

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Donald Chandler  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)**

**Role (if applicable)**

**Town/City** Te Tii

**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. Rapid development of renewables is important in further cutting the carbon footprint of NZ electricity. As the economy grows and electrification progresses demand will increase, and this increasing demand must only be met by clean renewables. The smart money is on renewables, and Northland desperately needs economic wins.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economic and environmental mostly, for the obvious reasons. But I can also see social and cultural benefits of positioning Northland greener and more modern than currently, in our own eyes, as well as eyes further afield.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economic. Obviously it needs to make economic sense. That shouldn't be too hard now, and will only get easier over time.

- Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?
- I don't think it's one size fits all. In some cases it may make sense to upgrade existing lines and substations. In other cases, local storage (e.g. batteries) to smooth out transmission demand may make more sense. And in some cases, probably rare, it might make sense to have little or no connection to the national grid. This might become increasingly appropriate as more uses for intermittent surplus generation (e.g. hydrogen, desalination, etc) are developed.
- Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?
- Northland Q8** Are there alternative proposals that you think we should consider?
- Northland Q9** Do you have development projects that a REZ might assist you to construct and connect?
- Northland Q10** Any further comments
- Keen to see Northland participate in a pilot. And let's remember that Northland doesn't end at Whangarei, There's a whole lot more up here, all the way to Cape Reinga.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Emma McLean  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)**

**Role (if applicable)**

**Town/City** Waipu

**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Through Sharesies
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. A good idea for adapting industry. Notably change of Refining NZ to Channel infrastructure.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economic benefits for a region that previously had Refining as one of largest GDPS and environmental fits with the kaupapa of Northland tourism
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	It would be great if the transmission pricing mechanism was fairer to Northland, keeping power rates similiar but allowing us to invest more in infrastructure.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	I don't think the community will back too much new infrastructure if they pop up too close to residential hubs as the social impacts are perceived differently. I think residential areas which have been built around Industrial areas like Ruakaka (where the Refinery currently is) or Portland (cement works) are possible location as these communities are built around industry, and a cleaner industry would be perceived as an improvement especially if they can see the transition towards greener energy.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	I think Northland needs this opportunity
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No
<b>Northland Q10</b>	<b>Any further comments</b>	

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Bronte Hamilton
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Eco Solutions Whangarei
<b>Role (if applicable)</b>	Community Environmental Educator
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. I would love to see NZ reach 100% renewable energy ASAP. And would love to see Northland leading the way on that. It would be great for the rest of the country to look to us as an example to follow.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environmental factors are important to me, I'd love to know that no matter who my energy provider is, I know that my energy is 100% renewable. New job opportunities for Northland are also a big plus, especially with the large influx of people moving north. If it creates more job opportunities in the more remote far north where there aren't as many nearby opportunities for people, then that would be a plus too.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	I don't think you can put a price on doing the right thing. Especially when it benefits our country and community in the long term, any cost is always worth it.



<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Not sure.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Not sure.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No.
<b>Northland Q10</b>	<b>Any further comments</b>	Bring on a 100% renewable NZ

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Graeme Edwards
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Anglesea Agriculture Ltd
<b>Role (if applicable)</b>	Director
<b>Town/City</b>	Pakotai
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Distributed sustainable energy sources is very appropriate in Northland dependent on external sources of power and expensive transmission costs with poor reliability
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Increased resilience
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	yes

<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Most sensible places with preference for upgrading existing infrastructure
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Local small scale hydro schemes
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	A low head (low impact) run of river 300KW turbine
<b>Northland Q10</b>	<b>Any further comments</b>	The basis for electricity charging needs to change to encourage REZ projects

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Bob Bingham  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)**

**Role (if applicable)**

**Town/City**

**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	As we convert to electric transport we are going to need huge amounts of renewable energy. Its disapointing that we dont make more use of the potential in private home investment in solar energy. Home owners can collectively invest a huge amount in solar energy with a very predictable production and no capital cost to the energy companies.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	We need a strong grid to support the transfer to electric transport and the complete conversion from oil will be completed within fifteen years.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Being retired I have capital and very small income and so solar energy gives me an excellent return by reducing my electricity bills. I also have an electric car and have minimal petrol bills.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	We already have geothermal as a good baseload, a wind farm on the west coast hills would be a good addition and solar throughout the region. We then need a battery which could be pumped or natural hydro.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Leave it to the engineers.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Already covered
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No
<b>Northland Q10</b>	<b>Any further comments</b>	As I have already said, we need to move fast to stay ahead of the switch to electric transport.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Wendy Kathleen Ferguson
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	N/A
<b>Role (if applicable)</b>	N/A
<b>Town/City</b>	Opononi
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?



<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	possibly but minimal
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Fully support energy security for Northland
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	All of the above, economic...resilience against future power price rises, social...gives people a sense of being empowered, culturally supports the spirit of people in the north and environmentally better to generate locally from sustainable sources.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Costs to support above must be affordable to all northland communities.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	yes if needed
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	where ever there is a small scale generator capable of providing electricity to a small community of less than 1000
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	small localised generating projects
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	no
<b>Northland Q10</b>	<b>Any further comments</b>	No

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	John O'Neill
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Me
<b>Role (if applicable)</b>	consumer
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No
<b>National Q1</b> Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?	Yes
<b>National Q2</b> Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?	definitely Yes
<b>National Q3</b> What region(s) do you think would be suited to Renewable Energy Zones?	Northland
<b>National Q4</b> What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?	Security of supply. Sustainability
<b>National Q5</b> Do you agree with the proposed guiding principles? Are there any that you would change	Agree (so far).
<b>National Q6</b> Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?	Add in wave/tidal generation Two sources better than one but three even better.
<b>National Q7</b> Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?	no comment

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Yes. So far.
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	Comparative costs of local vs national generation. A premium for security and local control should be allowed in costings.
<b>National Q13</b>	<b>Any further comments:</b>	Best wishes.
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Accept a premium on cost of supply
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	The world is inevitably changing. SECURITY is paramount.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Social and environmental
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	

**Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose? Yes where not obstructing the main objectives.

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider? as mentioned, tidal/wave energy should be considered in the mix.

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Syd Tipene // Waipapa Trust
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Waipapa Trust
<b>Role (if applicable)</b>	Trustee
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Totally agree especially ifr distance is an issue.
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	Yes
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Northland (Tai Tokerau)
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	Cost to consumers would be a major factor.
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	Yes
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	With what I have read per your Northern Advocate, 7th March I agree with the areas proposed.
<b>National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	Probably.. not too sure. Outside my area of expertise

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	North Power, Top Energy and land owners and contractors
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Yes I agree as long as the administrative process is well co-ordinated.
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Absolutely
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Using good and effective communications with all involved
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	Good communications especially with Maori connections.
<b>National Q13</b>	<b>Any further comments:</b>	no
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. Gives opportunity to take advantage of all potential areas to be considered depending on suitability and availability of natural resources.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Benefits would include economic advantages to local communities including social and cultural issues (short term). Labour possibilities would provide huge advantages and opportunities including educational opportunities.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Just being fair with all concerned.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes. Not in a position to answer further.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	I really dont know.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Possibility of using local input, labour local, resouces, machinery etc in poviding access to local conditions.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	considering biulding a Papakainga developement in near future
<b>Northland Q10</b>	<b>Any further comments</b>	No



# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Katy Davidson
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	
<b>Role (if applicable)</b>	
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	
<b>National Q1</b> Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?	Not sure.
<b>National Q2</b> Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?	Yes
<b>National Q3</b> What region(s) do you think would be suited to Renewable Energy Zones?	Northland
<b>National Q4</b> What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?	Climate change - investing in renewable energy better for the planet. Invests in regions, providing employment Potentially reduces electricity costs for regions further away from main generation.
<b>National Q5</b> Do you agree with the proposed guiding principles? Are there any that you would change	Not sure.
<b>National Q6</b> Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?	Not sure.
<b>National Q7</b> Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?	Yes

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	Not sure
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Not sure
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Not sure
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Not sure
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	Not sure
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, will potentially provide cheaper power to the North. More secure supply. Employment opportunities Better for the environment and climate change
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	All of the above.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environmental - protecting pristine environments where possible.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Communities would need to be considered on a case by case basis.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Yes, subsidising individual home owners to set up solar panels on their homes.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No.
<b>Northland Q10</b>	<b>Any further comments</b>	No

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

Name John Subritzky  
Which consultation is this submission for? Renewable Energy Zones Northland Pilot Concept  
Who you are representing, i.e. iwi, organisation (if applicable) self  
Role (if applicable)  
Town/City Waipu  
Are you a developer? No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. Good opportunity to build on Northlands renewables and potential to export energy
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Better national grid pricing that recognises the reality that Northland is already self-sufficient in power. Paying millions for a grid connection to the planned Marsden Point Oil power stations from the early 1970s is an impost on northlanders
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Historic inequalities

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes, if demand is there. Also recognise the potential north-south energy flow instead of the 50 year old model of south - north
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	no idea
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	n/a
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	n/a
<b>Northland Q10</b>	<b>Any further comments</b>	I am pleased to see that this is being considered. Thank you for advertising in the Bream Bay News,

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Bev Ennis
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Myself
<b>Role (if applicable)</b>	Na
<b>Town/City</b>	One Tree Point, whanagarei
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	No. There is no land in north land that is available for the monstrous eyesore. Ruakaka recently was tried but the public was against it then. We did a recent trip through Woodville and seeing the wind farm was an eyesore and I can only imagine what panels would be like.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	To build more dams to allow for more power generation.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Noise, visual Impact and disruption while building



**Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose? Definitely Upgrading existing to underground and if maintenance was kept up we would have no issues

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed? Underground

**Northland Q8** Are there alternative proposals that you think we should consider? Build dams

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect? No

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Carol Peters
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	155 whare Awhina Community House
<b>Role (if applicable)</b>	Community Development Coordinator
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	Absolutely It is important from the safety of local access to electricity, mitigating global warming, and cost of electricity.
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Taitokerau/Northland
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	Cost of electricity to the end-users Security of access to electricity - especially in the rural Taitokerau Community Mitigation of global warming
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	yes
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	Selected areas should have high-quality renewable resources - good wind, sun, suitable ocean sites generation developers that are interested in the area transmission backbone capacity
<b>National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	An alternative process could be based on areas of most need.

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	Local electricity providers Mana Whenua Community groups Local electricity user informants
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Central Government Local Government electricity providers land owners user representatives
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	I think you will find there is a lot of local support if you chose Northland / Taitokerau
<b>National Q13</b>	<b>Any further comments:</b>	No
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes 1. Electricity supply vulnerability 2. Need to reduce costs to end-users 3. Northland is suitable for renewable energy generation
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Social and environmental benefits Economic benefits
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	As above

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	I have not considered this An East-West line will be necessary
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	No comment
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No
<b>Northland Q10</b>	<b>Any further comments</b>	I wish to speak to this proposal

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

Name Rik Schijf  
Which consultation is this submission for? Renewable Energy Zones Northland Pilot Concept  
Who you are representing, i.e. iwi, organisation (if applicable) myself  
Role (if applicable)  
Town/City Kaiwaka  
Are you a developer? No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Maybe
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	I think renewables are a must, and I believe in distributed generation
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economic and environmental, and therefore also and cultural
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	But be careful about the ecology

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Distribution may need to increase some local networks, but should reduce the pressure on national ones
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	na.to early to ans wr
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	
<b>Northland Q10</b>	<b>Any further comments</b>	Consider the effects of a fully EV, which will be a totally distributed demand

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Corralie Betts
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Myself
<b>Role (if applicable)</b>	
<b>Town/City</b>	Waipu
<b>Are you a developer?</b>	No
<b>National Q1</b> Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?	Yes
<b>National Q2</b> Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?	Yes
<b>National Q3</b> What region(s) do you think would be suited to Renewable Energy Zones?	Bream Bay, Northland
<b>National Q4</b> What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?	Now the Refinery has reduced it's role providing alternative sources of power is the perfect time for such developments
<b>National Q5</b> Do you agree with the proposed guiding principles? Are there any that you would change	Yes and no
<b>National Q6</b> Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?	Yes
<b>National Q7</b> Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?	Look at the old refining station and how it can be better used



<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	Government, local councils, iwi, community groups
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	yes
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Everyone
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	The anarchists that turned by before parliament not so long ago
<b>National Q13</b>	<b>Any further comments:</b>	Think that covers it
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Would min but haev no spare mone
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	

**Northland  
Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?

**Northland  
Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland  
Q8** Are there alternative proposals that you think we should consider?

