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Energy Competition Task Force
c/- Electricity Authority
By email: TaskForce@ea.govt.nz

Entrant generators – context, headwinds and options for power purchase agreements

Meridian appreciates the opportunity to provide feedback on the Task Force's working paper 'Entrant generators – context, headwinds and options for power purchase agreements'.

Our key points on the working paper are as follows:

- **There is a healthy market for Power Purchase Agreements (PPAs) in New Zealand**. As set out in the Task Force's paper, more than a dozen PPAs have been agreed over the past five years. New entrant or independent generators have been party to seven of those deals. In addition, Meridian signed a further PPA in recent weeks for the Tauhei Solar Farm, adding to this total.[1] Given PPAs only tend to be agreed when major infrastructure projects are built (and by definition are long term), this volume of transactions represents a healthy PPA market. Additional PPAs can be expected as the electricity sector continues to identify and pursue new development options. We have not seen any evidence presented that there are any real barriers to parties entering into PPAs in New Zealand.

- **PPAs are just one of a range of risk management options**. Ultimately, PPAs are just another form of Contract for Difference (CfD). Buyers and sellers have a wide range of ways to manage their wholesale market risk in New Zealand, including through the ASX, over-the-counter trading, physical investment and vertical integration. These risk management options already allow for a breadth and depth of developers to pursue new generation opportunities in New Zealand. Each risk management approach will have advantages or disadvantages and should be considered carefully by those looking to rely on them. However, the fact that these different options have different characteristics is not an indication of a market failure and does not provide a justification to promote PPAs over any other option. Any intervention to artificially raise the attractiveness of one model over another will skew the playing field away from its efficient equilibrium.

[1] https://www.meridianenergy.co.nz/news-and-events/tauhei-solar-farm-power-purchase-agreement

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- **Any significant intervention in the market for PPAs risks disrupting the natural development of the market, chilling investment activity, and would be contrary to the Government Policy Statement (GPS) on Electricity**. PPAs are agreed within the context of a competitive market. Parties will assess their financing, portfolio and risk management options and make decisions on the most appropriate risk management approach for them. This may or may not mean entering a PPA. As noted above, there has been a healthy level of PPA activity in the New Zealand electricity market and the market is continuing to develop. In our view, any intervention which creates additional limitations, compliance requirements, or regulatory oversight of this commercial process carries a clear risk of deterring the continued development of the PPA market and ultimately chilling PPA activity. Further, and as the Task Force itself notes, the introduction of any form of subsidy towards particular market participants or models risks skewing efficient investment, increasing costs, and reducing incentives on market participants to manage risk. While the Authority is independent of the Government, this would be contrary to the direction to the Authority in the GPS on Electricity that "the Government's role is to avoid policy decisions that would have the effect of chilling or crowding out private investment" and "individual wholesale market participants are responsible for managing their own supply risks".[2]

- **The system evolution benefits of further PPA activity have been overstated**. It is not clear how any change to the relative availability of PPAs could "push the sector toward investing earlier".[3] As a renewable energy developer, Meridian has invested significantly in bringing new generation to market and has an ambitious future development pipeline. Billions of dollars are being committed to bringing new plant online. We see similar efforts from our competitors – the market as a whole has invested over $7 billion since 2020 as shown in the table below. From our perspective, the sector is actively and aggressively pursuing new investment. Further PPA activity, particularly if it is driven by subsidy or intervention, will not increase investment or the pace of development. It is more likely to slow it down.

[2] https://www.beehive.govt.nz/sites/default/files/2024-10/Government%20Policy%20Statement%20on%20Electricity%20-%20October%202024.pdf

[3] Firstly, it is worth noting that 'investing earlier' has never been the goal of New Zealand electricity market design. Rather, investing at the right time, neither too early nor too late, with all the risks that this balance implies, is the goal of the dynamic efficiency that underpins the power market. 'Too early' implies significant overcommitment of capital that could be more productively used elsewhere in the economy while 'too late' implies a significant increase in the risk of supply interruption. Secondly, it should be emphasized that PPAs are not a necessary pre-condition to create additional investment in the power system. They can be a nice to have, and for some parties with little or no equity they may in fact *be* a necessity. But efficient investment occurring *at all* is the key goal, and investment from multiple commercial parties is already occurring at a historically significant rate. The goal should not be to artificially support a particular developer business model, regardless of its popularity internationally.

