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Underwriting New Generation Investments – response to Public Consultation Paper

We are pleased to provide our response to the Public Consultation Paper on the ACCC's recommendation number 4.

Finncorn Consulting Pty Ltd ("Finncorn") has prepared the following report as advice to Energy Consumers Australia ("ECA"), and we understand it will be included with the ECA submission, and is appropriate for public release.

Like ECA, we have examined the issues through the lens of the long-term interests of consumers (which we believe, in many cases, coincide with the long-term interests of participants in an efficient, competitive market free of undue distortion and subsidy).

We also considered the interests of taxpayers, as those who ultimately fund a direct (albeit contingent) subsidy of the type contemplated by this policy.

Our suggestions on principles and design elements for the policy seek to maximise the desired impact on while minimising the risk of distortions and costs which would harm energy consumers and/or taxpayers in the long run.

We are at your disposal to discuss any aspects of this submission with the Department as it proceeds with development and implementation of this policy.

Yours sincerely,

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Cautious support for a competitive version of this policy

Overall, we believe the long-term interests of consumers are likely to be best-served by a policy where it remains clear that **investor participants (rather than taxpayers or energy consumers) bear the brunt of the risks and exposure to the benefits of investment decisions.**

This includes the decisions about which particular assets should be built – we do not see this as a role for Commonwealth policy. Avoiding that requires a rigorous and transparent policy design.

Nor are we convinced that a market failure in relation to firm capacity investment exists, or that this policy should be the primary mechanism to address it if so. We note:

- The proposed resuscitation of the ex-NEG reliability mechanism, which may achieve similar investment objectives with less risk; and
- The rapid recent development of the corporate and second-tier retailer PPA market, including lengthening tenor and broadening of participants, and the existence of commercial financing structures in support of projects accessing these forms of project revenue stabilisation.

However, we do have an open mind – perhaps this policy is necessary. The best way to answer the question is via a process which is sufficiently competitive to reveal to what extent Government support is needed, and flexible enough to discover the best form of that support without creating further distortion to the normal course of competitive activity.

Therefore, we believe this policy would be best structured as a very light touch, to gently tip the balance in favour of the decision by investors to make competitive capacity investments in the face of the elevated level of uncertainty at present.

Our response is structured in three parts:

1. First, we argue that **the policy should be more carefully focussed on the single objective of efficient capacity investment at minimum long-term cost to either consumers, taxpayers or both.** Issues of market concentration are very important, but it is unlikely that a single policy could efficiently address two very different objectives, in the way Recommendation 4 was framed.
2. Next, we outline **nine principles** which we believe ought be applied to the design of the policy – largely to ensure it delivers investment at the minimum required level of support under a competitive process, and that the assets in question are in fact the most appropriate for the wider health of the system and the long-term interests of consumers. In support of these, we proffer **seventeen potential design elements** which we believe would ensure the detailed policy design best meets these principles.
3. Finally, we offer **an alternative (or possibly additional) form of commonwealth government support – Energy Infrastructure Bonds**. In our opinion, a more indirect approach via the tax system might prove less-distortive to the operation of efficient competitive markets, and could be applied more generally to energy-sector investment beyond generation, where the government perceives either a market failure or a wider public benefit from such investment.

1. We are sceptical about killing two birds with one stone

In framing Recommendation 4, the ACCC seeks to address potential market failure in two distinct areas:

1. **Barriers to investment in appropriate types of capacity** to support affordable, reliable energy to consumers, and to maintain the security of the grid; and
2. **Concentration of generation capacity** (of the type which can exercise market power – that which is dispatchable and can bid tactically into the pool).

It has made its recommendation to address both those potential failures.

We note that other ACCC Recommendations (e.g. 1, 2 & 3 directly, and 6 & 7 indirectly via transparency and ‘synthetic divestment’) are also directed at the question of concentration. In particular, Recommendation 1 (which seeks to address further concentration by way of acquisitions) specifically allows for new investment by existing large players – for good reasons.

We also note that while it may not have been the “right” investment by this policy’s yardstick, a very large quantity of new capacity has been and is being added by willing new-entrant investors under the LRET, the ARENA rounds, the ACT reverse auctions and the VRET in recent years.

Taken together, this is greatly diversifying the ownership of generation in the broader sense.

We contend there is no apparent barrier to new capacity investment by non-incumbents in general given the recent past and the emergence of wind and solar as cost-competitive in their own right.

