households with solar PV systems.

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4. Regulate for benefit-reflective feed-in tariffs

Efficient investment in distributed generation and storage will improve efficiency and productivity by reducing electricity costs. Electricity costs will be reduced by smoothing the consumption profile (reducing 'peakiness'), which reduces the need for expensive electricity at peak times and the need for extra investment in poles, wires and transformers. The Productivity Commission (2013) noted that,

> "In New South Wales, peak demand events occurring for less than 40 hours per year (or less than 1 per cent of the time) account for around 25 per cent of retail electricity bills."

Benefit-reflective feed-in tariffs for distributed generation and storage will spread the electricity load more evenly and this will improve network utilisation, manage growth in peak demand, and avoid spending millions of dollars on asset augmentation that customers would ultimately have paid for through their bills.

To maximise the economic benefits of distributed generation and storage, feed-in tariffs must be:

- Technology-neutral;
- Available to mid-scale systems;
- Time-varying;
- Location-specific; and
- Mandated by regulation

<u>Feed-in tariffs should be technology neutral</u>

Feed-in tariffs should be technology neutral to ensure that all electricity fed into the grid from small-scale distributed generation is treated in the same manner, regardless of the technology utilised. At present virtually all small scale distributed generation is from solar photovoltaic systems. However, new technologies (such as residential storage) are already on the market and are being adopted by a growing number of households and businesses. These technologies should not be excluded from eligibility for a feed-in tariff payment. Home energy management systems with storage will not only enable households to shift demand away from peak times; they will also enable households to export additional power at times when the system most needs it. There will only be an incentive to do so if feed-in tariff structures provide the financial incentive.

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Feed-in tariffs should be available to mid-scale systems

In the days of incentive-based, 1:1 feed-in tariffs it was reasonable to place an upper limit on the capacity of eligible systems. However, now that Tasmanian feed-in tariffs are based on the wholesale price of electricity there is no economic rationale for capping eligibility at several kW. In Victoria, for example, the 8 cent per kWh feed-in tariff is available to systems with a capacity up to 100 kW.

Feed-in tariffs should be time-varying

Feed-in tariffs should be time-varying, incorporating a peak, off-peak and critical peak payment, to reflect market wholesale prices at the time of electricity production. All things being equal, a time-varying feed-in tariff would better encourage small embedded generators to increase their export at peak times when compared with a fixed rate feed-in tariff.

Feed-in tariffs should be location-specific

Distributed generation can reduce the costs of distribution network capacity augmentation and in constrained areas of the network the financial savings are likely to be large. Victoria's Essential Services Commission (ESC) has recently (ESC, 2013a) recommended a location-specific component of a feed-in tariff that recognises the network value of embedded generation and provides an incentive to encourage take-up in those parts of the system subject to the greatest constraint.

CEC would support a location-specific component for feed-in tariffs. However, we are not aware of publicly available data sets that would enable the distribution network value of embedded generation to be calculated in a manner that is robust and transparent. There would be significant benefits from improved transparency in relation to information such as network congestion. It would, for example, enable regulators to set tariffs and fees so that there are incentives for efficient investment in distributed generation in those parts of the system subject to the greatest constraint. It would enable the distributed generation industry to focus its efforts on areas where system-wide benefits would be greatest.

Feed-in tariffs should be location-specific to encourage take-up in those parts of the system subject to the greatest constraint. CEC urges the Tasmanian Economic Regulator to consider the extent to which publicly available information on distribution network constraints enables efficient investment and regulation and how this might be improved.

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5. *Provide access to information for early adopters of time of use pricing*

CEC would oppose any move to compulsorily move solar customers to a time-of-use pricing tariff ahead of similar moves for all residential electricity customers. However, we would support moves to provide incentives for distributed generators (including solar customers) to shift voluntarily to a time-of-use tariff ahead of its broader application.

To minimise consumer resistance and maximise the uptake of the time-of-use tariff, the Tasmanian Economic Regulator and the Tasmanian Government should reassure solar customers that they will not be singled out for a mandatory tariff changes. Solar customers should be encouraged to switch to a time-of-use tariff. A benefit-reflective feed-in tariff and on-line tools would encourage and assist householders in making the decision to move voluntarily to a time-of-use tariff

Some customers would be financially better off by switching to time-of-use pricing. A great many more customers would be better off by switching to time-of-use pricing and changing their energy consumption patterns. However, customers do not have access to this information and so are very unlikely to voluntarily change electricity tariffs.

