
# Submission by Lighter Footprints Inc to the Energy Security Board

# Draft Design Consultation Paper: The National Energy Guarantee. 15 February 2018

Lighter Footprints is a large climate action group based primarily in the Boroondara and Whitehorse council areas of Victoria. It draws its members from the suburbs of Box Hill, Kew, Hawthorn, Camberwell, Canterbury, Surrey Hill and some parts of Ashburton, Glen Iris and Burwood and encompasses the Federal electorates of Kooyong and parts of Chisholm and Deakin.

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Dear Dr Schott

**Draft Design Consultation Paper: The National Energy Guarantee. 15 February 2018**

Thank you for the opportunity to make a submission on the *Draft Design Consultation Paper: The National Energy Guarantee* that the Energy Security Board released on 15 February 2018. The Consultation Paper is designed to gather feedback that will used in preparing a draft, high level design paper for distribution to all energy ministers in mid April.

This submission is by Lighter Footprints, a group of concerned residents (now close to 2000) from Boroondara and Whitehorse municipalities in Melbourne who came together in 2006 to see what we could do about the serious challenge of climate change. Our community recognises that climate change has been scientifically demonstrated for some years, and the extent of the challenges leads us to be impatient for effective action.

Members of Lighter Footprints would welcome the opportunity to further discuss our submission with you. We also look forward to making a further contribution when instruments implementing the final designs will be open for consultation in the second half of the year. Lighter Footprints can be contacted by emailing the Convenor at admin@lighterfootprints.org or by phone at 0411 115 186.

Yours sincerely

Carolyn Ingvarson
Convenor
Lighter Footprints Inc

## Our overall position

Lighter Footprints has serious reservations about the proposed National Energy Guarantee (NEG) and its capacity to ensure that Australia meets it obligations under the Paris Agreement on Climate Change that it signed on 22 April 2016 and which now has 195 signatories.

We note the complexity of the issues discussed in this Consultation Paper and the challenge this represents for community groups and individuals to understand and comment on these proposals. The Consultation Paper emphasises complicated, detailed and obscure implementation and other technical issues and lacks any analysis of the various principles and assumptions that underlie this particular approach.

It would seem the Energy Security Board (ESB) has presumed that the broader issues behind the NEG were adequately canvassed in the report completed in June 2017 by Dr Alan Finkel and that there was sufficient community debate at the time of its release. We consider this presumption to be incorrect.

We believe that there has been inadequate community debate surrounding Dr Finkel's report. In particular, we believe that the Clean Energy Target (CET) that he proposed should have attracted more discussion and consideration. At the same time, we note that there were significant weaknesses in the Finkel proposal especially that it had no mechanisms for producing market signals to encourage investment or innovation. Yet, in light of the move to the NEG, the merits of the CET become more apparent, not the least of which is the lost opportunity for a bipartisan agreement.

The failure to put into in place a robust and predictable policy framework for addressing the reduction of carbon emission has led to significant levels of uncertainty amongst investors and innovators in the field of renewable energy technology. We consider however that the National Energy Guarantee will lead to further delay in addressing the challenge of climate change because it contains major weaknesses.

Amongst these weaknesses are:

- The lack of ambition with respect to the emissions reduction targets
- The probability that major disruptions will occur in Australia's energy market as a consequence of NEG's complexity, the size of the burden placed on retailers and the absence of market mechanisms
- The potential for governance issues with respect to the proposed role of retailers
- The inefficiencies and costs associated with this model including related transitional and transactional costs, the need to establish a large bureaucracy to implement and monitor the scheme, the need to negotiate complicated contracts and the likelihood that more regulation will be required
- The outsourcing of risk by corporate consumers to the retailers
- The lack of effective incentives for investment and innovation and the reliance on retailers to provide these incentives

- The false assumptions that form the basis for this model including the presumed equivalence of reliability and emissions reductions as problems to be solved
- The potential for clashes between this proposal and those of the States especially Victoria and South Australia and the possibility that the National Energy Market will see more States withdraw in addition to West Australia and the Northern Territory
- The availability of alternative ways to achieve these objectives that are cheaper, better, more effective in addressing both emissions reduction and reliability

We feel unable to address this long list of failings within the scope of the Consultation Paper or within the timeframe provided for consultation. The Consultation Paper has turned its back on any analysis of what is the true problem that should be addressed here or the various options available to responding to the challenge of climate change and making a meaningful contribution to meeting our obligations under the Paris Agreement.