Generation Investment: 2020 onwards			
$m	Commissioned	Construction	Total
Contact	$ 825 m	$ 725 m	$ 1,550 m
Mercury	$ 675 m	$ 725 m	$ 1,400 m
Meridian	$ 450 m	$ 225 m	$ 675 m
Genesis	$ 325 m	$ 525 m	$ 850 m
Manawa	$ -	$ 50 m	$ 50 m
Nova	$ 125 m	$ -	$ 125 m
Lines Co's	$ 250 m	$ 250 m	$ 500 m
Others	$ 750 m	$ 1,350 m	$ 2,100 m
TOTAL capital $m	**$ 3,400 m**	**$ 3,850 m**	**$ 7,250 m**
new GWh	4,350 GWh	3,675 GWh	8,025 GWh

Source: Meridian

- **Allocating firming resources in particular carries significant risk.** Requiring gentailers to provide firming for PPAs would be a drastic and unjustified intervention that would interfere with market forces and risk redirecting the allocation of scarce resources (flexibility services) from their most valuable use. The working paper itself notes the multitude of risks from such an approach, including having a chilling impact on non-PPA investment in generation and less optimal use of (and investment in) the physical resources that support firming. We agree. Such an intervention would have a substantial negative impact on consumers. In particular, in a future with a need for greater firming resources (Meridian's analysis indicates New Zealand requires 200MW of new flex or firming every year out to 2050), undermining investment incentives in new firming resources would have serious consequences and could impact the future ability of the electricity system to balance supply and demand. We consider there is no case to pursue such an approach, particularly given little evidence has been presented that a real problem exists in the first place.[4]

Given the lack of clarity on the existence of any actual market failures with respect to the PPA market and the considerable risks involved in any intervention, our view is that any options pursued should be focussed on voluntary market facilitation and not on regulating participation or market outcomes. Our specific feedback on the various options discussed in the paper are set out in the table below. Our responses to the Authority's specific consultation questions are attached as Appendix A.

Meridian feedback on specific working paper options

	Option	Meridian comment	Meridian view
1	PPA template(s)	This is a low effort, low risk option. The European Federation of Energy Traders (EFET) has produced something similar which, based on our understanding, has proven useful.	Support

[4] It should also be noted that the grid and power market will, by design, balance (i,e. firm) supply and demand. Indeed, efficiently keeping the lights on is the entire point of the exercise. The capacity gap between a given end-use load profile and intermittent output from a particular generation facility, is therefore purely an exercise in financial risk assessment. Baseload CfDs are already readily priced and available for those who want them. A baseload CfD can be viewed as a grid-firmed equivalent to a PPA. Ring-fencing specific firming contacts and/or assets to be attached to a PPA can only ever be an inefficient way to manage system flexibility needs.

