Australian Government
Clean Energy Regulator

CLEAN ENERGY REGULATOR

Submission in relation to the *Melbourne Renewable Energy Project* authorisation application

The Clean Energy Regulator welcomes the opportunity to comment on the Melbourne Renewable Energy Project application for authorisation.

The Clean Energy Regulator strongly supports the application.

This submission comprises three parts:

- Summary (page 1)
- Background (pages 1-4)
- Answers to the specific questions (pages 5-6)

SUMMARY

The Clean Energy Regulator strongly supports the application. The Regulator believes the proposal, if carried out, will have a positive impact on competition in the relevant geographic and electricity markets and a public benefit in line with the objectives *Renewable Energy (Electricity) Act 2000*.

Specifically, the proposal has the potential to contribute to Australia's emission reductions, the achievement of the statutory Large Scale Renewable Energy Target (LRET) and reduce the costs to the applicants of LRET pass through costs and any additional green electricity they may purchase. The proposal also has the potential to stimulate the electricity market, including retailers, to consider innovative business models linked to new renewable power station build to achieve lower cost solutions for compliance with the LRET.

BACKGROUND

The Renewable Energy Target

The *Renewable Energy (Electricity) Act 2000* encourages the supply of additional electricity from renewable sources to reduce greenhouse gas emissions from the electricity sector. It provides an incentive for investment in renewable energy power stations and smaller systems such as household solar, while ensuring the energy sources used are ecologically sustainable. [1]

References to the Renewable Energy Target generally include both the Large-scale Renewable Energy Target and the Small-scale Renewable Energy Scheme:

[1] For more information see: http://www.cleanenergyregulator.gov.au/RET/About-the-Renewable-Energy-Target

- The Large-scale Renewable Energy Target —requires Australia to generate 33 000 gigawatt hours (33 million megawatt hours) of additional renewable electricity by 2020.[2] That is equivalent to the electricity required by around five million houses for a year.[3]
- The Small-scale Renewable Energy Scheme—encourages additional electricity supply from small scale systems. The Small-scale Renewable Energy Scheme has no fixed target.

The application for authorisation and this submission both specifically relate to the LRET.

The LRET creates a financial incentive to establish and expand renewable power stations such as wind and solar farms, and hydroelectric power stations. It also includes renewable power stations that use eligible forms of waste or by-products as energy sources.

The LRET is underpinned by the:

- *Renewable Energy (Electricity) Act 2000*, which sets out the aims of the scheme including the annual targets, creates liabilities, provides for registration of persons and accreditation of renewable power stations, and establishes the market for renewable energy certificates
- *Renewable Energy (Electricity) Amendment Act 2015,* which changed the 2020 target from 41 million megawatt hours to 33 million megawatt hours and increased the exemption for emissions-intensive trade-exposed industries to 100 per cent
- *Renewable Energy (Electricity) (Large-scale Generation Shortfall Charge) Act 2000*, which provides the rate of charge for the applicable renewable energy shortfall charge for the Large-scale Renewable Energy Target, and
- *Renewable Energy (Electricity) Regulations 2001*, which provide details on issues including eligibility criteria for renewable energy sources, set the rate of liability and therefore demand for certificates, and provide criteria for accreditation of renewable power stations and eligibility requirements for small-scale systems.

The Clean Energy Regulator administers the LRET as part of our purpose of accelerating carbon abatement for Australia.

The Renewable Energy Target works by creating a market for renewable energy certificates. In the LRET, these certificates are Large-scale Generation Certificates, referred to as LGCs. On the supply side, LGCs are created for each megawatt hour of renewable energy generated by accredited power stations. On the demand side, liable entities (mainly electricity retailers) buy certificates to meet their obligations under the Renewable Energy Target. Each year the Minister for the Environment sets the Renewable Power Percentage (RPP) in Regulations.[4] Liable entities multiply their net liable acquisitions by the RPP to determine the number of LGCs they must surrender in that year to the Regulator. The RPP varies according a formula which takes into account forecast electricity demand and the amount of renewable electricity generation required in that year.