Accordingly. our submission will focus on some of the questions posed in Chapter 4 of the Consultation Paper.

We note that this process is being driven by Energy Ministers within the Energy Council of COAG (the Council of Australian Governments) who have instructed the Energy Security Board (ESB) to undertake this consultation and to report back with a draft high-level design for the National Energy Guarantee (NEG). We consider this does not provide sufficient recognition of the environmental implications of this mechanism.

We recommend that before this proposal is finalised, it should be submitted to the Meeting of Environment Ministers (MEM). This group comprises the Commonwealth Minister for the Environment and Energy and the Environment Minister from each Australian state and territory and was set up in December 2013 to replace the Standing Council on Environment and Water.

As a corollary to this recommendation we want to register our disappointment that COAG, in streamlining its Standing Council, Select Councils and governance forums, saw fit to treat environmental matters and climate change as a lesser priority.

We believe that, for a policy to be effective in solving the so-called trilemma of reliability, security and emissions reduction including support for financing of significant new generation investment, the proposed scheme should:

- acknowledge that the emissions reduction targets that we have committed to under the Paris Agreement are insufficiently ambitious to make a positive contribution to meet the challenge of keeping the increase in global temperatures below 2°C
- contain emissions targets that demonstrate Australia's ambition and commitment to meeting this challenge
- have a robust compliance framework that is transparent, easy to understand, cost effective and capable of identifying and enforcing accountability

- not create barriers to entry that discourage new generating, retailing or production capability or the development of further process or management innovation
- ensure it builds on existing processes, capacity and experience to prevent damage to and loss of confidence in the existing energy markets and to maintain momentum in implementing new measures

**Our position on the question of targets:**

***The level of the proposed target for NEG is insufficiently ambitious and needs to be consistent with the science. Any further delay in implementing effectively targeted mechanisms to reduce greenhouse emissions is both poor policy and irresponsible.***

Lighter Footprints believes that the 26% emission reduction target proposed for the NEG is much too low and is not consistent with the science. Greenhouse emissions need to be reduced to a level that is deemed safe by the science and consistent with limiting temperature rise to no more than 1.5°C.

We are of the view that any further delay in implementing mechanisms that provide effective targets for achieving rapid and consistent reductions in greenhouse gas emissions represents poor policy and is irresponsible.

The concentration of greenhouse gases already in the atmosphere and oceans is at a level well in excess of any historic concentration existing on the planet in the last 400,000 years. The warming effect of this blanket of pollution is already known to be responsible for undesirable impacts on climate in many parts of the planet, requiring urgent action to restore the balance between heat arriving from the sun and heat being radiated back to space. The extraction of greenhouse gases from the atmosphere, known as drawdown, is an urgent task which becomes more pressing with every day of delay in reducing greenhouse emissions to zero.

This is the task to which the international community, through the United Nations Framework Convention on Climate Change (UNFCCC) committed itself in the Paris Agreement of 2015, requiring positive action to limit global average temperatures to less than 2.0°C or, preferably, less than 1.5°C below pre-industrial levels. There is still debate in the scientific community on whether even 1.5° is a level of warming which can be considered stable.

The majority of parties to the Convention, including Australia, made legal commitments to Nationally Determined Contributions (NDCs) towards reducing emissions. The predictable total effect on temperature of all these NDCs has been calculated by the responsible international body, the United Nations Environment Programme (UNEP). The results are expressed in terms of the gap between the reduction in global emissions reductions required and the sum total of all NDCs.