2	Matching service (bulletin board)	This is a relatively low effort, low risk option. However, the infrequency of PPA deals (which will generally only occur when new generation is built) means that they might not be well suited to a matching service approach.	Neutral
3	Procurement resources	This is a relatively low effort, low risk option. However, in our view any participant looking to enter into a PPA should be sophisticated enough to already know or be able to readily access the relevant information.	Neutral
4	Demand information	As the Task Force notes, there are a range of parties who publish demand (or price) outlooks – either publicly or commercially. We do not see a gap in this area that warrants a specific intervention.	Oppose
5	Pooling service	As with the matching service, the relative infrequency of PPA deals means they may not be suited to a pooling service approach. However, we agree that – in particular circumstances – a pooling service might help facilitate a PPA that would otherwise not be agreed. As such, we consider this is worth exploring.	Support
6	Process scrutiny	Agreeing a PPA is a commercial decision made in a competitive market. Any agreement should be entered voluntarily and when both sides to the transaction perceive there to be a benefit. Applying some sort of regulatory scrutiny or oversight to such a process would be antithetical to the workings of a competitive market and would risk forcing parties into an agreement they might not otherwise choose. This carries a high risk of inefficient outcomes and of chilling PPA activity. While it's an obvious point, it is important to note that the example referenced in the paper of network access arrangements for distributed generation is a process that involves a monopoly supplier and not one that occurs in a competitive market.	Strongly oppose
7	Pricing scrutiny (firming)	As above, PPAs (and any related firming agreement) are commercial agreements made within the context of a competitive market. The contracting parties need to be free to independently consider and negotiate a price that provides benefit to both parties. Any regulatory scrutiny of such a process will risk inefficient outcomes and / or chilling PPA activity. There are also clearly commercial sensitivity considerations in making any pricing information more widely available.	Strongly oppose
8	Pricing scrutiny (PPAs)	As above.	Strongly oppose
9	Sleeving	While no specific barriers have yet been identified here, we agree that addressing any potential barriers to PPAs from reconciliation or other market	Support

		processes could be useful. As such, we consider this is worth exploring.	
10	Flexibility trading	As the paper identifies, this is being explicitly considered by other Task Force workstreams. As such, we do not consider it appropriate to progress in this context. Nevertheless, we note that trading of super-peak hedge products through a regular broker-facilitated process is now up and running and that Meridian has been an active participant in this trading.	Oppose
11	Allocate firming resources	Requiring gentailers to provide firming for PPAs would be a drastic and unjustified intervention that would interfere with market forces (Meridian and others are already providing firming/flexibility on a voluntary, market-driven basis) and redirect the allocation of scarce resources (flexibility services) from their most valuable use. The paper itself notes that such an intervention could: • inefficiently remove capacity to apply firming resources to other uses; • have a chilling impact on non-PPA investment in generation; • skew the technology mix used in system expansion; and • flow through to less optimal use of (and investment in) the physical resources that support firming. These outcomes would have a substantial negative impact on consumers. In particular, in a future with limited firming, undermining investment incentives in new firming resources would have serious consequences and could impact the future ability of the electricity system to balance supply and demand. We consider there is no case to pursue such an approach, particularly given little evidence has been presented that a real problem exists in the first place.	Strongly oppose

Please contact me if you have any queries regarding this submission. This submission can be published in full.

Nāku noa, nā

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Appendix A: Responses to consultation questions

	Question	Response
1	Is there any other related work that you think is relevant to our consideration of PPA issues?	No.
2	Do you have any suggested additions or modifications for PPA terms and concepts?	No.
3	Do you agree with our definition of PPAs?	Yes. However, we note that, ultimately, a PPA is just another form of CfD, albeit one that is generation-following in terms of volume. A baseload CfD is effectively a grid-firmed equivalent of a PPA. As such, PPAs should be considered as just one of a suite of risk management options that are available to buyers and sellers.
4	Have we correctly identified buyer and seller motivations for PPAs?	We broadly agree with the Task Force's description of buyer and seller motivations. We note that, as per footnote 14 in the paper, a PPA does not provide any guarantee of lower prices.
5	Have we correctly identified how PPAs may fit with other contracts?	We broadly agree with the Task Force's description of how PPAs fit with other contracts.
6	Do you agree with our characterisation of how PPAs may impact system evolution?	Meridian considers the impact of PPAs on system expansion has been overstated. For example, the Task Force has stated that having a broader and more diverse set of potential developers could alter competitive dynamics around system expansion, and associated competition to secure sales volumes and that this could push the sector toward investing earlier and pursuing sales more vigorously. However, it is not clear that this is an impact that could be expected in the context of the current New Zealand market. Firstly, PPAs are currently available to buyers and sellers in the New Zealand electricity market if they consider this to be an appropriate form of risk management. The paper notes that more than a dozen PPAs have been agreed over the past five years and Meridian signed a further PPA in recent weeks.[5] As such, lack of access to PPAs has not been evidenced as a problem. Ultimately, PPAs are just another form of CfD. Buyers and sellers have a wide range of ways to manage their wholesale market risk, including through the ASX, over-the-counter trading, and vertical integration. These risk management options already allow for a breadth and depth of developers to