The spot price for LGCs was $79.40 at 13th April 2016. The following graph shows the LGC spot prices since the start of the 2015 calendar year. For approximately 8 months the spot price has been sufficiently high enough to support new large scale renewable power station build. The price of an LGC is designed to bridge

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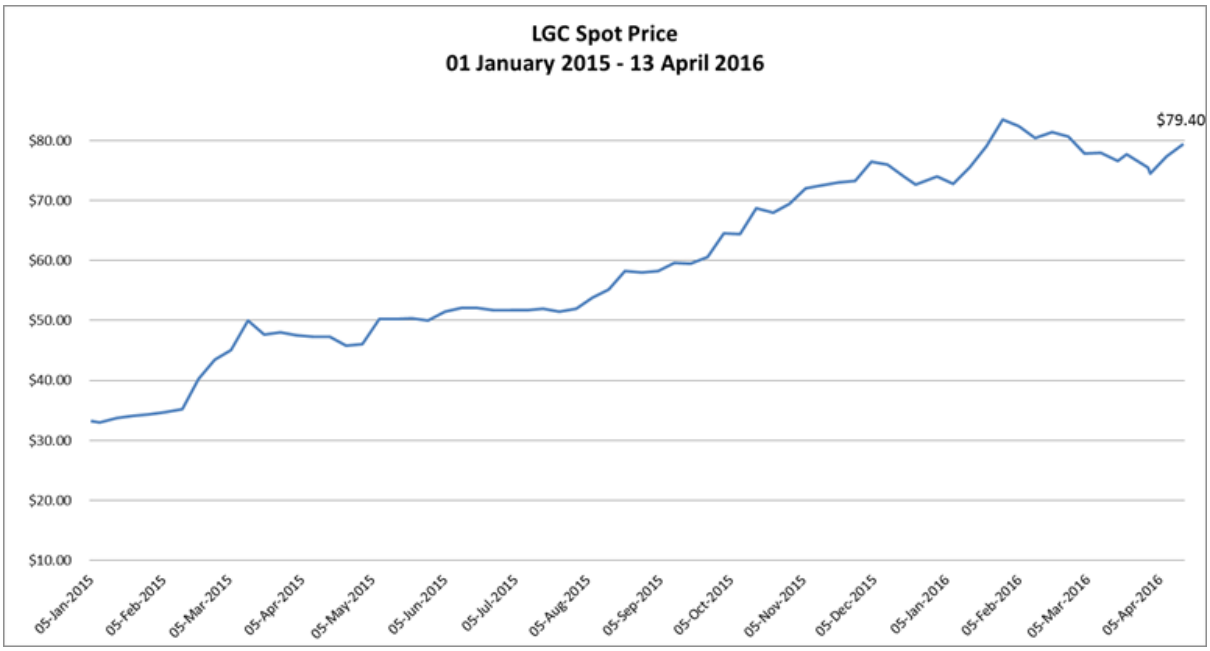
[2] On 23 June 2015 the Australian Parliament agreed to amending legislation to implement the Government's reforms to the Renewable Energy Target. The new target is for large-scale generation of 33 000 gigawatt hours in 2020. This will result in more than 23.5 per cent of Australia's electricity derived from renewable sources by 2020. The required gigawatt hours of renewable source electricity from 2017 to 2019 were also adjusted to reflect the new target.

[3] Based on average household electricity consumption of 122.3 kilowatt hours per week. *Household Energy Consumption Survey, Australia: Summary of Results*', Australian Bureau of Statistics.

[4] http://www.cleanenergyregulator.gov.au/RET/About-the-Renewable-Energy-Target/The-certificate-market/The-renewable-power-percentage

the gap between the levelised cost per megawatt hour (LCOE) of generation from a new renewable power station and the average spot price per megawatt hour of electricity traded through the National Electricity market. The Australian Renewable Energy Agency has estimated that the LCOE for utility scale wind power in Australia is expected to remain in the range of $80-100/MWh in the medium term. [5] Hence, the current LGC spot price is sending a strong signal that new projects are financially viable, and are necessary to deliver the 33,000 megawatt hours of generation required by the LRET by 2020.

The shortfall charge is $65 for every LGC that a liable entity fails to surrender. As this penalty price is not tax deductible (unlike the cost of certificates surrendered), this is equivalent (pre-tax) to approximately $93.



Current and future state of the renewable electricity generation industry

A total of 482 renewable large-scale renewable energy power stations are now accredited under the Renewable Energy Target, with a combined capacity of 13,652 megawatts. Together, they are able to generate approximately 16.7 million megawatt hours of renewable electricity above baseline in a typical year.[6]

To achieve the legislated targets, the capacity of large scale renewable energy generation incentivised by the LRET will need to double between now and the end of 2020. This means a significant amount of new build must be committed over the next three years.

