Consultation: Advancing New Zealand's energy transition
Energy and Resources Markets
Ministry of Business, Innovation and Employment
PO Box 1473
Wellington 6140

2 November 2023

Re: New Zealand Steel submission on the *Electricity market measures paper*

This is a submission from New Zealand Steel on the Ministry of Business, Innovation and Employment's (MBIE) consultation package – Advancing New Zealand's energy transition. Separate submissions have been provided for each paper; this submission acts as the overarching key messages summary including the separate submission on the *Electricity market measures* paper.

New Zealand Steel - contributing to the productivity and resilience of New Zealand

1. Formed in 1965, New Zealand Steel has been an integral part of New Zealand's history. Steel production began in 1968 and major expansions completed in 1987 created an integrated steel mill. The company is in Glenbrook, Southwest of Auckland on 560 hectares in industrial land, on the southern shores of the Manukau Harbour. As a significant employer with more than 1,500 people employed directly in high-skilled, well-paid jobs, and indirect employment of a further 2,500 people, NZ Steel makes a substantial contribution to the people in its community.

2. NZ Steel is a critical part of New Zealand's supply chain and provides a reliable supply of high-quality steel products to New Zealand's building, construction, industrial, energy, infrastructure manufacturing and agricultural sectors. Around 650,000 tonnes of steel is made a year and almost all our production is consumed in New Zealand or supports the Pacific Islands' needs. We contribute around $900m to the New Zealand economy each year.

BlueScope Climate Action Strategy

3. NZ Steel's parent company, BlueScope, is committed to exploring and collaborating to pursue emerging and breakthrough technologies to work towards its 2050 net zero goal across all global operations, including New Zealand.

4. Achieving the 2050 net zero goal is highly dependent on a range of key enablers, requiring collaboration and action across multiple sectors and stakeholders.

Energy and Decarbonisation at New Zealand Steel

5. Energy policy and decarbonisation are inseparable. In line with the BlueScope climate strategy, in September 2023 New Zealand Steel is committed to the construction of an Electric Arc Furnace (EAF) at Glenbrook. Work

is underway to install an EAF to shrink its carbon footprint and secure the future of domestic steel making. The environmental, societal and economic benefits to the country are far reaching:

- **Significant gross emission reductions** of 800,000 tonnes of $C0_2e$ per annum, seeing NZ Steel almost halve its emissions from day one, (over 45% of New Zealand Steel's gross carbon emissions reduced). This is the country's largest industrial decarbonisation project to date.
- **Retain critical domestic steel industry** and its related jobs, contribution to economic resilience and domestic supply chains, without emissions leakage.
- **Recycle domestic scrap steel** in volumes up to 300,000 tonnes. Steel is infinitely recyclable, and this project will make New Zealand as close to self-sufficient as possible using renewable energy via an innovative partnership with an electricity generator to recycle domestic steel scrap rather than shipping it offshore.
- The benefits are made possible through partnerships across public and private sectors.
- Decarbonisation at scale has occurred without deindustrialisation.
- A power supply deal that gives flexibility to lower demand on the grid during peak time loads, strengthening the grid's demand management flexibility.
- Provides optionality for further reductions in steel making related emissions.

6. Energy policy, security and affordability are intrinsically linked to our national carbon net-zero 2050 goal, but also the continued viability of manufacturing in New Zealand. We know, through recent experience, that collaboration and joined up thinking is critical. New Zealand Steel's EAF project only came about through careful collaboration between industry, steel suppliers, commercial and environmental regulators, central government alignment and buy in from electricity generators.

7. Our main message is that New Zealand needs a coherent and joined-up energy eco-system that leverages the country's competitive advantages, recognises all of the interdependencies and avoids unintended consequences. New Zealand Steel has made submissions on all MBIE energy consultation papers, however our top ten submission points that span all energy areas are as follows.