**Northland  
Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland  
Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** colin ward  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)**

**Role (if applicable)**

**Town/City** Kaeo

**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

- National Q8** Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?
- National Q9** Do you agree with the proposed project criteria? Are there any that you would change or add?
- National Q10** Do you agree with the challenges we have identified?
- National Q11** What are some of the ways to overcome these challenges and who should be involved?
- National Q12** Do you see any other potential challenges that need to be considered?
- National Q13** Any further comments:
- Northland Q1** Would you invest in a Northland REZ if there was an opportunity to? ??
- Northland Q2** Have you previously applied to connect to a network in Northland? Yes
- Northland Q3** Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not. a need to update northland
- Northland Q4** What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors. economic and social
- Northland Q5** What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors. end user cost

- Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose? yes
- Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed? underground where possible. away from roading
- Northland Q8** Are there alternative proposals that you think we should consider?
- Northland Q9** Do you have development projects that a REZ might assist you to construct and connect? no
- Northland Q10** Any further comments power quality in Northland is bad there is a need to clean up.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Rolf Mueller-Glodde
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Vision for Kerikeri and Environs
<b>Role (if applicable)</b>	Deputy Chair
<b>Town/City</b>	Kerikeri
<b>Are you a developer?</b>	No
<b>National Q1</b> Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?	Yes
<b>National Q2</b> Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?	Yes
<b>National Q3</b> What region(s) do you think would be suited to Renewable Energy Zones?	Northland
<b>National Q4</b> What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?	Obviously the availability of wind and solar, possibly also marine energy sources to enable the transformation from fossil fuel to alternative energy to mitigate climate change. Benefits would arrive for climate, environment, businesses, wellbeing of people...
<b>National Q5</b> Do you agree with the proposed guiding principles? Are there any that you would change	Yes
<b>National Q6</b> Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?	Yes
<b>National Q7</b> Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?	Yes, it makes sense as it aims to avoid present users to face even higher than the already comparatively high electricity prices in Northland.

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	Don't know, but obviously Local Govt, Iwi, National Govt, Line Companies need to be involved.
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Yes
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	See 17 and also innovative businesses/investors
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	No
<b>National Q13</b>	<b>Any further comments:</b>	Our Community Group strongly supports the development of renewable energies for a transition to electrification to mitigate climate change
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, our Community Group strongly supports development of renewable energy to mitigate climate change by electrification of traffic and industries and exit from fossil fuels. Northland appears to be a suitable area for a REZ in view of plenty of wind and sunshine. The potential to finally reduce energy user's presently comparatively expensive unit prices is appealing. Furthermore, additional businesses might be attracted to Northland with abundance of available energy at competitive prices.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	see 1.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Northland's electricity prices are presently among the highest in the country, while average household incomes are on the low side. Thus, the explained scheme to attract renewable energy producers and users with close consultation among the potential

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	As a Community Group we are not experts in this field.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	It all seems to be well thought through.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	As a Community Group we don't engage in such projects directly.
<b>Northland Q10</b>	<b>Any further comments</b>	We welcome the proposal and trust it will receive strong support.



# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Inge Bremer
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Carbon Neutral NZ Trust, Kerikeri Branch
<b>Role (if applicable)</b>	Trustee
<b>Town/City</b>	Kerikeri
<b>Are you a developer?</b>	No
<b>National Q1</b> Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?	Yes
<b>National Q2</b> Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?	Yes
<b>National Q3</b> What region(s) do you think would be suited to Renewable Energy Zones?	Northland
<b>National Q4</b> What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?	Reduction of climate change risks with transformation from fossil fuels to renewable electricity.
<b>National Q5</b> Do you agree with the proposed guiding principles? Are there any that you would change	Yes
<b>National Q6</b> Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?	Yes
<b>National Q7</b> Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?	Yes, it seems to make sense especially with the fallback option on Government.

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	Lines companies, local govt, nat. govt, iwi, businesses
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Yes
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Don't know
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	No
<b>National Q13</b>	<b>Any further comments:</b>	Our Community Group supports any activity to enhance the transition to renewable electricity to mitigate climate change. Our main aim is to the public's raise awareness of climate change and to offer a free and easy carbon calculator to realise the net carbon footprint taking emissions and sequestration into consideration. See: <a href="http://www.carbonneutraltrust.org.nz">www.carbonneutraltrust.org.nz</a>
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, it's a huge opportunity for Northland's economic development on the basis of its abundant wind, solar and marine energy availability without impact on climate and environment. Thus, Northland is ideal for a REZ.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Besides the use of renewable energy instead of fossil energy, the proposed REZ seems to enable to lead to a reduction of the high electricity prices in Northland in its dependance on long lines from the South.

<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	A REZ might create more jobs, a cleaner environment, lower energy prices, improved wellbeing...
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	We are not experts in this field.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	No
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No, our community group is not in business.
<b>Northland Q10</b>	<b>Any further comments</b>	We strongly support the proposal.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Jamie Penney  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept  
**Who you are representing, i.e. iwi, organisation (if applicable)**  
**Role (if applicable)**  
**Town/City** Kerikeri  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, Northland has the resources and it would allow us to be self sufficient from an energy generation perspective.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environmental factors are important
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environmental costs again

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes, but we should also evaluate linking the far north directly to transpower's network. Paying the cost of Northpower's line costs in addition to Too Energy's makes our power costs far higher than they should be.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Unsure
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	I like the mixed mode of having high energy uses co-located with the production, but that gives those users a lot of power (see Tiwai Point). I think the REZ
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No
<b>Northland Q10</b>	<b>Any further comments</b>	

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Peter Coates
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Private resident
<b>Role (if applicable)</b>	
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. Local generation makes economic sense.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economic (as above), work for locals, environmentally sustainable power generation.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	See above



Northland Q6	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes
Northland Q7	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Local communities need to be consulted.
Northland Q8	<b>Are there alternative proposals that you think we should consider?</b>	No
Northland Q9	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No
Northland Q10	<b>Any further comments</b>	

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Simon Trevor Bennett  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept  
**Who you are representing, i.e. iwi, organisation (if applicable)** My family  
**Role (if applicable)**  
**Town/City** Mangawhai  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. More alternatives = more flexibility More supply sources = no more burning coal at Huntley = better environment
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Regional supply would reduce the control of the big players in nz supply
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Not doing this is a massive and unthinkable cost to the environment
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes but every new home should have solar panels. End of story

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider? Many and all sources of supply should be considered. The answer is a combination of all.

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect? No

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Tim Crawford
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Our family farms
<b>Role (if applicable)</b>	
<b>Town/City</b>	
<b>Are you a developer?</b>	Yes
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes, we have a farm outside of Whangarei that we are looking to convert into a Grid-Scale Solar project, however, the capacity of our local substation is inadequate to handle the desired energy production, and therefore we would need to connect to another which is much further away
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	Yes, as a country we have a responsibility to produce more green energy and therefore lower our carbon impact on the world
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Whangarei - Hikurangi
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	Job creation, investment into local businesses and communities and lower carbon output
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	Yes
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	Yes
<b>National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	Yes

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	The developer, network provider and the local council
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	yes
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	The costs involved especially connection costs into an overloaded system means that large-scale solar projects are unable to be completed. As NZ has a responsibility to lower our carbon impact, maybe there should be subsidies or carbon credits to provide benefits for developers
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	No
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	More jobs, lower carbon output, community investment and a very low environmental impact
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	None

**Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose? Yes

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider?

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Ruth Marsh  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)** self

**Role (if applicable)**

**Town/City** Kamo

**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?



<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	I already have by installing 18 solar panels on my home. I'm not a commercial outfit so won't invest alone but could if something to invest in was offered to me.
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	YES. It is absolutely necessary for environmental, social and economic reasons. Northland already has lots of renewable energy and it is a welldefined zone that could readily be converted to totally renewable energy.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environmental - a cnptribution to mitigate climate change amongst other factors. Economic - setting up more local self reliance and resilience Social - connecting communities
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	The cost of NOT doing it are huge.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	If that is what is required, yes.

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider? we also need to consider making home installation of solar and wind more viable and easier to do. And also for a small collection of houses. And we need to consider our power use - our new

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect? No

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Paul M Smith  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)** Famy

**Role (if applicable)** Dad  
**Town/City** Waipu  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, with some reservation's.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Resilience. Collaboration between agencies/organisations has merit. Is doing nothing an option? Is this a macro or micro methodology? Preference for micro solutions providing they are durable and transparent green. Increase in local technology capital/skills and spins offs.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environment stewardship is very important. Generational merit rather than simple short term payback should be established. It must stack up fiscally even 8f this takes a while.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	<p>Yes, I support.</p> <p>Are there ways major users(beneficiaries) can contribute on a micro level?</p> <p>How much effort goes into ensuring peak consumer efficiency is taking place? How does this change consumptive culture long-term?</p>
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	<p>Where needed.</p>
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	<p>As mentioned above, micro solutions that reward micro investment.</p> <p>Reduction in consumption across existing userbase.</p> <p>Implementation of maximised efficiency protocols</p>
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	<p>Nope</p>
<b>Northland Q10</b>	<b>Any further comments</b>	<p>Not sure I really understand the questions!</p>

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

**Name** Mick Kelly and Sarah Granich  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept  
**Who you are representing, i.e. iwi, organisation (if applicable)** Householders  
**Role (if applicable)**  
**Town/City** Waipu  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	We strongly support the development of a Northland REZ. There is an abundant resource, energy security is lacking in this region and there would be numerous broader social benefits in terms of jobs, (potentially) cheaper power, etc.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	With the development of storage (battery) potential, domestic (private home) solar (and wind and water) power production would become far more attractive from a network perspective.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	One potential cost would be if the REZ fails and up-front investment by the local community-owned lines company is wasted, pushing up lines charges. The more general concern would be the investment costs on the part of the local lines companies such as Northpower. A realistic, detailed and trustworthy business case is needed.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	A step by step approach makes sense in the context of a pilot project (though there is a need to ensure that the potential for battery storage is covered from the outset).
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	No suggestions.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Not at this time.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No, though see further comments below. * supports residential distributed gen
<b>Northland Q10</b>	<b>Any further comments</b>	We strongly believe that any regional approach must include developing the potential for domestic



# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Yariv Edery
<b>Which consultation is this submission for?</b>	Renewable Energy Zones National Consultation
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	YEH Renewable Energy Consultants Ltd
<b>Role (if applicable)</b>	Director
<b>Town/City</b>	Auckland
<b>Are you a developer?</b>	No
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes. Collaborative connection points are expected to reduce connection costs and address network spare capacity and congestion issues
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	Yes Examples from other countries are positive
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Northland, Waikato and Christchurch
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	Feasibility, Cost-Benefit, socio economic evaluation, environmental impact evaluation, political and cultural agendas that may impact project ownerships and site selections.
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	Agree with all except principal No. 4 Collaborate and align the project with Iwi and local stakeholders inputs are important.
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	Yes
<b>National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	Yes, Transparency is important and is likely to increase competition.

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	Industry members, specialist consultants (demographics, social and environmental)
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Yes
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Put in place strict and clear guidelines about engagement with interested parties that are not asset owners. The call is for the entirety of New Zealand people to benefit from stable power supply at affordable costs. It is also important to ensure that NZ's Carbon reduction targets are achieved
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	Encouraging NZ based investment and deflecting overseas investments and ownership over NZ power generation plants.
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	

**Northland  
Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?

**Northland  
Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland  
Q8** Are there alternative proposals that you think we should consider?

**Northland  
Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland  
Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Andrew Beckett
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Kiwi Solar Farms
<b>Role (if applicable)</b>	Director of Development
<b>Town/City</b>	Auckland
<b>Are you a developer?</b>	Yes
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes, it means areas for development are limited. ie all the easy/cheap spots are taken.
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	Yes, although availability of flat land may cause an issue.
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Hauraki plains. Cheap land, sunny, no grid (beyond 11kV)
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	Equal opportunities for all developers, small and large. Normally, first movers in solarfarms/wind are larger developers with huge capital to cover connection costs, opening 11kV lines for small generation assets will help as there will be more competition. Also, help to keep the money in NZ, most large solar farm developers are from overseas!
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	NZ investors only. Not available for overseas investors.
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	No
<b>National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	Agree. reverse auction with short timeline for COD. Disincentive company's sitting on capacity. Build fast model, like vietnam or Thailand.