Availability of project finance in this period is the key to ensuring the statutory LRET target is met. New businesses models for procurement are needed to bring forward innovation in financing. The proposal by the applicants has the potential to enable new power stations to be financed that would otherwise would not built in the required timeframe.

The CER notes the applicants' estimate that they will acquire a combined total of between 100 to 120 GWh per annum through the life of the project (up to 15 years). A tender of this size is likely to attract a range of competitive bids. Based on publicly available information from the ACT government's reverse auctions, it is reasonable to expect the applicants could achieve lower priced renewable electricity (compared to what they pay now) in such a tender.

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[5] See ARENA Investment focus areas at: http://arena.gov.au/funding/investment-focus-areas/wind-energy/

[6] The estimate of annual output in is derived from variables such as average capacity factors for each renewable energy technology and other conditions that may affect capacity to generate electricity such as local weather patterns.

The more new large scale power stations that are committed and built, and the quicker this occurs, the greater the probability that the LRET target will be met and that sufficient LGCs will be available in the market for electricity retailers not to incur the shortfall penalty. If the market sees that the target is likely to be met, then it is reasonable to expect the spot LGC price will reduce. If the market sees that insufficient new build is coming on, the current LGC spot price may increase further.

It is also possible that a tender such as the one proposed by the applicants, could encourage greater competition in the retail market. In addition to the incumbents who currently command large market shares, new entrants may seize the market opportunity to contract with parties such as the applicants who specifically require electricity supplied from renewable energy power stations.

Expected impact on electricity prices if the authorisation is made or not made

Meeting the statutory demand target of 33 million megawatt hours in 2020 may have a modest impact on household electricity bills.

The impact of the Renewable Energy Target on household bills is difficult to forecast accurately because the cost of certificates is not independent of other factors influencing electricity prices. The Australian Energy Market Commission estimated that in 2015, the Large-scale Renewable Energy Target accounted for 1.9 per cent of electricity prices or an average of $7.13 per quarter for an average household electricity bill.[7] However, the overall impact is likely to be less than this estimate because the LRET can place downwards pressure on wholesale costs of electricity. According to the 2014 review of the Renewable Energy Target, the price-supressing effect of the additional capacity in the wholesale market outweighs the direct cost of certificates.[8]

It is our understanding that contracts for supply to commercial and industrial customers often allow for a direct pass-through of the LGC costs associated with the supply. If the authorisation is granted and the project proceeds, it is likely that the applicants will receive lower electricity prices as the pass through cost for LGCs from new build will be lower than the cost currently being charged by retailers.

If this precedent is followed more broadly, resulting in an acceleration of new build commitments, the granting of the authorisation would assist in ensuring that the LRET is met and reduce the risk of retailers incurring shortfall charges which they would attempt to pass through to customers. Instead, the spot LGC price could be expected to reduce with the effect that the LRET component of all electricity prices would fall.

[7] Australian Energy Market Commission report- '2015 Residential Electricity Price Trends'. Estimates for 2015 price impacts are an average of the 2014-15 and 2015-16 financial year estimates.
[8] Renewable Energy Target Report of the Expert Panel Review, 2014.

ANSWERS TO THE SPECIFIC QUESTIONS

(a) What are the likely alternatives to the proposed conduct or, in other words, the likely future without the conduct?

The applicants have expressed a preference for purchasing 100% renewable electricity and they see the assurance that this will be supplied from newly built power stations. Current offerings in the market may not provide this assurance. Without new build, the applicants may be able to purchase 100% renewable electricity but at the expense of a shortfall under the LRET being incurred elsewhere in the market.

Although modest in the context of the market as a whole, the proposed conduct may result in earlier commitments to build new renewable capacity, and improve confidence that the LRET will be met.

(b) Who are the parties the conduct would affect, exclude or advantage and how?

The relevant parties are participants in both the supply and demand sides of the electricity markets, including, commercial and domestic consumers of electricity. Other parties would include renewable power station developers, manufacturers, professional designers and service technicians.

The Regulator notes the essence of the proposal is that the applicants would each be seeking to enter into Green Electricity Sale Agreements for the acquisition of electricity generated from new renewable energy sources. One applicant is proposing to procure Large Scale Generation Certificates (LGCs) instead of electricity.

