



Ref: 028-mm-sm

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David McCarthy  
Executive Manager  
MRET Review Team  
GPO Box 621  
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Dear David,

Please find herewith a submission to the MRET review panel made on behalf of CSR Sugar.

### **Introduction**

CSR is a large diversified Australian company with interests in the building materials, aluminium and sugar industries. CSR operates 7 sugar cane crushing mills, processing about 40% of the Queensland sugar cane crop. CSR also has interests in sugar refining and ethanol production.

CSR is a significant part of the Queensland sugar industry. This industry is the largest employer in regional Queensland. The Queensland sugar industry is primarily an export industry, exporting into a world commodity market with a history of falling real prices. Renewable electricity generation can provide an additional income stream which contributes to the employment security in this industry.

CSR's 7 mills currently have a combined renewable generation capacity of over 100 MW. CSR is currently considering the development of renewable energy projects at 3 of these mills with a combined capacity in excess of 200MW of additional renewable generation. This additional generation is available through increased generation and process energy efficiencies, and would be able to occur without utilising renewable fuels in excess of those currently available within the current sugar value chain.

The following seeks to address those terms of reference of the review which apply to CSR and the sugar industry.

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- A. *The extent to which the Act has contributed to reducing greenhouse gas emissions; and encouraged additional generation of electricity from renewable energy sources*

The MRET scheme has resulted in additional generation to be viable from CSR's sugar mills. This scheme has encouraged and made viable alterations to factory operating practices which have resulted in increased renewable electricity generation from the available bagasse.

The introduction of the measure has generated limited capital investment in bagasse cogeneration to date.

- B. *The extent to which the policy objectives of this Act have been achieved and the need for any alternative approach.*

The MRET scheme has and is likely to continue to promote employment opportunities within regional Queensland. If the recommendations contained in this submission were implemented, bagasse cogeneration projects would become more viable and the employment security within the sugar industry would be improved.

The implementation of large scale cogeneration within the sugar industry will develop the expertise within the Australian sugar, engineering and equipment supply industries in the techniques and technologies required to undertake such projects. There are many countries with similar undeveloped cogeneration opportunities in cane sugar industries which will provide export opportunities for these Australian companies. Australia has a history of successful export of sugar milling technology and equipment, and development of cogeneration expertise will provide additional opportunities. The successful development of bagasse cogeneration will create significant export opportunities.

- C. *The level of penalties provided under this Act.*

At the price at which REC's are currently trading, new bagasse generating capacity is a marginal investment proposition, and to date, while many projects have been assessed, new investment has been very limited. Should RECs trade at the maximum theoretical price based on the current penalty, some additional bagasse cogeneration would be economically viable. It is evident that the level of demand (as determined by the size of the target) rather than the penalty is the current constraint on further development. Certainly further generation would become viable should the trading price of RECs increase, but it is not evident that changing the penalty alone, without changes to the target would achieve that outcome. It is likely that if the level of the penalty was increased, and the target was also increased, then the level of renewable generation available from the sugar industry

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would increase. It should also be noted that the impact of the legislation sunset date and uncertainty generated by mandated reviews are also significant issues which impact on the investment climate for renewable generation.

- D. *The need for indexation of the renewable energy shortfall charge to the Consumer Price Index to maintain the real value of the charge and the associated penalty charge.*

Bagasse cogeneration projects currently under assessment within CSR Sugar offer marginal returns with expected REC price predictions. This is in part due to the declining predicted real value of the penalty and therefore of RECs. When taken in concert with the cessation of the MRET scheme in 2020, this is likely to make any bagasse cogeneration investment unattractive if not undertaken within the next few years.

It is vital for future bagasse cogeneration development that the renewable energy shortfall charge be indexed to the Consumer Price Index to maintain the real value of the charge and the associated penalty charge. CSR Sugar recommends such a change to the Act.

- E. *Other environmental impacts that have resulted from the implementation of the provisions of this Act.*

Many sugar industry steam and power generation assets are aged, and whilst their environmental performance was suitable for the time they were constructed, the level of particulate emissions from these older boilers falls short of current industry practice for new boilers.

The development of significant scale cogeneration projects in the sugar industry will require the replacement or significant upgrading of existing boilers, leading to improved environmental performance of this equipment.

CSR Sugar believes the environmental benefit of distributed renewable electricity generation is undervalued. Any measure which results in embedded generation in areas remote from large electricity generators and near the customer base will result in reduced transmission losses. There is no mechanism within the current NEM or MRET legislative structure which identifies this significant environmental benefit flowing from the reduction in transmission losses for all load in the region.