Advancing New Zealand's Energy Strategy – Key Points

8. MBIE guide completion of the NZ Energy Strategy using a 'one eco-system' nationwide approach. This should be visionary guiding a holistic pathway as NZ transition to a low emissions society.

9. Reliable, firmed and affordable energy together with demand response efficiencies is essential for heavy manufacturing, NZ Steel is no exception. The integration between energy and heavy manufacturing will only grow deeper over time as NZ Steel continues to decarbonize and leverage its Glenbrook site to more energy related opportunities. In this sense, NZ Steel is as a major energy user as a heavy manufacturer and energy policy is critical for our success and the continuation of steel making here.

10. Electrification is key to reducing emissions (both from the grid but also for opportunities like hydrogen). For this to be achieved NZ will require an abundant supply of reliable, affordable electricity generated from renewable sources.

11. The challenges posed to the stability of the electricity grid by increased intermittent generation, namely wind and solar, must be recognised. As for the challenges of dry-year risks to hydro generation. Firming of the power supply is essential – firming solutions are multifaceted and must be understood in totality.

12. Demand flexibility is recognised as an essential tool in managing increased intermittent generation and peak-time loads. NZS encourages the development of an auxiliary market with appropriate demand response products enabling industrial users to provide demand flexibility. Demand response products that reflect true economic value reduce the required generation overbuild and reduce the cost of the marginal MWh, supporting both security of supply, increased competition in the wholesale market and overall system cost.

13. NZ Steel is exploring the next stage of decarbonisation following installation of the EAF. To fully remove coal from the ironmaking process an alternative reductant source is required to produce direct reduced iron (DRI). One option being investigated is using hydrogen as the reductant. While viability is yet to be proven there are promising signs. However, we are concerned at the expectations being built for green hydrogen in NZ. Hydrogen as a process input and/or energy source has many challenges through the complete end to end supply chain and will be dependent on availability of large amounts of electricity at costs several times lower than the current wholesale and futures market prices.

14. Further to point 6 above, a hydrogen steelmaking opportunity will only come about if a 'hydrogen hub' type concept is seriously considered at the Glenbrook site. This will require careful engagement with end-to-end supply chain partners and regulators – practical workshops are essential.

15. Whilst green hydrogen is a likely end state for ironmaking, NZ Steel believes there is a credible transition pathway using natural gas as the reductant. Converting the ironmaking process to using natural gas can facilitate a further step change in decarbonisation, transitioning to green hydrogen when the infrastructure exists.

16. While electrification can be and is a substitute for many applications, gas will remain essential for some industrial applications until new technologies are available and implementable. Until alternatives can be found, natural gas remains an important fuel source for peaking and dry-year electricity generation.

17. NZ Steel supports the further investigation of offshore wind in New Zealand mainly because of the scale of the green electricity it provides and the downstream opportunities that scale unlocks. Appropriate engagement with iwi and communities is essential.

Yours sincerely

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Head of Business Transformation
New Zealand Steel

Submission on *Measures for Transition to an Expanded and Highly Renewable Electricity System*

Name	
Organisation (if applicable)	New Zealand steel Limited
Contact details	

Release of information

Please let us know if you would like any part of your submission to be kept confidential.

☐ I would like to be contacted before the release or use of my submission in the summary of submissions that will be published by MBIE after the consultation.

☐ I would like my submission (or identified parts of my submission) to be kept confidential, and **have stated below** my reasons and grounds under the Official Information Act that I believe apply, for consideration by MBIE.