In both cases, it is the intention of the parties that the electricity (or LGCs) will be supplied via a new utility scale renewable energy generation system connected to the National Electricity Market. This will advantage renewable power station developers and by its nature also excludes supply from existing power stations. In our view, this only demonstrates that electricity is not an undifferentiated commodity even though it is traded through a single wholesale market. Customers should be able to choose between suppliers on qualitative grounds such as the nature of the fuel source.

At present, there are 119 Renewable Energy Target liable entities, most of whom are electricity retailers. However, to the Regulator's knowledge, only three of those entities have previously entered into similar offtake agreements with developers of new renewable energy power stations or proceeded with their own large scale renewable energy projects. Those companies are Origin Energy, AGL and Energy Australia. Between them, these three entities hold around 50% of retail market share.

The Regulator notes the applicants' submission that the project may result in a number of smaller retailers combining with a developer to fulfil the project, with resulting benefits. The Regulator is not aware of smaller retailers having written offtake agreements in this way in the past. However, there is the real prospect that the proposal will incentivise the market to adopt innovative approaches. This is more likely to have positive impact on competition and the public benefit than maintaining the status quo.

(c) ***What are the Clean Energy Regulator's views on the applicants' submissions that, compared with the likely alternative of each applicant having to independently pursue a source of renewable energy, the conduct would provide environmental benefits and economic and associated social benefits (including job creation and regional development)***

The Clean Energy Regulator agrees with the applicants' submissions on this point.

The larger the collective electricity demand being brought to bear in one tender with one retailer, the higher the probability that retailers bidding will be able to negotiate an offtake agreement with a project that will result in it being financed and built. Each applicant alone could not offer sufficient guaranteed load to underwrite such an agreement. It may also, as the applicants state, result in a *gentailer* arrangement, whereby the role of retailer project develops a new project in its own right.

In either case, this type of approach is likely to result in more utility scale renewable power stations being built sooner. This will bring forward the benefit of the additional carbon abatement associated with the 2020

LRET target. Renewable power stations are substantial investments in the locations in which they are built and approach may well being forward economic benefits in some regions that otherwise might not occur.

The applicants have stated that the available GreenPower offering is costly and does not directly lead to investment in new renewable energy generation. The Regulator broadly agrees with the applicants submissions.

We have gleaned from available market information that GreenPower is generally being charged by retailers, to their business customers, at around the spot LGC price plus a commercial margin. The spot price is currently significantly higher than the price that might be obtained from a new renewable power station via a long term offtake agreement.

The Regulator also agrees with the applicants' view that GreenPower does not directly incentivise new build of renewables. GreenPower works through the voluntary surrender of LGCs which are then not available for surrender against LRET obligations. In this sense, GreenPower is intended to lead to renewable generation in addition to that incentivised by the Renewable Energy Target. However, the LGC market commenced with a large surplus carried over from when the RET was split into the SRES and the LRET and is forecast to remain in surplus until 2017. This means it has been possible to source LGCs for GreenPower without dedicated offtake agreements.

Greenpower obligations could also be covered by offtake agreements with previously uncontracted existing renewable power stations (merchant generators). In the future, it is possible that Greenpower voluntary surrenders will be met by LGCs sourced from the current fleet of renewable power stations while retailers run an increased risk of shortfall against their LRET obligations. This would be a highly undesirable outcome as it would increase costs to all parties while failing the objective of GreenPower purchases. In these circumstances, the Regulator understands how the applicants would see greater benefit for the environment) from directly sourcing their own LGCs for their own green power from new renewable power station(s).

(d) What are the Clean Energy Regulator's views on the applicants' submissions that the conduct would not have any material public detriment and, in particular, is likely to be pro-competitive rather than anti-competitive.

The Clean Energy Regulator agrees with the applicants' submissions on this point.

The proposal would be pro-competitive for the following reasons:

- The applicants require an electricity supply product that they consider is not currently on offer in the market. By proceeding to tender they will invite competition and both incumbents and potential new entrants will have an opportunity to participate. Not only does this foster competition between electricity retailers, it fosters competition between products.

- As the combined load of the applicants represents a small share of the relevant market (whether this is taken to be the Victorian region, the National Electricity Market, or the renewable electricity market) this proposal is unlikely to have any material public detriment. Conversely competition may benefit from greater innovation in electricity supply offerings and financing options that are stimulated by this proposal. .