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	unsure.
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Looks good.
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	Duel land use would appease locals.
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Equal access to the network.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	

**Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider?

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Michael Buhr
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Individual
<b>Role (if applicable)</b>	
<b>Town/City</b>	Ruakaka
<b>Are you a developer?</b>	No
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	I don't know
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	We are not presented with enough information to know if it could be beneficial. As it stands I don't think it's beneficial, because lifecycle costs and availability of renewable energy componentry is not assessed nor compared to other forms energy sources such as nuclear. So the concept of the REZ is a case of the cart leading the horse
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Not in my backyard! So none that I can foresee
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	The scope of this question is misleading. It should consider both benefits and disadvantages. Impact assessments should go well beyond regulatory requirements, and the complete decision making process should be void of confirmation bias. The assessment should be undertaken by parties that inherently have a bias toward implementing the REZ, but it should have equal input from those that oppose it.
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	comments to each of the principles are as follows; 1. Harnessing renewable resources should have nothing to do with 'decarbonisation'. It's a

<b>National Q6</b>	<b>Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	I do agree, but I would like to see criteria that protects private property rights more, ensuring that any land acquisition is not forced.
<b>National Q7</b>	<b>Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	I agree with the tender process
<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	Generally asset owners should be responsible for undertaking the steps, local government for the regulatory administration, and transpower should carry some accountability for leading the initiative, and mediate the asset owner's actions
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	I do agree, but I would like to see criteria that protects private property rights more, ensuring that any land acquisition is not forced.
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	I don't know enough about the industry
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	I don't know
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	No, because I don't want it in my 'backyard'
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	end user cost, reliability of the system, and environmental enhancement
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	I don't want to be burdened with any financial cost at all! It has to be cheaper to establish REZs than conventional systems



<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	As long as it doesn't impact my bottom line, sure it would be a good idea to upgrade the transmission lines
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Not in my 'backyard'. i would like to see the use of existing public roading corridors, with underground facilities as much as possible
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	
<b>Northland Q10</b>	<b>Any further comments</b>	It feels like the cart is before the horse. Should the location of wind and solar farms be confirmed

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Liz Woodward
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Individual
<b>Role (if applicable)</b>	
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Do you mean as an individual or as a company wanting to produce power?
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, as long as locations are sensibly selected and don't negatively impact on communities. We have the infrastructure at Ruakaka, the sunshine hours and windy places that it makes sense to utilise them. Anything to help reduce our power costs, create employment and hopefully attract businesses would be beneficial to the region.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Impact of power generation sites on local communities and environment especially. Needs to be sensitive to the location and people.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economically I wouldn't support it if the cost of power was going to increase for individual users especially - it has to have a positive benefit of cheaper power for our region.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Unsure
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Unsure
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Unsure
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No
<b>Northland Q10</b>	<b>Any further comments</b>	I found the consultation process somewhat challenging to understand what you were actually

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	John Campbell
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Our Energy Limited, <a href="http://ourenergy.co.nz">ourenergy.co.nz</a>
<b>Role (if applicable)</b>	Founder & CEO
<b>Town/City</b>	Wellington
<b>Are you a developer?</b>	No
<b>National Q1</b> Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?	Yes
<b>National Q2</b> Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?	Yes
<b>National Q3</b> What region(s) do you think would be suited to Renewable Energy Zones?	Northland as already identified, but also potentially regions like Tasman, Bay of Plenty, East Coast and Taranaki and Wairarapa
<b>National Q4</b> What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?	Agree with all the potential benefits identified in consultation document, including the wider ones (it's really important that this analysis isn't siloed).
<b>National Q5</b> Do you agree with the proposed guiding principles? Are there any that you would change or add?	Yes, agree. #4 could potentially be strengthened by locating principle within the context to Te Tiriti. Principles could also potentially be strengthened by not just having a focus on customer(s), which can be interpreted as an inherently individualistic concept, but also community (ies).
<b>National Q6</b> Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?	Proposed and other criteria in consultation document are a good set. Existing levels of competition in generation in an area may be another.

<b>National Q7</b>	<b>Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	Tender process is fine in principle, but as these sorts of processes typically bias towards larger, incumbent players, we would like to see specific measures within such a process to counter this. Perhaps allocating specific blocks within a REZ to specific types and/or sizes of developers could be considered. An overly, purist market approach is unlikely to yield the benefits sought by establishing REZs.
<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	In addition to the existing list, we would suggesting adding project criteria around the establishment of smart / innovative / participative business models, which could occur at any stage of a proposed project, even post-delivery.
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes (subject to answer to question 12 below).
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	The consultation document already talks about wide stakeholder and community engagement. Not just relying on written submission processes will help.
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	We would also like to add the challenge of managing to ensure that REZ processes and projects are not unduly 'captured' by incumbent and/or status quo interests.
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes, if the Northland REZ included, for example, community-led and/or crowdfunded projects
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. Northland communities face some of the highest electricity prices in New Zealand - it's important for a variety of economic, social and environmental reasons that a REZ is proposed for Northland.

<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	As well as the potential benefits outlined in the consultation document, emissions reduction and greater innovation in the local economy and NZ's electricity industry generally that could be enabled by a REZ are important.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Costs incurred by those who can least afford it (ie, energy equity). Impacts on local communities.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Clearly, some network upgrade activity is going to be required to support a REZ in Northland. However, the key questions are how much, and by when? Contracting for and of local flexibility should absolutely be part of the alternatives to be considered that can potentially avoid and/or defer expensive network upgrades.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	We don't know enough about the local area and/or current network conditions to offer any informed view on this.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	As with answer to question 4, the procurement of local flexibility by Northpower and Top Energy should be investigated, and ideally, incentivised prior or in addition to building of new lines.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No.
<b>Northland Q10</b>	<b>Any further comments</b>	Our Energy is interested in being involved in Northland REZ projects from a downstream industry

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Ian Forrester
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Business
<b>Role (if applicable)</b>	Director
<b>Town/City</b>	Mangawhai
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?



<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes if ROI and benefits were acceptable - it needs to be economic and build resilience for Northland
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. Northland power supply is inconsistent with occasional power outages that are higher than elsewhere and power costs more than elsewhere. It would be great to build a resilient power network with economic benefits for the region including employment, income generation by exporting power etc. Northland has huge potential but has not yet taken advantage of this.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	It will provide income for the region through exporting power, it will provide employment which will provide direct benefits. Indirect benefits will flow for the increase in economic activity through other support industries, providing further employment. Overall it will provide a significant uplift in the well being of the region.

<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Any investment needs to ultimately be profitable but not at all costs. We do not want to harm the land or create eyesores with huge solar or wind farms in busy areas. It is also an opportunity to provide returns to local iwi and members of the community through employment, rent for use of land etc. We need to ensure that the net environmental benefits are positive, there is not point in investing in renewable energy because it's "Green" only to harm the environment in doing so and undo any good we have done.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes. It's generally more cost effective to upgrade exiting infrastructure then invest in green fields projects. However, we do not want to throw good money after bad. If the existing infrastructure is not in good condition and has limitations, we may be better placed to invest for the future and build the new infrastructure upfront rather than invest in existing infrastructure only to have to undo it or throw it away because it was not fit for purpose.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	We do not want to build lines that impact sites of natural beauty and create an eyesore. Lines are purely functional and do not add anything to the landscape. We should aim to limit any visibility of lines as far as possible. In some cases, it may be desirable to bury them or run them under the sea, subject to cost of course.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Solar and wind are the natural options for Green Power but be other options like geothermal and hydro (through tidal flow) should also be explored and considered.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	I'm exploring the installation of an EV charging network in Northland, including a mobile option that uses 1 MW battery units that could be charged at the source of the power and moved to where they are required at e.g. events, holiday hot spots etc. I'd would be very interested in talking to the generators to see how we could partner to achieve this.

**Northland**    **Any further comments**  
**Q10**

I think this is a great initiative and I am very supportive of the move to clean and renewable energy and reducing emissions. I also think it will bring huge economic benefits to Northland that will have a very positive lasting impact. I would love to assist and support in any way I can! Thank you for taking the initiative to put this in place!

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Thomas Zink  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)** Myself. I am an electricity consumer in the Far North and project manager in the power generation industry.

**Role (if applicable)** N/A  
**Town/City** Kerikeri  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	<p>I do support the REZ in Northland. The benefits given on page 12 of the Northland consultation document summarize the key items, namely:</p> <ul style="list-style-type: none"> <li>- improved resilience of the network in Northland and of power supply to Auckland, especially with eventual shut down of the Huntly Rankine units which makes Auckland more reliant on generation that is further away.</li> <li>- Northland and the Far North are amongst the poorest regions in New Zealand. The REZ should create employment opportunities through construction and operation of the network and generation facilities, address energy poverty by lowering the cost of electricity to residents, and remove another barrier to industry moving into the region.</li> <li>- the cost sharing for network upgrades, while removing some of the "first mover advantage" for those developers that are well advanced with their projects, should reduce the barriers to entry for others to develop the solar/wind/ and geothermal resources in the region.</li> </ul>

<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	As above
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	In my view there are few "costs" of the new facilities, i.e. the REZ is a good news story with no real downsides. Environmental concerns of the network upgrade and generation plant will be addressed through the design and consenting process. The key objective for any pricing structure should be to avoid the cost of the upgrades being passed through to the consumers.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes, supported. Upgrading existing assets, where feasible, has much lower impact on local residents than building new.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	New lines should target connection to the existing network in the most direct technically feasible route.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	I have no suggestions if NZ continues with its current market design. The issue of who pays for the lines would not be up for debate if all generation were centrally controlled (the good old days!)
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	Not applicable
<b>Northland Q10</b>	<b>Any further comments</b>	No

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Oliver Krollmann
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Individual
<b>Role (if applicable)</b>	Individual
<b>Town/City</b>	One Tree Point
<b>Are you a developer?</b>	No
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes, absolutely
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	Yes, since it provides both capacity planning certainty and financial benefits
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Definitely Northland, because of the large amount of proposed renewable generation and spare capacity on the Marsden backbone
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	I'd be happy if consumer benefits, particularly an electricity price reduction, took a backseat to accelerating the rollout of more renewable generation and transitioning to low-carbon faster. If consumer prices remained stable (i.e. only rose in line with inflation), that would be good enough for me - I don't expect to personally benefit from a REZ financially. The faster transition will provide a lot more tangible benefits to all of us than a few dollars off the power bill.
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	I'm happy with the guiding principles.
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	I can only speak for Northland, and I'm happy to see that it is considered as a possible REZ pilot region.

<b>National Q7</b>	<b>Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	No opinion
<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	That's beyond my expertise, however, it will be crucial to manage vociferous minority opposition groups carefully, for example people who complain loudly about perceived loss of subjective amenities (like the view from their home if a solar farm goes up 5km away), to avoid negative press and blowing minor issues out of proportion.
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Type of renewable generation - to ensure a good energy mix and avoid large fluctuations due to intermittency
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	Yes.
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Anticipating and addressing the challenges early on with good communications (kind of "inoculating" against negative rhetoric) will be crucial. Making popular what needs to be done to facilitate and accelerate our low-carbon transition and building a set of values ( the "greater good") can help shift the discussion towards the benefits for all and away from the disadvantages or lost privileges for some.
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	Not technically, but rather in the presentation and communication of REZs, as outlined above in my responses to Q8 and Q11.
<b>National Q13</b>	<b>Any further comments:</b>	Thank you for the opportunity to contribute to this consultation. Looking forward to a REZ in Northland.
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, absolutely. The large amount of proposed renewable generation, the proximity to Auckland, and available spare capacity on the Marsden backbone make it an ideal pilot region.



<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	The acceleration of our transition to a low-carbon economy is most important to me, more than any direct financial benefits as an individual electricity consumer.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	None - I would even go so far to accept a small levy (say 1c/kWh) on my power bill to make a REZ happen, if it was a question of money.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Maybe a link from Kaikohe to Dargaville, to provide redundancy for the Kaikohe to Maungatapere link and more resilience for the Northland power grid as well as capacity for wind generation on the west coast.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Microgrids come to mind, but since REZs are about large-scale grid-connected generation that is probably out of scope here.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No.
<b>Northland Q10</b>	<b>Any further comments</b>	Again, thanks for the opportunity to participate. Please keep me in the loop about the progress.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Richard Elger
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Self
<b>Role (if applicable)</b>	Secretary for PBRRRA
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes Reasonable opportunity to develop sustainable energy, timely with reducing demands from NZRC
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Employment, sustainable, global warming reduction
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Potentially social protests by people who are opposed to changes to their environment but via discussion reason could prevail
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Upgrades appear needed especially around Kaikohe areas

<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Avoid environmentally sensitive areas
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Plan presented appears logical No
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	Perhaps local solar panels for house
<b>Northland Q10</b>	<b>Any further comments</b>	Thank you for your work

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

Name	Clare Swinney
Which consultation is this submission for?	Both
Who you are representing, i.e. iwi, organisation (if applicable)	N/A
Role (if applicable)	
Town/City	Whangarei
Are you a developer?	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

It could be, but there are major issues with energy reliability in parts of Australia which have invested heavily in renewables, owing to the unreliability of supply due to not enough wind/too much wind, cloudy conditions affecting solar generation and so on. This has led to increased prices (as well as inconvenience and loss of productivity). Also, in parts of Australia where the public was encouraged to invest in "grid tie" solar for their homes, there has been a general increase in domestic power prices, as the electricity companies have been trying to recoup lost revenue, due to a lot of people generating at least some of their own power by increasing the general rate to compensate. In addition, bird life has been seriously harmed by wind turbines. For example:  
<https://stopthesethings.com/2022/04/01/not-green-eagles-constant-victims-of-wind-industrys-endless-bird-slaughter/>

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones? Geothermal-rich areas

**National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?**

Please consider the potential benefits to human health and to the environment if no wind turbines are erected. Wind turbines can create infrasound that makes people living nearby sick and the very large fiberglass blades of the structure, end up in a landfill.

