

13 July 2018

Energy Security Board

By Email: [info@esb.org.au](mailto:info@esb.org.au)

## Response to Draft Detailed Design Consultation Paper

Energy Developments Pty Ltd (**Energy Developments**) thanks the Energy Security Board (**ESB**) for the opportunity to make this submission in reply to the Consultation Paper dated 15 June 2018.

Energy Developments' vision is to be the leading global producer of sustainable distributed energy. As such we support policy such as the National Energy Guarantee (the **Guarantee**) and the emissions reduction framework that supports it. These frameworks encourage lower emissions, maintain system security and reliability, and improve affordability. As a company, we seek a policy that:

- Supports the delivery of new investment into distributed energy generation;
- Supports a strong and enduring abatement target;
- Removes complexity to support the delivery of low emissions at an affordable energy cost for consumers;
- Adopts a consistent approach to recognition of net emissions across alternative technologies;
- Supports the transition from the current RET; and
- Promotes competition in a mostly concentrated energy market.

We believe, other than for the comments below, that the Guarantee has these attributes. Energy Developments provides its submissions from the perspective of a clean, distributed, small scale generator of reliable electricity.

In summary, Energy Developments submits:

1. Zero emissions for Waste Coal Mine Gas - that waste coal mine gas should be granted a zero emissions intensity under the Guarantee to recognise its beneficial reuse of a waste stream;
2. Controlling Corporation – the application of the Controlling Corporation, consistent with the NGERs reporting, delivers a more efficient scheme;
3. Non-market embedded generation – that proponents of behind the meter generation should be able to allocate the emissions associated with generation to a chosen counterparty rather than having them automatically allocated;
4. LiabE Entities – the ESB consider the merits to the management of reliability in the NEM of adopting a lower threshold than 5MW and adopt a 1MW threshold; and
5. Penalty – having a known and specific penalty will enable a more transparent and efficient trading regime.

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Other than for submissions 1 – 5 above, Energy Developments supports the submission provided by the Australian Energy Council (**AEC**). Appendix 1 provides more detailed comment on the submissions above.

Energy Developments would welcome an opportunity to discuss this submission further with the ESB. Please contact Fiona Daly, Global Regulatory Affairs Manager on (07) 3275 5504 or [Fiona.Daly@edl.com.au](mailto:Fiona.Daly@edl.com.au) if you would like to discuss any aspects of this submission.

Yours sincerely

A handwritten signature in black ink, appearing to read 'J Harman', written in a cursive style.

**James Harman**  
Chief Executive Officer  
Energy Developments Pty Ltd

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## APPENDIX 1

### Zero Emissions for Waste Coal Mine Gas

Energy Developments supports the intent of the Guarantee to integrate energy and climate policy. However we are concerned that the Guarantee does not recognise the carbon benefit of using a waste stream as opposed to a purposefully created fuel to generate electricity.

Energy Developments produces 288MW of NEM connected generation from waste coal mine gas in regional Queensland and New South Wales:

- Waste coal mine gas is a waste gas created as a by-product of an industrial process (coal mining);
- As a part of that industrial process, emissions are created;
- The generation of electricity from the waste gas captures the emissions and turns them into a useful product, electricity; and
- If waste coal mine gas is not captured and converted to electricity it is flared (with no beneficial reuse) or vented as methane (a negative environmental outcome).

Energy Developments is concerned that the Guarantee does not capture the whole carbon lifecycle of the waste gas process:

- This lifecycle includes the carbon emitted from electricity generation activities and the reduction in carbon emissions from the flares and vents on the mine site;
- Other schemes have captured the lifecycle of the waste gas, from creation through to ultimate use;
- Those schemes generated behaviours to promote the capture and use of waste gases, whereas the Guarantee has the potential to drive behaviours to the contrary; and
- The use of waste gas in a generation plant does not increase carbon emissions (compared to the alternatives of venting or flaring the waste gas).

A benefit of waste coal mine gas generation is that it has a firmer and more reliable generation profile than solar or wind generation, offering system reliability and security benefits in regional locations. It has also helped delay extra investment in constrained network areas.

Energy Developments submits that waste coal mine gas should be granted a zero emissions intensity under the Guarantee to recognise its beneficial reuse of a waste stream and to encourage its utilisation at coal mines to support greener mining and also to support greater reliability in the NEM.

