

ATTACHMENT TO AGENDA ITEM

Ordinary Meeting

20 December 2016

Agenda Item 10.6 Parliamentary Inquiry into Community Energy Projects

**Attachment 1 Inquiry into Community Energy Projects Council
Submission October 2016..... 447**

Inquiry into Community Energy Projects

The Greater Shepparton City Council welcomes the opportunity to provide this submission to the Victorian Parliamentary Inquiry into Community Energy Projects.

1. The potential role of cooperatives, mutuals, social enterprises and community ownership in the energy sector.

Council believes that cooperatives, mutuals and social enterprises are an excellent way to promote community energy projects (CEP's). The organisations generally are run by the community with social and environmental goals and values that are not necessarily replicated by corporate organisations that tend to be dominated by return to shareholders. We believe that Community Cooperatives are probably the best model to use for CEP's but recognise the need, whatever the model used, to provide education and training to Community groups who are looking to set up Cooperatives to ensure they have the knowledge and understanding on appropriate governance.

2. The benefits of community owned energy programs.

Apart from the obvious advantages in reducing costs and greenhouse gas emissions, we think that Community benefits include the social, economic and community building process that such projects have proved to provide in the past. It helps build stronger communities with more local input into decision making processes. We think this leads to more inclusiveness and a greater resilience within the Community. It also probably encourages more people to be involved in projects that would otherwise find it difficult due to economic reasons. Community Energy projects we believe are a key in delivering Victoria's 40% renewables target by 2025.

3. The best ways to encourage the uptake of community energy projects.

Council has worked with the Goulburn Broken Greenhouse Alliance in developing this submission and has used their response, with their permission, in regard to this matter.

The best way to support community renewable energy is to remove the institutional and market barriers. The principal barrier to community energy is that it relies on the National Energy Market, electric distribution infrastructure and is institutionally undervalued and unable to economically efficiently participate due to an un-fair set of rules and un-even playing field. Following are some examples of the main barriers and suggestions to remove them to enable community energy:

Electricity generation licensing issues

To date, an important obstacle to establishing community energy projects in Victoria has been the requirement to have a licence to generate, distribute and sell electricity. This is a barrier not faced by projects in NSW and other states. The current reviews of the Victorian Government General Exemption Order review and the ESC licensing framework review will provide mechanisms to resolve these barriers, which the Victorian Government should fully support and implement.

Value of community energy not financially recognised

Community energy projects operate with marginal financial incentives. This is due to a range of cost barriers such as connection fees, as well as the current Victorian feed in tariff being so low. GBGA supports the current Victorian inquiry into the true value of distributed generation and hope that it results in a fairer price for small and medium scale renewable energy generators. As community renewable projects are often medium-sized (i.e. between domestic and utility scale) they lack the economics of larger renewable projects, and the targeted RET support and simple PV grid connection process available to households.

The need to create certainty for community wind in Victoria

The development of wind energy across the state is still largely hindered by the prohibitive clauses in VC82. Whilst we welcome the reduction of the 2 km setback to 1km in February of this year, there is still the need for the no-go zones and the 5 km setback around 15 regional towns across the state to be removed.

The rules of the energy market

Current energy market rules applicable to Victoria mean there are really only two main viable business models for renewable electricity – behind the meter solar, or large-scale wind or solar. Community groups have developed models for both approaches (see discussion about models below), but it means that a mid-scale community solar farm or bioenergy projects are currently not cost effective, constraining what communities can do. The critical issues facing the economic viability of ‘mid-scale, <1 MW’ renewables projects include:

- the difficulty negotiating a good power purchasing agreement (PPA) with a retailer;
- the cost of grid-connection; and
- the high cost of using the grid, even if just transporting energy a short distance.

Sharing energy across property boundaries with private wire

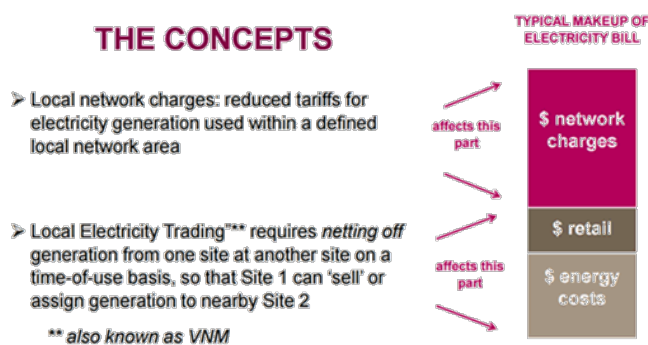
One area that directly limits opportunities for local governments and communities is licensing barriers around the use of private wire across property boundaries. These are sometimes known as “wheeling arrangements” and refer to when a distributed generator seeks to sell their excess power to their neighbours via their own wiring, avoiding the need for use of the costly distribution network. The key issue here is that the electricity may be delivered across property boundaries.