There can also be problems with poor quality power from wind turbines and birds are killed by them. Please consider the potential benefit to health if there is no solar generation. There is a possible issue with dirty electricity (DE) from these systems, as they generate DC current. DE can be created when this current is transformed to AC for efficient transmission via the grid. DE (technically DE is high frequency voltage transients) is potentially carcinogenic and can also exacerbate conditions like asthma and ADHD. DE can contaminate the grid and be transmitted into people's homes. As high DE can radiate out from household wiring about 1-2 meters it can create a significant hazard especially for people living in home with small rooms where you cannot easily move furniture out of the worst affected zones.

In terms of environmental effects, it depends on what type of solar is being used, but in parts of the US, solar farms have littered up the desert with masses of glass shards after panels that have broken and there has been no clean-up.

**National Q5 Do you agree with the proposed guiding principles? Are there any that you would change**

**National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?**

**National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?**

**National Q8 Who should be involved with coordinating and undertaking the various steps within a REZ development process?**

**National Q9** Do you agree with the proposed project criteria? Are there any that you would change or add?

**National Q10** Do you agree with the challenges we have identified?

**National Q11** What are some of the ways to overcome these challenges and who should be involved?

**National Q12** Do you see any other potential challenges that need to be considered?

As mentioned, there are major issues with energy reliability in parts of Australia which have invested heavily in renewables, owing to the unreliability of supply due to not enough wind/too much wind, cloudy conditions affecting solar generation and so on. This has led to increased prices (as well as inconvenience and loss of productivity). Also, in parts of Australia where the public was encouraged to invest in "grid tie" solar for their homes, there has been a general increase in domestic power prices, as the electricity companies have been trying to recoup lost revenue, due to a lot of people generating at least some of their own power by increasing the general rate to compensate.

**National Q13** Any further comments:

Plans for new high voltage lines has implications for property owners and residents given the aesthetic and health issues with having high voltage lines close to houses or workplaces. A claim in the ad in the paper that power will be cheaper if there is more power generated in Northland is of concern to me. In light of the expense of new high voltage lines and building new facilities to generate power, I doubt that such a claim is tenable. It is more likely that the power will cost more in my opinion.

**Northland Q1** Would you invest in a Northland REZ if there was an opportunity to?

<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	<p>Given the expense of new high voltage lines and building new facilities to generate power, I suspect that if anything, the power will cost more. Also, there are significant downsides to using wind turbines and solar panels to generate power.</p> <p>Solar power generation is associated with the possible issue of dirty electricity (DE), as they generate DC current. DE can be created when this current is transformed to AC for efficient transmission via the grid. DE (technically DE is high frequency voltage transients) is potentially carcinogenic and can also exacerbate conditions like asthma and ADHD. DE can contaminate the grid and be transmitted into people's homes. As high DE can radiate out from household wiring about 1-2 meters, it can create a significant hazard, especially for people living in homes with small rooms.</p> <p>In terms of environmental effects, it depends what type of solar is being used, but in parts of the US, solar farms have littered up the desert with masses of glass shards after panels that have broken and there has been no clean-up.</p> <p>Furthermore, there are potential adverse health and environmental effects associated with wind-power generation. It can create infrasound that makes people living nearby sick and can be a hazard to bird life and at the end of a turbine's lifespans, the very large fiberglass blades of the structure, end up in a landfill. There can also be problems with poor quality power from wind turbines.</p>
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Cheaper power.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	The potential cost to wildlife, human health and environment is important to me.



- Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?
- If solar power generation is used, upgrades should include filters which remove dirty electricity from the lines, as dirty electricity is known to be very harmful to health. See Dr Sam Milham's research, eg:  
[https://www.researchgate.net/publication/239940746\\_Evidence\\_that\\_dirty\\_electricity\\_is\\_causing\\_the\\_worldwide\\_epidemics\\_of\\_obesity\\_and\\_diabetes](https://www.researchgate.net/publication/239940746_Evidence_that_dirty_electricity_is_causing_the_worldwide_epidemics_of_obesity_and_diabetes)  
 (As mentioned, solar power generation is associated with the possible issue of dirty electricity (DE), as they generate DC current. DE can be created when this current is transformed to AC for efficient transmission via the grid. DE (technically DE is high
- Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?
- Northland Q8** Are there alternative proposals that you think we should consider?
- Free Energy Generation using Magnets: An Off-Grid Sustainable Energy Solution:  
[http://www.iaeng.org/publication/WCE2017/WCE2017\\_pp277-282.pdf](http://www.iaeng.org/publication/WCE2017/WCE2017_pp277-282.pdf)
- Northland Q9** Do you have development projects that a REZ might assist you to construct and connect?
- Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Murray McCully
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Te Tai Tokerau Water Trust
<b>Role (if applicable)</b>	Trustee
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	Yes
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	No Comment
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	<p>Decarbonisation of NZ energy will require more renewable energy capability</p> <p>Leveraging NZ's existing infrastructure will be less disruptive and expensive than building new infrastructure</p> <p>As NZ has limited size and scale, we need innovative ways to support renewable energy, maximising existing infrastructure.</p>
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	<p>Regions with strong natural resources that are close to the major centres or energy users</p> <p>Northland is suited to becoming an exporter of energy with its wind and sunshine resources.</p> <p>Northland has the opportunity to efficiently utilise the existing network from Bream Bay to Auckland</p> <p>Areas that have strong interest from developers and energy generators</p>
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	<p>The opportunity to utilise a region's natural resources like wind and sunlight through incremental investment into the existing networks</p> <p>The socio-economic impact of any investment and trying to create increased jobs in areas that need them most.</p> <p>Increased resilience and diversity to electricity system - particularly benefits Northland</p>

<b>National Q5</b>	<b>Do you agree with the proposed guiding principles? Are there any that you would change</b>	Generally supportive
<b>National Q6</b>	<b>Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	Yes
<b>National Q7</b>	<b>Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	
<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	The challenges identified are largely technical, regulatory and uptake. From recent experience, environmental approvals also create a challenge in terms of coordinating multiple projects.
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Early engagement with Councils and policy wetting within the relevant Regional and District Plans
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No

<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, noting supporting principles regarding costs and benefits must result in an overall net benefit. Support the overarching goal to decarbonise NZ and accessing Northlands wind and solar resource towards that objective. Northlands proximity to Auckland and the ability to utilise existing infrastructure provides a strong opportunity
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Lower energy costs to pass onto lower consumer energy prices. This will in turn help reduce energy hardship Local regional development - through infrastructure investment, attracting industry to assist with other regionally significant projects
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Financial Costs - it is important that a REZ reduces costs to the consumer. Northland can not afford increased energy costs.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	In principle support as more efficient use of existing assets should provide most cost effective option and save considerable time to completion.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	
<b>Northland Q10</b>	<b>Any further comments</b>	

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

Name Marilyn Ruth Cox  
Which consultation is this submission for? Renewable Energy Zones Northland Pilot Concept  
Who you are representing, i.e. iwi, organisation (if applicable) Myself  
Role (if applicable)  
Town/City Waipu  
Are you a developer? No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	I like the idea of Northland becoming more self sufficient. Northland is a long way from electricity generation sources and has some of the highest wholesale electricity prices in NZ. Generation in Northland would improve the security of electricity supply here.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environmental - It would be good if all energy generation in NZ was from renewable sources.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Environmental if any.

**Northland  
Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?

**Northland  
Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland  
Q8** Are there alternative proposals that you think we should consider?

**Northland  
Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland  
Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Dean Baigent-Mercer
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Forest & Bird Northland
<b>Role (if applicable)</b>	Northland Conservation Manager
<b>Town/City</b>	
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?



<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Not Applicable
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	<p>Yes we support renewable energy development subject to:</p> <ul style="list-style-type: none"> <li>* first and foremost protection and avoidance of cutting into or destroying native habitats (eg forests, wetlands, dunelands, gumlands) - both for power lines and the generation sites themselves. Wetland and native forests are our best carbon sinks on land and it would be counterproductive to on one hand be preventing CO2 emissions from renewable energy and on the other hand weakening natural carbon sinks.</li> <li>* with windfarms, appropriate research needs to be done before decisions are made on locating wind turbines on migrating species and those that fly at night critically endangered bats and bittern</li> </ul>
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	National renewable energy security which would allow us to close down the climate polluting gas and goal power station at Huntly. Economically it could be a benefit to the north including hapu and landowners and employ local people.

<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	See answer to question 12.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	See answer to question 12. Powerlines for ease of access and to not impinge on native habitats should follow the roading network.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Completely avoiding native habitats.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Energy conservation, local distributed generation by supporting subsidised solar panels on roofs where power is to be used across the grid.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No.
<b>Northland Q10</b>	<b>Any further comments</b>	Forest & Bird has only just heard of these proposals and would appreciate being kept informed of applications and developments.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Peter Bruce-Iri
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Climate Change Tai Tokerau Northland Trust
<b>Role (if applicable)</b>	Trustee
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	The Trust will be interested in citizen funding opportunities.
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. The Trust looks forward to the constant availability of 100% renewable electricity also facilitating the elimination of fossil fuel use more widely.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	<ul style="list-style-type: none"> <li>- Climate mitigation.</li> <li>- Cheaper electricity, especially for disadvantaged communities.</li> <li>- Potential for Maori ownership of generation and community owned generation</li> </ul>

<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	<p>The trust is concerned that, given the tendency for infrastructural projects to take too long and cost too much, any infrastructural upgrades may cost too much with that cost passed on to consumers via generators.</p> <p>Also the policy environment can be fickle, noting changes to feed in tariffs and line charges. To this end Northland needs energy governance based on Ti Tiriti informed partnerships.</p>
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	<p>There needs to be options for direct connections somehow between remote communities and small-scale generation.</p>
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	<p>This can be decided in consultation with local communities. If the local community is involved and you can present a clear value proposition progress will be quicker.</p>
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	<p>The document anticipates wind and solar energy. Given that Northland has over 3,000 km of coastal and harbour coastline, there is a huge amount of tidal and river flowing that can be used for marine turbines. Repected kaumatua and kaitiaki Millan Ruka is developing the Ruka Marine turbine that has been through the Callaghan innovation process and can be used in rivers, harbours and the ocean.</p>
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	<p>As in question six above.</p>
<b>Northland Q10</b>	<b>Any further comments</b>	<p>The anticipated increased lines capacity is a potential resource. The trust would like to see at least 50% of this capacity reserved for Maori-owned renewable generation.</p>

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Inge Bremer
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Carbon Neutral NZ Trust
<b>Role (if applicable)</b>	treasurer
<b>Town/City</b>	Kerikeri
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	probably, depends on conditions
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Renewable energy sources are most important for NZ. (This includes tidal and wave energy by which Northland is surrounded). With a network that reduces costs hopefully all would benefit.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Less transmission lines, shorter distances, lower fees for users, possible oversupply, i.e. "export" to Auckland, network for electric vehicle charging, reducing emissions
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	maintenance, responsible depreciation accounting

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	yes, if that is possible and makes sense
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	as close to the resource as possible and as close to the present and future users as possible
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	think about/enable localised tidal and wave energy sources (Tangaroa comes twice a day!)
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	no
<b>Northland Q10</b>	<b>Any further comments</b>	appreciate the initiative



# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Joao Paulo Silva
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Waikato Regional Council
<b>Role (if applicable)</b>	Policy Advisor
<b>Town/City</b>	Hamilton
<b>Are you a developer?</b>	No

**National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?**

Yes, the Waikato Regional Council (WRC) agrees that first mover disadvantage and high connection costs are key constraints for energy production. The issue of high initial connectivity costs for the first mover and minimal costs for marginal users can be a barrier to setting up efficient infrastructure. If the first mover can recover costs from subsequent users, this may address the first-mover disadvantage while alleviating the average connection costs for all parties.

WRC considers this is a sound justification for public policy intervention. It would reduce the risk of potential for rent-seeking or super-profits from the first mover resulting in higher energy prices to consumers.

**National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?**

Yes, WRC agrees that there is a role for renewable energy zones (REZs) in achieving New Zealand's 2050 net-zero carbon emissions target, such as identifying where it is most appropriate to develop generation capacity and lowering the costs for energy supply.

Another benefit will be to provide more certainty for first movers regarding the recovery of costs, thereby keeping consumer costs down. Identifying energy zones would benefit from leveraging policies that enable access to renewables. For example, access to wind energy has been specifically addressed in the Waikato Regional Policy Statement (WRPS) as a recommendation of the Waikato Regional Energy Strategy.

Further, REZs could play a key supportive role to achieving the net zero goal by 2050 and perhaps going beyond to net negative. Better incentives for renewable energy production could create an opportunity for transitioning the New Zealand water-based economy to an energy-based economy. This would mean switching from water dependent exports to energy-driven exports such as e-transport fuels.

**National Q3 What region(s) do you think would be suited to Renewable Energy Zones?** WRC agrees that the regions mentioned in the discussion document (Northland, Taranaki, Wairarapa, Hawkes Bay, the East Coast of the North Island, the West Coast of the South Island, and Southland) would be potential candidates for developing the REZs, given their specific resource's availability and investment interests.

