Medium Scale Solar Discussion Paper Submission

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Please find outlined below our responses to the discussion paper.

Summary

We present this submission with the note that support for medium scale solar PV should be placed in the context of an overall transition of Victoria's stationary energy needs to being 100% sourced from renewable energy.
In the light of this we would recommend that the working group review the Beyond Zero Emissions and the University of Melbourne's Energy Research Institute Zero Carbon Australia Stationary Energy Plan[1] which demonstrates that Australia's stationary and transport energy needs could be feasibly supplied by currently commercially available technologies with a significant by achievable investment.
If this objective is taken then the role for medium scale solar PV in Victoria can be ascertained with greater clarity and decisions over the type of support given can be made more strategically.

In summary we support the introduction of:

1. GROSS production feed in Tariffs that recognise the value of electricity which is generated and consumed in situ and would overcome some of the administrative and metering payment difficulties if a net feed in tariff were chosen.
2. The payment of a community or shareholder-ownership bonus in addition to any medium scale PV feed in tariff.
3. The establishment of a Community Energy Trust or similar agency to provide starts up loans and/or seed capital to local community ownership medium scale projects.

Opportunity

We believe that there is an enormous role for medium scale PV in Victoria to provide a significant portion of our stationary energy needs. There will be significant economic benefits will accrue to the overall network and are therefore socialised, which is an important outcome of the introduction of distributed energy generation that must be noted.
A well designed policy framework could initiate a large scale introduction of Medium scale solar PV which would deliver significant social benefits as well as environmental and economic benefits such as:

- Increasing the resilience of the electricity network through the widespread distribution of generation points.
- Smoothing out peak loads on the transmission network: and hence deferring the need for costly network upgrades and lowering costs to all consumers on the network.
- Reducing transmission losses within the distribution network.
- Diversifying the ownership of Victoria's generation capacity
- Providing greater social equity and access to Victorian's to directly own a portion of their local energy generation.

We contend that is will be important to adequately factor in the socialised benefits of distributed medium scale PV which accrue to the overall network, but which may not be attributed to a single facility. The socialized cost savings for the network and the greenhouse gas mitigation savings should not be underestimated.

[1] See http://www.beyondzeroemissions.org/zero-carbon-australia-2020

Responses to set questions

Our responses to specific questions raised in the discussion paper follow.

QU1: It is appropriate to define medium-scale solar as falling between 100kW and 5MW?

We suggest that the definition of medium-scale be from 5 kW – 5 MW as the current (SFiT) is currently failing to deliver any solar installations in the 5 – 100 kW range in our region and therefore this scale range requires additional support to be viable and for projects in that range to realise their potential.

QU2: Do you agree with such a definition and if not, why not?

See above.

QU3: What are the immediate financial short-term barriers to investing in the medium-scale solar sector and how do these differ from investment in small or large-scale solar?

There is currently very poor financial incentive for installations in the 5-100kW SFiT range, and no support for installations in the 100kW-5MW range; hence there are no medium scale PV installations outside of the Solar City Program in our region.

We understand that the VLSSFiT will address support to installations larger than 5MW.

QU5: Have all the relevant barriers to uptake of medium-scale solar been identified in this Discussion Paper, and if not, what are they?

Current metering arrangements are a significant barrier for shared-ownership solar farms as smaller projects connect 'behind the meter' and will be paid a tariff equal to the electricity import price.
We suggest that such projects receive a GROSS feed in Tariff to overcome this barrier- and that the tariff is paid directly to the project owner with separate consumption metering.

QU6: Can these barriers be differentiated by market segment (for example, are business entities likely to encounter different barriers to government organisations or community groups?)

It is important to understand that different segments have different investment objectives. In 2008 MASG undertook some research on the demand in our community for shared-owner solar PV installations in the 10kW capacity range and found great support for the concept; however at that stage such installations faced numerous barriers around metering and were not financially viable under the SFiT scheme.

