

28 February 2020

Energy markets Policy
Ministry of Business, Innovation and Employment
Wellington

energymarkets@mbie.govt.nz

Re: Submission on Discussion Document – Accelerating renewable energy and energy efficiency December 2019.

Thank you for the opportunity to submit on the document.

The New Zealand Steel submission is attached.

Also attached as context to the current submission is a further copy of the submission New Zealand Steel made on 25 February 2019 re “Process Heat in New Zealand: opportunities and barriers to lowering emissions”.

We will be pleased to discuss any aspect of our submission.

Ngā mihi,



Gretta Stephens
Chief Executive, NZ Steel and Pacific Islands

MBIE - Accelerating renewable energy and energy efficiency	28/02/2020
Discussion Document Questions	New Zealand Steel Assessment
	Submission Questions
Sect 1	Response
Option 1.1	ADDRESSING INFORMATION FAILURE
Q1.1	<p>Require large energy users to publish Corporate Energy Transition Plans (including reporting emissions) and conduct energy audits</p> <p>Do you support the proposal in whole or in part to require large energy users to report their emissions and energy use annually publish Corporate Energy Transition Plans and conduct energy audits every four years? Why?</p> <p><u>1. Reporting</u> New Zealand Steel supports a focus on improving energy efficiency and reducing emissions (the two are not always the same). Reporting regimes are already in place. Some of these are voluntary and some under legislated provisions. Further reporting requirements are unlikely to lead to improved outcomes.</p> <p><u>2. Transition Plans.</u> Reducing energy costs is a key focus of the business, this is demonstrated by the long list of energy efficiency and greenhouse reduction initiatives that have already been implemented (Note: details can be provided on request). Our processes have been operating for decades and the high cost of energy provides a strong incentive for improved efficiency where the investment required makes sense. Publication of the future pipeline of improvement initiatives is vexed as the future investment environment is unknown, particularly in the context of multiple overlapping lapping ETS and energy efficiency reforms underway.</p> <p><u>3. Audit.</u> Our operations are unique in NZ and we find limited expertise outside of New Zealand Steel and our parent BlueScope to assist us move beyond the consultant's standard 'laundry list' of lower value operational aspects to be audited.</p> <p>The limited benefit of external sourced auditing, given the specialist nature of New Zealand Steel operations is evidenced by recent energy audits undertaken, some in partnership with EECA, which have failed to identify additional areas for Tier 1 or 2 improvements.</p> <p>In New Zealand Steel's case, such activities serve only to increase compliance costs and redirect money and valuable resources away from any material potential improvement activities.</p>

		For specialised activities rolling self-audits and self-reporting may provide a more useful outcome.
Q1.2	Which parts (set out in Table 3) do you support or not? What public reporting requirements (listed in Table 3) should be disclosed?	<p>The reporting option has been put forward by MfE on the basis there is a lack of accurate information and asymmetry of the information available. For large businesses such as New Zealand Steel, energy is a large part of the cost base and an on-going focus of management. Ours is a multi-faceted operation with each production unit, as well as site wide services, being a complex and multi-energy source operation.</p> <p>There is no easy one-size fits all reporting mechanism that can be applied for external reporting that will provide value from an industry comparison perspective and/or facilitate improved energy efficiency at New Zealand Steel.</p> <p>Rather than expend resources on a mandatory reporting regime, New Zealand Steel maintains that leveraging existing reporting activities, and a more bespoke approach, focussing Government interactions on issues and opportunities specific to New Zealand Steel's operations, would be a more effective and value adding approach and provide meaningful assistance with the transition.</p>
Q1.3	In your view, should the covered businesses include transport energy and emissions in these requirements?	If reporting is to be mandated, a well-defined and understood framework will be required. The inclusion of transport energy and emissions, as currently considered, also raises questions around the scope and responsibilities within supply chains and presents risks of double counting of emissions.
Q1.4	For manufacturers: what will be the impact on your business to comply with the requirements? Please provide specific cost estimates if possible.	Refer to 1.1 and 1.2. Additional detail is required to enable specific cost estimates to be provided.
Q1.5	In your view, what would be an appropriate threshold to define 'large energy users'?	Threshold levels for emissions and/or energy should be adopted to define large energy users. Working examples of this are available in the Australian National Greenhouse and Energy Reporting System. Adopting such thresholds will help focus industry and Government resources and minimise the complexity and administrative burden more generally. Scope boundaries and measurement criteria (e.g. methodologies, emission factors, etc.) will need to be clearly defined to ensure consistency and transparency.