- F. *The possible introduction of a portfolio approach, a cap on the contribution of any one source and measures to recognise the relative greenhouse intensities of various technologies*

CSR Sugar does not support the implementation of a portfolio approach. The  
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existing scheme appears to allow for a range of technologies to be implemented, and market forces appear to be delivering the development of a range of technologies.

CSR Sugar does not support the introduction of measures to recognise the relative greenhouse intensities of various technologies. CSR Sugar believes the greenhouse intensity of the range of technologies delivered by the scheme does not vary significantly. The current measures are already complex, and the scheme should not be subject to additional complexity.

*G. The level of the overall target and interim targets*

Present projections of the supply of RECs indicate that the demand created by the current measure will be satisfied by projects currently under development.

As a non-core investment for CSR or any other sugar business, CSR would require confidence in the market for REC's. The demand created by the current measure has not been sufficient to allow CSR to make a significant investment in cogeneration to date.

CSR Sugar recommends the expansion of the measure to a real 5% increase in renewable generation, that is from a 10.5% market share in 1997 to a 15.5% share of actual electricity consumption in 2010 and 2020. If the range of measures recommended in this submission were implemented, it is likely that bagasse cogeneration would be able to be a significant contributor to meeting the measure.

CSR Sugar suggests that the expression of the target levels in the Act as percentages of actual electricity demand rather than pre-determined specified levels calculated from percentages of forecast electricity demand would be beneficial. This would provide greater certainty for liable parties, would ensure the specified target percentages were insensitive to the accuracy of electricity demand growth projections, (thereby ensuring that targets remained an accurate reflection of the renewable market share objectives of the original policy) and would remove the need for the percentage to be enacted annually.

*H. The appropriateness of the operating environment including.*

There is a mechanism within the existing legislation for renewable electricity generators to be partially recognised for the reduction in transmission losses which occur as a result of their generation. However this only applies to those generators who are transmission connected. This is not an equitable position as in fact distribution connected renewable electricity generators result in greater avoided losses, through reducing both transmission and distribution losses down to the

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point in the distribution network to which they are connected.

This inequity could be corrected by increasing the marginal loss factor (MLF) by the distribution loss factor (DLF). The DLF for most sugar mills has been calculated specifically by the network service providers. For smaller renewable electricity generators the relevant network service provider will be able to calculate a suitable generic DLF.

CSR recommends that the legislation recognise both transmission and distribution avoided losses. CSR Sugar recommends that in calculations contained in the legislation, MLF be replaced by  $(MLF \times DLF)$ .

To date, only intra-regional loss factors have been utilised in determining transmission losses for transmission connected renewable electricity generators. This has not proved a significant issue up to this date as the inter-regional losses are not great compared to intra-regional losses. However, this may not be the case in the future as inter-regional load flows may increase. This would particularly be the case in the event of the Queensland region being divided into a number of regions in the NEM, as CSR understands is under consideration. In this event, MLF should be the product of the intra and inter regional loss factors.

CSR Sugar recommends the regulator be given the power to ensure that the loss factor equation used in determining Eligible Generation remain equitable in the event of any future alterations to the operation of the NEM.

1) *the scheduled end-date of 2020*

As detailed above, the scheduled end date of 2020 if not addressed will be likely to prevent any investment in bagasse cogeneration after 2008. This is because renewable electricity generating assets are long life assets with a service life extending well past 25 years, and often have significant lead times between conception and commercial operation. Investment in these assets becomes less viable as the income streams are shortened as we approach the scheduled end date. There may be a number of ways of addressing this issue.

CSR Sugar recommends the extension of the measure beyond 2020. This issue is related to the size of the measure after review. Should the target be increased beyond the current levels, then an extension of the scheduled end date will become more imperative. This issue cannot be left to a future review as investment certainty over the future income streams is required prior to project commitment.

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2) *baselines for pre-existing generators*

As biomass based renewable electricity generation has operational costs which may be significant, an incentive is required for existing generators to encourage additional generation. This has been successful in the sugar industry to date. CSR Sugar believes that the existing arrangements relating to the setting of baselines in the sugar industry have been appropriate and effective.

3) *the need for future reviews;*

Any legislative review will create uncertainty. Investment uncertainty is created for project developers, particularly those whose core businesses are not in the electricity sector. Uncertainty also extends to liable parties who may be less willing to enter long term contracts prior to any review.

CSR Sugar recommends there be added to the legislation a provision that any future review cannot reduce the level of the penalty or the target.

I. *The appropriateness of policy settings including the interaction with relevant Commonwealth, State and Territory energy, environment and industry policies.*

Finally, it should be noted that any review of energy policy which proposes the alteration or removal of the MRET scheme will also create investment uncertainty.

CSR Would be pleased to discuss any issues raised in this submission with the panel.

Yours sincerely

Mark Moriarty  
Cogeneration Manager  
CSR Sugar