The opportunity for firming up these recent and current investments is itself an opportunity to dilute the concentration of incumbent dispatchable capacity – and might be a better approach for state policy.¹

In our view, the elements of Recommendation 4 which concern market power and concentration work strongly against the objectives of encouraging efficient investment, for two reasons:

1. **Excludes many of the most efficient investments and investors:** The existing large players are among those with the best portfolio opportunities to invest, the expertise to do so effectively, and the lowest cost of capital to apply – bearing in mind that the cost of capital is a dominant driver of the levelised cost of new capacity in many cases, particularly for assets such as solar, wind and storage of various type with large capital cost and low marginal operating costs.
2. **Diminishes the competitive tension required to minimise costs for consumers and taxpayers:** by excluding these investments and investors, the policy would seek to support a much-diminished field of opportunities – tantamount to “picking losers”, which seems even worse than government seeking to pick winners. If those remaining investments require greater levels of support (due to weaknesses of the sponsor and an associated higher cost of capital, or due to relatively unfavourable technical characteristics of the investment) then some combination of energy consumers (through price) and or taxpayers (through levels of support) will fund that inefficiency.

As a result, we frame the rest of this paper on the assumption that the policy will be open to the best and most efficient investment opportunities and sponsors.

Finncorn recommends that if the policy is to be adopted, it should be structured to maximize the competitiveness of the process, without excluding any potential asset or investor which otherwise meets the technical objectives for new capacity.

We believe that market concentration should be dealt with through separate, more targeted recommendations including the ACCC’s numbers 1, 2, 3, 6 and 7.

¹ We also note that this policy seems to ignore the opportunity to firm up existing renewables, by seeking to drive in entirely new dispatchable capacity. This has a very serious potential for the unintended consequence of a subsidy for (by definition, high-cost) new dispatchable capacity driving out existing (low-cost, depreciated) dispatchable capacity more quickly than otherwise – very similar to the crux of the criticism of the LRET.

2. Principles and design elements for a well-structured policy to encourage efficient generation investment

We suggest that the following principles should be applied to the design of the policy.

Assuming such principles are considered reasonable, we also offer examples of how some elements of the detailed design might respond to these principles.

2.1 Support long-term low-cost capital deployment, but do not adopt equity risk

There is a material risk of taxpayers and/or energy consumers accepting the risk of investments which should more properly be borne by equity investors – especially if the structure allows investors to retain substantial upside while insulating them against downside.

That would potentially encourage the asset owner to simply take merchant risk in the later years of the project, possibly enjoying high and volatile spot pricing, knowing the government is supporting the risk to the downside. This would be directly contrary to the objective of lower energy contract prices being provided through to consumers large or small.

Our reading of the ACCC report suggests the intention is to create conditions where reasonable long-term and low-cost debt capital is available to support investments, but NOT to move into the realm of offering a form of guaranteed capacity payment sufficient to attract debt and equity investors regardless of the competitive worth of the proposed investment.

A capacity market may be a valid policy choice, but is surely beyond the scope of this policy.

There is a very fine line to be walked here to ensure that the operation of a competitive and efficient market for new capacity investment continues to ration capital appropriately, as opposed to creating yet another supplicant scheme (echoing the criticisms of the LRET).

POTENTIAL DESIGN ELEMENTS:

- a. **Structure policy support as a last-resort call on government, not a first-call: only available to be drawn when market sources of revenue HAVE PROVEN to be inadequate to meet a de-minimus level of project revenue.**
- b. **Reject requests for levels of support which, if drawn, would exceed debt service obligations.**
- c. **Support should fall away as and when projects enter into substitute commercial arrangements which mitigate energy-only spot price risk (such as rolling out of initial PPAs into new ones, or gaining potential new forms of project support such as capacity payments, FCAS revenues, or hedge contracts).**

2.2 Protect the taxpayer against windfall project outcomes

The policy risks providing support which – in hindsight – the assets may not require. It also risks the distortion and unnecessary cost of removing incentives for project sponsors to act commercially over the life of the project, due to a reliance on a government subsidy instead of a competitive market.

For that reason, we think the taxpayer ought to expect reciprocity in the arrangements – that support is only provided if it is absolutely required (in fact, not in forecast), and that this is assessed over the life of the support period.

POTENTIAL DESIGN ELEMENTS:

- d. **Require reciprocity: projects should account for their life-of-program revenues, and only receive support in “bad years” to the extent this cannot be funded from prior or later “good years”, including subsequent repayment to government if appropriate.**

2.3 Structure the programme to deliver capacity in line with an independent, expert, coordinated view of a particular identified need

There is a risk this policy will force in more capacity investment than the market reasonably requires – another echo of the criticisms of the LRET. This is particularly the case when – as the ACCC proposes – the policy may run for four years without any apparent check or balance on whether it is required for that period.

The general requirement for future investment in firm capacity is understood, but as currently stated, the policy is an extremely blunt instrument. It would be more defensible if it were designed as a scalpel instead – accurately targeted to a particular capacity investment gap.

The judgement on this would be best left to apolitical, independent expertise.