[5] https://www.meridianenergy.co.nz/news-and-events/tauhei-solar-farm-power-purchase-agreement

		pursue new generation opportunities in New Zealand. This is illustrated by the number of new entrants currently constructing or pursuing new generation here.[6] Meridian's recent PPA with Harmony Energy / First Renewables to build the 150MW Tauhei Solar Farm is a clear and recent demonstration that the PPA market is active and there is nothing to prevent parties entering such arrangements if they choose. Additionally, it is not clear to Meridian how any change to the relative availability of PPAs could "push the sector toward investing earlier". From our perspective, the sector is actively and aggressively pursuing new investment. Based on recent work by BCG, eight new generation projects were commissioned in the last 24 months (totalling 7.2% of national electricity demand) and a further eight projects are currently under construction (totalling 5.1% of national electricity demand). Investment is happening and it is happening quickly. There is no evidence that the further enabling of PPAs would have a demonstrable impact on the pace of investment.[7] It is worth noting at this point that the wholesale electricity market is the mechanism designed to discover efficient pricing in New Zealand. Efficient prices are those that lead to investments occurring at just the right time. Prices can be both inefficiently high and inefficiently low. Inefficiently low prices risk under-incentivising investments, leading to future shortage, security of supply risk, and subsequent periods of higher prices. This is not in the long term interests of consumers. For example, the Commerce Commission's adoption of a 65th percentile Weighted Average Cost of Capital (WACC) in its transmission and distribution input methodologies recognises that, in its considered view, the risks to consumers of underinvestment in the electricity system is greater than the risk of transmission and distribution prices being too high in the short term. The Task Force should be equally wary about driving inefficient prices through artificially incentivising earlier investment. The Task Force has also noted that PPAs may provide a route to market for a broader set of potential developments and a broader set of developers. As noted above, there are already a diverse range of developers involved in generation investments in New Zealand using a diverse range of risk management approaches. New Zealand's wholesale electricity market is volatile and subject to political and regulatory uncertainty; not all investors will decide that this is where they want to deploy

[6] For example, Lodestone has recently completed the construction of three solar farms and has commenced construction on one more; Lightsource bp is pursuing three solar projects across the country; and FRV is currently constructing a solar project in Canterbury.

[7] In addition, should a project developer encounter 'headwinds' which impact on their ability to enter into a PPA (e.g. access to finance) they have the option of selling on their project to another developer. In this sense, the non-viability of a PPA does not need to have an impact on the wider pace of system evolution.

		their capital. The Task Force has not provided any evidence that a lack of access to PPAs has impacted the breadth of developers or developments in the New Zealand electricity sector. The Task Force has noted that parties buying PPAs may have different nodal price expectations, or a different disposition toward risk and uncertainty, than other investors and that this could lead them to make different decisions on the timing of investments. As above, this remains an entirely theoretical risk and the Task Force has provided no evidence that this is a benefit that is likely to be realised in the New Zealand context given the diversity of parties already undertaking investments here. With regard to the potential impacts on system evolution of the subsidisation of PPA investments, Meridian agrees with the risks set out by the Task Force. New Zealand is fortunate to have an energy market that has delivered $10 billion of investment in new generation in the last 15 years, all funded by private capital and without Government subsidy (and amidst significant policy and market uncertainty). As the Task Force notes, the introduction of any form of subsidy towards particular market participants or models risks skewing efficient investment, increasing costs, and reducing incentives on market participants to manage risk. This would be a significant backwards step, potentially undermining efficient investments and delivering the opposite of what the Task Force is apparently setting out to achieve.
7	Have we correctly identified and understood PPA headwinds?	Our comments on the Task Force's description of each headwind are as follows: **Underlying need** These are 'headwinds' that all generation investments face (i.e. demand risk, technology risk, access to capital, fuel uncertainty). None of this is peculiar to PPA-backed investments. As such, Meridian's view is this headwind does not provide any basis for a particular intervention targeting PPAs alone. **PPA demand** In Meridian's view, the 13 PPA deals agreed over the last five years (supplemented by Meridian's recent PPA) actually demonstrates that the PPA market is functioning well. A range of parties have negotiated and struck agreements of different sizes and over different terms. As the Task Force notes, entrant or independent generators have been party to seven of those deals. Taking into account that there are a range of risk