There are commercially available software packages that enable electricity customers to determine whether and how much better off they would be by changing their electricity tariff. Information such as this should be easily and freely available to consumers. Provision of this information clearly constitutes a public good and would therefore be very suited to funding by government, at least in its initial stages. CEC urges the Tasmanian Government to support the development of a freely and easily available software tool for consumers and distributed generators, allowing them to assess the financial impact of switching to a time-of-use tariff and the changes needed to their energy generation and consumption patterns to minimise electricity bills.

Consumers should be able to access raw data from their own smart meter as well as aggregated data to allow them to monitor their load profile and compare it to aggregated consumer segment load profiles. Load profiles coupled with cost reflective pricing practices would be particularly powerful in allowing consumers to observe their actual costs associated with their consumption patterns especially during periods of peak demand. General market information should be published on consumer segment load profiles to inform the development of demand side participation products and services to consumers.

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6. Regulate to allow distributed generation and storage to compete on fair terms, especially at critical peak periods

In the near future affordable and reliable battery storage will give customers the option of removing themselves from the grid altogether. However, disconnections would lead to very inefficient use of the network and there is more economic benefit to be gained from retaining distributed generation on the grid. To ensure that the potential economic benefits of distributed generation and storage are realised feed-in tariffs must be fair and efficient, encouraging demand-side management and distributed generation at the times and in the places where it is of most benefit.

The purpose of the regulation of feed-in tariffs is to ensure that all customers that are small embedded renewable generators have access to an efficient and fair price for exported electricity (DTF, 2012). That is, prices that reflect the economic value of those electricity exports, without cross subsidies between those electricity customers that generate electricity and those that do not (VCEC, 2012).

Distributed generators should be able to compete on fair terms for supply of electricity during critical peak periods when the system is under strain and the power is most needed. To maximise the benefits of distributed generation this would require a high feed-in tariff payment (commensurate with the prevailing wholesale electricity price) to be available during critical peak periods. By opening up competition to power supply during critical peak periods, the financial savings in poles and wires investment will be maximised.

Feed-in tariffs need to be regulated to ensure that investment in distributed generation is directed efficiently to maximise system-wide benefits and to ensure that customers have access to an efficient and fair price for exported electricity. Feed-in tariffs will not be efficient (eg. incorporating time-varying and location-specific payments) if setting feed-in tariffs is left to electricity retailers.

7. Reduce or remove barriers to competition by distributed generation and storage

On the mainland there has been an increasing tendency to only approve the connection of mid-scale distributed generation systems to the grid on condition that they are designed <u>never</u> to export energy to the grid. This is an unnecessary barrier to competition for supply of electricity. There is no sound economic rationale for allowing a monopoly business such as an electricity distributor to limit competition in this way. The only appropriate rationale for allowing a distribution business to limit export to the grid should be on the basis of issues regarding safety, system security, reliability or quality of supply. However, as noted by the Productivity Commission (2013), “it is important not to blame network businesses for the current inefficiencies. Mostly, they are responding to regulatory incentives and structures that impede their efficiency”.

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The Tasmanian Economic Regulator should support a policy allowing the grid-connection and operation of distributed generation in order to ensure fair conditions for competition in electricity supply. Simply preventing generation export will be unsustainable in the long term as it fails to ensure that network assets are utilised in an efficient manner by allowing distributed generation or storage to contribute to assisting the network.

Distribution businesses have justified the limitations placed on grid connection with reference to concerns relating to the perceived impact of generation on network parameters such as voltage. CEC acknowledges that very high penetration by a large number of small, 'simple' generating systems on a single transformer can cause over-voltage and voltage fluctuation issues. However, what is less well understood is that newer and larger, more sophisticated generating systems can assist with grid management. For example, inverters with reactive power capability can assist with voltage management. These technologies are available now, but have never been required by the relevant standards or distributors and there are no incentives for their utilisation.

Regulatory, technical and economic challenges of a new era of electricity generation and consumption must change in step with consumer expectations. Defensive actions by networks, such as preventing export, fail to deal with this evolution. Ultimately this behaviour combined with rapidly declining technology costs will create a significant economic burden as networks gradually diminish in value.

This problem requires a systemic resolution as it has the potential to have a significant impact on all consumers. In a disaggregated electricity supply system the inter-relationship between networks, consumers, retailers, market operators and regulators means that this is a multi-faceted issue which *belongs* to no one but *affects* all. Resolving it piece by piece will remain unsustainable and inefficient as a longer term strategic vision will be absent.

The Clean Energy Council and our members are working with distribution businesses, government, research bodies, regulators, rule makers and market operators to develop a strategic vision to address these concerns. In doing so we aim to ensure that all sides of the industry are engaged to reveal optimal solutions for what is a rapidly evolving electricity supply chain.