Q1.6	Is there any potential for unnecessary duplication under these proposals and the TCFD disclosures proposed in the MBIE-MfE discussion document on Climate-related Financial Disclosures?	<p>There is considerable risk of miss-alignment. This is already the situation with differing scope and definitions (e.g. emission factors) for various external reporting requirements.</p> <p>For those firms that come under the TCFD proposals the scope boundaries, reporting periods (i.e. financial versus calendar year) and the difference in definitions are all potentially areas for significant miss-alignment and duplication of effort, with the resultant potential for inconsistency and a reduction in the effectiveness of resource allocation.</p>
Option 1.2	Develop an electrification information package for businesses looking to electrify process heat, and offer EECA's business partners co-funded low-emission heating feasibility studies.	
Q1.7	Do you support the proposal to develop an electrification information package? Do you support customised low-emission heating feasibility studies? Would this be of use to your business?	<p>Whilst potentially of value more broadly, New Zealand Steel notes that due to the unique nature of our current process, there is currently limited potential for electrification to result in material efficiency gains and/or emissions reductions in our business.</p> <p>New Zealand Steel already has cogeneration on site that is fuelled from off-gases and waste heat from the iron making process. On average this provides 60% of our Glenbrook site requirements. Given the extensive electrification already in place, there are limited opportunities for further integration / substitution of thermal load with electrical load.</p> <p>New technologies, such as hydrogen based ironmaking, will likely provide alternatives for the future.</p>
Q1.8	In your view, which of the components should be scaled and/or prioritised? Are there any components other than those identified that could be included in an information package?	<p>In New Zealand Steel's case, and in the case of other large energy users, reliability data and system resilience information is already well understood and accessible (from various sources) by large energy users.</p> <p>New Zealand Steel acknowledges that there may be some value-add for non EIHI sites.</p>
Option 1.3	Provide benchmarking information for food processing industries	
Q1.9	Do you support benchmarking in the food processing sector?	

Q1.10	Would benchmarking be suited to, and useful for, other industries, such as wood processing?	
Q1.11	Do you believe government should have a role in facilitating this or should it entirely be led by industry?	
Sect 2	DEVELOPING MARKETS FOR BIOENERGY AND DIRECT GEOTHERMAL USE	
Option 2.1	Developing users' guide on application of the National Environmental Standards for Air Quality to wood energy	
Q2.1	Do you agree that councils have regional air quality rules that are barriers to wood energy? If so, can you point us to examples of those rules councils' plans?	
Q2.2	Do you agree that a NESAQ users' guide on the development and operation of the wood energy facilities will help to reduce regulatory barriers to the use of wood energy for process heat?	
Q2.3	What do you consider a NESAQ users' guide should cover? Please provide an explanation if possible.	
Q2.4	Please describe any other options that you consider would be more effective at reducing regulatory barriers to the use of wood energy for process heat.	
Q2.5	In your opinion, what technical rules relating to wood energy would be better addressed through the NESAQ than through the proposed users' guide (option 2.1)?	
Q2.6	In your view, could the Industry Transformation Plans stimulate sufficient supply and demand for bioenergy to achieve desired outcomes? What other options are worth considering?	
Q2.7	Is Government best placed to provide market facilitation in bioenergy markets?	
Q2.8	If so, how could Government best facilitate bioenergy markets? Please be as specific as possible, giving examples.	