		management approaches for any new development, this should be viewed as a healthy PPA market. The specific buy-side headwinds identified – credit strength, scale, additionality, sophistication, access to firming, access to sleeving – are simply features or characteristics of using a PPA. There will be advantages and disadvantages of entering into a PPA, just as there are for any other risk management product. These are relevant factors for any prospective PPA party to take into account. But it is not the role of the regulator to support any particular type of commercial arrangement over another or to tilt the playing field in favour of one approach. Footnote 35 notes that PPA sales to gentailers may bring benefits in terms of diversifying developments, but not in terms of diversifying decision-making on the timing of those investments, or intensifying competition to sell energy to end users. It is important to be clear that gentailers are not one entity. There are at least five major gentailers in New Zealand. Each operates with its own Board, has its own pipeline of projects and brings its own view to investment decisions. This already brings a diversity of decision making to new investments and the gentailers are currently competing hard to bring the best new projects online. Additional participants (as we have already seen in the New Zealand electricity market) will add to this diversity of views. Any marginal benefit from a further diversification of views is likely to be very limited and certainly not enough to warrant an intervention that would carry the risk of unintended consequences. **PPA supply** We agree that the attractiveness of PPAs will depend on the credibility and competitiveness of the underlying project – as will the attractiveness of any generation-backed risk management option. As per above, the matters described here – the need to coordinate PPA commencement with changes in demand, the need for credibility amongst multiple sell-side entities, and sensitivity to financing costs – are all features of the PPA construct. It is not the regulator's role to eliminate these or artificially improve the attractiveness of PPAs relative to other risk management options. **Market structure** *Foreclosure* Again, this discussion appears to be based on the premise that the five large gentailers operate as a single entity when the reality is described as 4.24(d): incumbent gentailers compete intensely with each other to grow their retail books and expand generation such that they cannot collectively foreclose

		generation entry. As described above, the five gentailers operate independently and compete intensely. There is little risk of any individual gentailer foreclosing opportunities for PPA buyers as they would simply be foregoing a potentially beneficial commercial opportunity in favour of one of their competitors. In reality, gentailers have been active participants in PPA contracts on both the sell and buy side, as demonstrated in Table 4.1 of the paper. As such, they have been key facilitators – rather than inhibitors – of the PPA market. *Cost of capital* This section discusses the relative cost of financing of a PPA-backed investment and one undertaken by a vertically integrated player. These are reasonable descriptions of the advantages and disadvantages of each approach. Again, there is no market failure identified here; simply the identification of the different risk characteristics of different investment models. Any intervention to artificially raise the attractiveness of one model over another will skew the playing field away from its efficient equilibrium. *Transparency and liquidity* This section identifies that the ASX futures market provides continuous transparent price discovery for quarterly baseload contracts up to four years ahead, and that disclosures of OTC trades provide further price information (in some cases up to 10 years out or beyond). The recent initiation of trading of super-peak products is adding to the availability of price information and gentailers' publication of Internal Transfer Prices could be seen as a further data point. There are also a number of third party experts who can provide a forward view of wholesale market pricing. Meridian supports transparent wholesale and hedge market information. In our view, the range of data currently available (including from third party providers) is sufficient to enable PPA buyers and sellers to make informed decisions on pricing.
8	Do you agree with the potential benefits we have identified?	The benefits described in paragraphs 5.4 (a) and (b) reflect the 'potential impacts on system expansion' described in paragraph 3.33 of the paper. As such, Meridian refers back to our responses on these points under Question 6 above. The potential benefit to retail innovation (5.4 (c)) is theoretically possible but it is important to note that the New Zealand retail market already has around 40 participants competing intensely with a variety of product offerings. Again, it is not only new entrants that are competing with gentailers, but gentailers are competing intensely amongst themselves to win new customers. As such, it is unclear what marginal benefit might