POTENTIAL DESIGN ELEMENTS:

- e. Target the programme to address a particular gap – for example, an announced withdrawal of thermal plant capacity, or an existing situation of firm capacity shortfall (such as may be the case in South Australia).*
- f. Task an independent market body – presumably AEMO – with identifying these genuine needs. This would relate closely to AEMO’s existing forecasting such as the ESOO.*
- g. Ensure this policy is coordinated closely with the proposed reliability obligation rescued from the NEG, by placing the determination of this policy’s technical objectives under the same governance arrangements (ideally as an element of a joint policy).*

2.4 Focus on the right technical outcomes from supported investment – technology-neutral

Given the risks of over-stimulating investment and/or crowding out unsubsidised investment activity, it seems very important to us that any policy of this type is not generic in just calling for “new firm capacity” but considers the specifics of the situation and only subsidises investment which is very closely aligned with the needs of the system in future.

While the cause of the underlying need for investment is a withdrawal of thermal plant and an injection of intermittent renewables, it does not necessarily follow that the ideal investment to arise from this policy would be a direct replica of what has been removed. Nor is it obvious (to us at least) whether it would be any other of the various pre-conceived ideas of the “best” asset to build next.

In our view, the detailed technical characteristics of the desired capacity investment – based on a forward-looking view as to the needs of the system, developed by experts who are independent, apolitical and non-ideological with respect to technology choices – is an important consideration which does not seem to be properly addressed by the policy as currently outlined (existing only as one of many “project merit criteria”).

Note that clarifying the desired technical characteristics of the desired investment (e.g. the size, location, dispatchability specifications, security specifications) is related to, but quite different from focusing on a given technology (coal, gas, renewables, hydro, battery, ...).

POTENTIAL DESIGN ELEMENTS:

- h. Design the process to procure a particular desired type of firm capacity investment – not just any old “firm capacity”, but a clear technical specification which may include regional location, and acceptable tolerances for capacity size, firmness and flexibility of dispatch (e.g. ramping characteristics) and other security-related matters (e.g. inertia) designed to optimise the performance of the grid. This is a role for experts.*
- i. Explicitly allow for “black box” solutions with a genuinely technology-neutral viewpoint: invite any combination of assets and contracts which may form a bid which meets the specification.*
- j. Allow existing intermittent renewables to form part of a bid for support via contracting with new firming capacity to meet the overall specification.*

2.5 Rely heavily on competition in the process, to discover minimum support requirements

As we noted initially, it is important that a process of this nature welcomes all comers – including the strongest sponsors and the best projects.

This is essential to ensure that only the strongest, most efficient investment are supported – and to allow for the possibility that the level of support actually required from taxpayers is minimal or none.

It would work against this principle if the decisions on support were anything less than fully-transparent, and if the design was anything other than as open as possible, to maximise the quantity and diversity of proposals which may emerge to meet the specification of need.

The ARENA Large-Scale Solar round is as good example of effectively using of competition to maximise the impact of a given quantum of government support.

POTENTIAL DESIGN ELEMENTS:

- k. Rather than an ad-hoc, closed tender process, ensure that bidding is open (as noted above) to any and all proponents who can offer a complying “black box” investment which meets the specification.**
- l. Ensure the process is transparent, including disclosure of the support arrangements for any successful projects.**

2.6 Minimise current or future crowding-out of investment or contracting

The specific nature of the ACCC’s suggested timeframe for support (e.g. years 6 to 15) is of some concern to us, given a relatively rapid evolution in energy market contracting. The objective is to attract long-term, low cost investment capital to projects – the details of exactly how would be best left more open.

There is a risk that if government commenced underwriting projects from year 6, a potential lengthening of commercial contract terms would be stymied. This would be a retrograde step, especially as we are now seeing the corporate PPA and second-tier retailer PPA markets start to develop.

That would be contrary to the objective of a competitive market evolving, where generation investors and energy retailers / large consumers develop the ability to manage risk between themselves sufficient to make projects bankable and offtake affordable, rather than relying on government.

POTENTIAL DESIGN ELEMENTS:

- m. Leave the timeframe for support open to proponents to nominate – allowing them to freely develop the tenor of the PPA markets**
- n. Provide incentives to secure longer commercial revenue-support arrangements (see below)**

2.7 Consider the range of possible future revenue models for generation assets

We are also concerned with the ACCC’s characterisation of the support in terms of \$/MWh (whether in the form of a put option, a fixed-price offtake, or a collar structure).

This is a policy to support long-term asset investment. It is likely that over the course of those assets’ lives, the revenue model will evolve – whether in providing new type of firming contracts, FCAS or other new forms of grid security value, or indeed capacity payments.

Since we cannot know the future revenue model for such assets, we should not be so specific as to offer support in the form of an energy-only payment.