Q2.9	In your view, how can government best support direct use of geothermal heat? What other options are worth considering?	
Sect 3	INNOVATING & BUILDING CAPACITY	
Option 3.1	Expand EECA's grants for technology diffusion and capability-building	The over-riding requirement is a policy environment that supports business viability and promotes on-going investment.
Q 3.1	Do you agree that de-risking and diffusing commercially viable low-emission technology should be a focus of government support on process heat? Is EECA grant funding to support technology diffusion the best vehicle for this?	New Zealand Steel support the concept, but suggest EECA should only focus on "mass-market" opportunities with widescale applications. For large specialist industry plant, specific expertise is required and it will not be efficient to have EECA duplicate work in this area.
Q 3.2	For manufacturers and energy service experts: would peer learning and on-site technology demonstration visits lead to reducing perceived technology risks? Is there a role for the Government in facilitating this?	Yes, but for the reasons outlined in 3.1, this is best focused on areas with widespread application.
Option 3.2	Collaborate with EIH industry to foster knowledge sharing, develop sectoral low-carbon roadmaps and build capability for the future using a Just Transitions approach	
Q3.3	For EIH stakeholders: What are your views on our proposal to collaborate to develop low-carbon roadmaps? Would they assist in identifying feasible technological pathways for decarbonisation?	New Zealand Steel agrees collaboration is the right approach and will produce superior results over enforcement. An industry led process based on a common template will both facilitate the process and provide a base from which to summarise the outcomes. However, we caution not to build high expectation with regard to EIH activities in that there may not be technology to bring to the table even with a collaborative approach. New Zealand Steel is tapped into the search for alternative low-carbon steel making processes through our parent BlueScope and World Steel and we question what further value would be added under the MfE proposals. In this regard we are aware of the \$100Ms being invested by the Swedish Government in developing hydrogen steel making, and other significant Government investments in steel making other jurisdictions globally, and question what meaningful role the NZ Government

		<p>collaborative involvement might reasonably play to further enhance these developments.</p> <p>NEW ZEALAND STEEL understands that the Government has a role in identifying sovereign state agreement technology R&D sharing opportunities.</p> <p>It is important that the Government fully engages with domestic industry stakeholders to ensure agreement scope and terms of reference are relevant to New Zealand.</p>
Q3.4	What are the most important issues that would benefit from a partnership and co-design approach?	<p>Just transition planning needs to be clearly and transparently defined. Equally a pragmatic and economically feasible approach needs to be applied when developing New Zealand's whole of economy carbon budgets.</p> <p>The challenges for EIH industry, particularly those where significant technology shifts are both required and still very much in the development phase, need to be taken into account when formulating achievable and economically viable carbon budgets.</p>
Q3.5	What, in your view, is the scale of resourcing required to make this initiative successful?	<p>It is important appropriately skilled consultants are engaged. These people need to be able to work recognising the commercial sensitivity within the industries, reporting on high level aggregated numbers for industry where appropriate.</p> <p>These outputs need to be at a level they can feed into the Climate Change Commission budgeting process. Government must focus on a high-level facilitation role. There is no need for a secretarial function.</p>
Sect 4	PHASING OUT FOSSIL FUELS IN PROCESS HEAT	
Option 4.1	Introduce a ban on new coal-fired boilers for low and medium temperature requirements	
Option 4.2	Require existing coal-fired process heat equipment supplying end-use temperature requirements below 100°C to be phased out by 2030.	

Q4.1	Do you agree with the proposal to ban new coal-fired boilers for low and medium temperature requirements?	<p>New Zealand Steel understand the drive to remove coal from applications when low emitting processes exist, however, we consider a ban on new coal fired boilers to be an unnecessary intrusion into business decisions.</p> <p>The ETS places a 'real' cost on coal i.e. NZ has moved over the past 2-3 years from a (very) low cost of carbon to now being significant. As well as the increase in market price, since 2019 the full cost is flowing through, as a result of the cessation of the 2 for 1 surrender obligation provisions. The ETS cost now adds over \$50 to a tonne of coal.</p> <p>A 'legislated' ban on specific coal applications undermines the efficacy of the ETS market mechanism and increases business uncertainty with respect to the ETS as a whole. The ETS will assist drive the transition from coal to renewables or lower carbon-intensive fuels.</p> <p>The introduction of additional parallel mechanisms, such as blanket bans on specific technologies or applications, is likely to have a perverse outcome, potentially driving changes to the energy supply without a clear pathway to affordable, secure and reliable supply of renewable electricity.</p> <p>Ensuring New Zealand has a fully functioning competitive electricity market is essential to further electrification.</p>
Q4.2	Do you agree with the proposal to require existing coal-fired process heat equipment for end- use temperature requirements below 100 degrees Celsius to be phased out by 2030? Is this ambitious or is it not doing enough?	Refer 4.1. New Zealand Steel maintains that a review of the effectiveness of the existing price signals (i.e. ETS) should be undertaken to determine whether they are sufficient to discourage the use of coal for low-heat processes. Determinations with respect to the need for additional, complimentary, requirements should be based on the findings of this review.
Q4.3	For manufacturers: referring to each specific proposal, what would be the likely impacts or compliance costs on your business?	New Zealand Steel has no low or medium heat processes for which we use coal. However, it does raise concerns re precedent risk with coal being a necessary ingredient in the iron making process.
Q4.4	Could the Corporate Energy Transition Plans (Option 1.1) help to design a more informed phase out of fossil fuels in process heat? Would a timetabled phase out of fossil fuels in process heat be necessary alongside the Corporate Energy Transition Plans?	Refer 4.3.

Q4.5	In your view, could national direction under the RMA be an effective tool to support clean and low GHG-emitting methods of industrial production? If so, how?	The RMA has specific purposes and should not be used as a secondary mechanism to drive CO ₂ reductions.
Q4.6	In your view, could adoption of best available technologies be introduced via a mechanism other than the RMA?	The unique nature of New Zealand Steel's operations, by definition, limits any perceived benefits from applying a broad 'best available technologies' approach. New Zealand Steel acknowledges that this approach may have more tangible benefits in other industry sectors.
Sect 5	BOOSTING INVESTMENT IN ENERGY EFFICIENCY AND RENEWABLE ENERGY TECHNOLOGIES	
Q5.1	Do you agree that complementary measures to the NZ-ETS should be considered to accelerate the uptake of cost-effective clean energy projects?	<p>Additional detail is required to define a clear position, however in principal, provided additional measures are legitimately complimentary, such provisions should be considered as part of "Just Transition" measures.</p> <p>Appropriate research and modelling must be undertaken to ensure any additional measures proposed will both enhancing New Zealand's emission reduction pathway and strengthen New Zealand's economic position.</p>
Q5.2	If so, do you favour regulation, financial incentives or both? Why?	Ensuring regulatory barriers do not impede the development of 'sensible' renewable projects is critical. Again, subject to evaluation, financial incentives may be appropriate complimentary measures, particularly in targeted situations where significant investment in technology is required to facilitate industry transition.
Q5.3	In your view what is a bigger barrier to investment in clean energy technologies, internal competition for capital or access to capital?	<p>For New Zealand Steel both access to capital and internal competition for capital are significant issues.</p> <p>New Zealand Steel is part of a larger multi-national company. The increasing uncertainty surrounding the policy framework in New Zealand creates a disincentive for capital investment when compared with potential investments in other jurisdictions. The lack of trade barriers against 'dumped' imports into New Zealand and more recent developments, such as the current reviews of the ETS settings and allocative base-lines for EIHLs, only serve to increase this uncertainty.</p> <p>Access to capital is largely defined by the performance of New Zealand Steel, and relative performance of the business when compared to other BlueScope activities.</p>

		Sufficient capital to sustain the operational capability of the plant must be maintained and, whilst some improvement activities have synergies in this regard, depending on the performance of the business, the relative return on capital may restrict access to capital.
Q5.4	If you favour financial support, what sort of incentives could be considered? What are the benefits, costs and the risks of these incentives?	<p>Given the emissions intensive and trade exposed nature of New Zealand Steel's operations, and the lack of co-ordinated and consistent approach to carbon pricing globally, the continuation of allocative base-lines supports continuation of our operations in New Zealand and facilitates investment in emission reduction. As described in 4.2, any additional mechanisms/incentives need to be carefully evaluated to ensure they are both complementary from an emissions reduction perspective and result in a whole of economy benefit.</p> <p>New Zealand Steel would welcome the opportunity to be involved in these discussions/evaluations in the future.</p>
Q5.5	What measures other than those identified above could be effective at accelerating investment in clean energy technologies?	For EITE firms the stability and predictability of industrial allocation settings is fundamental. This includes maintaining a clear carbon price signal and the avoidance of retrospective adjustments to allocative baselines and unpredictable changes to the level of assistance, which undermine investment returns on emissions abatement projects and broader operational improvements. Cheaper delivered electricity from an efficient and competitive market will also assist with the transition.
Sect 6	COST RECOVERY MECHANISMS	
Option 6.1	Introduce a levy on consumers of coal to fund process heat activities	
Q6.1	What is your view on whether cost recovery mechanisms should be adopted to fund policy proposals in Part A of this document?	<p>The concept of a levy on energy use has merit, especially for small and intermediate size entities. Large businesses such as New Zealand Steel already contribute a significant amount through the current levies on electricity and natural gas use.</p> <p>We are concerned at the effectiveness of these funds given dilution effect of the overheads involved in organisations such as EECA.</p> <p>For larger entities we suggest as an alternative to paying a levy would be to ring-fence those funds for energy efficiency improvements, specific to the industry.</p>

Q6.2	What are the advantages and disadvantages of introducing a levy on consumers of coal to fund process heat activities?	Coal use as a reductant, such as for steel making, should be excluded from a levy as it not used for process heat.
Sect 7	Enabling development of renewable electricity generation under the Resource Management Act 1991	
Proposal 7.1	Amend the NPSREG to provide stronger direction on the national importance of renewables	A renewable energy future is reliant upon an abundant, economic, secure and reliable supply of electricity. Changes should be considered to the NSPREG to remove barriers to ensure this is achievable.
Q7.1	Do you consider that the current NPSREG gives sufficient weight and direction to the importance of renewable energy?	
Q7.2	What changes to the NPSREG would facilitate future development of renewable energy? In particular, what policies could be introduced or amended to provide sufficient direction to councils regarding the matters listed in points a-i mentioned on page 59 of the discussion document?	
Q7.3	How should the NPSREG address the balancing of local environmental effects and the national benefits of renewable energy development in RMA decisions?	
Q7.4	What are your views on the interaction and relative priority of the NPSREG with other existing or pending national direction instruments?	
Q7.5	Do you have any suggestions for how changes to the NPSREG could help achieve the right balance between renewable energy development and environmental outcomes?	
Q7.6	What objectives or policies could be included in the NPSREG regarding councils' role in locating and planning strategically for renewable energy resources?	
Q7.7	Can you identify any particular consenting barriers to development of other types of renewable energy than REG, such as green hydrogen, bioenergy and waste-to-energy facilities? Can any specific policies be included in a national policy statement to address these barriers?	

Q7.8	What specific policies could be included in the NPSREG for small-scale renewable energy projects?	
Q7.9	The NPSREG currently does not provide any definition or threshold for “small and community-scale renewable electricity generation activities”. Do you have any view on the definition or threshold for these activities?	
Q7.10	What specific policies could be included to facilitate re-consenting consented but unbuilt wind farms, where consent variations are needed to allow the use of the latest technology?	
Q7.11	Are there any downsides or risks to amending the NPSREG?	
Proposal 7.2	Option A: Scope National Environmental Standards for Renewable Energy Facilities and Activities	
	Option B: Scope additional renewable-energy-related content for inclusion in the National Planning Standards	
Q7.12	Do you think National Environmental Standards (NES) would be an effective and appropriate tool to accelerate the development of new renewables and streamline re-consenting? What are the pros and cons?	
Q7.13	What do you see as the relative merits and priorities of changes to the NPSREG compared with work on NES?	
Q7.14	What are the downsides and risks to developing NES?	
Q7.15	What renewables activities (including both REG activities and other types of renewable energy) would best be suited to NES? For example:	
Q7.16	What technical issues could best be dealt with under a standardised national approach?	
	Would it be practical for NES to set different types of activity status for activities with certain effects, for	

	<p>consenting or re-consenting? For example, are there any aspects of renewable activities that would have low environmental effects and would be suitable for having the status of permitted or controlled activities under the RMA?</p> <p>Do you have any suggestions for what rules or standards could be included in NES or National Planning Standards to help achieve the right balance between renewable energy development and environmental outcomes?</p>	
Q7.17	Would National Planning Standards or any other RMA tools be more suitable for providing councils with national direction on renewables than the NPSREG or NES?	
Q7.18	Are there opportunities for non-statutory spatial planning techniques to help identify suitable areas for renewables development (or no-go areas)?	
Q7.19	Do you have any comments on potential options for pre-approval of renewable developments?	
Q7.20	Are the current NPSET and NESETA fit-for-purpose to enable accelerated development of renewable energy? Why?	
Q7.21	What changes (if any) would you suggest for the NPSET and NESETA to accelerate the development of renewable energy?	
Q7.22	Can you suggest any other options (statutory or non-statutory) that would help accelerate the future development of renewable energy?	
Sect 8	SUPPORTING RENEWABLE ELECTRICITY GENERATION INVESTMENT	New Zealand Steel is part of and supports the MEUG submission. Please refer to that submission for detailed comments on Section 8.
Option 8.1	Introduce a Power Purchase Agreement (PPA) Platform	
Q8.1	Do you agree there is a role for government to provide information, facilitate match-making and/or assume some financial risk for PPAs?	No. The market is already seeing PPAs develop. A broader question relates to the role of the futures market v's the need for PPA's.
Q8.2	Would support for PPAs effectively encourage electrification and new renewable generation investment?	Given the state of our current hedge market (including short term focus and limited liquidity)

		PPAs are likely necessary to underwrite new renewable generation.
Q8.3	How could any potential mismatch between generation and demand profiles be managed by the Platform and/or counterparties?	The wider question should be, is this achievable through the electricity market?
Q8.4	<i>Option A Contract Matching Service</i> <i>Option B State sector led</i> <i>Option C Government guaranteed contracts</i> <i>Option D Clearing House</i> What are your views and preferences in relation to different options A to D above?	refer 8.3
Q8.5	For manufacturers: what delivered electricity price do you require to electrify some or all of your process heat requirements? And, is a long-term electricity contract an attractive proposition if it delivers more affordable electricity?	There are few if any further opportunities identified by New Zealand Steel for electrification that are technically viable and commercially acceptable.
Q8.6	For investors / developers: what contract length and price do you require to make a return on an investment in new renewable electricity generation capacity? And, is a long-term electricity contract an attractive proposition if it delivers a predictable stream of revenues and a reasonable return on investment?	
Option 8.2	Encourage greater demand-side participation and develop the demand response market	
Q8.7	Do you consider the development of the demand response (DR) market to be a priority for the energy sector?	Refer MEUG
Q8.8	Do you think that DR could help to manage existing or potential electricity sector issues?	Refer MEUG
Q8.9	What are the key features of demand response markets? For instance, which features would enable load reduction or asset use optimisation across the energy system, or the uptake of distributed energy resources?	Refer MEUG
Q8.10	What types of demand response services should be enabled as a priority? Which services make sense for New Zealand?	There are DR opportunities available now. What is required to develop DR further is more predictable spot prices leading into gate closure for each trading period. The EA RTP initiatives will assist

Option 8.3	Deploy energy efficiency resources via retailer/distributor obligations	.
Q8.11	Would energy efficiency obligations effectively deliver increased investment in energy efficient technologies across the economy? Is there an alternative policy option that could deliver on this aim more effectively?	
Q8.12	If progressed, what types of energy efficiency measures and technologies should be considered in order to meet retailer/distributor obligations? Should these be targeted at certain consumer groups?	
Q8.13	Do you support the proposal to require electricity retailers and/or distributors to meet energy efficiency targets? Which entities would most effectively achieve energy savings?	
Q8.14	Could you or your organisation provide guidance on the likely compliance costs of this policy?	
Option 8.4	Investigate regulatory and economic requirements to develop offshore wind assets in New Zealand	
Q8.15	Do you consider the development of an offshore wind market to be a priority for the energy sector?	
Q8.16	What do you perceive to be the major benefits and costs or risks to developing offshore wind assets in New Zealand?	
Option 8.5	Renewable electricity certificates and portfolio standards	
Q8.17	This policy option involves a high level of intervention and risk. Would another policy option better achieve our goals to encourage renewable energy generation investment? Or, could this policy option be re-designed to better achieve our goals?	We do not support this option. It introduces another layer of complexity on top of the ETS price signals. Such an initiative may have application in countries with a low level of renewables.
Q8.18	Should the Government introduce RPS requirements? If yes, at what level should a RPS quota be set to incentivise additional renewable electricity generation investment?	No. refer 8.17.

Q8.19	Should RPS requirements apply to all retailers and/or major electricity users? What would be an appropriate threshold for the inclusion of major electricity users (i.e. annual consumption above a certain GWh threshold)?	
Q8.20	Would a government backed certification scheme support your corporate strategy and export credentials?	No. New Zealand Steel already sources 60% of the Glenbrook site electricity requirements from cogeneration fuelled from off-gases and waste heat from the iron making operation.
Q8.21	What types of renewable projects should be eligible for renewable electricity certificates?	
Q8.22	If this policy option is progressed, should retailers and major electricity users be permitted to invest in energy efficient technology investments to meet their renewable portfolio standards? (See option 8.3 above on energy efficiency obligations).	
Q8.23	Could you or your organisation provide guidance on the likely administrative and compliance costs of this policy?	
Option 8.6	Phase down baseload thermal generation and place in strategic reserve	
Q8.24	This policy option involves a high level of intervention and risk. Do you think that another policy option could better achieve our goals to encourage renewable energy generation investment? Or, could this policy option be re-designed to better achieve our goals?	Refer MEUG submission
Q8.25	Do you support the managed phase down of baseload thermal electricity generation?	Refer MEUG submission
Q8.26	Would a strategic reserve mechanism adequately address supply security and reduce emissions affordably during a transition to higher levels of renewable electricity generation?	Refer MEUG submission
Q8.27	Under what market conditions should thermal baseload held in a strategic reserve be used? For example, would you support requiring thermal baseload assets to operate as peaking plants or during dry winters?	Refer MEUG submission

Q8.28	What is the best way to meet resource adequacy needs as we transition away from fossil-fuelled electricity generation and towards a system dominated by renewables?	Refer MEUG submission
Q8.29	Should a permanent capacity market which also includes peaking generation be considered?	Refer MEUG submission
Q8.30	Do you have any views regarding the above options to encourage renewable electricity generation investment that we considered, but are not proposing to investigate further?	Refer MEUG submission
Sect 9	FACILITATING LOCAL AND COMMUNITY ENGAGEMENT IN RENEWABLE ENERGY AND ENERGY EFFICIENCY	
Q9.1	Should New Zealand be encouraging greater development of community energy projects?	
Q9.2	What types of community energy project are most relevant in the New Zealand context?	
Q9.3	What are the key benefits and downsides/risks of a focus on community energy?	
Q9.4	Have we accurately identified the barriers to community energy proposals? Are there other barriers to community energy not stated here?	
Q9.5	Which barriers do you consider most significant?	
Q9.6	Are the barriers noted above in relation to electricity market arrangements adequately covered by the scope of existing work across the Electricity Authority and electricity distributors?	
Option 9.1	Ensuring a clear and consistent government position on community energy issues, aligned across different policies and work programmes.	

Option 9.2	We do not propose any new initiatives in addition to existing work programmes	
Option 9.3	Government supports development of a small number of community energy pilot projects	
Q9.7	What do you see as the pros and cons of a clear government position on community energy, and government support for pilot community energy projects?	
Q9.8	Any there any other options you can suggest that would support further development of community energy initiatives?	
Sect 10	CONNECTING TO THE NATIONAL GRID	New Zealand Steel is part of and supports the MEUG submission. Please refer to that submission for comments on Section 10.
Option 10.1	Encourage Transpower to include the economic benefits of climate change mitigation in applications for Commerce Commission approval of projects expected to cost over \$20m. This would be through the inclusion of the (avoided) emissions price cost incurred by consumers calculated on a consistent basis. Guidance or direction about the emissions price and trajectory would be needed to support this option.	
Option 10.2	Put in place additional mechanisms to support or encourage, Transpower, first movers and subsequent customers to agree to alternative forms of cost sharing arrangements by contract.	
Option 10.3	Shift some of the cost and risk allocation for new and upgraded connections from the first mover through mechanisms within the Commerce Commission's regulatory scope, with the Crown accepting some of the financial risk. Two identified ways to achieve this are:	

Q10.1	10.3.1 Optimise asset valuations under the Commerce Commission’s regime in circumstances where demand is lower than originally anticipated because expected (subsequent) customers do not eventuate.	
	10.3.2 Provide for Transpower to build larger capacity connection asset or a configuration that allows for growth, but only recover full costs once asset is fully utilised, with the Crown covering risk of revenue shortfall.	
	Which option or combination of options proposed, if any, would be most likely to address the first mover disadvantage?	
Q10.2	What do you see as the disadvantages or risks with these options to address the first mover disadvantage?	
Q10.3	Would introducing a requirement, or new charge, for subsequent customers to contribute to costs already incurred by the first mover create any perverse incentives?	
Q10.4	Are there any additional options that should be considered?	
Option 10.4	Provide independent geospatial data on potential generation and electrification sites (e.g. wind speeds for sites, information on relative economics and feasibility of investment locations given available transmission capacity).	
Option 10.5	Extend the data and information provided in MBIE’s EDGS and increase the frequency of publication, and potentially recover the cost through the existing levy on electricity industry participants.	

Option 10.6	Produce a user's guide on the current regulations and approval processes relating to getting an upgraded or new connection to the grid.	
Q10.5	Do you think that there is a role for government to provide more independent public data? Why or why not?	
Q10.6	Is there a role for Government to provide independent geospatial data (e.g. wind speeds for sites) to assist with information gaps?	
Q10.7	Should MBIE's EDGS be updated more frequently? How often?	
Q10.8	Should MBIE's EDGS be more granular, for example, providing information at a regional level?	
Q10.9	Should the costs to the Crown of preparing EDGS be recovered from Transpower, and therefore all electricity consumers (rather than tax-payers)?	
Q10.10	Would you find a users' guide helpful? What information would you like to see in such a guide? Who would be best placed to produce a guide?	
Option 10.7	Provide a database of potential renewable generation and demand sources, location and potential size (e.g. wind, geothermal, milk plant).	
Option 10.	Introduce measures to enable coordination regarding the placement of wind farms to ensure they are more likely to be better distributed around the country.	
Q10.11	Do you think that there is a role for government in improving information sharing between parties to enable more coordinated investment? Why or why not?	
Q10.12	Is there value in the provision of a database (and/or map) of potential renewable generation and new demand, including location and potential size? If so, who would be best to develop and	

	maintain this? And how should it be funded?	
Q10.13	Should measures be introduced to enable coordination regarding the placement of new wind farms?	
Q10.14	Are there other information sharing options that could help address investment coordination issues?	
Sect 11	LOCAL NETWORK CONNECTIONS AND TRADING ARRANGEMENTS	
Overview 11.1	<p>The existing regulatory framework provides a platform for better coordination between investors (and to a certain extent consumer generally), distributors and other interested parties to connect new generation, electrify and/or participate in the electricity market.</p> <p>There is a significant amount of activity already underway to improve on the existing arrangements, so no particular option has been identified.</p> <p>Some of the options set out in the transmission section could be extended to include distribution, and these are noted below.</p> <p>This section does not have any specific recommendations on reducing distribution barriers, instead we seek information on your experiences, and on whether there are any gaps not addressed by current and planned future work outlined below in relation to the three areas identified.</p>	
Q11.1	Have you experienced, or are you aware of, significant barriers to connecting? Are there any that will not be addressed by current work programmes outlined above?	
Q11.2	Should the section 10 option to produce a users' guide extend to the process for getting an upgraded or new distribution line? Are there other section 10 information options that could be extended to include information about local networks and distributed generation?	

Q11.3	Do the work programmes outlined above cover all issues to ensure the settings for connecting to and trading on the local network are fit for purpose into the future? Are there things that should be prioritised, or sped up?	
Q11.4	What changes, if any, to the current arrangements would ensure distribution networks are fit for purpose into the future?	

Background information on NZ Steel

1. NZ Steel was incorporated by the New Zealand Government in 1965, as part of a plan to utilise local natural resources to expand New Zealand's industrial base and ensure the country was not reliant on importing overseas steel.
2. For over 50 years, NZ Steel has been producing high quality steel products from its Glenbrook facility utilising local resources, including ironsand, limestone, coal and energy.
3. NZ Steel makes a substantial contribution to the lives and wellbeing of New Zealanders. NZ Steel contributes over \$600 million per annum to the New Zealand economy. It is also a significant employer in South Auckland, with more than 1,400 people employed directly in high-skilled, well-paid jobs. In addition, NZ Steel's operations result in the indirect employment of a further 2,500 people.
4. As a consequence, NZ Steel is a significant contributor to higher living standards for New Zealanders due to its broad contributions through manufacturing and employment. As an example, currently, 40-plus young Kiwis are in NZ Steel's apprentice and graduate programmes, with thousands participating in such programmes since the company's inception in the 1960s.
5. Steel produced domestically is steel produced in accordance within New Zealand's strict environmental, employment, safety and quality standards. By comparison, there is limited visibility as to the environmental, social, employment or safety conditions under which imported steel may be produced.
6. For every \$100 spent on locally produced steel, \$80 remains in the NZ economy. For imported steel only \$5 remains in the NZ economy.