We concluded that community owners are a potentially valuable investor who are willing to take lower rates of return (as low as 7% for many) than institutional or business investors and thereby could fund large number of projects throughout the state which would otherwise not be considered viable on purely returns to that specific generator.

We note however that community owned medium scale projects require significant effort and expense to bring stakeholders together and formulate the required legal and financial instruments to operate and as such we suggest would benefit from a separate top up or additional community feed in tariff as is instituted in several other jurisdictions around the world[2].

QU7: What is the most significant barrier affecting your particular market segment?
See Q 3.

[2] See the various community ownership tariffs in Ontario, Maine and Nova Scotia in North America.

Also lack of support for internally consumed electricity in medium scale facilities on large buildings like factories or shopping centres will be a major barrier- we would suggest that it will be much easier if any feed in Tariff were base on GROSS production and metered and payed under that process.

QU8: What level of uptake would be required for medium-scale solar to make a significant contribution to meeting renewable energy and greenhouse gas reduction targets and how feasible is such a level of uptake?

We believe this question should be placed in the context of an Victoria's stationary energy needs being supplied by 100% renewable energy , in this context all contributions of different technologies and scales, energy efficiency and demand management will be significant and feasible.

QU9: What contribution is medium-scale solar likely to make to the security and reliability of supply?

Medium-scale generators have the opportunity to be placed near demand centres in the distribution network, offsetting peak demand and improving security and reliability of supply.

QU10: How does this contribution differ from the contribution that is likely to be made by small or large-scale solar?

Medium-scale solar PV will distribute projects around the state compared with large generation which will be subject to network constraints and sufficient returns on investment and thus will likely be placed only in the sunniest areas of Victoria north of the divide.
Medium-scale solar PV will also attract community investment and those unable to install small scale PV and thus will ensure greater involvement of a wider section of the Victorian population in the ownership of electrical generation.
The financial PFiT driver for small scale solar is capped; and the costs of installation of small scale PV is currently more expensive than medium scale per kW installed capacity and is only available to those who have ownership or long term tenure over their own home, community building or business premises.

QU11: What are the opportunities for establishing local manufacture and production of solar technologies? To what extent are these regionalised?

The development of hundreds of medium-scale solar farms will provide local firms and tradespeople (throughout the state) with a chance to participate in an emerging and important new industry.

QU13: What support models for medium-scale solar are likely to provide the greatest opportunities for community engagement?

Locally based shared-ownership models for medium-scale will create high levels community engagement and a larger number of projects distributed across the state at a lower cost per household than small-scale projects. However we believe that the additional administrative costs in setting up and running these types of projects should be recognised and offset with a community bonus to any medium scale feed in tariff.

QU14: Are there any further broad policy aims which should be considered?

As noted, these considerations should really be made in a commitment to an overall switch to 100% renewable energy supply for Victoria.

QU18: What is the primary driver in your particular instance and why?

Our primary driver is to provide opportunities for local people to take action on global warming- and provide avenues for investment in locally owned and generated renewable energy as appropriate.

QU19: To what extent is increased uptake of medium-scale solar a regionalised opportunity?
As per Q 10

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QU26: Given the barriers you have already identified as being the most significant in your particular instance, what would be the most appropriate solution and why?

The payment of a Gross feed in Tariff to the facility owner along with a community bonus of slightly enhanced tariff for community ownership models as indicated earlier.
A policy framework that results in a modest rate of return from 7% to 12% after other financial incentives are accounted for would stimulate the large scale uptake of community owned or owner shareholder medium scale solar PV in throughout Victoria.
Such a Gross feed in Tariff should be in place for long enough to guarantee investor certainty.

The establishment of a Community Energy Trust or similar agency to provide seed loans, on an interest free basis, or even some seed capital to enable groups to start projects would be extremely valuable. An example of this is the Scottish Government's Community and Renewable Energy Scheme (CARES)[3] delivered by Community Energy Scotland[4].

[3] See http://www.communityenergyscotland.org.uk/cares.asp
[4] See http://www.communityenergyscotland.org.uk/our-aims.asp