

AEMC Strategic Priorities Discussion Paper 2017

Submission from Enova Community Energy Ltd

As Australia's first, and only, community owned retailer, established with the goals of assisting communities to reduce carbon emissions and to benefit communities, Enova Community Energy compliments the AEMC on the overall clarity, quality, and strength of the paper in grappling with the extremely complex issues presented.

The Framework is essentially sound in our view although it does not quite convey the extent to which all the elements interact; in particular, the extent to which system security and reliability are, as issues almost completely integrated with effective markets and regulation, and electricity networks and their regulation. While this comes out to some extent in the various chapters, a framework which clarifies the interdependencies would possibly draw out some more effective and necessary actions, and potentially a different approach.

For example, Ch 7 on Reliability, does not examine the contribution DER (Distributed Energy Resources) could provide, and therefore fails to fully examine the extent to which a system of systems could build reliability, and create reliability for consumers. Nor, while the concept of a strategic reserve is raised, does it examine the way DER might be calculated to contribute to such a strategic reserve capacity.

As another example, in examining Networks, Ch 9, it is noted that the Finkel Review recommended Council or AEMC undertake to model the financial incentives for investments by distributed network businesses, and that this would be carried out by AEMC in its 2018 economic framework regulatory review but again it shies away from addressing the potential capability of virtually self-sufficient regional networks (a system of systems) to contribute to the cost efficiency of network platforms, and the need for integrated planning to achieve that.

Further, in ch. 9, the Discussion paper refers to the Distribution Market Model paper, issued 22 August 17, as outlining the areas for further reform and analysis to ensure forthcoming DER can contribute to more cost-efficient networks and reliability, however it again does not follow through on the implicit issues and actions that are needed to deliver greater affordability for consumers.

Our Argument: This Discussion Paper and the Distribution Market Model paper rely at all points on the *capacity of a better informed* market to deliver lowest cost solutions to consumers while meeting the other trilemma requirements. In our view this is unlikely to occur for two connected reasons, both of which could be addressed through planning towards a "system of systems" as advocated by Audrey Zibelman, CEO of AEMO.

Reason 1 Without planning, energy generation will continue to be dominated by large scale suppliers and centralised, one-directional energy supply will continue. Under present conditions, the transition to renewables is taking place in a way that involves simply changing the sources of power to large scale renewables (plus “firming”, using any of batteries, pumped hydro, solar thermal, or contracts for gas), while strengthening and building additional transmission and distribution systems for reliability, and to deliver energy from new distant locations.

The result is that costs to consumers remain high since transmission and distribution already account for 50% of costs, and these plans involve adding to such infrastructure, potentially in major ways. There continue to be significant losses of energy in transmission over long distances, so no savings eventuate in transmission. New investors in large scale renewables need to see good returns on their investments, and the 3 large “gentailers” will continue to effectively control much of the generation and the wholesale energy prices.

Security and reliability come at the cost of additional expensive infrastructure, and are only as good as the weakest link.

The present very significant transfer of money out of regional areas to the cities and offshore via energy bills continues i.e. little opportunity for regional development.

Reason 2 While the Distribution Market Model paper argues that regulation “however well-designed, is likely to be a second -best alternative to well-functioning markets at promoting economic efficiency in the long-term interests of consumers” (p.25), a self- evolving “distribution market” does not address the fact that the most vulnerable and those on lowest incomes are unable to participate – unable to take steps to protect themselves from continuing high costs, while those who are able to do so will move as rapidly as economically sensible. i.e. there is a market failure.

Middle income Australians can protect themselves through the adoption of solar pv, batteries, and smart technologies. (And for an increasing number, this will occur before it is economically rational based on emotional reaction to power bills, or as early adopters.) Those in the worst financial position will face increasingly high costs as network and fixed costs become shared by smaller numbers. The so-called “death-spiral” of the grid, while it should be unnecessary, becomes more likely while costs remain high because the energy supply model is fundamentally unchanged. In any case the failure to address, plan for and effectively support the development of the DER in a way that minimises costs (see Reason 1 above) and maximises community level control points to a messy transition to renewables and an increasingly inequitable energy system likely to result in (possibly counter-productive) political intervention.