Further, the Waikato and Bay of Plenty regions also have potential to develop REZs, especially considering geothermal and process heat options. The Waikato Region has a robust grid backbone (Taupo to Auckland), which could provide benefits to decarbonising New Zealand's grid. Other alternatives include the use of low-temperature geothermal energy. We acknowledge these systems might not be best for home heating in the current New Zealand context, given our relatively low electricity costs, mild climate, and low housing density. However, we note that they can be suitable for larger buildings as demonstrated at Christchurch Airport\* and other sites.

WRC also believes that coastal areas and marine environments should be considered as potential zones for REZs given the abundant offshore wind and sunlight resources.

**National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?** Further to benefits already listed in the discussion document, we consider the following benefits should also be considered and be part of the decision-making process:

- Positive environmental outcomes, with a focus on indigenous biodiversity and Te Mana o te Wai.
- Positive outcomes for mana whenua.
- More efficient electricity supply (taking account of generation and transmission).
- A resilient transmission backbone grid.
- Lower costs to be passed on to consumers.
- Improve security of supply.
- Greater use of extracted resources.
- Reduce pressures on the Waikato River.
- Positive outcomes regarding climate challenges and natural hazards including consideration of future resilience of ecosystems.

**National Q5 Do you agree with the proposed guiding principles? Are there any that you would change** Overall WRC is supportive of having guiding principles. However, we consider the principles have missed key concerns regarding the effects on

**National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?**

WRC supports having criteria for selecting suitable regions. We consider that a customer focus approach is important when considering lower costs for energy and energy security. However, we consider that the nature of the connected renewable resource is fundamental for a REZ. That is whether the energy resource is wind-generated (dependent on exposed windy locations), or geothermal (dependent on developable geothermal systems), or solar (dependent upon extensive northly sun exposed surfaces). Therefore, WRC considers having REZs in areas/regions with low availability of energy resources would not be logical, considering the main purpose of the REZ; to enable renewable energy production and transmission (and distribution to consumers).

WRC suggests making the criteria hierarchical and dependent on resource availability. It is important having a robust criteria framework at the beginning; it will be beneficial during the later consenting stages of the process by avoiding potential delays due to RMA planning regulations.

WRC recommends further consideration to the criteria as it follows:

**National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?**

Yes, a tender process could be beneficial in case it is expected that there will be sufficient interest to make tenders competitive. However, it is imperative to structure the tenders in a way that does not give too much weight to price. Tenders judged too heavily on price can lead to the inappropriate allocation of risk leading to the potential for failed projects (and ultimately higher costs).

**National Q8 Who should be involved with coordinating and undertaking the various steps within a REZ development process?**

Transpower should take the lead developing and implementing the REZs, given its expertise in the topic, and should be overseen by the Electricity Authority. However, we believe other key authorities must also be involved.

We note that point 4.2 makes mention of engaging and consulting “with hapū that may be impacted by or may be interested in partnering.” We suggest this can be construed as iwi Māori having a passive role. We recommend instead engaging with iwi Māori whose rohe overlaps with the areas identified for potential REZs. Iwi Māori with rohe and/or connection to the land must be included in the scoping and policy development phases.

WRC also considers territorial authorities are essential in the development process, given their RMA functions and should have key involvement while being strategically overseen at the regional level. We note here again the importance of aligning the REZs with spatial plans and RSSs.

**National Q9 Do you agree with the proposed project criteria? Are there any that you would change or add?**

WRC agrees with the proposed project criteria. However, we believe further consideration must be given to:

- Access to technology, as this may be an issue for the tender participants.
- Capacity for maintenance of the infrastructure. Is it possible to build components in New Zealand or only overseas?
- Security of service.

**National Q10**      **Do you agree with the challenges we have identified?**

WRC agrees with the challenges. However further consideration should be given to other challenges such as national security for energy and potential covenants set for properties. Please see WRC's answer for Q12.

Given that one of the guiding principles for the programme is to do it without major changes to the regulatory framework, we do not consider changing the access regime to be a viable option.

We see some benefit to allow privately owned connections. However, this would need to include a mechanism to deal with third parties that are unable to continue to operate and maintain the connection, such as in the case of a company that owns a connection and goes bankrupt.

**National Q11**      **What are some of the ways to overcome these challenges and who should be involved?**

WRC believes the best way to overcome the challenges is by working together with key stakeholders and communities. Further, the REZs must be sensitive to right sizing with contingencies for new additions.

Given that one of the guiding principles for the programme is to do it without major changes to the regulatory framework, we do not consider changing the access regime to be a viable option.

We see some benefit to allow privately owned connections. However, this would need to include a mechanism to deal with third parties that are unable to continue to operate and maintain the connection, such as in the case of a company that owns a connection and goes bankrupt.

One option is to have a mixed system under the open access regime, when a new generator or load wants to join. These 'second movers' could be offered the possibility to join the REZ under conditions agreed with the existing partners; or pay for the connection and cover the costs on their own. Under both circumstances the costs should account for increased capacity and costs of upgrades. Having an option that allows new suppliers to join the zone

<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	<p>WRC considers that there are opportunities and challenges for developing and implementing the REZs. Energy independence is key for national security and efficient use of renewable energy resources would be a benefit in this regard.</p> <p>As a challenge we have identified the potential risk that people buy land around prospective or established REZs to bank the land. Access to land might be a barrier for people wanting to develop the REZ or to enter into an existing REZ if the land prices are too high.</p> <p>Transpower should carry out further analysis to understand the interactions between existing legislation in the context of access to resources and land to develop REZs. This should include the Local Government Act 2002, the Land and Soil Conservation Act 1945 and the Marine and Coastal Area Act among others. Further analysis should also include the three new Acts that will come as a result of the changes to the resource management system, i.e. the Natural and Built Environment Act, the Spatial Planning Act and the Climate Change Adaptation Act.</p>
<b>National Q13</b>	<b>Any further comments:</b>	<p>All WRC comments were included in the questions listed in the discussion document.</p>
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	<p>No comment</p>
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	<p>WRC is supportive of the pilot REZ in Northland. It is a suitable area for the pilot given its positive resource potential and significant capacity available in the grid. The high level of developer and other stakeholder interest in the region's economic growth will facilitate the feasibility of the process.</p> <p>This is also a good opportunity to test the process, including consultation and approval from Tangata Whenua/Iwi/Hapū.</p>
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	<p>WRC is supportive of the pilot REZ in Northland. It is a suitable area for the pilot given its positive resource potential and significant capacity available in the grid. The high level of developer and other stakeholder interest in the region's economic growth will facilitate the feasibility of the process.</p> <p>This is also a good opportunity to test the process, including consultation and approval from Tangata Whenua/Iwi/Hapū.</p>

<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	<p>WRC believes the potential benefits are:</p> <ul style="list-style-type: none"> <li>•Improvement in efficiency of the system, both value per unit of energy and GHG/unit.</li> <li>•Lower cost of energy to consumers.</li> <li>•Improvement in security of supply.</li> <li>•Enabling job creation.</li> <li>•More certainty regarding environmental regulatory processes.</li> <li>•Positive outcomes for the environment, especially regarding effects on indigenous biodiversity and/or significant indigenous vegetation and habitats.</li> <li>•Positive outcomes for Mana Whenua.</li> <li>•Supportive role to achieve the net zero goal by 2050.</li> </ul>
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	<p>WRC believes potential costs will be mostly related to the environment, including loss of biodiversity, landscapes, and amenity.</p> <p>WRC is also concerned of losses of Mauri values.</p>
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	<p>WRC is supportive of the approach, provided lags in upgrading the lines do not unduly delay the processes. Consideration should also be given to inter-regional alignment through the National Planning Framework, part of the RM reform.</p>



<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	<p>WRC believes new corridors should be built in areas:</p> <ul style="list-style-type: none"> <li>•Free of natural hazards</li> <li>•Where there are no projected effects of climate change and new lines must be designed to allow adaptation to these changes</li> <li>•Outside high class soils</li> <li>•That don't compromise the use of existing and planned infrastructure, including transport infrastructure</li> <li>•That connect well with existing and planned development and infrastructure</li> <li>•Away from mineral resources</li> <li>•That minimise carbon use, including private motor vehicle usage</li> <li>•Where the development will not cause any adverse effects on indigenous biodiversity and/or significant indigenous vegetation and significant habitats of indigenous fauna</li> <li>•Where the development will not negatively impact landscape values and/or historic and cultural heritage</li> <li>•Where the development will not cause adverse effects on natural hydrological characteristics and processes</li> <li>•Where it will not result in incompatible adjacent land uses</li> <li>•Where the development will not negatively impact the Vision and Strategy for the Waikato River in the Waikato River catchment</li> <li>•Where the development will not negatively impact ecosystem services; and</li> <li>•That leverage existing corridors. (Want to avoid proliferation of corridors that lead to decimation of the landscape by a thousand cuts).</li> </ul>
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	No comment.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No comment.
<b>Northland Q10</b>	<b>Any further comments</b>	All comment from WRC were inserted in the answers.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Zela Charlton
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	
<b>Role (if applicable)</b>	
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes, seems obvious
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	With Climate changes accelerating fast it is essential that NZ tries to mitigate the effects. This is global, not just local.
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	Northland ok but must be introduced in as many areas as possible.
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	Basically, - way to do something to help with approaching changes .
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	Seems a starting point.
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	I assume experienced people have been doing research - so I agree
<b>National Q7 Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	I am always a bit doubtful re tenders. Who would be deciding on which tenders to accept ? What would be criteria and who would draw those up ?

<b>National Q8</b>	<b>Who should be involved with coordinating and undertaking the various steps within a REZ development process?</b>	Although I understand feeling that things must be discussed by all interested parties, I believe this matter is urgent, so find just three honest experienced people and hand it to them. Otherwise there will be long delays with endless discussions, meetings where people with more ego than knowledge will argue about where a comma should be places.
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	Basically ok
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	To some extent, but it needs to be expedited not delayed till perfect.
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	Not sure
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	Challenge is to act fast.
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	See previous answers
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	All of these. Get on with it or fire, floods, social unrest , etc will mean it is too late.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	I would consider, rather, the costs of NOT doing REZ

**Northland Q6**    **Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?**    Seems yet another delaying tactic. Ask experts for most efficient way to get on ..

**Northland Q7**    **If new lines needed to be built to connect resources, where should they be constructed/not constructed?**    Again -don't ask people who have no idea of this but get professionals advice.

**Northland Q8**    **Are there alternative proposals that you think we should consider?**    Will take too long to look into using tides. - and I don't want nuclear power.

**Northland Q9**    **Do you have development projects that a REZ might assist you to construct and connect?**    No

**Northland Q10**    **Any further comments**

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Brigit Anne Manning
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Myself
<b>Role (if applicable)</b>	Daughter, mother, technical writer
<b>Town/City</b>	Kerikeri
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, provided that the benefits primarily flow to ordinary people living in this area. I believe that developing several forms of renewable energy simultaneously can help to balance both energy generation capacity peaks and troughs. Also, to a more limited extent, some forms of renewable generation (wind) can increase and decrease according to our demand for electricity.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	I believe the opportunity to plan generation capacity is critically important in making it easier to connect sources to the national grid - and making it easier to maintain balance on the national grid.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Benefits to local communities depend very much on Environmental and aesthetic impacts are the obvious costs. Less obvious are the ethical costs known to be associated with renewable technologies - exploitation of miners, whole of life environmental impacts of the plant.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	<p>I believe that all renewable energy development should be planned to minimise dependency on the national grid. This means developing generation capacity incrementally to match local energy demand by consumers as much as this is possible. The beauty of renewable energy is that in many cases (not hydrothermal) it is by nature distributed across the country (wind, solar). The beauty of hydrothermal is that it can be used to balance peaks and troughs in supply and demand across the other forms of renewable.</p> <p>I would prefer a vision of the future national grid to be not as a bulk transporter of energy from remote sources to concentrations of demand, but as a balancing mechanism between distributed zones of renewable generation that are planned to mostly match consumption. This is a good long-term strategy for development. Renewable energy development should not be planned to the maximise utility of the national grid. Rather, decreasing dependency on the national grid should be anticipated - and critically important alternative uses for this national asset should be planned, enabled and phased in.</p>
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	See above comment
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	<p>I think it's important that domestic energy self sufficiency also be supported by local and national energy policies. I believe domestic energy self-sufficiency has very little environmental downside, but is plagued by cost barriers. It's important to keep domestic energy self sufficiency in the picture of an energy vision for Northland.</p> <p>Blockchain technology has been used in Germany to balance supply of energy from local renewables to the national grid and I'm impressed that this is a good approach.</p>
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No, but I would like to assist with the technical and business writing these projects will need.
<b>Northland Q10</b>	<b>Any further comments</b>	Thank you for the opportunity to make this submission.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Giacomo Caleffi
<b>Which consultation is this submission for?</b>	Renewable Energy Zones National Consultation
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Copenhagen Infrastructure Partners and NZ Super Fund
<b>Role (if applicable)</b>	Senior Business Development Manager
<b>Town/City</b>	Wellington
<b>Are you a developer?</b>	Yes
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes, especially in the case of new capital-intensive renewable energy technologies such as offshore wind energy which also have to deal with the lack of a dedicated regulatory environment.
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	Yes, by enabling better distribution of generation to areas with high renewable energy resources and improving the resilience of the electricity system.
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	<p>The Taranaki region satisfies all the criteria suggested in section 4.3:</p> <ul style="list-style-type: none"><li>•Several local and international developers including CIP/NZ Super are looking at the opportunity of developing offshore wind farms off the coast of Taranaki.</li><li>•Preliminary studies suggest that transmission capacity is likely to be the main constraint to large new generation in Taranaki.</li><li>•The offshore wind resource off the Taranaki coast is world-class.</li><li>•Additional generation feeding into the Taranaki grid would reduce dependence on South Island generation to supply large load centers such as Auckland.</li><li>•A successful offshore wind industry will provide an opportunity for Just Transition for Taranaki, gradually moving away from fossil fuel extraction and towards renewable energy and green export products.</li></ul>