I would like my submission (or identified parts of my submission) to be kept confidential because [Insert text]

[To check the boxes above: Double click on box, then select 'checked']

Responses to questions

Part 1: Growing Renewable Generation	
1.	Are any extra measures needed to support new renewable generation during the transition? Please keep in mind existing investment incentives through the energy-only market and the ETS, and also available risk management products. Any new measures should add to (and not undermine or distort) investment that could occur without the measures.
	We submit additional measures are not required. As pointed out in para 35 the NZ energy only market prices the wholesale price at the most expensive generation for each trading period. Para 36 correctly identifies that this, plus ETS fuel price signals, should already be incentivising new renewable generation to be built at scale. This has been the situation now since mid-2018 when wholesale prices basically trebled for a period and now remains at double the pre 2018 average including out to the extent of the ASX futures curve (3.5 years). Forsyth Barr have said electricity futures prices are too high, risking an overbuild of new generation (Energy News 5 Oct 2023). There has been a slow start to investment in new generation, even since the dramatic increase in wholesale prices 5 years. To achieve more electrification NZ requires a large amount of electricity generated from renewable sources at prices that make sense for demand side investment. Currently traded future prices are not going to work for most electrification business cases.
2.	If you think extra measures are needed to support renewable generation, which ones should the government prioritise developing and where and when should they be used? What are the issues and risks that should be considered in relation to such measures?
	Managing risk and unexpected situations is part of being in business. However, a stability around Government policy settings is important. The NZ battery project, in particular Lake Onslow, is a programme that it is hard to imagine proceeding on a fully commercial basis and this continues to provide uncertainty for investment decisions given the large impacts this could make on the electricity market. While new generation is now in the pipeline much of this is intermittent in the form of wind and solar. Firming needs additional consideration.
3.	If you don't think further measures are needed now to support new renewable generation, are there any situations which might change your mind? When and why might this be?
	The functioning of the WEM requires further consideration. This includes all generation being paid at the highest priced MW dispatched being reviewed and perhaps changed. Such a change could change the investment decisions around new generation.
4.	Do you think measures could be needed to support new firming/dispatchable capacity (resources reliably available when called on to generate)? If yes, which kind of measures? What needs do you think those measures could meet and why?
	Yes. As per Q2 new intermittent generation is coming into the build stage at scale, however apart from base-load geothermal there is a paucity of new firming capacity to replace soon to be retired thermal plants. Demand-side load-curtailment/load-shifting potentially has an important part to play. However, this will take broader consideration including paying reduced load on the same basis as generation and/or mechanisms outside the current WEM settings. The transition to 100% renewable electricity will have challenges. During this period it is important consumers have confidence in the electricity systems and the lights stay on. A loss of confidence will undermine the steps to 100% renewable. Sufficient generation, particularly

	during hydro restrained periods, is required to have this assurance and efficient gas fired plant seems the best way to achieve this. It is unlikely the costs of building and maintaining this capacity can be delivered from the WEM and that administrative intervention will be required.
5.	Are any measures needed to support storage (such as battery energy storage systems or BESS) during the transition? If yes, what types of measures do you think should be considered and why?
	Storage will be important to providing firming of renewables. As per the MDAG report this includes hydro.
6.	If you answered yes to question 4 or 5 above, should the support be limited to renewable generation and renewable storage technologies only or made available across a range of other technologies? Keep in mind that fossil fuels are generally the cheapest option for firming, though this may change over time as renewable options (particularly batteries) become more efficient and affordable.
	Given the time frame for which firming capacity is likely required, it is unlikely renewable technologies will be installed with sufficient capacity at an acceptable price. Efficient fast-start thermal plant needs to be planned and installed accepting a capacity type payment may be required.
7.	If you answered yes to question 6 above, what are the issues and risks with this approach? How could these risks and issues be addressed?
	It needs to be recognised the market-driven process to date has not delivered large amounts of renewable generation and cannot be relied upon to achieve the levels of electrification required to meet decarbonisation targets. Mechanisms, such as capacity payments, step outside the market and brings risks of unintended consequences. These consequences need to be managed, but likely are less than the counterfactual of no-action. Hoping the market will deliver is a high-risk strategy.
8.	Are any measure(s) needed to support existing or new fossil gas fired peaking generation, so as to help keep consumer prices affordable and support new renewable investment?
	Concern is being expressed by a number of people regarding security of supply especially with the Scheduled closure of TCC and Huntly 5, and limited future of the Huntly Rankins. The over-riding consideration needs to be keeping the lights on and at a reasonable price to consumers.
9.	If you answered yes to question 8 above, what measures should be considered and why? What are the possible risks and issues with these measures?
	As more renewable generation comes on-line the difficulties of firming increase. This pushes up the price of thermals. As noted above the WEM spot price being set by the marginal MW dispatched unjustifiably pushes up returns on all generation and pushes up prices to consumers. Without adequate firming the market will fail to deliver adequate energy. The marginal MW payment mechanism should be reviewed despite the disruption that would result to the current market mechanisms. Payment for firming generation and demand side load reduction should be considered.
10.	If you answered yes to question 8 above, what rules would be needed so that fossil gas generation remains in the electricity market only as long as needed for the transition, as part of phase down of fossil gas?

