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BIOENERGY AUSTRALIA SUBMISSION – NATIONAL ENERGY GUARANTEE CONSULTATION PAPER

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The purpose of this submission from Bioenergy Australia is to provide comment on the design of the National Energy Guarantee (NEG).

About Bioenergy Australia

Bioenergy Australia was established in 1997 to foster and facilitate the development of biomass for heat, power, liquid fuels, and other value-added bio-based products. Bioenergy Australia is the non-profit Industry association supporting the bioenergy sector.

We are committed to accelerating Australia's bioeconomy. Our mission is to foster the bioenergy sector to generate jobs, secure investment, maximise the value of local resources, minimise waste and environmental impact, and develop and promote national bioenergy expertise into international markets.

Australia currently lags behind the world when it comes to bioenergy, and we aim to change that. We empower, share knowledge, and connect Australian bioenergy producers, investors, researchers, and users to make Australia's bioeconomy world-class.

We Advocate - With our members, we anticipate and develop leading positions on issues of concern to the advancement and growth of bioenergy in Australia.

We Campaign - We raise the profile of the industry within the media and broader community to achieve a greater level of understanding about bioenergy and the vital role it must play to achieve carbon neutrality by 2050.

We Inform - We publish reports, webinars and articles to help our members keep ahead of industry trends and opportunities. We also manage the Biomass Producer website, an AgriFutures Australia resource showcasing Australian bioenergy projects, expertise, and identifying opportunities for primary producers.

We Connect - We facilitate knowledge exchange and networking for members through Business Breakfasts across Australia, our Annual Conference, and Webinars. We link investors with emerging businesses; researchers with technology developers; government with innovators. We also administer Australia's participation in IEA Bioenergy. Our Industry groups bring together specialists in specific fields.

Bioenergy Australia's response to the proposed National Energy Guarantee (NEG)

Bioenergy Australia would like to ensure that the Department understands the possibilities and opportunities for bioenergy as a dispatchable option for the NEG.

Bioenergy Australia would also question the limitation of the NEG to only reference electricity and not heat. Renewable thermal technologies have been developed to offer clean, efficient, safe and cost-competitive alternatives to fossil fuels in replacing these conventional energy sources. They reduce emissions and air pollutants without sacrificing living comforts. The lack of recognition for renewable heat is a significant missed opportunity for Australian industry and manufacturing to reduce costs, improve competitiveness and achieve improved social and economic outcomes. Bioenergy Australia believes it should be included in the NEG. As an example, end use energy in Victoria is around 50% as heat.

Renewable heat would drive projects, investment, jobs and competitiveness in multiple sectors including agriculture, sawmills, meat processing, sugar mills, food processing, cement manufacturing, and other manufacturing industries being impacted by high gas prices. Therefore, we believe that renewable heating solutions should also be considered in the development of new strategies to deliver more reliable, affordable and cleaner energy to Australian consumers.

Bioenergy is energy derived from plants, animals, and their by-products and residues. Agriculture, farming, human habitation and forestry generate crop wastes and remains, manures and sludges, rendered animal fats, used oils, and timber residues. These products are known collectively as "biomass". Biomass converted to bioenergy through a range of technology solutions can provide dispatchable electricity, whilst at the same time reducing emissions and waste.

Since NEG relies upon being agnostic with regards to different energy sources, we believe that equal consideration should be given to bioenergy. For instance, when dispatchable options are listed on page 11, bioenergy should also be mentioned.

The high expectations for new investment in bioenergy forecast at the time of the introduction of MRET in 2001 have never been met. There are a number of reasons for this outcome and it is hoped that the introduction and adoption of a well-designed National Energy Guarantee may enable these higher expectations to be met in future.

Reliability requirement

The requirement to invest in dispatchable energy or demand response that is at the heart of the Reliability Guarantee will provide an additional incentive to invest in new bioenergy generation. The additional revenue over intermittent sources of generation should enable the share of bioenergy in the NEM to increase provided that the market design is fit for purpose.

It is important that penalties for non-compliance with the guarantee are sufficient to ensure that liable parties will contract to cover the risk rather than risk the consequences of default.

It is also important that it is feasible for new entrant generators to access additional sources of revenue attributable to their generation including various forms of ancillary services, and avoided TUoS and DUoS. Traditionally due to their scale and the operators' lack of NEM knowledge, it has proved nearly impossible for bioenergy generators to access revenues for these services. This is an ongoing example of a barrier to new entrants of which there is considerable evidence and it is to be hoped that the new Reliability Guarantee can assist to reduce these barriers within the NEM.

Due to the distributed nature of most bioenergy resources, it can be difficult to obtain scale in the size of individual generators. With most bioenergy resources being in rural and regional areas, this is also where the potential value of a dispatchable generator is highest, but obtaining connection and access to the network and full value for the energy and other services is often beyond the scope and scale of potential developers and investors. It is in part for these reasons that many overseas jurisdictions have implemented Feed in Tariff schemes to enable smaller bioenergy plants to be effectively implemented. Perhaps as part of the Guarantee an agency can be considered to offer and then aggregate FIT's to support development of new entrant generators on some sort of deeming principle.

The detail of how regions will be established and reliability targets set is also very important. As already mentioned many present and potential bioenergy generators are in rural and regional areas and their proximity or otherwise to other generators and loads will have a material impact on the prospects for successful project development.

Emissions requirements

The main constraint to new entrant generators under the current energy market and MRET has been the political risk of changes to market rules. The economic life of bioenergy generators is measured in decades and therefore the political risk of changes to requirements and targets can be enough to deter all but the bravest of investors.

The plan to implement the National Energy Guarantee goes some way towards addressing this concern, but it can only achieve its ultimate objective if it achieves bipartisan support and is designed to ensure that the process for changing targets is tied to somewhat more predictable indices such as international emissions obligations rather than unpredictable partisan positions on particular forms of generation. Furthermore, there needs to be a clear and transparent process for any change to the target and for the target to remain unchanged as long as possible while being consistent with good public policy.

It is important that penalties for non-compliance with the guarantee are sufficient to ensure that liable parties will contract to cover the risk rather than risk the consequences of default.

Bioenergy is often the fuel of choice for cogeneration in rural and regional areas where the fuel and associated processing of biomass are in the same location. One of the most effective ways for overall emissions to be reduced is through the implementation of cogeneration. However, the proposed scheme appears to only value the emissions from the generation of electricity and not from the beneficial non-electrical generation thermal energy use. MRET also suffers from this flaw which may not result in the overall most effective cogeneration plant being implemented. The market design needs to consider this issue to see whether there is a means of encouraging the most efficient overall plant cycle to be implemented where thermal energy is used beneficially in other processes.

In order for a bioenergy fuelled generator to meet reliability guarantees, it may be necessary for the generator to use non-renewable fuels for part of their generation. Together with other factors such as variability in calorific value of fuels and variable fuel moisture contents, this means that the emissions per MWh of electricity generated can be highly variable. Therefore, a properly designed register of fuel used and electricity generated will need to be kept and acquitted by each generator to ensure that contracted levels of reliability and emissions are met.

One other aspect of the proposed new emissions guarantee that is important is that it does away with the MRET requirement for a baseline. This means that the incentive to move an existing or proposed new generator from present MRET and NEM arrangements to the National Energy Guarantee could

vary considerably. The planned transition arrangements in this respect should be evaluated, as well as the possibility for existing generators to continue under current arrangements in the NEM where MRET is more favourable for the project.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Shahana McKenzie'. The signature is written in a cursive, flowing style.

Shahana McKenzie
Chief Executive Officer
Bioenergy Australia