<b>National Q4</b> What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?	<ul style="list-style-type: none"> <li>•Enable new forms of renewable technology by removing first mover disadvantage.</li> <li>•Enable large renewable energy projects in areas with the best resources</li> <li>•Streamline and incentivize investment in large renewable generation</li> <li>•Provide employment stimulus to regions</li> <li>•Allow lower electricity prices by reducing grid connection CAPEX</li> </ul>
<b>National Q5</b> Do you agree with the proposed guiding principles? Are there any that you would change	Guiding principle 02 – that the REZ are fully customer driven and are only built where there is clear demand from generation or load developers –
<b>National Q6</b> Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?	We agree with the criteria.
<b>National Q7</b> Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?	The tender process is a valid one. We suggest that the process is designed in such a way as to not penalize new renewable energy technologies such as offshore wind which have different development times, investment milestones and overall complexity compared to technologies such as onshore wind or solar.
<b>National Q8</b> Who should be involved with coordinating and undertaking the various steps within a REZ development process?	<p>We see the REZ concept as having a wider reach than the current scope proposed by Transpower. While sharing grid connection costs is useful, much of the success of large energy infrastructure projects such as offshore wind depends on a clear regulatory framework with coordinated access to government agencies working together.</p> <p>In order to meet New Zealand’s decarbonization objectives, regions labelled as ‘Renewable Energy Zones’ should be subject to a streamlined consenting process dealing with just one or few agencies (one-stop-shop) which could also coordinate the grid connection cost-sharing tender.</p>
<b>National Q9</b> Do you agree with the proposed project criteria? Are there any that you would change or add?	We agree with the criteria.

<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	<p>We agree that the open access regime to transmission represents a project risk for new generation developers, since any successive generation built on the same connection line which is able to bid at lower wholesale prices will be selected for dispatch if the grid is constrained. The timing of the grid connection is indeed a major challenge for the funding process of large renewable energy projects, and it will be challenging to align the processes amongst several developers and Transpower. It would be desirable if Transpower would take a certain portion of the development risk, in order to reduce the uncertainties for the developers.</p>
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	<p>Various access regime possibilities and ownership models are being explored in the proposed REZs in Australia (VIC and NSW), and several concrete frameworks are proposed and the industry being consulted. To explore the opportunities and possibilities in New Zealand it is recommended to conduct a similar process once concrete access and ownership frameworks possible under the New Zealand regulations are mapped by Transpower.</p>
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	<p>As mentioned in Q8, there is an opportunity to develop the concept or REZ further, to include simplified consenting and a coordinated regulatory environment favorable to renewable energy. We understand this goes beyond the scope outlined by Transpower in this consultation document but we do suggest that grid connection cost sharing is seen as a one of the key components of this more articulate REZ concept.</p>
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	

**Northland Q3** Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.

**Northland Q4** What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.

**Northland Q5** What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.

**Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider?

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Adrienne Miller
<b>Which consultation is this submission for?</b>	Both
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Infrastructure Sustainability Council
<b>Role (if applicable)</b>	General Manager, New Zealand
<b>Town/City</b>	Tamaki Makurau
<b>Are you a developer?</b>	No
<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	Yes my understanding is it may operate as a disincentive/barrier to the funding of additional capacity as parties other than those paying for the upgrade may end up taking the benefits of additional distribution capacity
<b>National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>	
<b>National Q3 What region(s) do you think would be suited to Renewable Energy Zones?</b>	
<b>National Q4 What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	I think its imperative when we are making any investment in infrastructure (usually significant capital outlay) that we consider what more we can do to achieve broader outcomes across social environment and economic heads. Climate change adaptation and mitigation and long terms resilience are also important. Building localised human capability to both construct and maintain assets are also important particularly with the disruption climate change is likely to cause for us.
<b>National Q5 Do you agree with the proposed guiding principles? Are there any that you would change</b>	yes
<b>National Q6 Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	I like the idea of the regions and consider it is important that we tap into both energy need and also preexisting workforces and infrastructure that are needing to transition away from conventional energy generation

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

I do wonder about use of a NZCC authorisation process too in terms of validating contractually determined access rights particularly where they are multilateral. Other regulatory process such as OIO may also be relevant.

**National Q8** Who should be involved with coordinating and undertaking the various steps within a REZ development process?

**National Q9** Do you agree with the proposed project criteria? Are there any that you would change or add?

**National Q10** Do you agree with the challenges we have identified?

In addition in terms of the NZ environment it also occurs to us that if the commercial arrangements in and around development of the REZ and or access rights to the transmission capability created give rise to  
A) competition law issues to be resolved through a NZCC Authorisation process or similar (with renewable energy participants perhaps likely to be actual or potential competitors); OR  
B) Overseas Investment Office considerations (perhaps at play in the case of renewable energy providers or those investing in or funding their infrastructure development from offshore)

**National Q11**      **What are some of the ways to overcome these challenges and who should be involved?**

The use of a common ratings tool like the IS Council IS rating tool on all the resultant renewable energy infrastructural assets comprising the REZ would yield a number of positive results for Transpower. It would enable benchmarking between asset types and quantification and aggregation of data on a range of quadruple bottom line outcomes, so as to be able to easily capture, articulate and report on REZ successes.

To the extent these delivered on the Living Standards Framework wellbeing outcomes and aspirations around climate change, response, decarbonisation and asset resilience (which they are likely to do based on our mapping work- available upon request) they will also be aligned with stated central and local governmental policy positions. Achieving supplemental outcomes in addition to the existence of renewable energy itself is an additional layer of benefit for NZ Inc and is likely to result in more favourable regulatory and policy positions for the proposed zones and better results from a stakeholder and social licence perspective.

There has been some use of the scheme in similar precinct and program applications in Australia.

**National Q12**      **Do you see any other potential challenges that need to be considered?**

**National  
Q13**

**Any further comments:**

I wished to draw the attention of the team working on the REZ to the Infrastructure Sustainability Council and our rating tools which I think would be of considerable benefit both in the upgrade of the transmission assets in the case of the Northland REZ and the resultant renewable energy assets developed by participants in any of the proposed Renewable Energy Zones established.

The Infrastructure Sustainability Council is a member based NFP operating in Australia and Aotearoa New Zealand. It owns and operates the IS Rating Scheme. The IS Rating Scheme is a globally recognized sustainability performance standard for infrastructure assets. It incentivises and drives innovation, circular economy, decarbonisation, asset resilience as well as a raft of broader outcomes across a comprehensive quadruple bottom line (the whole of life cycle of an asset from creation to adaptation, reuse and decommissioning is assessed together with its impact socially, culturally economically and environmentally). Results achieved are third party verified.

Developed by the sector for the sector, and in use for over ten years, there is good understanding of the rating tool across key sustainability consultants both sides of the Tasman, particularly in the major engineering firms - most of whom are active IS

Council members.

The tool is used by developers, public sector procurers and investors to assist them in demonstrably measuring impacts, identifying opportunities for the reduction of carbon and other undesirable externalities and better delivering and reporting on their own sustainability achievements. It derisks that reporting given an objective and respected standard is used and the process involves third party verification.

It has been used extensively by public sector procurers in Australia with increasing uptake and interest in usage within Aotearoa. Waka Kotahi has now mandated use of IS ratings tools on projects over \$15M; it is being applied on projects forming part of the NZUp program to incentivise best practice and drive innovation. Other significant organisations which have deployed the Scheme here in NZ include City Rail Link, Watercare, Auckland Council, Auckland Transport, Ports of Auckland, Auckland Airport and Kiwirail ( a recent member). Across Australasia capital projects in excess of \$210B have undergone or undergoing rating. A new tool for smaller projects IS Essentials is currently in pilot. Already used as the assurance tool for sustainability bonds (T-Corp NSW), debt facilities (Clean Energy Finance Corporation) and under consideration for sustainability linked loans (commercial-in-



sustainability linked loans (commercial in confidence), Reliance rail; the level of repeatability and consistency driven by the scheme enables those offering preferential (or exclusive access) to capital to mitigate project delivery and climate-related risk and better objectively assure emission reduction outcomes as against comparable NZ assets. The scheme takes a systemic, long term, big picture view that aligns with the UN Sustainable Development Goals and the NZ Living Standards Framework as well as frameworks like the broader outcomes framework recently released by MBIE. The scheme rewards alignment with Indigenous peoples wherever it is applied leaving “Space for the place” on co-design, stakeholder, co-governance, workforce and leadership development; D&I, history, legacy and placemaking. Given pressure from Government procurement and the Office of the Auditor General around public sector progress on implementation of such frameworks and our steps as a nation to meet international climate change commitments, these alignments are particularly significant for those asset owners or funders from the public sector. The IS Council is a supplier listed on the Ministry for the Environment’s Carbon Neutral Government Program lists. It is also a member of the CSA network and works with WaterNZ, INZ, Infracom and IPWEA here in NZ.

<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	We would be keen to rate both the upgrade to the transmission assets and the RE assets that followed
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No

Northland Q3	Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.	yes
Northland Q4	What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.	Workforce development/capability and expertise built/Social and employment outcomes/Cutlural values and tikanga being honoured and upheld/resilience in terms of climate change/innovation/reduced water and energy use during construction and over the life cycle of the assets
Northland Q5	What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.	The better question is not just cost but the return on investment from the assets and capacity built across the quadruple bottom line and the asset resilience achieved.
Northland Q6	Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?	yes
Northland Q7	If new lines needed to be built to connect resources, where should they be constructed/not constructed?	
Northland Q8	Are there alternative proposals that you think we should consider?	
Northland Q9	Do you have development projects that a REZ might assist you to construct and connect?	No

**Northland**    **Any further comments**  
**Q10**

We are keen to get the opportunity to present to the team involved on the benefits offered by the Infrastructure Sustainability Council and our ratings tools and to present case studies where the tools have been applied in related situations. We believe the verified nature of the outcomes achieved may also help address some particular regulatory challenges that may arise in this situation and will assist with broader stakeholder and social licence also. The work done in Tamaki Makaurau in conjunction with the local mana whenua forum on the CRL and Central Interceptor Projects will also we envisage be of interest in terms of stakeholder planning.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Todd Jenkins  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)** Quail Ridge Country Club Limited

**Role (if applicable)** CEO  
**Town/City** Kerikeri

**Are you a developer?**

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes, we need to protect our future with renewable sources of energy
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Hopefully provide sustainable energy sources away from fossil fuels
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes

- Northland Q7**    **If new lines needed to be built to connect resources, where should they be constructed/not constructed?**    Do not have enough knowledge to comment
- Northland Q8**    **Are there alternative proposals that you think we should consider?**    Any source other than fossil fuels.
- Northland Q9**    **Do you have development projects that a REZ might assist you to construct and connect?**    We are developing a large retirement village in Kerikeri and would like to invest more in solar power
- Northland Q10**    **Any further comments**

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Vaughan Cooper
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Northland Inc- Regional Economic Development Agency
<b>Role (if applicable)</b>	Acting CEO and General Manager Investment & Infrastructure
<b>Town/City</b>	Whangarei
<b>Are you a developer?</b>	No
<b>National Q1</b>	<b>Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>
<b>National Q2</b>	<b>Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?</b>
<b>National Q3</b>	<b>What region(s) do you think would be suited to Renewable Energy Zones?</b>
<b>National Q4</b>	<b>What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>
<b>National Q5</b>	<b>Do you agree with the proposed guiding principles? Are there any that you would change</b>
<b>National Q6</b>	<b>Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>
<b>National Q7</b>	<b>Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>

**National Q8** Who should be involved with coordinating and undertaking the various steps within a REZ development process?