This will be influenced by the mechanisms by which thermal generation is encouraged to remain available. The ETS plays a key role in discouraging thermal generation relative renewable sources.

11. Are there any issues or potential issues relating to gas supply availability during electricity system transition that you would like to comment on?

The future of natural gas is uncertain and this impacts on availability as an important transition fuel. Previous Minister Woods has acknowledged this , but the availability of sufficient gas remains an issue.

12. Do you agree that specific measures could be needed to support the managed phasedown of existing fossil fuel plants, for security of supply during the transition?

yes

13. If you answered yes to question 12 above, what measures do you think could be appropriate and why? What conditions do you think should be placed on plant operation?

For example, do you have any views on whether there should be a minimum notice period for reductions in plant capacity, and/or for placing older fossil fuel plant in a strategic reserve?

NZ cannot rely on the WEM to ensure adequate supply during the transition period. An intervention may very well be required, and the Electricity Authority should be charged with managing this risk.

14. If you answered yes to question 12 above, what are the issues and risks with these measures and how do you think these could be addressed?

The counterfactual to intervention brings the risk of brown-outs. The risks and costs of this situation need to be weighed against potential intervention.

15. What types of commercial arrangements for demand response are you aware of that are working well to support industrial demand response?

None.

16. What new measures could be developed to encourage large industrial users, distributors and/or retailers to support large-scale flexibility?

Improved Dispatchable Demand (DD)(is not currently providing opportunities worth pursuing for our business and lack of industrial uptake infers similar difficulties for other industrial users
An auxiliary market needs to be further considered despite the EA ruling this out. A demand response product at true economic value would reduce the required generation overbuild and reduce the cost of the marginal MWh, supporting both security of supply, increased competition in the wholesale market and overall system cost. Load reduction should be remunerated as for generation in terms of payment from the market as it has the same value to the system.
Further, we see little merit in the proposition that an auxiliary product would subsidise inefficient plants. There will simply be a new value proposition for assets in terms of the trade offs between the value of their demand against the costs of not producing. Nor does this argument change the benefits of flexible demand to the electricity system through affordability, security and equity.

17. Do you have any views on additional mechanisms that could be developed to provide more information and certainty to industry participants?

RTP has provided certainty as to price at a point in time, but there has been no advance relating to forward pricing predication even within the current Trading Period. With the volatility, even within trading periods, demand side load reductions in a production environment are problematic and costly in terms of operating inefficiencies and lost production traded against a highly uncertain benefit. (see comments in 16 above re DD) Settlement per dispatch period, rather than trading period, may assist. Also reduced gate closure should be considered further.

Part 2: Competitive Markets

18. Do you agree that the key competition issue in the electricity market is the prospect of increased market concentration in flexible generation, as the role of fossil fuel generation reduces over time?

We do not consider NZ currently has a workable competitive market and yes, the situation is likely to be exacerbated.

19. Aside from increased market concentration of flexible generation, what other competition issues should be considered and why?