		arise in practice with respect to retail competition and innovation. The potential benefit to demand growth is again a theoretical one. New demand looking to locate in New Zealand will have a wide range of potential suppliers and a wide range of risk management approaches available to it (including entering into PPAs). It is not clear that artificially promoting PPAs will have a discernible impact on fostering demand growth.
9	Do you agree with the potential risks we have identified?	We agree with the risks the Task Force has identified, namely: • There is a risk that the cost of intervention will outweigh the benefits; • There is a risk that over-regulation will in fact stymie the development of the PPA market rather than support it; • There is a risk of unintended consequences in that interventions to support PPAs could cut across or undermine other market arrangements; • There is a risk that any intervention could distort resource allocation, risk management or investment incentives (particularly where any intervention socialises risk). Such risks are much more likely to arise where any problem that an intervention is intended to solve has not been clearly evidenced. To date, the Task Force has not presented clear evidence that any of the described 'headwinds' are: • Actual market failures (as opposed to simply being relevant characteristics of different risk management models) • Present in the New Zealand context at a level beyond anecdotal examples. In our view, this will mean that any intervention will carry a very real risk of delivering a net loss to the electricity sector and to the economy. We note that, at the PPA seminar on 18 February, the Task Force's team highlighted the risk that entering PPAs as a seller is one use to which flexible generation can be allocated, but that flexible generation is a finite resource and there is an opportunity cost of allocating it to this particular use. If participants were to be artificially incentivised to allocate flexible generation towards PPAs, this would lead to an inefficient allocation of a scarce resource which would ultimately cost consumers. Meridian agrees this is a significant risk and is exacerbated by the lack of evidencing of any problem to begin with. Collectively, these risks suggest that the Task Force should adopt a cautious approach in determining any intervention in the PPA space with particular consideration

		to the risk of chilling or crowding out private investment (as per the direction of the GPS on Electricity).
10	Do you agree with the potential options we have identified?	Our view on each of the options identified by the Task Force are set out in the table in our cover letter.
11	Do you agree with our comments on potential options?	We agree that: • Allocating firming resource carries the most significant risk of undermining efficient investment and risk management, leading to higher costs and worse security of supply; • Allocating firming resources overlaps with Task Force initiatives 1B and 1C. In our view, such an option should therefore not be progressed through this workstream; • For all of the 'information' options, there is a risk of the Authority duplicating or crowding out activities that other parties have incentives to pursue; and • Options that socialise risk would not promote the Authority's efficiency and competition objectives and would not align with the recent GPS on Electricity. In addition, in the case of gentailers, the redirection of firming capacity away from supporting their own retail book would likely see these organisations seek to reduce their retail positions, reducing retail market competition and delivering the opposite of what the Task Force seems to be intending. Lastly, we disagree that allocating firming resources has the greatest potential to be effective at stimulating PPA activity. The Task Force should consider this from the perspective of the most efficient allocation of firming resources overall. Regulating the allocation of such resources to a particular use will drive inefficient resource allocation and undermine incentives to invest in additional firming resources which, in the long run, will only depress PPA activity rather than stimulate it.
12	Do you have a view on the most promising options?	As per the table in our covering letter, we would support further exploration of a PPA template, a pooling service, and addressing potential market process barriers to sleeving.