### Controlling Corporation (3.3.1)

Energy Developments prefers the original proposal of the ESB to use the definition of controlling corporation applied under the National Electricity Rules (the **Rules**) rather than applying the emissions obligation to each market customer under the Rules. The definition is well understood in the market and has functioned well. National Greenhouse Gas Emissions Reporting has been in place for many years, with obligated parties' data captured under the controlling corporation. It is unclear why it would now be unable to operate as the means of assessing emissions.

An obligated party with an automatic allocation of generation and subsequently high emissions has several options:

1. It can reduce its high emissions generation to lower the intensity of its fleet, and in doing so, the obligated party will amend its Short Run Marginal Cost (**SRMC**) to reflect the likely costs of complying; and/or
2. It can sell their high emissions to another party with lower emissions; and/or
3. It can purchase low emissions to reduce their average emissions intensity.

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These are sensible outcomes and drive decisions to lower emissions in the context of price and reliability.

Breaking apart the controlling corporation and moving to a market customer definition is likely to result in:

1. Obligated parties only allocating to themselves their low emissions generation from their fleet - the cost of high emissions will be borne by the residual and smaller retailers through the unallocated mechanism;
2. No or limited change in dispatch - without an incentive to lower emissions linked to the obligated party, the obligated parties will have no or limited need to amend their SRMC. There is no need to reduce generation as the obligated party is not bearing the cost. The ultimate effect of this is that as new low SRMC generation enters the market, and price reductions occur, the highest cost generation is displaced in advance of the highest emissions generation;
3. Reduction in competition – small retailers, who are the least credit worthy and least capable of securing low long term emissions technology will be bearing the cost of the unallocated pool of high emissions. The cost of past investments by the obligated parties should be borne by the obligated parties;
4. Reduced registry liquidity - if the obligated party has no starting position i.e. with their own generation allocated to them or a default to leave it unallocated and/or suffer a mild administrative penalty, then the obligated party will have limited requirement to contract in green credits. Having a starting position, for example with emissions above the baseline, will result in a need to trade down from that position rather than leave the asset in an unallocated bucket.

A good scheme is one that balances price, emissions and reliability, is transparent and is well understood. Departing from the controlling corporation mechanism (well understood and transparent) and the automatic allocation of the existing emissions (allocating the cost where it should exist) will drive behaviours that move away from a concept where price, emissions and reliability are balanced. Whilst Energy Developments remains very supportive of the Guarantee, this is one area where the fundamental scheme objectives may be impacted should the design not appropriately address the concerns above.

### ***Civil Penalties (3.3.2)***

Energy Developments believes that a specific and known penalty is likely to lead to a more liquid contract market as it relates to the registry. A penalty determined by the AER, many years in arrears of the actual shortfall in emissions is unlikely to result in an improved and liquid contract market. An effective market will need a price to frame against, providing certainty to both sides of the contracting equation.

Further to this it is Energy Developments' view that should the Energy Security Board choose to not adopt the controlling corporation provisions, the administrative requirement as outlined in 3.3.2 to allocate all generation and emissions from the reporting date should be strengthened to be consistent with an emissions non-compliance. As noted above, a key risk is without this strengthening an obligated party may choose to suffer an administrative penalty rather than allocate high emissions generation from its portfolio. The resultant impact of this is that through the unallocated emissions allocation, a small retailer will bear the cost of the poor emissions from an obligated party. The small retailer will end up having to mitigate this cost, which otherwise would have been mitigated by the vertically integrated obligated party.

### ***Non-market embedded generation (3.3.3)***

Energy Developments understands the need to match total generation to total load. However, Energy Developments submits that proponents of embedded generation should be able to allocate that generation to a retailer of their choice rather than for that generation to be automatically allocated to a market customer's load. Without the ability to continue to trade that

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embedded generation and realise the benefits associated with the generation, it is unlikely that a market will continue to develop to promote its use.

***Liable entities (4.5)***

Energy Developments supports the intention of the ESB to provide sufficient incentives for liable entities to support the reliability of the system to prevent gaps in reliability emerging. Energy Developments agrees that some market customers should be included with retailers as liable entities such that a positive obligation rests on those market customers to contract for energy in a way that promotes reliability.

Energy Developments suggests that more could be achieved from a reliability perspective by lowering the proposed 5MW threshold to 1MW at a single site. This would allow a greater spread of retailers to compete to manage reliability of behalf of market customers.