A Regional Approach: By planning in terms of a “**system of systems**” it is possible to deliver lower cost, together with greater security and reliability, and lower carbon emissions.

It is already possible for each region to be largely self-sufficient, with most renewable energy used in a region generated right there, and retailed by community-owned retailers.

Distributors and Retailers know that it is now possible to change and timely to change. Recent developments noted throughout your paper, in terms of rapid improvements and declining costs in renewable technologies, including battery storage technologies, grid balancing, demand management and energy sharing/trading technologies, make a new approach feasible.

With a partnership between the customer (now called a “prosumer” – producer/consumer), retailer and the network; with additional storage managed by networks; smart technology managing network peaks; and household or street batteries being subsidised by retailers in return for some control, geographic communities can be largely independent, and the customer can share in the savings of a lower cost network.

Community owned small-medium scale plants (“farms” or “gardens”) can provide renters, and those without appropriate roof space to participate. Energy trading between neighbours can provide an avenue for those who don’t want to own their own equipment.

While making use of the existing grid, network and transmission costs can be lower because there are lower replacement (repex) and maintenance costs, and less reliance on transmission altogether. Consumers benefit from their role in strengthening the network, and communities rather than only large gentailers benefit from the transition to renewable forms of generation.

A “regional” model could also be applied to suburbs in cities. Planning for large scale renewable investment could then focus mainly on the need to support growth in industries and on finding locations as close as possible to industry growth areas, to maximise security and lower energy losses.

Where it makes sense, for isolated communities and farms at the “end of the line”, the line can be “snipped” while retaining equally good energy supply. No longer should it be necessary (as your paper indicates) to factor the costs of maintaining supply to remote areas into distribution costs and to share them across all consumers in the name of equity.

Enova Proposal: Enova Community Energy (Enova), as a retailer with a licence covering the NEM, but presently operating in the Essential Energy distribution network, is a social enterprise formed to assist communities to take control of their own renewable power and drive regional development.

From the outset (2015) Enova has had a vision which involves “Communities powering themselves” – a decentralised, distributed vision. Renewable energy, of course, targeting:

- energy acquisition from both centralised and decentralised local generators, e.g. feed-in-from local solar PV units, and aiming for increasing levels of community owned, local generation over time.
- Use of local generation to minimise energy transmission losses.
- Increased security and resilience coming from multiple layers of local delivery sources, with back-up if needed from the national grid but much less reliance on it.
- Keeping operations, jobs, and profits in regional communities.
- Using profits to enable the shift of all socio-economic groups to renewables

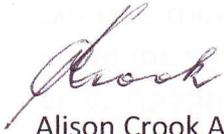
Enova is working closely with Councils, other community-based and regional organisations, with distributor Essential Energy, impact investors, and a number of providers of smart technologies such as Power Ledger, KARIT and Watt Watchers.

The Northern Rivers Region has the capacity to be a test bed for the detailed planning, modelling and delivery of a regional energy system that maximises security while lowering costs and boosting regional economic development. Once demonstrated it can provide a model which can be rolled out in other regions of the state and Australia.

A pilot project to facilitate and test the requirements for a regional system could be implemented, with an emphasis on building regional capacity, keeping money circulating in regional economies, and building jobs in new growth industries, while achieving the 4 agreed Finkel goals.

Enova in partnership with other organisations, including interested investors in the region has the ability as a retailer to coordinate, plan and deliver such a first regional energy system. However, as a start-up company working towards break-even, we do not have the funds to employ the people needed to drive the development, pay legal costs, system costs and work with regulatory bodies on necessary rule modifications. A full budget and time schedule can be provided on request

6.10.17



Alison Crook AO
Chair

Enova Community Energy Ltd.