When the commitments of signatory countries are aggregated, we can see that the world is not on track to limit warming to less than 2°C. To have a 66% per cent chance of meeting a 2°C temperature limit, the UNEP reported[1] in 2017 that this is unlikely as '*…the NDCs cover only around one third of the emission reductions needed by 2030.'*

Australia's current NDC commitment is to reduce emissions by 26-28% below 2005 levels by 2030.

Work by international research organisations such as those behind the Climate Action Tracker[2] show the inadequacy of Australia's NDCs. Climate Action Tracker reports the world is heading towards 2.7°C. Australia's individual emissions reduction target reportedly falls within a group of countries with NDCs described as:

> '*inadequate …if most other countries followed the Australian approach, global warming would exceed 3–4°C'.*

Let us assume that to solve the gap identified by UNEP that existing NDCs only cover around one third of the emissions reductions needed by 2030, then all countries should triple their emission reductions. This would suggest that Australia's NDC should be not 26-28% but 78-84% by 2030. In this light, it is clear that the 26-28% target is totally inadequate.

It is our firm belief that Australia should in the course of 2018, review the 26-28% target with a view to nominating a substantially increased target at the first opportunity.

This would be in keeping with world preparations for the UNFCCC Conference of the Parties (COP 24) in November 2018. It would facilitate Australia's genuine participation in UNEP's 'facilitative dialogue' to take stock of the collective efforts of Parties to progress the long-term goal and to inform preparation of nationally determined contributions.

1. Options for setting the emissions targets under the Guarantee.

We have major concerns that not only has Australia established very weak targets in the Paris Agreement but that the proposed NEG target fails to acknowledge that the electricity sector provides the cheapest path for emission reduction. In our view, it should play an extended role in this regard and aim for a much higher target.

Electricity is Australia's largest source of greenhouse emissions accounting for 187 million tonnes in 2015 (35.5% of total emissions). Under current policy settings, emissions from electricity are expected to remain at similar levels by 2030 (186 million tonnes). These projections take into account the closure of Hazelwood and the Renewable Energy Target being met.

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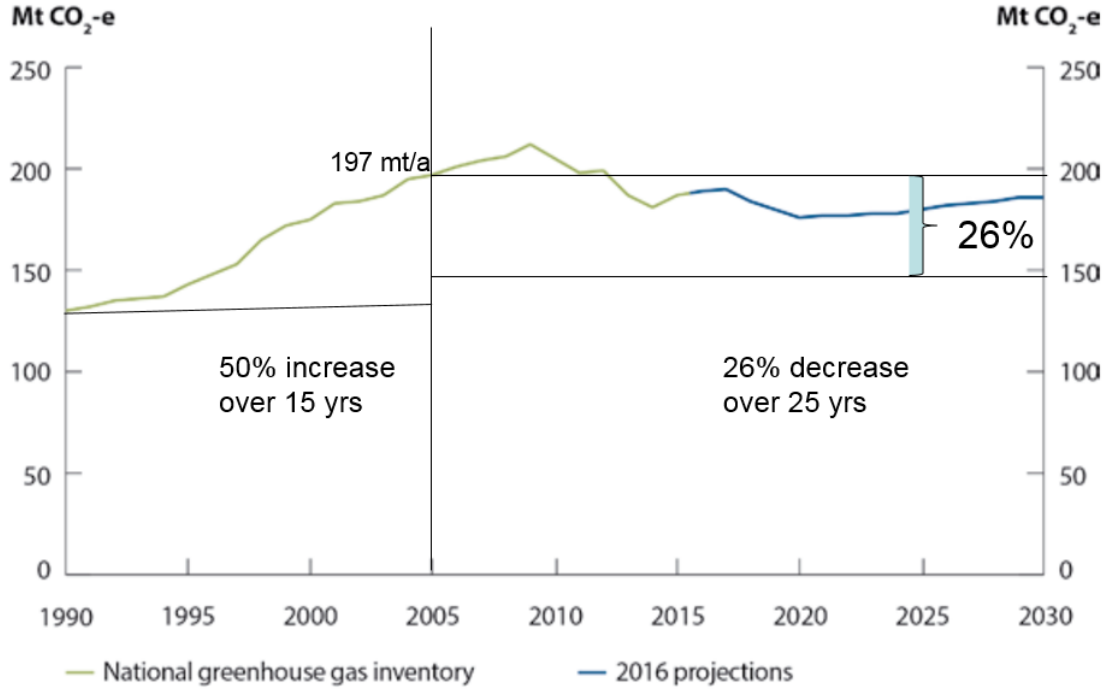
[1] The Emissions Gap Report 2017: A UN Environment Synthesis Report, United Nations Environment Programme (UNEP), November 2017.