POTENTIAL DESIGN ELEMENTS:

- o. Offer support in the most general form – as project revenue. As noted above, this should be structured as fall-back revenue only available when other sources of value – whatever they may prove to be in future energy markets – prove inadequate to support the debt used to finance the asset and deliver low prices built upon a low cost of capital.*

2.8 Simplify evaluation of support to a transparent metric, but which is not overly rigid

The discussion paper notes a number of project merit criteria. We believe this is too complex, and would work against an open, competitive process.

As was the case with the ARENA Large Scale Solar round, the dominant merit criterion should be a simple economic measure of minimum subsidy requested, for any project which otherwise meets the technical specification described earlier.

This would allow projects the incentive and the freedom to maximise their commercial arrangements, in order to only require the minimum in government support, and thus be more likely to secure that support.

POTENTIAL DESIGN ELEMENTS:

- p. Measure and allocate support on the basis of the present value of the fall-back revenue requested by the project (evaluated at an appropriate rate of return for the Commonwealth, such as the 10-year bond rate).*

2.9 Deliver via a strong governance framework with existing expertise – the “REFC”?

We are concerned with the governance arrangements for the policy – it seems they might fall outside existing areas of expertise, which runs the risk of poor and/or overly-politicised decisions being taken, which may not be in the long-term interests of either consumers or taxpayers.

This need not be the case – there are existing resources available to provide the required governance and expertise, particularly in relation to the “bleeding edge” of where unsubsidised commercial debt finance for energy projects may or may not be viable.

POTENTIAL DESIGN ELEMENTS:

- q. Deliver the policy via the Clean Energy Finance Corporation, in line with their existing successful investment track-record in a closely-adjacent area. Perhaps the organisation should be rebranded as the Reliable Energy Finance Corporation to reflect its developing role in an energy market where renewable energy is economic and bankable without subsidy.*

3. A lighter touch: Energy Infrastructure Bonds

As an alternative, or potentially an additional policy lever, the Commonwealth could provide indirect support via investor incentives in the tax system.

We envisage a new Commonwealth-sponsored Energy Infrastructure Bond (“EIB”) market. A resurrection of this form of tax-driven support for investment deemed in the public interest by the Commonwealth might usefully supplement or replace other, more complex and distortive policy:

- EIBs would be issued by the developer of an energy infrastructure asset meeting certain criteria, such as providing **new dispatchable generation, firming capacity, storage assets, or the transmission interconnection of desired new energy capacity with demand, firming and storage.**²
- EIBs would offer qualifying project investments a funding source with **non-assessable income and capital gains** for the debt capital providers, thereby materially reducing the required coupon. EIBs would therefore share the investment funding between EIB investors and taxpayers, leaving the asset developer with a lower-cost source of finance.
- Some issuers of EIBs may also be able to use the instrument to **access green investors**³ – a growing investor appetite, and a relatively lower cost source of capital, assuming such investors value the environmental benefits to any extent in their risk-return frameworks.

Broadly applicable – across government projects, regulated and non-regulated assets

While clearly applicable to generation investment, one attraction of GEIB is their general applicability across many asset classes and sponsors.

Another is the ability to keep government one step removed from direct investment support at full risk to taxpayers, and of investing non-commercially.

EIBs offer a level playing field to support a desired investment class, but leaves the allocation of capital to particular projects where it should be: in the hands of commercial participants and investors, who have the expertise to make sound risk and return judgements among many competing opportunities on their merits.

Examples of the use of EIBs may include:

- **Government-owned sponsors:** Rather than relying on full balance sheet funding from government parents, entities such as Snowy Hydro, TasNetworks, and TasHydro could access external EIB capital. The risk to taxpayers would be reduced, and the process would ensure the underlying investment cases were credible, albeit under a tax-advantaged model.
- **Regulated assets (including interconnectors):** regardless of ownership, the revenue model for a transmission or distribution asset may remain under the existing regulatory system, but funded via EIBs. We see EIB-funded assets being “ring-fence” regulated under a specific, lower-return framework for the life of the EIB instrument – the regulated return would be tailored to the actual cost of the EIB. This would remove the “tax wedge” from the building-block regulated revenue to be recovered from consumers, as well as ensuring cost of debt was based on actual rather than deemed costs.
- **Unregulated assets:** A lower cost of capital would allow non-regulated assets such as storage and dispatchable / firming capacity to participate in the market – but enjoy a cost of capital advantage. This approach would reflect the cost-competitiveness of unfirmed solar and wind capacity, but the challenges in providing the reliability and security across the system portfolio. The definition of assets qualifying for EIB issuance would be another lever by which regulators and policy-makers could incentivise the type of complementary investment needed to balance low-cost renewables.

² We deliberately exclude unfirmed renewables, which are evidently commercial in their own right and require no subsidy. The challenge is orchestrating the investment around these assets to deliver adequate outcomes for system reliability, security and cost.

³ See <http://www.corrs.com.au/thinking/insights/green-bond-market-an-australian-focus/>