**National Q9** Do you agree with the proposed project criteria? Are there any that you would change or add?

**National Q10** Do you agree with the challenges we have identified?

**National Q11** What are some of the ways to overcome these challenges and who should be involved?

**National Q12** Do you see any other potential challenges that need to be considered?

**National Q13** Any further comments:

**Northland Q1** Would you invest in a Northland REZ if there was an opportunity to? We would not invest, but as the Regional EDA we are interested in supporting investors who are interested

**Northland Q2** Have you previously applied to connect to a network in Northland? No



**Northland Q3** Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.

As the region’s economic development agency, Northland Inc supports the development of a Renewable Energy Zone (REZ) in Te Taitokerau, through partnership and collaboration with key regional stakeholders. Paramount, is the development and implementation of a zone which aligns with our Tirohanga ki Mua/Vision “An economy that supports a prosperous and thriving Te Tai Tokerau Northland that respects all people, past, present and future, and cares for the environment we all share”, and our Te Aronui /mission “To identify and focus on those activities and relationships that will strengthen, diversify, and grow Te Tai Tokerau Northland economy to help achieve equity and environmental sustainability”.

We welcome that accelerating the deployment of renewable energy will support a sustainable economic transition, create new employment opportunities, enhance wellbeing, and contribute to a climate safe future for both the region and New Zealand. It is also important to consider that in pursuing this endeavour, there is an Article 3 Te Tiriti O Waitangi responsibility to ensure that Tai Tokerau Māori receive equitable benefits from any development and are not disadvantaged as a result.

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Northland already produces renewable energy from geothermal sources and with its abundance of sunshine hours and areas of high wind, there is real opportunity to continue to attract and drive investment into other renewable energy sources. Within the last few years there has been substantial interest from a range of investors and the development of a REZ will create clearer pathways forward for them and provide local regulatory bodies with consistent frameworks for implementation.

With Refining NZ transitioning from refining crude oil to Channels Infrastructure's import terminal, Northland is set for a significant economic impact in the coming years as it loses a large GDP generator and employer of specialised and high paying jobs. Over its two-year transition over 240 jobs will go. The development of a REZ in Northland will enable the region to transition some of these skillsets to opportunities that more heavily supports New Zealand's overarching goals of decarbonisation. Northland's proximity to Auckland, which is a key energy market, and the ability to potentially utilise the Marsden to Auckland infrastructure that already exists only strengthens this opportunity.

**Northland Q4** **What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.**

Important to us and as can be seen in overseas examples, the establishment of renewable energy zones and investment in locally available renewable energy sources and associated industry has provided the areas/regions with a wide range of environmental and economic benefits, including reduced carbon emissions, the generation of more employment opportunities, higher earnings for the local communities and higher local output/productivity.

Investment in renewable energy could have the potential to enhance energy security through diversification of supply and lower energy costs can be used as an enabler for growing investment from within the region such as hapu and iwi and/or attracting investment into the region, encouraging new load growth, business growth and supporting job creation (both during construction and ongoing maintenance). Through the multiplier effect the wages and salaries earned by industry employees then typically go on to generate additional income and jobs in the local economy.

If the development of the REZ enables energy costs to be lower, it could support lower energy prices to

**Northland Q5** **What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.**

With the establishment of a REZ it is likely that at some point investment will be needed to either upgrade existing infrastructure or develop new infrastructure to facilitate connections to areas of new generation. It is important that our community does not pay more for electricity/power as a result of this need- Northland already has pockets of high levels of deprivation and the development of a REZ should not exacerbate this. We would not want our communities, especially our smaller rural ones, to be put in a position where they would underwrite these investments in the event of a developer failure.

From an economic perspective the region and more

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	<p>Yes, in principle we support the efficient utilisation and maximisation of potential of existing assets as a starting point for any growing demand for new connections to the network.</p> <p>However new assets/infrastructure are likely to be required to connect generation that is located quite a distance from existing transmission assets, e.g. the sites that investors have been typically been attracted to for both solar and wind farms have been in more remote/rural communities that have limited connections already.</p>
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	<p>Consultation and engagement is critical in the planning and development of any new infrastructure and our expectation is that the process will be worked though in a collaborative way with hapu/iwi/land owners/communities. This should not be a predetermined process and instead should be guided by where there is current limitations in the system, as well as where renewable energy sources are likely to be constructed/clustered.</p>
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	<p>No</p>
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	<p>Yes, as the regional economic development agency for Te Taitokerau we have a range of inward investment opportunities/development projects that we are currently working with. There is a real desire to support the growth of the manufacturing sector in the region and some of the investments in this sector will require a large amount of power supply. Investments, if/when they come to fruition are likely to be clustered around Te Hiku, the Mid North and Whangarei City to Marsden Point.</p>
<b>Northland Q10</b>	<b>Any further comments</b>	

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

**Name** Dr Emily Henderson  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)** I am the MP for Whangarei Electorate, writing in my personal capacity.

**Role (if applicable)** I am a long-time resident of Whangarei and MP for the electorate.

**Town/City** Whangarei

**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change?

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	I would certainly support investment but am not myself an investor.
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes. I am very much in favour of this initiative which I see as having huge potential to assist Northland to unlock its resources and become more self-sufficient, and kick-start economic growth in the region. We have been a long over-looked region and our population is among the most deprived in NZ. We struggle to attract industry and development due to high power pricing. The potential to lower power prices in our region would hugely assist to
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	The economic benefits of this proposal are massively important, as is the environmental impact of moving to renewable energy.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	I am conscious of the need to ensure mana whenua are involved in and benefit from this which is difficult pre-treaty settlement. I am also concerned that the interests of local communities are met in the final design so that our communities benefit

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	As I understand it the primary need is for an east-west transmission line.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	
<b>Northland Q10</b>	<b>Any further comments</b>	Te Tai Tokerau has the natural resources and the community engagement to make this project a

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Daniel Cunningham  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept

**Who you are representing, i.e. iwi, organisation (if applicable)** Lodestone Energy Limited

**Role (if applicable)** GM, Development

**Town/City** Auckland

**Are you a developer?** Yes

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?



<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	Yes
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Lodestone is in support of a REZ development in Northland. We have provided additional commentary in the National Consultation on recommended changes to ensure the REZ concept is implemented successfully.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Lodestone believes a REZ in Northland would result in benefits to the Northland region, Auckland region and nation. Adding significant renewable generation in Northland will reduce nodal prices in the region and likely reduce system losses in the country as Auckland load will be served from both north and south.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Lodestone understands the majority of the interest for connecting new renewable generation is on the northwestern parts of the Northland region, which will require the most network investment. If the REZ is implemented it will result in dramatically lowering energy costs in the region as nodal prices will fall and generators will pay in increased share of connection charges. The cost to generators should consider the larger benefit to the region.

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes - Lodestone has recommended a mechanism for funding such upgrades in the National Consultation document.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Lodestone doesn't have perfect information as to the location of proposed generation. However, the lines should be constructed in locations that result in the most cost efficient addition of new capacity.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Yes - Lodestone has recommended a different funding model as part of the National Consultation.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	Yes.
<b>Northland Q10</b>	<b>Any further comments</b>	

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

<b>Name</b>	Daniel Cunningham
<b>Which consultation is this submission for?</b>	Renewable Energy Zones National Consultation
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Lodestone Energy Limited
<b>Role (if applicable)</b>	GM, Development
<b>Town/City</b>	Auckland
<b>Are you a developer?</b>	Yes

<b>National Q1 Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?</b>	<p>There is a first-mover disadvantage in connecting renewable generation.</p> <p>The disadvantage is the first generator, paying for a full upgrade, has no contractual rights to rely upon utilise the assets they paid for. In this way, a second generator can free ride on the cost and only share in curtailments. This is particularly true with solar, as all generators in the vicinity will be generating simultaneously at zero marginal cost; meaning it is not reasonable to rely upon dispatch merit orders to determine an allocation of benefit.</p> <p>In the case where two generators are connecting, it is also quite likely the first-in generator pays higher first increment costs and the second generator pays for a smaller incremental cost (for the same level of service); particularly if the upgrade includes system safety elements that will provide benefits to all generators and loads connected to the assets.</p> <p>We would recommend that Transpower be allowed to charge generators a pro-rata allocation of asset upgrades through 'leasing capacity' arrangements to connected parties, where curtailments can be chosen in exchange for a lower cost for access to the grid. This mechanism would allowed generators to control their destiny by accepting the trade-off of</p>
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'cost' and 'interruption' or chose to store energy in plant-side battery storage.

We also recommend that any new generation connections also required Transpower to assess the benefits to load as fixed and variable connections charges, nodal price benefits and system stability benefits can accrue to non-generators. The assessment of these benefits can be allocated through a pre-defined regulatory process. With these changes, NZ will accelerate its goal of moving to 100% renewable energy by 2030 as less economic locations could become economic with a fairer distribution of costs.

**National Q2 Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?**

In the context of moving to 100% renewable by 2030, having increased incentives for renewable energy and a commitment for a system with ample capacity for renewables, in identifiable locations, is very sensible.

However, we believe that declaring Renewable Energy Zones will only be beneficial if it provides Transpower an ability to enter into a new form of arrangements (as discussed in Q1 above).

We recommend that once Transpower identifies a REZ it simultaneously commits to:

Scalable – Declaring the economic take-away capacity that the REZ can scale to and ensure the market that the economic level of grid capacity will be built if generators commit to paying the incremental connection costs.

Adaptable – Implementing re-tooled incremental cost sharing mechanisms and firm, non-firm connection agreements; as described above. This would include assessing the benefits for loads as a result of the investment.

Bankable – Enables a secure environment for generators so they can depend on access to market well into the future. This will increase success rates of development as uncertainty will severely limit the success of the REZ.

<b>National Q3</b>	<b>What region(s) do you think would be suited to Renewable Energy Zones?</b>	<p>The regions identified are reasonable. An additional criteria might be placed on regions that will bring total system losses down.</p> <p>We agree the Northland region should be considered first as it would specifically benefit from reduced transmission losses (as Auckland load would be serviced from both North and South).</p>
<b>National Q4</b>	<b>What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?</b>	<p>Benefits to include in the analysis:</p> <ul style="list-style-type: none"> <li>•Maximum economic scale of renewable energy</li> <li>•Net effect on energy prices nationally</li> <li>•Net effect on nodal prices</li> <li>•Net effect on the price of carbon</li> <li>•Net effect on adding lower cost power for transport electrification nationally</li> <li>•Regional benefits as historic hydro and geothermal development.</li> <li>•Lowering of system losses</li> <li>•Overall cost impact on all electricity loads</li> </ul>
<b>National Q5</b>	<b>Do you agree with the proposed guiding principles? Are there any that you would change or add?</b>	<p>As mentioned above, generation development will be limited with Principle 7 as the requirement for generators to fund connection upgrades without a firm contractual benefit is a barrier. Solving the contractual problem with ‘paying for a service’ and then potentially being ‘denied that service’ is essential.</p>
<b>National Q6</b>	<b>Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?</b>	<p>The ‘Other proposed criteria’, access to good renewable resource, potential added benefits to the grid, and additional economic and social benefits should all be included as base criteria.</p>
<b>National Q7</b>	<b>Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?</b>	<p>Yes we would support this approach.</p> <p>Alternatively, as incremental investment comes along, up to a declared economic level, sharing of the costs along the lines of a ‘pipeline cost sharing mechanism’ would gain our support as well.</p> <p>What is essential is to demonstrate fairness and provide equal levels of service for equal pay. The concept of ‘non-firm’ rates and ‘firm’ rates access could also be supported.</p>

<b>National Q8</b> Who should be involved with coordinating and undertaking the various steps within a REZ development process?	All parties involved should include: Transpower, network companies, generation developers, EA, Commerce Commission.
<b>National Q9</b> Do you agree with the proposed project criteria? Are there any that you would change or add?	The project selection criteria are sufficient. However, weighting of progressed stage of various criteria will become a key point of consideration as there needs to be ability to differentiate different generation project scores.
<b>National Q10</b> Do you agree with the challenges we have identified?	<p>Yes – timing will be particularly sensitive in the ‘Generator connects within distribution network’ case as coordination with Networks, Transpower and Generators will be difficult.</p> <p>In this scenario, generators may also struggle to determine feasibility as timing of understanding network upgrade cost must align with REZ process.</p> <p>A couple of additional challenges in ‘Generator connects within distribution network’ case are:</p> <ol style="list-style-type: none"> <li>1.Capacity for networks to this level of interest. Typically renewable energy zone networks are at the edges of the grid and as smaller networks, they tend to have less human resource capacity and less ability to servie the needs of generators;</li> <li>2.Network connection priority is misaligned with transmission connection priority. It is important the process are aligned.</li> </ol>
<b>National Q11</b> What are some of the ways to overcome these challenges and who should be involved?	<p>Compose a set of rules that engage the stakeholders in Q8 above to:</p> <ul style="list-style-type: none"> <li>•Outline to economic capacity for the REZ</li> <li>•Define the contractual mechanisms (sharing, allocation, non-firm, firm)</li> <li>•Register interest transparently</li> </ul>

<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	<p>An additional challenge is related to the Northland region opportunity. Once the connection upgrade is completed, the downstream network would have additional investments if the immediate location of the connection upgrade wasn't sufficiently sized to 'fill' the upgrade.</p> <p>The proposed upgrade at Maungatapere and Marsden will require further network investments to reach the high-interest development regions of both Northpower and Top Energy's networks (west coast).</p>
<b>National Q13</b>	<b>Any further comments:</b>	<p>We believe Transpower can justify committing to open pipelines for take-away capacity from REZ through a summation of benefits as outlined in Q4.</p> <p>Being ready for future growth, as Transpower identifies a REZ, is very much in keeping with how the grid evolved over the past century.</p> <p>Readying for growth is an efficient means of facilitating the connection of new renewables. If viewed through the previously suggested criteria oversizing comes out favorably, see below:</p> <p>Scalable – With transparency, Transpower could lead renewable development opportunities at the required scale, while minimizing the need for large, tendered developments.</p> <p>Adaptable – Transpower would respond to development interest so developers identify new opportunities and Transpower can adapt with smaller individual investments.</p> <p>Bankable – Initially, this creates more a more bankable solution as Transpower would create headroom for new capacity. However, certainty of level of service would be even better.</p> <p>With good management of the proposed processes,</p>
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	

**Northland Q3** Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.

**Northland Q4** What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.

**Northland Q5** What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.

**Northland Q6** Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider?

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect?