The market has now been in operation for over 20 years. While a few of tweaks have been put in place and are talked about, it is time to step back for a truly independent review of key structural aspects:

1. Vertical integration. As we understand it there was a line-ball call at the time of separation of line and energy in 1999/2000 as to whether generation and retail should be separated. This aspect is mentioned in several parts of the paper and should be considered further.
2. The marginal dispatched MW setting the price paid to all generators. We comment on this elsewhere in this submission.

20. What extra measures should or could be used to know whether the wholesale electricity market reflects workable competition, and if necessary, to identify solutions?

Commentary and evidence has been building that the WEM is not behaving as would be expected in a workable competitive market. The MEUG work identifies significant on-going excess profits by some gentailers (referthe MEUG website under publications)

21. Should structural changes be looked at now to address competition issues, in case they are needed with urgency if conduct measures prove inadequate?

Yes. There is a lack of evidence that incremental steps to date have made any noticeable difference. The bigger question, taking into account MDAG comment (para 161, and the Authority's EPR (referenced in para 168), is whether NZ can afford the risk if structural changes are not made?

22. Is there a case for either vertical separation measures (generation from retail) or horizontal market separation measures (amending the geographic footprint of any gentailer) and, if so, what is this?

As we understand it this was a difficult call in 1999/2000 and it would remain so today. Given the still heavy hydro base to NZ generation the risks to retailers of a dry year are high, but it is the consumers that are bearing the costs. The NZ market based system is still largely based on generation that was designed 50+ years ago to compliment each other being set-up to compete. Until we move past this in a renewables/storage/demand-flex based world these issues will not go away and need to be addressed.

23.	Are measures needed to improve liquidity in contract markets and/or to limit generator market power being used in retail markets? If yes, what measures do you have in mind, and what would be the costs and benefits?
	Yes. If the risks and disestablishment costs of vertical separation are too high, gentailers being required to compete for hedges on the market would be a good start. This would assist in establishing an equitable platform. The Commerce Commission should be asked to look further at market power. ity.
24.	Should an access pricing regime be looked at more closely to improve retail competition (beyond the flexibility access code proposed by the Market Development Advisory Group or MDAG)?
	This would be an extreme intervention and not favoured. However, it could be a way to control generator super-profits and maybe applied short-term to support firming capacity.
25.	What extra measures around electricity market competition, if any, do you think the government should explore or develop?
	The functions, relationship and performance of the Commerce Commission and Electricity Authority should be reviewed relative to the issues identified in the MBIE paper.
26.	Do you think a single buyer model for the wholesale electricity market should be looked at further? If so, why? If not, why not?
	Short answer is no. Separation of Government direct involvement in electricity was commenced three+ decades, and while the NZ market has issues that need addressing, it would be a retrograde step to go back to a single market model.
Part 3: Networks for the Future	
27.	Do you consider that the balance of risks between investing too late and too early in electricity transmission may have changed, compared to historically? If so, why?
	Within the last decade there has been a shift in the perception that energy efficiency and distributed generation would see statistic and perhaps decreased requirements for new generation as well as a risk of over-build of transmission and distribution assets. A drive for decarbonisation through electrification has changed all this. Both in terms of additional generation as well as phase-out of thermal plants, as well Transpower planning extensive investment in the grid. There are many issues that need to be managed with the move towards 100% renewable and additional requirements for electricity; in large part relating to industrial heat and transport. The risk is real that there will not be sufficient firmed electricity delivered at an acceptable price to meet decarbonisation targets. That the lights will stay on during extended hydro-constrained periods is also something the industry has been altered to during what is called the transition period.
28.	Are there any additional actions needed to ensure enough focus and investment on maintaining a resilient national grid?
	There are additional costs and investment risks for Transpower. Under the current TPM these costs are largely borne by consumers. A holistic approach is required with the current Energy Strategy work because lack of affordability will hamper electrification and therefore decarbonisation initiatives.