Several local governments are seeking to develop this type of model, whereby distributed generation acts as a supplementary supply. This is distinct from the idea of Virtual Net Metering or Local Energy Trading (described below) as wheeling arrangements do not typically involve the licensed distribution network and still sit behind the meter. The wheeling agent would construct and maintain any internal distribution wiring ‘behind’ the regulated meter, but essentially results in a ‘duplication’ of the electrical distribution network.

Virtual Net Metering/Local Energy Trading

A better outcome than local generators installing private wires between neighbors are the emerging models of “Local Electricity Trading” (LET) and “Local Generation Network Credits” (LGNC). Local Electricity Trading is sometimes known as Virtual Net Metering and sometimes as peer-to-peer trading. This refers to an arrangement whereby generation at one site is “netted off” at another site on a time-of-use basis, so that ‘site 1’ can ‘sell’ or assign generation to a nearby ‘site 2’. The economic implications for the unit cost of electricity under these models is summarised below in Figure 1 (sourced: ISF Report; Building a Level Playing Field for Local Energy; Local Network Charges and Local Electricity Trading Explained. Further information on the concept is available from the Institute of Sustainable Futures see this link; [ISF Report; Building a Level Playing Field for Local Energy; Local Network Charges and Local Electricity Trading Explained](#)

Figure 1: Virtual Net Metering – economic rational on unit cost of electricity. (ISF 2016)



Local Electricity Trading acts to reduce the combined energy and retail portion of electricity bills for local generation and local consumption. Many local governments have particular interest in this model for ‘selling to self’. This would be a situation where a council may have a large roof with low daytime energy use that it wishes to install solar PV on to offset electricity use in another council building with high daytime energy use.

Local Generation Network Credits are reduced network tariffs for electricity generation that is used within a defined local network area. In most circumstances, the tariff will 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. To facilitate their introduction in [Australia a Local Generation Network Credit rule change](#) proposal has been submitted to the AEMC.

There are a number of different models for applying LET and LGNCs:

- generation to be transferred to another meter(s) owned by the same entity;

- generator customers to transfer or sell their exported generation to another customer(s);
- community owned renewable energy generators to transfer their generation to local shareholders; and
- community retailers to aggregate exported electricity generation from generator customers within a local area and resell it to local customers.

Applying these models has been advocated by many as one means where network operators could avoid decreasing utilisation of the network. Rather than encouraging users to use battery storage to save the excess energy and perhaps go off-grid, LET and LGNC means their poles and wires still have some relevance in a new energy system going forward.

There has been a significant body of work done on these concepts by the University of Technology's Institute of Sustainable Futures which included participation from several Victorian entities including two local governments and a water authority. Please refer to the following link for further information; [Facilitating Local Network Charges and Local Electricity Trading research project](#)

Enabling Virtual Net Metering/Local Energy Trading in Victoria would unlock significant opportunities for local governments and communities to generate and sell electricity locally to neighbours. Currently, there is no incentive or obligation for retailers and networks to offer Virtual Net Metering to customers. The State Government could look at its own jurisdictional levers to enable this, as well as using the COAG energy council to advocate in favour of the Local Generation Network Credit rule change proposal.

Alternatively, the State Government could integrate a form of the local generation network credit into a new feed in tariff structure for Victoria. The Essential Services Commission (ESC) is currently considering this as part of its inquiry into the true value of distributed generation, however is waiting on the outcomes of the national rule change request.

4. The ability to expand community energy projects outside of solar and wind power.

Solar and wind power generation community energy projects are more easily understood and adopted due to their lack of complexity, however other options should not be excluded. As long as appropriate due diligence is undertaken in business planning other options may be successful. Again the constraints mentioned above will act as deterrents in adoption of other possible sources of energy production.

5. The best practice models of other Australian and international jurisdictions for supporting community ownership options in the energy sector.

Council is aware of other models in community owned energy projects but believes that these are easily researched by State Government.

6. The challenges to community energy projects in metropolitan areas.

Council believes that the issues identified in question 3 above are relative to all community energy projects irrespective of their geographic placement in urban or rural context.

7. Ways to support communities to surmount challenges to community owned energy in metropolitan areas.

By reducing the constraints mentioned in question 3 above community energy projects will be more easily adopted by community groups.