**Northland Q10** Any further comments



# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

**Name** Nathan James Beuker  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept  
**Who you are representing, i.e. iwi, organisation (if applicable)** geo civil technician  
**Role (if applicable)**  
**Town/City**  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	yes this is a good idea, it is essential four next step is suppling our own fuel/ energy without the cost of carbon being created.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	We can benefit through so many resources here in Northland, i think the west coast has huge potential for wind solar and hydro.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	New connections are essential to transmit energy

**Northland Q7** If new lines needed to be built to connect resources, where should they be constructed/not constructed?

**Northland Q8** Are there alternative proposals that you think we should consider? building a seawall powered by hydro turbines built along the wall, also using alternate wind tech (aero trees) or something else , create a marine sanctuary on the interior walls and tidal floats that generate electricity  
or creating a hydro dam on the wairoa river using solar pumps to fill the dam and have controlled hydro turbines with solar energy on exterior

**Northland Q9** Do you have development projects that a REZ might assist you to construct and connect? I'm a student doing a project in next year id like to follow REZ and be allowed to document a REZ project

**Northland Q10** Any further comments

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

Name Venessa Anich  
Which consultation is this submission for? Renewable Energy Zones Northland Pilot Concept  
Who you are representing, i.e. iwi, organisation (if applicable) An Individual  
Role (if applicable)  
Town/City  
Are you a developer? No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes because a good supply of energy will support Northland to prosper.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economic growth, and more jobs.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Location of wind or solar generation on Outstanding Natural Landscapes.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes, improving the existing system is a more pragmatic approach.

<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	New lines should be as discrete as possible, so follow gullies & low lying areas, rather than up & over hills. Underground is even better but appreciate there approach is substantially more expensive.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	An idea could be to send power generated on the west coast from Dargaville, down to Pouto, under the Kaipara Harbour and straight to feed Auckland
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	No.
<b>Northland Q10</b>	<b>Any further comments</b>	A REZ would have to be included in all the RMA plans & policies, e.g. NPS, RPS and District Plans.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

**Name** Martin Ough Dealy  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept  
**Who you are representing, i.e. iwi, organisation (if applicable)** An Individual  
**Role (if applicable)**  
**Town/City** Kerikeri  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

**National Q8** Who should be involved with coordinating and undertaking the various steps within a REZ development process?

**National Q9** Do you agree with the proposed project criteria? Are there any that you would change or add?

**National Q10** Do you agree with the challenges we have identified?

**National Q11** What are some of the ways to overcome these challenges and who should be involved?

**National Q12** Do you see any other potential challenges that need to be considered?

**National Q13** Any further comments:

**Northland Q1** Would you invest in a Northland REZ if there was an opportunity to? Yes

**Northland Q2** Have you previously applied to connect to a network in Northland?

**Northland Q3** Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.

Yes,as it will be a positive response to the climate change emergency as well as offering the ability to reduce the high costs of electricity in the region. There is a significant opportunity for retirees like me living in a retirement village to persuade the village owners to set up the village as distributed generation centers with a larger capacity to generate power as well as sell it within the village and export it to the grid. Retirement village owners need to be encouraged to support and become stakeholders in the REZ as they develop their villages. I am working from within my village as a resident to achieve that. To this end the village where I live has developed a solar energy policy supporting and encouraging villagers to buy solar systems with the aim of the village itself becoming a DGC and LEM .



<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Lower cost of energy, generation of power by from renewable sources, effective response to the causes of climate change and their mitigation, benefits to my retirement village community. support to local industry and economy
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Costs of installing a solar system, costs of supporting the development of the infrastructure needed in the grid to support individual and clustered home solar systems.
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes I support the development and upgrading of the existing lines and substations as necessary to enable the development of retirement villages as distributed generation centers and local energy markets
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Retirement villages and similar generators/consumers as clusters could become independent self-supporting generation and distribution centers.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	
<b>Northland Q10</b>	<b>Any further comments</b>	Time is of the essence in the current climate change emergency. It is vital that every effort to respond to it effectively is made as quickly as possible , including the establishment of the REZ

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

**Name** Linda May Bracken  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept  
**Who you are representing, i.e. iwi, organisation (if applicable)** Kaikohe Business Association  
**Role (if applicable)**  
**Town/City** Kaikohe  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	No
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	The Far North has an abundant renewable energy generation. They would very likely not proceed due to limited transmission line capacity unless a better model for sharing the cost of the transmission capacity upgrades is in place.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Economic The Innovation Enterprise park development is built around a circular economy approach to processing and manufacturing. Renewable energy generation is a part of this cycle and enabling such development will have direct economic benefit to an area with the highest deprivation.
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	The most important cost to us would be the risk of having to fund the initial improvement to transition lines to allow trial programs to proceed. Our current roading infrastructure may need to be improved to allow the establishment of sites, especially

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Yes.  This would be the quickest and most effective approach to building capacity that would enable generators to share costs based on their generation capacity.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	All proposals should take care to minimise adverse effects on areas with historical cultural and environmental values.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	We would like you to consider smart grid technologies that would enable better load balancing of generation and demand. This would enable small scale solar generators on homes to participate, in a managed way, plus also businesses and industries can have their electrical demands managed. All would help manage the increased peak loading likely to occur from the increased use of electric cars
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	The Kaikohe business association does not directly have a project but we are aware that businesses in the Innovation enterprise Park could be interested in small grid scale renewable generation.
<b>Northland Q10</b>	<b>Any further comments</b>	Development of renewable energy supplies provides alternatives in times of isolation / outages . One example being the North Hokianga required emergency assistance in times of recent tropical storms. Helicopter drops. It is important to provide alternatives for Businesses and medical needs at such times.

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

*Consultation dates: 28 February - 8 April 2022*

<b>Name</b>	Sheena Ross
<b>Which consultation is this submission for?</b>	Renewable Energy Zones Northland Pilot Concept
<b>Who you are representing, i.e. iwi, organisation (if applicable)</b>	Ngati Korokoro Hapu Trust
<b>Role (if applicable)</b>	
<b>Town/City</b>	Northland
<b>Are you a developer?</b>	No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?

<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	No. Ngati Korokoro Trust does not support the development of Renewable Energy Zones in Northland.  Creating Renewable Energy Zones over the whole of Northland disadvantages those communities at the end of the line if they were to consider setting up virtual power plants by having to apply for resource consents. Creating Unnecessary costs.
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	To those included in the pilot There is a possibility to make power cheaper May boost the economy Increase employment opportunities
<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	Costs of Resource consents New network lines Cost associate with feeding back into the grid

<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	Communities should be able to set up virtual power plants to cater for their own needs Option to feed back into the main network when power outages occur
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	Along main road networks
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	Limit REZ to main grid. Community virtual power plants and potential ability to connect to the network when outages occur
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	Yes. Ngati Korokoro Hapu Trust are considering virtual power plant for the Waimamaku Valley.
<b>Northland Q10</b>	<b>Any further comments</b>	

# Submission on the Renewable Energy Zones National Consultation and/or Northland Pilot Concept Consultation

Consultation dates: 28 February - 8 April 2022

**Name** Lynette Wharerau  
**Which consultation is this submission for?** Renewable Energy Zones Northland Pilot Concept  
**Who you are representing, i.e. iwi, organisation (if applicable)** Hokianga Housing Response Collective  
**Role (if applicable)**  
**Town/City**  
**Are you a developer?** No

**National Q1** Do you agree that the first mover disadvantage and high connection costs can be challenges for connecting new renewable generation and/or large electricity loads to the electricity network?

**National Q2** Do you think the concept of a Renewable Energy Zone could be beneficial in a New Zealand context?

**National Q3** What region(s) do you think would be suited to Renewable Energy Zones?

**National Q4** What benefits do you think should be considered in the decision-making process for Renewable Energy Zones in New Zealand?

**National Q5** Do you agree with the proposed guiding principles? Are there any that you would change

**National Q6** Do you agree with the proposed criteria for selecting suitable regions for REZ development? Are there any that you would change or add?

**National Q7** Do you agree with using a tender process for committing projects in a REZ? Are there alternative processes that could be considered?



<b>National Q8</b>	<b>Who should be involved with co-ordinating and undertaking the various steps within a REZ development process?</b>	
<b>National Q9</b>	<b>Do you agree with the proposed project criteria? Are there any that you would change or add?</b>	
<b>National Q10</b>	<b>Do you agree with the challenges we have identified?</b>	
<b>National Q11</b>	<b>What are some of the ways to overcome these challenges and who should be involved?</b>	
<b>National Q12</b>	<b>Do you see any other potential challenges that need to be considered?</b>	
<b>National Q13</b>	<b>Any further comments:</b>	
<b>Northland Q1</b>	<b>Would you invest in a Northland REZ if there was an opportunity to?</b>	Yes
<b>Northland Q2</b>	<b>Have you previously applied to connect to a network in Northland?</b>	No
<b>Northland Q3</b>	<b>Do you support the development of a REZ in Northland? Please provide your reasons as to why or why not.</b>	Yes - HHRC strongly supports the development of the trial REZ zones in Northland. We are strongly of the view these are needed all over rural Northland and Aotearoa.  HHRC believes that smart solar-wind-small hydro technology AND the use of smart grid- P2P /network elements will be essential to cost-effectively strengthen the power supply system to new and existing papakāinga / Māori housing developments in the Hokianga area. We are currently working collaboratively with Front-end Solar Technologies Ltd (FST) to develop an appropriate response to the MBIE “Renewable Energy on whenua Māori and for whānau wellness of Māori-led Housing solutions” program. We see that a local REZ network in partnership with Top Energy
<b>Northland Q4</b>	<b>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	The proposed “micro REZ” that we are working on, would offer economic, cultural, social and environmental wellbeing aligned with 6 of the 13-SDG's. The benefits to the local residents and to the Top Energy network.

<b>Northland Q5</b>	<b>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</b>	It is not so - much the costs as the benefits that are important to HHRC and our strategic intent to mitigate and manage strategic drivers for our clients. We appreciate that trials to find ways to equitably share the costs and benefits will be a challenge to all partners involved. This work is essential!
<b>Northland Q6</b>	<b>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</b>	With sound industry advice from FST, upgrades to existing networks may sometimes be required. HHRC believes that there is huge potential with modern technologies to (in many cases)only require“alternative developments”. This is expanded in our response in section 6 as guided by Ian Shearer of FST.
<b>Northland Q7</b>	<b>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</b>	FST advice that new lines are not needed for our proposed developments. However, we will appreciate ongoing conversations and discussions with with Top Energy network engineer on this issue.
<b>Northland Q8</b>	<b>Are there alternative proposals that you think we should consider?</b>	HHRC are grassroots aligned engagement collaborating with FST to develop local community(whānau /ahu whenua / hapū) owned solar farms and battery storage that will offer solutions that do not need upgrades to existing lines and networks. While improved (and more economical) electricity supplies to existing house holds is the initial target, our partners area so looking at developments such as agri-voltaic solar farms that will integrate a solar electricity resource with the benefits of improved agricultural animal health (provision of shade) and improved crops & plant growth, particularly on land areas that are regularly badly impacted during periods of high temperature/drought/low rainfall.
<b>Northland Q9</b>	<b>Do you have development projects that a REZ might assist you to construct and connect?</b>	Yes - HHRC are championing our whānau / hapū / Wai 2750 claimants partners. Therefore, we will be looking forward to discussing this proposal with Top Energy.
<b>Northland Q10</b>	<b>Any further comments</b>	FST recommend approach to Top Energy network engineers have been made and we await response