29.	Do you agree we have identified the biggest issues with existing regulation of electricity distribution networks?
	No comment.
30.	Are there pressing issues related to the electricity distribution system where you think new measures should be looked at, aside from those highlighted in this document? How would you prioritise resolving these issues to best enable the energy transition?
	No comment.
31.	Are the issues raised by electricity distributors in terms of how they are regulated real barriers to efficient network investment? Please give reasons for your answer. Is there enough scope to address these issues with the current ways distributors are regulated? If not, what steps would you suggest to address these issues?
	No comment.
32.	Are there other regulatory or practical barriers to efficient network investment by electricity distributors that should be thought about for the future?
	No comment.
33.	What are your views on the connection costs electricity distributors charge for accessing their networks? Are connection costs unnecessarily high and not reflective of underlying costs, or not? If they are, why do you think this is occurring?
	No comment.
34.	If you think there are issues with the cost of connecting to distribution networks, how can government deliver solutions to these issues?
	No comment.
35.	Would applying the pricing principles in Part 6 of the Code to new load connections help with any connection challenges faced by public EV chargers and process heat customers? Are there other approaches that could be better?
	No comment.
36.	Are there any challenges with connecting distributed generation (rather than load customers) to distribution networks?
	No comment.
37.	Are there different cost allocation models addressing first mover disadvantage (when connecting to distribution networks) which the Electricity Authority should explore, potentially in conjunction with the Commerce Commission?
	No comment.
38.	Should the Electricity Authority look at more prescriptive regulation of electricity distributors' pricing? What key things would need to be looked at and included in more prescriptive pricing regulation?
	No comment.

39.	Do current arrangements support enough co-ordination between the Electricity Authority and the Commerce Commission when regulating electricity distributors? If not, what actions do you think should be taken to provide appropriate co-ordination?
	No comment.
40.	Will the existing statutory objectives of the Electricity Authority and Commerce Commission adequately support key objectives for the energy transition?
41.	Should the Electricity Authority and/or the Commerce Commission have explicit objectives relating to emissions reduction targets and plans set out in law? If so, • should those objectives be required to have equal weight to their existing objectives set in law? Why and how might those objectives affect the regulators' activities?
	No. The EA and ComCom have a complex set of factors to manage within a market/market-like system. Mandated explicit objectives relating to emission reductions need to be managed outside this framework.
42.	Should the Electricity Authority and/or the Commerce Commission have other new objectives set out in law and, if so, which and why?
	None identified.
43.	Is there a case for central government to direct the Commerce Commission, when dealing with Electricity Distributors and Transpower, to take account of climate change objectives by amending the Commerce Act and/or through a Government Policy Statement (GPS)?
	We can see the ComCom being permitted to take these factors into account, but do not support them being directed.
44.	If you answered yes to question 43, please explain why and indicate: • What measures should be used to provide direction to the Commerce Commission and what specific issues should be addressed? How would investment in electricity networks be impacted by a direction requiring more explicit consideration of climate change objectives? Please provide evidence.
Part 4: Responsive Demand and Smarter Systems	
45.	Would government setting out the future structure of a common digital energy infrastructure (to allow trading of distributed flexibility) support co-ordinated action to increase use of distributed flexibility?
	There is a more fundamental question to be addressed first. It is understood NZ was a leader in the world with demand control in the latter half of the 20th century – commonly referred to as ripple control of hot water. Much of this has been lost in the last 30 years with network price signals rewarding the ability to control load not necessarily passed through by retailers. This continues to be the case despite now ubiquitous use of smart metering. In addition, the direct peak load element (RCPD) of transmission pricing has been removed.

