



Essential Services Commission
Level 37 / 2 Lonsdale Street
Melbourne VIC 3000

23 May 2016

Re: ESC Inquiry into the energy value of distributed generation

Thank you for the opportunity to make the following submission on the Essential Services Commission (ESC) inquiry into the energy value of distributed generation (DG).

The Northern Alliance for Greenhouse Action (NAGA) formed in 2002 to share information, coordinate emission reduction activities and cooperate on research and the development of innovative projects. NAGA is comprised of the cities of Banyule, Darebin, Hume, Manningham, Melbourne, Moreland, Whittlesea, Yarra, Moreland Energy Foundation Limited and the Shire of Nillumbik. NAGA's goal is to achieve significant emissions abatement and energy cost savings by delivering effective programs and leveraging local government, community and business action.

Overall, we are supportive of the proposed methodological framework for calculating the energy value of distributed generation, and commend the ESC on seeking to recognise broader values than is currently reflected in the existing payment structure to distributed generators.

We would like to focus our submission on the following four areas:

1. Ensuring a new payment structure applies from January 1, 2017

We look forward to the State Government supporting the ESC approach and request that the State Government and ESC work to ensure that this framework is adopted as a new feed in tariff from the 1st of January 2017. We understand the network value of the inquiry is delayed whilst the AEMC make a decision on the Local Generation Network Credit. However we do not expect this to prevent the proposed tariff structure outlined in this energy value report to be implemented by next year.

2. Determining an avoided emissions value

NAGA supports the approach of a Deemed Output Tariff that is reviewed annually, and considers this to be an innovative approach to treating social and environmental values.

We commend the ESC for recognising the avoided emissions benefit of distributed



generation, a position NAGA has been advocating for many years. We also support the consideration of the *total output*, not just the *net output* to the grid. This recognises that even self-consumption is avoided electricity purchased from the grid, and thus can be attributed to greenhouse gas reductions.

However, NAGA questions the use of a marginal generator (i.e. open cycle gas) to determine the emissions intensity factor, and request that the ESC consider a more volumetric approach over a full year of the impact of solar and wind on demand, not just peak times. It is likely that solar over a year does in fact reduce demand from closed cycle gas turbines and black coal, and so NAGA recommends a higher emissions intensity factor be used to reflect this.

We also note the ESC has left the pricing of an avoided emissions value (\$/tonne figure) to the State Government, believing it to be a policy decision rather than one for the ESC.

Whoever makes the decision, we hope that this decision is not unduly delayed to prevent its adoption in a payment structure by 2017.

We expect that such a price is reflective not just of existing examples of derived carbon prices in Australia (e.g. VEET or Emissions Reduction Fund), but of what is reflective of the agreed Paris target of below 2 degrees and goal of 1.5 degrees Celsius. A recent report by CDP examined what an effective price trajectory would look like in order to meet a target of 2 degrees Celsius¹. It states that in order to drive any meaningful emissions reductions a carbon price needs to be in the range of \$30-70/tonne to enable the types of structural changes needed for a wholesale switch to low emissions electricity generation. Similarly, the Climate Institute recently conducted an analysis of what level of carbon price would be needed in our electricity market for meeting a below 2 degree target, and found this to be at least \$70-100 tonne². The CI state that adopting only a modest carbon price does too little, too late and would cause severe electricity system disruption and large socio-economic costs. We also consider that the current ERF auction price is not a true reflective cost of a market price for carbon, and note that other analysts have considered the real cost of the ERF to be in the vicinity of \$90/tonne³.

3. Other social and environmental benefits

We note that the ESC has maintained that other social and environmental values are not included at this stage but may be reviewed annually. Whilst we support the logic of the three-part test and annual review that the ESC has developed to assess social and environmental values we question what level of prior local demonstration is required for a value to be considered. For instance, the ESC accepts the NAGA proposition that there are health benefits of avoided pollution, as well as avoided water use benefits from distributed generation. Although there are examples overseas where this has been priced, the ESC has

¹ <https://www.cdp.net/CDPResults/carbon-pricing-pathways-2015.pdf>

² <http://www.climateinstitute.org.au/articles/media-releases/without-a-zero-carbon-policy-plan,-uncertainty-and-risk-will-plague-energy-users,-communities-and-the-power-sector.html>

³ <http://reneweconomy.com.au/2016/true-cost-of-direct-action-90tonne-to-increase-emissions-54467>



argued that there is no existing example in Australia. This suggests the ESC is being unwilling to show leadership in regulatory thinking and we maintain our previous position that just because a value is difficult to accurately quantify should not mean that that value is dismissed by the ESC. We would also argue that a social and environmental benefit that occurs within the NEM but is realised outside of Victoria is still a value that should be reflected.

In our previous submission we pointed to a recent report by the US National Renewable Energy Laboratory (2016) that measured public health benefits from state renewable energy portfolio standards in the United States. This work offers some positive examples of how to measure and quantify social health benefits from renewable DG. The report found that deployment of renewable energy reduced national emissions of sulfur dioxides, nitrogen oxides, and particulate matter by 77,400, 43,900, and 4,800 metric tons in 2013, respectively, leading to health benefits equal to \$5.2 billion. Importantly they translate these benefits to an energy unit value of AUD 8 cents/kWh. We recommend the ESC undertake a similar analysis for Victoria.

4. Remaining policy issues

We note that the larger policy question of the purpose of a feed in tariff remains a point of confusion between stakeholders and should be revisited and clarified by the State Government in clear terms. For example, the ESC is of the view (at least as described in the consultations) that the feed-in tariff is simply to address the market failure where small distributed generators are not able to negotiate in the energy market, thus requiring government intervention. Whilst this is true, there is also arguably a broader social and environmental objective of facilitating a transition to a decarbonised economy. Where the ESC is required to look at a triple bottom line approach to valuing distributed generation, there is a need for clarity on the scope of a feed-in tariff. This is demonstrated in how certain social values were considered by the ESC.

Thank you for the opportunity to comment on the draft report into the true energy value of distributed generation. We look forward to the proposed methodology being adopted by January 2017 and to making further comment on the upcoming network value component of this inquiry.

Yours sincerely,

David Meiklejohn
Executive Officer