The Tasmanian Economic Regulator and the Tasmanian Government should support a multi-faceted approach like this to addressing challenges that are impeding the ongoing consumer-driven evolution of the electricity supply system. Failing to tackle this issue will only exacerbate the barriers to competition from distributed generation and storage. Moreover, there is a significant risk that failing to address network integration issues in an holistic manner with a long-term vision will lead to unsustainable, costly outcomes.

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In 2013 we have conducted workshops on distribution grid integration issues and reforms in Sydney, Melbourne and Brisbane and representatives of Aurora have been among the participants.

We note that the Federal Department of Resources, Energy and Tourism (DRET) commissioned AECOM to undertake a study into the feasibility of developing standards for the connection of mid-scale embedded generation to the electricity distribution networks within Australia. The study concluded that such standards would be feasible and should be developed. The final report is available on the web site of the Standing Council on Energy and Resources (SCER). DRET has subsequently commissioned AECOM to develop a proposal for consideration by Standards Australia.

The CEC would be happy to discuss this matter in more detail.

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Responses to the matters to be considered

In this submission we have addressed all of the matters to be considered, as outlined in the Terms of reference to the Tasmanian Economic Regulator. We have changed the order in which matters were addressed, to assist the flow and logical progression of the response.

a. Feed-in tariffs should not result in any cross-subsidies between customers or customer classes

The days of 1:1 feed-in tariffs are behind us, at least as far as new solar customers are concerned. The Clean Energy Council supports the principle that feed-in tariffs should not result in cross-subsidies between customers or customer classes.

We would encourage the Tasmanian Economic Regulator and the Tasmanian Government to consider adopting the policy objectives for a minimum feed-in tariff, as originally proposed by the Victorian Competition and Efficiency Commission (VCEC, 2012) and recently reiterated by Victoria's Essential Services Commission (ESC, 2013a) that,

> "The minimum FiT should ensure that distributed generators receive a fair price that reflects the value of the electricity they export to the grid and provide an efficient price signal to investors in small-scale distributed generators that will help achieve efficient use of distributed generation in a competitive electricity market."

The CEC supports fair and efficient electricity pricing. A fair and efficient framework for feed-in tariffs will deliver benefits to consumers and the economy and will drive innovation and industry development.

b. COAG's National Principles for Feed-in Tariff Arrangements

The Council of Australian Governments (COAG) National Principles for Feed-in Tariff Arrangements state that:

> Governments agree that residential and small business consumers with grid connected micro generation should have the right to export energy to the electricity grid and market participants should provide payment for exported electricity which reflects the value of that energy in the relevant electricity market and the relevant electricity network it feeds in to, ***taking into account the time of day*** during which energy is exported.

"Taking into account the time of day" means that, where possible, feed-in tariffs should be time-varying, reflecting the value of the electricity at the time that it is exported.

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Several policy development forums and bodies, such as the Council of Australian Governments (COAG) and the Productivity Commission, have recommended greater attention be paid to feed-in tariffs that are higher during periods when electricity value is highest. The purpose of price structures of this kind would be to improve incentives to maximise distributed generation exports when its system-wide value is highest.

The Productivity Commission (2013) noted that, "existing time-invariant tariffs do not encourage householders to orient units to the west to maximise generation in periods of peak demand late in the summer afternoon". To facilitate the achievement of these objectives the Productivity Commission recommended that, "State and territory governments should change the feed-in tariffs for any uncontracted small-scale distributed generators exporting power into the grid, so that their tariffs reflect the market wholesale prices at the time of energy production, and the (net) value to network businesses from reducing loads on their equipment at critical peak periods".

In its recent review of demand-side participation in the National Electricity Market (NEM) the Australian Energy Markets Commission (AEMC, 2012) recommended that, "consideration be given to the ability of time varying tariffs to encourage owners of distributed generation assets to maximise export of power during peak demand periods".

The VCEC (2012) expressed a similar view, noting that "adopting time-of-use pricing is desirable, because it provides a stronger economic signal to distributed generators of the value of production when overall electricity demand is high".

c. Approaches by other Jurisdictions

The Victoria Government has recognised the merits of a time-varying feed-in tariff. The Essential Services Commission (ESC) has recommended consideration of a time-of-use feed-in tariff structure for the ESC's review of the minimum feed-in tariff for 2015. If it proceeds Victoria would be the first Australian state to regulate a time-varying feed-in tariff.

d. Consistency with the operation of a competitive Tasmanian electricity market

Wherever possible, the electricity customers of Tasmania should have the opportunity to benefit from competition and efficiency in the marketplace.