	The Electricity Authority has over-seen the regime that has prevailed. The unintended consequences that could come from forcing a particular technical solution can perhaps be avoided by an updated mind-set being adopted by the regulatory bodies.
46.	Should central government see how demonstrations and innovation to help inform how trade of flexibility evolves in the New Zealand context, before providing direction to support trade of distributed flexibility? If yes, how else could government support the sector to collaborate and invest in digitalisation now?
	See 45 above.
47.	Aside from work already underway, are there other areas where government should support collaboration to help grow and develop flexibility markets and improve outcomes? If yes, what areas and actions are a priority?
	The EA has rejected an auxiliary services market because of potential negative impact on the current market mechanisms. Given the known 'issues' with the current market, many of which are identified at various places in the MBIE paper, there should be a rethink.
48.	Could co-funding for procurement of non-network services help address barriers to uptake of non-network solutions (NNS) by electricity distributors?
	In this context it sounds like picking winners, which the Government should avoid.
49.	Would measures to maximise existing distribution network use and provide system reliability (such as dynamic operating envelopes) help in New Zealand? If yes, what actions should be taken to support this?
	No comment.
50.	What do you think of the approaches to smart device standards and cyber security outlined in this document? Are there other issues or options that should be looked at?
	No comment.
51.	Do you think government should provide innovation funding for automated device registration? If not, what would best ensure smart devices are made visible?
	No comment
52.	Are extra measures needed to grow use of retail tariffs that reward flexibility, so as to support investment in CER and improved consumer choice and affordability?
	Yes see Q45.
53.	Should the government consider ways to create more investment certainty for local battery storage? If so, what technology should be looked at for this?
	No.
54.	Should further thought be given to making upfront money accessible to all household types, at all income levels, for household battery storage or other types of CER?
	No.
55.	Should government think about ways to reduce 'soft costs' (like the cost of regulations, sourcing products, and upskilling supplier staff) for installing local battery storage with solar and other forms of CER/DER storage? If so, what technology should be looked at?
	Yes. The Government has a role in facilitating change.

56.	Is a regulatory review of critical data availability needed? If so, what issues should be looked at in the review?
	Yes. Key starting point should be not what is available, but rather what should not be available, and for good reason.
Part 5: Whole-of-system considerations	
57.	What measures do you consider the government should prioritise to support the transition? • Completion of the holistic Energy Strategy work underway, with political cross-party support. • The regulatory bodies (namely ComCom and EA) have clearly defined, connected objectives and are held accountable for outcomesI. • Market mechanisms to deliver an abundant, reliable, affordable supply of renewable electricity to consumers.
58.	Are there gaps in terms of information co-ordination or direction for decision-making as we transition towards an expanded and more highly renewable electricity system and meeting our emissions goals? Please provide examples of what you'd like to see in this area.
	Yes. A drive for electrification with reliance on the market to deliver the required generation for firmed supply with Transpower having the unenviable task of having sufficient transmission in place to match demand with supply (albeit with the cost risk borne by consumers). The MBIE paper records the concerns of many as to whether this can be achieved without intervention.
59.	Are there significant advantages in adopting a REZ model, or a central planning model (like the NSW EnergyCo), to coordinate electricity transmission investment in New Zealand? Would a REZ model for local electricity distribution be an effective means of addressing first mover disadvantage with connecting to electricity distribution networks?
	We supposedly have a coordinated system with the EA and ComCom working under the supervision of MBIE. The fact we are having these discussion means we do not have an adequately functioning whole-of-system. We will leave others to conclude what needs to happen to get the processes we do have working appropriately.
60.	Should MBIE regularly publish opportunities for generation investment to enable informed market decision-making?
	This should not be necessary
61.	How should the government balance the aims of sustainability, reliability and affordability as we transition to a renewable electricity system?
62.	To what extent should wholesale, transmission, distribution or retail electricity pricing be influenced by objectives beyond the (affordability-related) efficiencies achieved by cost-reflective pricing, such as sustainability, or equity?
	In the absence of deliberate price imbalances, equity issues should be addressed by other support mechanisms. All aspects of the Industry should be sustainable in its actions, but beyond that cost responsibilities should lie outside of the industry.

63.	Are the current objectives for the system's regulators set in law (generally focusing on economic efficiency) appropriate, or should these also include more focussed objectives of equity and/or affordability?
	The objectives are appropriately focused.

General Comments: