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COMPLETE

Final submissions link (Web Link)
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Page 1: Introduction

Q1 Name (first and last name)

Aparna Narang

Q2 Email

Privacy of natural persons	
Q3 Is this an individual submission, or is it on behalf of a group or organisation?	On behalf of a group or organisation
Q4 Which group do you most identify with, or are representing?	Electricity sector
Q5 Business name or organisation (if applicable)	
Fourth Power	
Q6 Position title (if applicable)	
Co-Founder	

Q7 Important information about your submission (important to read)The information provided in submissions will be used to inform the Ministry of Business, Innovation and Employment's (MBIE's) work on Accelerating renewable energy and energy efficiency.We will upload the submissions we receive and publish them on our website. If your submission contains any sensitive information that you do not want published, please indicate this in your submission.The Privacy Act 1993 applies to submissions. Any personal information you supply to MBIE in the course of making a submission will only be known by the team working on the Accelerating renewable energy and energy efficiency.Submissions may be requested under the Official Information Act 1982. Submissions provided in confidence can usually be withheld. MBIE will consult with submitters when responding to requests under the Official Information Act 1982.We intend to upload submissions to our website at www.mbie.govt.nz. Can we include your submission on the website?	Yes
Q8 Can we include your name?	Yes
Q9 Can we include your organisation (if submitting on behalf of an organisation)?	Yes
Q10 All other personal information will not be proactively released, although it may need to be released if required under the Official Information Act. Please indicate if there is any other information you would like withheld.	Respondent skipped this question
Page 2	
Q11 Where are you located?	Respondent skipped this question
Q12 In what region or regions does your organisation mostly operate?	All of New Zealand
Page 3: Areas you wish to provide feedback on Q13 Part A relates to process heat.Please indicate which sections, if any, you would like to provide feedback on.	Respondent skipped this question

Q14 Part B relates to renewable electricity generation. Please indicate which sections, if any, you would like to provide feedback on.	Section 7: Enabling renewables uptake under the Resource Management Act 1991 , Section 8: Supporting renewable electricity generation investment , Section 9: Facilitating local and community engagement in renewable energy and energy efficiency
Page 4: Section 1: Addressing information failures Q15 Option 1.1 would require large energy users to report their emissions and energy use annually, publish Corporate Energy Transitions Plans and conduct energy audits every four years.Do you support this option?	Respondent skipped this question
Q16 Please explain your answer	Respondent skipped this question
Q17 Which parts (set out in Table 3) do you support?	Respondent skipped this question
Q18 Please explain your answer	Respondent skipped this question
Q19 What public reporting requirements (listed in Table 3) should be disclosed?	Respondent skipped this question
Q20 In your view, should businesses be expected to include transport energy and emissions in these reporting requirements?	Respondent skipped this question
Q21 For manufacturers: what will be the impact on your business to comply with the requirements?	Respondent skipped this question
Q22 Option 1.1. Suggests that requirements to publish Corporate Energy Transition Plans should apply to large energy users, and propses defining large energy users as those with an annual energy spend (purchased) of greater than \$2 million per annum.Do you agree with this definition?	Respondent skipped this question
Q23 If you selected no, please describe what in your view would be an appropriate threshold to define 'large energy users'.	Respondent skipped this question

Q24 Is there any potential for unnecessary duplication under these proposals and the disclosures proposed in the MBIE-Ministry for the Environment discussion document Climate-related Financial Disclosures – Understanding your business risks and opportunities related to climate change, October 2019?	Respondent skipped this question
Page 5: Section 1 - Option 1.2: Electrification informa	tion package and feasibility studies
Q25 Do you support the proposal to develop an electrification information package?	Respondent skipped this question
Q26 Would an electrification information package be of use to your business?	Respondent skipped this question
Q27 Do you support customised low-emission heating feasibility studies?	Respondent skipped this question
Q28 In your view, which of the components should be scaled up and/or prioritised?	Respondent skipped this question
Q29 Would a customised low-emission heating feasibility study be of use to your business?	Respondent skipped this question
Q30 Please describe any components other than those identified that could be included in an information package.	Respondent skipped this question
Page 6: Section 1 - Option 1.3: Provide benchmarking	g information for food processing industries
Q31 Do you support benchmarking in the food processing sector?	Respondent skipped this question
Q32 Would benchmarking be suited to, and useful for, other industries, such as wood processing?	Respondent skipped this question
Q33 Do you believe government should have a role in facilitating this or should it entirely be led by industry?	Respondent skipped this question
Q34 Please explain your answer	Respondent skipped this question
Page 7: Section 2: Developing markets for bioenergy	and direct geothermal use

Q35 Do you agree that some councils have regional air quality rules that are barriers to wood energy?

Q36 Please provide examples of regional air quality rules that you see as barriers to wood energy. Please also note which council's plan you are referring to.	Respondent skipped this question
Q37 Do you agree that a National Environmental Standards for Air Quality (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?	Respondent skipped this question
Q38 What do you consider a NESAQ users' guide should cover? Please provide an explanation if possible.	Respondent skipped this question
Q39 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.	Respondent skipped this question
Q40 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)?	Respondent skipped this question
Page 8: Section 2 - continued: Developing markets for	or bioenergy and direct geothermal use
Q41 In your view, could the Industry Transformation Plans stimulate sufficient supply and demand for bioenergy to achieve desired outcomes?	Respondent skipped this question

Q42 What other options are worth considering? Respondent skipped this question

Q43 Is Government best placed to provide market facilitation in bioenergy markets?

Q44 How could Government best facilitate bioenergy markets?Please be as specific as possible, giving examples.

Q45 In your view, how can government best support direct use of geothermal heat?

Q46 What other options are worth considering?

Respondent skipped this question

Respondent skipped this question

Respondent skipped this question

Page 9: Section 3: Innovating and building capability

Q47 Do you agree that de-risking commercially viable low-emission technology should be a focus of government support on process heat?	Respondent skipped this question
Q48 Do you agree that diffusing commercially viable low-emission technology should be a focus of government support on process heat?	Respondent skipped this question
Q49 Is Energy Efficiency and Conservation Authority (EECA) grant funding to support technology diffusion the best vehicle for this?	Respondent skipped this question
Q50 For manufacturers and energy service experts: would peer learning and lead to reducing perceived technology risks?	Respondent skipped this question
Q51 For manufacturers and energy service experts: would on-site technology demonstration visits lead to reducing perceived technology risks?	Respondent skipped this question
Q52 Is there a role for the Government in facilitating this?	Respondent skipped this question
Page 10: Section 3 (continued): Innovating and buildi	ng capability
Q53 For emissions-intensive and highly integrated (EIHI) stakeholders: What are your views on our proposal to collaborate to develop low-carbon roadmaps?	Respondent skipped this question
Q54 Would low-carbon roadmaps assist in identifying feasible technological pathways for decarbonisation?	Respondent skipped this question
Q55 What are the most important issues that would benefit from a partnership and co-design approach?	Respondent skipped this question
Q56 What, in your view, is the scale of resourcing required to make this initiative successful?	Respondent skipped this question
Page 11: Section 4: Phasing out fossil fuels in proces	is heat

requirements?

Q58 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?	Respondent skipped this question
Q59 Referring to Question 56 - is this ambitious or is it not doing enough?	Respondent skipped this question
Q60 For manufacturers: what would be the likely impacts or compliance costs on your business of a ban on new coal-fired process heat equipment?	Respondent skipped this question
Q61 For manufacturers: what would be the likely impacts or compliance costs on your business of requiring existing coal-fired process heat equipment supplying end-use temperature requirements below 100°C to be phased out by 2030.	Respondent skipped this question
Q62 Could the Corporate Energy Transition Plans (Option 1.1) help to design a more informed phase out of fossil fuels in process heat?	Respondent skipped this question
Q63 Would a timetabled phase out of fossil fuels in process heat be necessary alongside the Corporate Energy Transition Plans?	Respondent skipped this question
Q64 In your view, could national direction under the Resource Management Act (RMA) be an effective tool to support clean and low greenhouse gas-emitting methods of industrial production?	Respondent skipped this question
Q65 If yes, how?	Respondent skipped this question
Q66 In your view, could adoption of best available technologies be introduced via a mechanism other than the RMA?	Respondent skipped this question
Page 12: Section 5: Boosting investment in energy ef	ficiency and renewable energy technologies
Q67 Do you agree that complementary measures to the New Zealand Emissions Trading Scheme (NZ-ETS) should be considered to accelerate the uptake of cost-effective clean energy projects?	Respondent skipped this question
Q68 Would you favour regulation, financial incentives or both?	Respondent skipped this question

Q69 In your view what is a bigger barrier to investment in clean energy technologies, internal competition for capital or access to capital?	Respondent skipped this question
Q70 If you favour financial support, what sort of incentives could be considered?	Respondent skipped this question
Q71 What are the benefits of these incentives?	Respondent skipped this question
Q72 What are the risks of these incentives?	Respondent skipped this question
Q73 What are the costs of these incentives?	Respondent skipped this question
Q74 What measures other than those identified above could be effective at accelerating investment in clean energy technologies?	Respondent skipped this question
Page 13: Section 6: Cost recovery mechanisms Q75 What is your view on whether cost recovery mechanisms should be adopted to fund policy proposals in Part A of the Accelerating renewable energy and energy efficiency discussion document?	Respondent skipped this question
Q76 What are the advantages of introducing a levy on consumers of coal to fund process heat activities?	Respondent skipped this question
Q77 What are the disadvantages of introducing a levy on consumers of coal to fund process heat activities?	Respondent skipped this question
Page 14: Section 7: Enabling development of renewa 1991	ble energy under the Resource Management Act
Q78 Do you agree that the current NPSREG gives sufficient weight and direction to the importance of renewable energy?	Respondent skipped this question
Q79 What changes to the NPSREG would facilitate future development of renewable energy?	Respondent skipped this question
Q80 What policies could be introduced or amended to provide sufficient direction to councils regarding the matters listed in points a-i mentioned on pages 60-61 of the discussion document?	Respondent skipped this question

Q81 How should the NPSREG address the balancing of local environmental effects and the national benefits of renewable energy development in RMA decisions?	Respondent skipped this question
Q82 What are your views on the interaction and relative priority of the NPSREG with other existing or pending national direction instruments?	Respondent skipped this question
Q83 Do you have any suggestions for how changes to the NPSREG could help achieve the right balance between renewable energy development and environmental outcomes?	Respondent skipped this question

Q84 What objectives or policies could be included in the NPSREG regarding councils' role in locating and planning strategically for renewable energy resources?

In addition to environmental planning and land use objectives, local resilience is an objective that could be included in locating and planning strategically for renewable energy resources. Resilience in this context is the ability for renewable projects to be able to support local communities with electricity during natural disasters or other emergencies.

Resilience becomes more important in planning as society becomes more dependent on electricity, and the existing system faces more challenges due to climate change. Over time, traditional energy uses (such as oil or wood burning) and mechanical applications have transitioned over to electricity. Examples include heating, water pumping, communications, and more recently the transition to electric vehicles. As dependence on electricity has grown, limited access, or no access, to electricity can have a greater impact on the short-term and long-term safety, health, sustainability and economy of affected communities. Additionally, there has always been a risk of some natural hazards posing a risk to electricity infrastructure, such as earthquakes and tsunamis. However, the effects of climate change are increasing and include the potential for more droughts, stronger cyclones, changes in precipitation patterns and rising sea levels. In New Zealand, the likely impacts identified include rising temperatures, rising sea levels, and more frequent extreme weather events including droughts and floods (due to more intense rainfalls). These impacts are showing up earlier in other parts of the world but may soon arrive on New Zealand's shores. One international example of how events have impacted the ability to deliver electricity includes Hurricane Maria that struck Puerto Rico in 2017 contributing to power outages across the island that took over 9 months to fully restore. In addition to the wildfire challenges faced in Australia, another example can be found in California, which faces the impacts of severe drought resulting in more extreme wildfire events. In a period of only 7 years, northern California's high wildfire risk zones increased from 15% to over 50% of the area. Active wildfires have resulted in evacuations and power outgoes, but now the risk of causing a wildfire due to electric lines operating in dry, windy conditions in drought prone areas is driving California utilities to proactively shut power off for multiple days, driving efforts to develop microgrids and community resilience zones.

Regional and Local Councils, in partnership with other stakeholders such as Civil Defense and Electric Lines Companies, can help enable the development of community resilience zones. Community resilience zones would be geographic areas that have the ability to support communities in times of emergencies due to natural disasters or climate change driven events. These areas typically have the ability to provide emergency services to evacuated or stranded populations such as medical care, fire suppression and rescue, shelter, electricity, water and food for an extended period of time. Zones identified in high risk areas could be considered for DER / microgrid solutions.

Q85 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?

Respondent skipped this question

Q86 Can any specific policies be included in a national policy statement to address these barriers?

Respondent skipped this question

Q87 What specific policies could be included in the NPSREG for small-scale renewable energy projects?	Respondent skipped this question
Q88 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?	Respondent skipped this question
Q89 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?	Respondent skipped this question
Q90 Are there any downsides or risks to amending the NPSREG?	Respondent skipped this question
Page 15: Section 7 - continued Q91 Do you agree that National Environmental Standards (NES) would be an effective and appropriate tool to accelerate the development of new renewables and streamline re-consenting?	Respondent skipped this question
Q92 What are the pros of using National Environmental Standards as a tool to accelerate the development of new renewables and streamline re-consenting?	Respondent skipped this question
Q93 What are the cons of using National Environmental Standards as a tool to accelerate the development of new renewables and streamline re-consenting?	Respondent skipped this question
Q94 What do you see as the relative merits and priorities of changes to the NPSREG compared with work on NES?	Respondent skipped this question
Q95 What are the downsides and risks to developing NES?	Respondent skipped this question
Q96 What renewables activities (including both REG activities and other types of renewable energy) would best be suited to NES?	Respondent skipped this question
Q97 What technical issues could best be dealt with under a standardised national approach?	Respondent skipped this question

Q98 Would it be practical for NES to set different types of activity status for activities with certain effects, for consenting or re-consenting?	Respondent skipped this question
Q99 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? Please provide details.	Respondent skipped this question
Q100 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?	Respondent skipped this question
Q101 Compared to the NPSREG or National Environment Standards, would National Planning Standards or any other RMA tools be more suitable for providing councils with national direction on renewables ?	Respondent skipped this question
Q102 Please explain your answer	Respondent skipped this question
Desce 10: Costion 7 continued	

Page 16: Section 7 - continued

Q103 Are there opportunities for non-statutory spatial planning techniques to help identify suitable areas for renewables development (or no go areas)?

Yes,

Please explain your answer:

Yes, particularly in relation to identification of suitable sites that not only meet environmental planning and land use objectives, but are also inclusive of resilience as noted in the response to Question 20. Using spatial planning techniques to include considerations in support of resilience for local areas can help prepare Aotearoa New Zealand for the future. The outcome would be to identify locations in high potential hazard locations with limited electricity infrastructure redundancy, such as end-of-line single feeder to single transformer, where DER solutions (or potentially larger scale solutions) could support community resilience zones. A coordinated effort would be needed to include key stakeholders and consider information such as the following: earthquake zones, tsunami zones, wildfire zones (present & future), flood zones (present & future), existing electric grid topology and planned upgrades, existing power plants (including DERs), and community support services (such as hospitals, fire stations, lodging, gas & EV charging stations, restaurants / grocery stores).

Q104 Do you have any comments on potential options for pre-approval of renewable developments?

Respondent skipped this question

Q105 Are the current National Policy Statement on Electricity Transmission (NPSET) and National Environmental Standards for Electricity Transmission Activities (NESETA) fit-for-purpose to enable accelerated development of renewable energy?	Respondent skipped this question
Q106 What changes (if any) would you suggest for the NPSET and NESETA to accelerate the development of renewable energy?	Respondent skipped this question
Q107 Can you suggest any other options (statutory or non-statutory) that would help accelerate the future development of renewable energy?	Respondent skipped this question
Page 17: Section 8: Supporting renewable electricity	generation investment
Q108 Do you agree there is a role for government to provide information, facilitate match-making and/or assume some financial risk for PPAs?	Respondent skipped this question
Q109 Would support for PPAs effectively encourage electrification?	Respondent skipped this question
Q110 Would support for PPAs effectively encourage new renewable generation investment?	Yes - support for PPAs would effectively renewable generation investment
new renewable generation investment? Q111 How could any potential mismatch between generation and demand profiles be managed by the	generation investment
 new renewable generation investment? Q111 How could any potential mismatch between generation and demand profiles be managed by the Platform and/or counterparties? Q112 Please rank the following variations on PPA Platforms in order of preference.1 = most preferred, 4 = 	generation investment Respondent skipped this question
 new renewable generation investment? Q111 How could any potential mismatch between generation and demand profiles be managed by the Platform and/or counterparties? Q112 Please rank the following variations on PPA Platforms in order of preference.1 = most preferred, 4 = least preferred. Q113 What are your views on Contract Matching 	generation investment Respondent skipped this question Respondent skipped this question
 new renewable generation investment? Q111 How could any potential mismatch between generation and demand profiles be managed by the Platform and/or counterparties? Q112 Please rank the following variations on PPA Platforms in order of preference.1 = most preferred, 4 = least preferred. Q113 What are your views on Contract Matching Services? 	generation investment Respondent skipped this question Respondent skipped this question Respondent skipped this question

Q117 For manufacturers: what delivered electricity price do you require to electrify some or all of your process heat requirements?	Respondent skipped this question
Q118 For manufacturers: is a long-term electricity contract an attractive proposition if it delivers more affordable electricity?	Respondent skipped this question
Q119 For investors / developers: what contract length and price do you require to make a return on an investment in new renewable electricity generation capacity?	Respondent skipped this question
Q120 For investors / developers: is a long-term electricity contract an attractive proposition if it delivers a predictable stream of revenues and a reasonable return on investment?	Yes, Please explain your answer: Having greater certainty on future revenue streams improves the ability to secure financing for a project.
Page 18: Section 8 - continued	
Q121 Do you consider the development of the demand response (DR) market to be a priority for the energy sector?	Respondent skipped this question
Q122 Do you think that demand response (DR) could help to manage existing or potential electricity sector issues?	Respondent skipped this question
Q123 What are the key features of demand response markets?	Respondent skipped this question
Q124 Which features of a demand response market would enable load reduction or asset use optimisation across the energy system?	Respondent skipped this question
Q125 Which features of a demand response market would enable the uptake of distributed energy resources?	Respondent skipped this question
Q126 What types of demand response services should be enabled as a priority?	Respondent skipped this question
Q127 Which services make sense for New Zealand?	Respondent skipped this question

Page 19: Section 8 - continued

Q128 Would energy efficiency obligations effectively deliver increased investment in energy efficient technologies across the economy?	Respondent skipped this question
Q129 Is there an alternative policy option that could deliver on this aim more effectively?	Respondent skipped this question
Q130 If progressed, what types of energy efficiency measures and technologies should be considered in order to meet retailer/distributor obligations?	Respondent skipped this question
Q131 Should these be targeted at certain consumer groups?	Respondent skipped this question
Q132 Do you support the proposal to require electricity retailers and/or distributors to meet energy efficiency targets?	Respondent skipped this question
Q133 Which entities would most effectively achieve energy savings?	Respondent skipped this question
Q134 What are the likely compliance costs of this policy?	Respondent skipped this question
Page 20: Section 8 - continued	
Q135 Do you agree that the development of an offshore wind market should be a priority for the energy sector?	Respondent skipped this question
Q136 What do you perceive to be the major benefits to developing offshore wind assets in New Zealand?	Respondent skipped this question
Q137 What do you perceive to be the major costs to developing offshore wind assets in New Zealand?	Respondent skipped this question
Q138 What do you perceive to be the major risks to developing offshore wind assets in New Zealand?	Respondent skipped this question
Page 21: Section 8 - continued	

Q140 Could the proposed policy option be re-designed to better achieve our goals?	Respondent skipped this question
Q141 Should the Government introduce Renewable Portfolio Standards (RPS) requirements?	Respondent skipped this question
Q142 At what level should a RPS quota be set to incentivise additional renewable electricity generation investment?	Respondent skipped this question
Q143 Should RPS requirements apply to all electricity retailers?	Respondent skipped this question
Q144 Should RPS requirements apply to all major electricity users?	Respondent skipped this question
Q145 What would be an appropriate threshold for the inclusion of major electricity users (i.e. annual consumption above a certain GWh threshold)?	Respondent skipped this question
Q146 Would a government backed certification scheme support your corporate strategy and export credentials?	Respondent skipped this question
Q147 What types of renewable projects should be eligible for renewable electricity certificates?	Respondent skipped this question
Q148 If this policy option is progressed, should electricity retailers be permitted to invest in energy efficient technology investments to meet their renewable portfolio standards? (See option 8.3 on energy efficiency obligations).	Respondent skipped this question
Q149 If this policy option is progressed, should major electricity users be permitted to invest in energy efficient technology investments to meet their renewable portfolio standards? (See option 8.3 on energy efficiency obligations).	Respondent skipped this question
Q150 What are the likely administrative and compliance costs of this policy for your organisation?	Respondent skipped this question
Page 22: Section 8 - continued Q151 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?	Respondent skipped this question

Q152 Could this policy option be re-designed to better achieve our goals?	Respondent skipped this question
Q153 Do you support the managed phase down of baseload thermal electricity generation?	Respondent skipped this question
Q154 Would a strategic reserve mechanism adequately address supply security, and reduce emissions affordably, during a transition to higher levels of renewable electricity generation?	Respondent skipped this question
Q155 Under what market conditions should thermal baseload held in a strategic reserve be used?	Respondent skipped this question
Q156 Would you support requiring thermal baseload assets to operate as peaking plants or during dry winters?	Respondent skipped this question
Q157 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?	Respondent skipped this question
Page 23: Section 8 - continued	
Q158 Do you have any views regarding the options to encourage renewable electricity generation investment that we considered, but are not proposing to investigate further? (See pages 90 - 92 of the Accelerating renewable energy and energy efficiency discussion document).	Respondent skipped this question

Page 24: Section 9: Facilitating local and community engagement in renewable energy and energy efficiency

Q159 Should New Zealand be encouraging greater **Yes** development of community energy projects?

Q160 What types of community energy project are most relevant in the New Zealand context?

Projects that better enable local resilience as described further in the answer to question 20.

Q161 What are the key benefits of a focus on community energy?

Key benefits include potential for local resilience; greater coordination and education across NZ of best practices & lessons learned regarding community energy projects; potential for more skills development in the regions; and greater attraction of innovators to the space to help contribute to successful outcomes.

Q162 What are the key downsides or risks of a focus on community energy?

Respondent skipped this question

Q163 Have we accurately identified the barriers to community energy proposals?	No, Please explain your answer: One aspect that can enable more equitable and reasonable adoption of distributed energy resources, particularly for prosumers, is access to updated pricing for excess generation that is reflective of wholesale rates. For example, buy back rates for production of solar energy is generally 8 cents/kwh. While that may be reflective of average wholesale market prices from previous years, wholesale prices have changed significantly over the past year, as reflected in some retailers increasing their variable charges they sell to customers. This imbalance artificially inhibits the adoption of DERs, which have the potential to contribute to local resilience, when electricity costs continue to rise. Hence, there should be a change to the solar buyback rates to reflect a more accurate wholesale price to make this more equitable. For example, the chart attached to this submission reflects the wholesale market prices in 2019 in Northland at the Mangatapere node . A few observations: • Wholesales prices on average are over \$100/MWh, significantly higher than the \$80/MWh buyback rate for behind the meter solar customers • The typical winter peaking profile is overshadowed by prices peaking mid-day in February and karch, which is more aligned with solar output.
Q164 Which barriers do you consider most significant? You may select more than one answer.	Respondent skipped this question
Q165 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?	Respondent skipped this question
Q166 What do you see as the pros of a clear government position on community energy?	Respondent skipped this question
Q167 What do you see as the cons of a clear government position on community energy?	Respondent skipped this question

Q168 What do you see as the pros of government support for pilot community energy projects?

Support for pilot community energy projects would help enable innovation at the local level with DERs in support of affordability, resiliency and clean energy objectives. While there is innovation happening globally, piloting solutions locally is critical to learning about what works and what doesn't work in the Aotearoa New Zealand context. An increasingly complex electricity environment at the distribution and community level will require greater innovation. Local innovation can help set the stage for the evolving grid (such as VPPs, aggregated DERs) with hands on experience and developing relevant expertise. Such support will encourage more specialists and innovators in the field to have greater confidence to get involved and share their expertise.

Q169 What do you see as the cons of government support for pilot community energy projects?	Respondent skipped this question
Q170 Are there any other options you can suggest that would support further development of community energy initiatives?	Respondent skipped this question
Page 25: Section 10: Connecting to the national grid	
Q171 Please select the option or combination of options, if any, that would be most likely to address the first mover disadvantage.	Respondent skipped this question
Q172 What do you see as the disadvantages or risks of Option 10.1?	Respondent skipped this question
Q173 What do you see as the disadvantages or risks of Option 10.2?	Respondent skipped this question
Q174 What do you see as the disadvantages or risks of Option 10.3.1?	Respondent skipped this question
Q175 What do you see as the disadvantages or risks of Option 10.3.2?	Respondent skipped this question
Q176 Would introducing a requirement, or new charge, for subsequent customers to contribute to costs already incurred by the first mover create any perverse incentives?	Respondent skipped this question
Q177 Are there any additional options that should be considered?	Respondent skipped this question
Page 26: Section 10 (continued): Connecting to the na	ational grid
Q178 Do you think that there is a role for government to provide more independent public data?	Respondent skipped this question

Q179 Is there a role for Government to provide independent geospatial data (e.g. wind speeds for sites) to assist with information gaps?	Respondent skipped this question
Q180 Should MBIE's Electricity Demand and Generation Scenarios (EDGS) be updated more frequently?	Respondent skipped this question
Q181 If you said yes, how frequently should they be updated?	Respondent skipped this question
Q182 Should MBIE's EDGS provide more detail, for example, information at a regional level?	Respondent skipped this question
Q183 Should the costs to the Crown of preparing EDGS be recovered from Transpower, and therefore all electricity consumers (rather than tax-payers)?	Respondent skipped this question
Q184 Would you find a users' guide (on current regulation and approval process for getting an upgraded or new connection) helpful?	Respondent skipped this question
Q185 What information would you like to see in such a guide?	Respondent skipped this question
Q186 Who would be best placed to produce a guide?	Respondent skipped this question
Page 27: Section 10 (continued): Connecting to the n	ational grid
Q187 Do you think that there is a role for government in improving information sharing between parties to enable more coordinated investment?	Respondent skipped this question
Q188 Is there value in the provision of a database (and/or map) of potential renewable generation and new demand, including location and potential size?	Respondent skipped this question
Q189 If so, who would be best to develop and maintain this?	Respondent skipped this question
Q190 How should it be funded?	Respondent skipped this question
Q191 Should measures be introduced to enable coordination regarding the placement of new wind farms?	Respondent skipped this question

Q192 Are there other information sharing options that could help address investment coordination issues? What are they?	Respondent skipped this question
Page 28: Section 11: Local network connections and Q193 Have you experienced, or are you aware of, significant barriers to connecting to the local networks? Please describe them.	trading arrangements Respondent skipped this question
Q194 Are there any barriers that will not be addressed by current work programmes outlined on pages 118 - 122 of the discussion document?	Respondent skipped this question
Q195 Should the option to produce a users' guide (see Option 10.6 on page 110) also include the process for getting an upgraded or new distribution line?	Respondent skipped this question
Q196 Are there other Section 10 information options that could be extended to include information about local networks and distributed generation?	Respondent skipped this question
Q197 Do the work programmes outlined on pages 118 - 122 cover all issues to ensure the settings for connecting to and trading on the local network are fit for purpose into the future?	Respondent skipped this question
Q198 Are there things that should be prioritised, or sped up?	Respondent skipped this question
Q199 What changes, if any, to the current arrangements would ensure distribution networks are fit for purpose into the future?	Respondent skipped this question

Page 29: Additional comments

Q200 Do you have any additional feedback?

Thank you for the opportunity to contribute to the conversation on accelerating the future development of renewable energy and energy efficiency in Aotearoa New Zealand. Attached please find the chart referred to in question 99.

Q201 You may upload additional feedback as a file.File size limit is 16MB. We accept PDF or DOC/DOCX.

Average wholesale prices 2019 v1.pdf (322.2KB)