Establishing a legal and regulatory framework to enable efficient, competitive markets is a critical role for government. Government needs to protect the rights of Tasmanians to compete in an electricity market that is fair and open. Monopoly businesses such as the electricity distribution sector must be regulated to ensure there is fair competition.

Technology is moving quickly, costs are coming down and policy makers and regulators need to move quickly to keep up. Governments must ensure that distribution networks

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are well regulated and that they are not a barrier to efficient competition by distributed generation and storage.

The Productivity Commission (2013) has noted the high degree of public ownership in the Tasmanian electricity sector,

> "The Tasmanian Government owns the sole transmission business in that State (Transend), the overwhelming majority of generation capacity (principally through Aurora Energy and Hydro Tasmania), the only distribution business (Aurora Energy), the dominant small customer retailer (Aurora Energy) and a major business retailer (Momentum Power)… In most other states, there is usually greater scope for competition from private businesses in the contestable parts of the system (generation and retailing)." (Productivity Commission, 2013, p.94)

The role of the State as owner and operator of Tasmania's distribution businesses has the potential to conflict with its role as maker of policies governing the Tasmanian electricity sector. As the Productivity Commission (2013) has noted,

> "State-owned network businesses have conflicting objectives, which reduce their efficiency and undermine the effectiveness of incentive regulation."

The government owns and operates Tasmania's distribution businesses and stands to financially benefit either from dividends from its continued operation or from the sale price if it is ultimately sold. There will be a natural, built-in bias on the part of the government toward overestimating the financial value and potential sale price of its asset. Governments must resist the temptation to regulate in ways that improve their financial position at the expense of economic efficiency.

Genuine competition by distributed generation and storage for supply of power at critical peak periods could reduce the likely sale price of the Aurora customer base or the price received for Tasmania's distribution networks, if they are ultimately privatised. There may be a marginal financial advantage for the Government to limit the ability of distributed generators to compete for supply of power at critical peak periods. However, constraining competition in this way would be short-sighted. Policies should be made with a view to the long term economic benefit of all Tasmanians, and not the short term financial interests of the distribution businesses.

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e. Commonwealth Government's carbon pricing arrangements

The Commonwealth Government has been very clear in its intention to remove carbon pricing at soon as possible. In the past some state governments have referenced the existence of the national carbon price as a reason why state governments no longer need to provide leadership to encourage reduction of greenhouse gas emissions. That rationale no longer stands. Under the Commonwealth's 'Direct Action' framework there will clearly be an important role for states and territories in dealing with climate change policy, including support for the increased uptake of small scale renewable generations.

f. Net financial benefits to retailers of exported electricity

Feed-in tariffs should be based on the system-wide economic benefits of distributed generation and storage and not merely the financial benefits that may be enjoyed by an electricity retailer. The Essential Services Commission (ESC, 2013b) has outlined the limitations of basing a feed-in tariff on the financial benefits enjoyed by electricity retails, stating that,

> "One limitation of this approach is that it is contingent on the structure of financial settlements in the wholesale electricity pool and of transactions between retailers and distributors or other input suppliers… the structure of transactions between retailers and distributors may not yet fully reflect principles established or proposed by relevant regulatory agencies. For example, the Australian Energy Market Commission has stated that there remain shortcomings in the existing arrangements relating to passing-on avoided Transmission Use-of-System charges to embedded generators under the National Electricity Rules. The Productivity Commission has recommended changes to the arrangements by which embedded generators are reimbursed by network businesses for savings in network costs."

The CEC agrees with the position of the ESC that feed-in tariffs should be based on system-wide benefits where it is reasonable to do so – for example, where it is reasonable to expect some changes in the commercial arrangements relevant to the retailer. This will clearly be the case in Tasmania, where the electricity market reform process is still in its early stages.

We strongly disagree with the recommendation that "the benefit of avoided network investment should accrue to all parties". This will provide no financial incentive for investments that would defer network augmentation costs. It is understood that network augmentation costs are driven by growth in peak demand and that peak periods of electricity generation by solar PV systems in Tasmania do not coincide with periods of peak demand. However, the price of storage is decreasing and increasingly residential consumers are investing in home storage. This provides a significant opportunity for deferring network augmentation costs, but this opportunity will only be realised if storage systems are considered eligible for feed-in tariff payments and if the feed-in tariff payment: includes a critical peak payment commensurate with critical peak

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wholesale prices; and recognises the financial benefit of distributed generation in terms of reduced network augmentation costs.

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