[2] https://www.energetics.com.au/insights/thought-leadership/part-2-australia-s-emissions-reduction-targets/#_ftn2

Australia's latest projections are set out in the chart below[3] taken from analysis done by the Federal Department of Energy and Environment.




Source: Department of the Environment and Energy 2016; Department of the Environment and Energy analysis

The electricity sector is generally expected to be able to reduce emissions at a much lower cost than other sectors due to the existence of many abatement options. In particular, there are many ways to produce electricity with low emissions.

The question of the contribution of the electricity sector to emissions reduction was examined in modelling undertaken for the Climate Change Authority by Jacobs Group Australia Pty Ltd[4] in February 2017. The objective of the modelling was to compare seven alternative policies to meet a common emission reduction target. They included an explicit carbon price via a carbon tax, an emissions intensity target, three 'technology pull' policies, a regulated closure, and the use of absolute baselines. Amongst other things, they concluded

- Achieving the emissions constraint requires a transformation of the electricity supply sector, with a shift from predominantly coal fired generation to a mix of low emission technologies.
- All policies met, or came close to meeting, the demanding emissions constraint, with the exception of the regulated closure policy

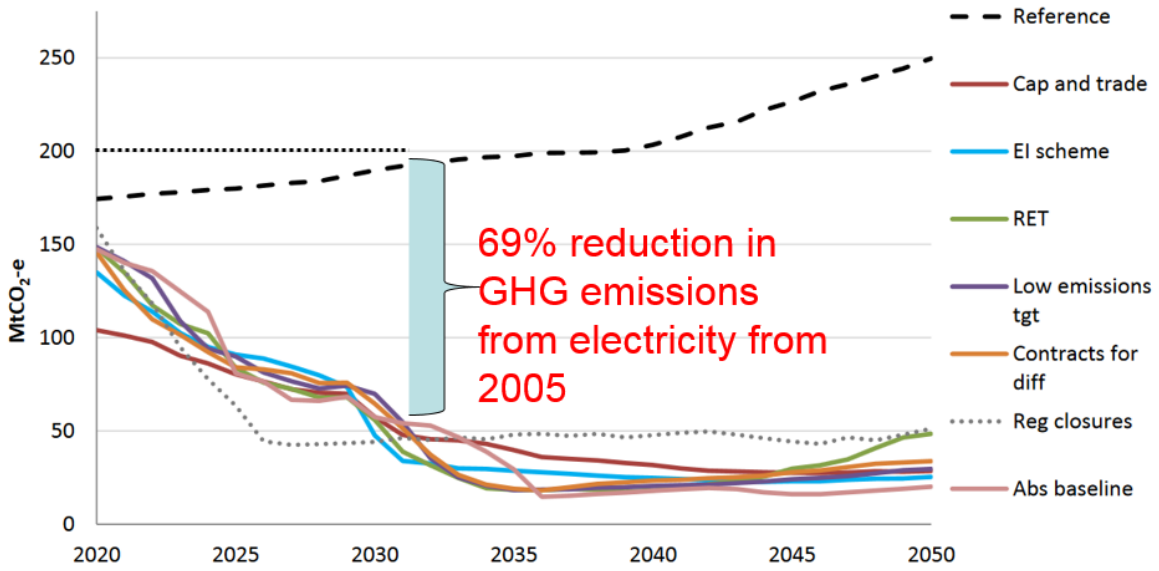
[3] https://www.environment.gov.au/system/files/resources/9437fe27-64f4-4d16-b3f1-4e03c2f7b0d7/files/aust-emissions-projections-2016.pdf

[4] http://climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/170217%20Jacobs%20Final%20Report%28revised%29.pdf

- Emissions pricing policies (carbon pricing and the emission intensity target) have the lowest resource cost.
- To achieve the emissions constraint, each policy had to encourage a high level of investment in low emission technologies, as well as change the pattern of dispatch away from high emissions to low emission sources.

Various industry sectors will undertake changes to their processes and improve their energy efficiency but these will very likely come at much higher cost, with a longer timeframe and with more disruption than in the electricity sector.

It is our view that emissions from the electricity sector of no more than the 60 million tonnes envisaged by the Climate Change Authority for 2030 would reflect the sort of ambition which should be endorsed by the NEG. This would make the target a 69% reduction on 2005 emissions by 2030.




Source: Final Report by Jacobs Group to the Climate Change Authority. Modelling illustrative electricity sector emissions reduction policies. 17 February 2017

Because of the low base Australia is starting from with emissions being amongst the highest per capita, there should be a high initial ambition to provide a large driving force for improvement.

We disagree with using a reduction target based on emissions per MWh of power generated. In the global consideration of emissions reduction, the key driver is the effect on the climate and our planet's environment generally. If emissions per kWh comes down to meet a target but electricity demand goes up with economic activity for example, then we have an unacceptable situation of emissions overall increasing once again. This option should be discarded entirely.

We also believe that international units should not to be used. A key purpose of the NEG is to ensure that sufficient new generation is built in Australia in a timely manner

that replaces aging and polluting power stations. Supporting abatement action overseas or in any other sectors other than electricity is only adding to electricity bills in Australia with no commensurate benefit to consumers.

2. • Whether, and in what circumstances, electricity emission targets already set should be adjusted.

We are of the view that the urgency of the global situation demands that every opportunity to increase the ambition for higher emission reductions be adopted as they arise. Increases in an industry sector's energy efficiency for example should not be taken as signal to reduce the ambition for emissions reduction in the electricity sector.

As more renewable and other low-emission energy capacity enters the market, the bar should be raised on further reductions to maintain the highest trajectory that is practicable at that time.

We believe that there is merit in holding Australia's emissions reduction target unchanged for a period of time, provided the target is sufficiently ambitious when set. It is essential that the target be changed only when a more ambitious target is intended.

3. The process for making any such adjustments to electricity emissions targets.
4. The proposed timing for updating the electricity emissions targets, including a five-year notice period.

A new, more ambitious, target for each succeeding five years period should be nominated as early as possible and not more than, say, two years into each five-year period. (Three year minimum notice instead of five.)

5. The proposed approach to setting the electricity emissions targets under the Guarantee and interaction with state renewable energy schemes.

Any action or measures that State governments, local governments, communities, businesses and individuals take to reduce emissions on a voluntary basis should be treated as additional and not contribute to meeting the mandated target.

In addition, these actions should be beyond the Governments own actions and not count towards meeting Australia's international commitments. The government needs to commit to voluntarily surrendering AAUs to the extent of any voluntary action.

6. Issues to be addressed in exempting EITE activities from the emissions requirement of the Guarantee

The concept of Emissions Intensive Trade Exposed Industries (EITE) is currently set out in Section 38C of the Renewable Energy (Electricity) Act 2000 and in the Renewable (Electricity) Regulations 2001. In 2016, there were 47 activities listed as exempt under these provisions. The top activity was Aluminium smelting which received an exemption

of just on 29 million MWh for electricity used in this manufacturing process. This compares to the second listed activity of smelting zinc with an exemption for 1.9 million MWh. A related activity, alumina refining was listed at ninth position with an exemption of 1.1 million MWh

We believe that proposals to exempt EITE activities from compliance with the emissions targets under the NEG should not proceed.

Such exemptions give industries an unfair advantage when compared to other non-exempt activities and provides an incentive for producers to undertake such activities in preference to less polluting activities.

The exemptions allow such industries to continue in a business as usual way and provides no incentive for either product or process innovation. They reduce the pressure on manufacturers of energy intensive products such as aluminium to adapt or invent new, better ways to manufacture their product in less energy intensive ways or to move into other areas of production that are less energy hungry.

There is also considerable doubt on whether 'carbon leakage' will actually occur. In November 2010, the Federal Government commissioned Ross Garnaut to do an independent update of his 2008 Climate Change Review[5]. . He notes in this review that:

> *Several studies over the last few years have assessed the likely extent of carbon leakage under different carbon pricing models and under different carbon prices. Broadly speaking, these studies have found that the likelihood of carbon leakage and the case for assistance to prevent carbon leakage, while still real, has largely been exaggerated in the public debate.*
>
> *As noted in the Australian Treasury (2008) modelling and reiterated by the Grattan Institute (2010b), a number of non-carbon price factors influence industry location choices. These include access to skilled labour, legal and political stability, access to resources, and quality of infrastructure. While carbon leakage risks cannot be quantified with certainty, it is likely to be less of a risk than public discussion suggests.*

Although this was written in the context of a carbon price, we believe that it will apply in any circumstance where EITE activities are given exemptions from a requirement to meet specific emissions targets.

This question is further discussed in a Grattan Institute report of 2016 entitled Climate Phoenix: a sustainable Australian climate policy [6]

[5] http://www.garnautreview.org.au/update-2011/garnaut-review-2011.html
[6] https://grattan.edu.au/wp-content/uploads/2016/04/870-Climate-Phoenix.pdf

A further concern that we have with respect to exemptions for EITE activities is that they could be considered as protectionist and in contradiction with our obligations under trade agreements that we have signed within the context of the World Trade Organisation. Although this has not been a problem to date, there is always the possibility that we may be called out by another signatory who does not permit such exemptions.

We recommend that before any decision is taken on whether EITE activities should be exempted from the requirements of an emissions reduction target that a thorough and independent study be undertaken on the impact of such exemptions on other local industry sectors, how likely 'carbon leakage' is to occur and what options are available to assist such activities that do not pose the risks and create the distortions associated with the granting of exemptions. This could be accomplished by tasking the Grattan Institute to do an update review based around its reports of 2010 and 2016.

We have no comment to make on the following three questions relating to offsets

7. Whether there is a strong rationale for the use for offsets within the Guarantee
8. The impact allowing offsets would have on investment under the Guarantee
9. If offsets were to be used to help achieve compliance with the emissions requirement, what would be an appropriate limit for their use

**Our major recommendations:**

1. Before this proposal is finalised, it should be submitted to the Meeting of Environment Ministers (MEM).

2. Australia should in the course of 2018, review its emissions reduction target of 26-28% with a view to nominating a substantially increased target at the first opportunity.

3. As the electricity sector provides the cheapest path for emission reduction, it should play an extended role in this regard and aim for much a higher reduction target. A detailed sector emissions reduction cost analysis should be undertaken to provide a rational basis for setting the target.

4. Because of the low base Australia is starting from with emissions being amongst the highest per capita, there should be a high initial ambition to provide a large driving force for improvement

5. The option of basing a reduction target on emissions per MWh of power generated should be discarded entirely. International units should also not to be used

6. Every opportunity to increase the ambition for higher emission reductions should be taken as they arise. As more renewable and other low-emission energy capacity enters the market the bar should be raised on further reductions to maintain the highest trajectory that is practicable at that time.

7. Any other action or measure taken outside those done under Federal Government should be treated as additional and not contribute to meeting the mandated target. Such actions should not count towards meeting Australia's international commitments.

8. Before any decision is taken on exemptions for EITE, a thorough and independent study should be undertaken on the impact of such exemptions on other local industry sectors, how likely 'carbon leakage' is to occur and what options are available to assist such activities that do not pose the risks and create the distortions associated with the granting of exemptions.