28 February 2020

Energy Markets Policy
Ministry of Business, Innovation and Employment
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To whom it may concern

Submission on Discussion Document: Accelerating renewable energy and energy efficiency

Thank you for the opportunity to submit our thoughts on the policy development process. We are excited by the Ministry's initiative to draw together a variety of expert reports, consultation documents and industry and community knowledge to achieve the zero carbon objective. The challenges in front of us are great, and so are the opportunities to create a more democratic resilient energy system that meets the needs of all New Zealanders, allowing us to thrive in our changing climate.

Your sincerely

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BLUESKIN ENERGY LTD

Introduction to Blueskin Energy Ltd

Blueskin Energy Ltd is a charitable company wholly owned by the Blueskin Resilient Communities Trust, an NGO that creates local climate solutions together with partners.

The Blueskin Resilient Communities Trust (BRCT) is a registered charitable trust formed in 2008 to collaboratively work on local climate solutions. BRCT is a legal body to provide a public benefit and achieve the long-term objective of building community resilience. Jeanette Fitzsimons is the Trust's patron and the Trust is governed by a volunteer board of community leaders representing different social and business networks and with diverse skills.

The genesis of the Trust was a significant storm event in 2006 that compromised electricity supplies, isolated parts of the community and caused significant damage to property. That storm awakened the community to the risks of climate change and catalysed a community response. Since that time, the Trust has been working in pursuit of its vision, mission and objectives:

Vision:
We will facilitate a positive, healthy, secure and resilient future for Blueskin Bay and linked communities and promote sustainable resource use.

Mission:
The Trust will act to strengthen our communities in the immediate, mid and long-term future, with emphasis on energy, food, water and community resilience.

Objectives:

1. *To develop and administer projects that provide education, support and resources to maximise locally based sustainable provision of energy, food, and water.*
2. *To develop and administer projects that provide education, support and resources to minimise energy use, encourage healthy homes and encourage sustainable households.*
3. *To secure and manage funding to achieve the stated goals of the Trust, and to stimulate local sustainable economic activity.*
4. *To develop and maintain relationships to achieve the stated goals of the Trust.*
5. *To ensure community partnership in any enterprises initiated by the Trust and to aim for the most equitable use of resources.*
6. *To foster linkages between organisations with objectives similar to, or complementary to, the Trust's own Vision and Objectives.*
7. *The Trust's goals and activity will always remain charitable.*

BRCT has pursued a variety of projects since its inception. These include relatively simple initiatives such as bulk firewood supply to the community to more complex things such as $780, 000 of home insulation retrofits, cosy home energy efficiency assessments and climate change and resilience action and advocacy.

In December 2013, BRCT formed Blueskin Energy Ltd (BEL) as a wholly owned charitable company to pursue the development of a small-scale wind energy generation project which would provide a resilient supply of electricity locally and whose profits would be returned to the community to fund both on-going and new resilience projects. The Dunedin District Council and Environment Court both rejected BEL's resource consent application on grounds of visual impact, and an appeal to that decision was not lodged.

In 2017 the Trust's company BEL launched the Blueskin Energy Network in partnership with emhTrade (www.ben.p2power.co.nz), an exciting technological offering connecting people and digital technology with machine learning in a fully commercial smart grid. The first customers were connected on the 6th of April 2018. It involves peer to peer trading and sharing energy within the local network.

Through 2019-2020 BEL designed, developed and constructed New Zealand's first 'climate safe house' to provide a warm, efficient and healthy living environment that is able to adapt to or be relocated to avoid sea level rise over time. The climate safe house is solar powered and connected to the Blueskin Energy Network. The climate safe house provides an adaptation template for coastal New Zealand and a demonstration of the interconnectedness of housing, energy, research and development.

BEL aims to demonstrate that we can transform our economy to zero carbon while increasing wellbeing.

We are living in a changing environment with a rapidly changing climate. While collectively we do make preparations for unpredictable events like fires and earthquakes, we are poor, as a society at investing in solutions for the long emergency of climate change. Our changing world requires us to innovate and be creative and we believe now is the time for government to build the legal and policy framework to ensure that the transition to zero carbon by 2050 is fair and just for all New Zealanders, and allows widespread civic engagement and innovation.

Context for our submission

Since BEL was established in 2013, our company has sought to democratise our local energy system and provide flax-roots solutions and resilience. Along the way we have encountered barriers to the development of Distributed Energy Resources (DER) and have built good industry partnerships in the development of innovative solutions. Projects include:

- 'Blueskin Wind'[1], a community initiated project to develop a small wind farm embedded in the local network supplying the local substation and its 1000 connected households:
    - BEL's Resource Consent application was lodged in 2015, and the Environment Court decision was provided in 2017.
    - Contributions from community donations, pro bono experts, the Environmental Legal Assistance Fund and industry are estimated to be worth more than $500, 000

[1] *Blueskin Energy Limited v. Dunedin City Council* [2017] NZEnvC 150

    - The rejection of the Blueskin Wind demonstrates inadequacy of the Resource Management Act and its associated costs and inertia in dealing with renewable electricity projects.

- The 'Blueskin Energy Network'[2], a successful pilot of a community/commercial partnership and renewable energy power retailer, selling cheaper local power to its local community, seeking to grow into a significant community enterprise selling cheaper power to New Zealanders nationwide and generating jobs in rural Otago.
    - In early 2020 an application for seed funding to allow BEL to become a tier 2 retailer providing service all around NZ was made to the Provincial Growth Fund.

- The 'Climate Safe House'[3], an adaptable, modular, affordable, transportable eco-home connected to the Blueskin Energy Network and providing shelter for a vulnerable person.

Through these projects, we have gained on the ground experience in several areas addressed by the discussion document. Our response focuses on those areas contained within Part B of the Discussion Document:

- Section 7 – Enabling development of renewable energy under the Resource Management Act 1991
- Section 8 – Supporting renewable electricity generation investment
- Section 9 – Facilitating local and community engagement in renewable energy and energy efficiency

A Key Issue

Before delving into the specific questions in the discussion document we want to draw the Ministry's attention to the global policy environment to support renewables. NZ is almost unique among developed nations in not prescribing regulatory policies such as feed-in policies and renewable portfolio standards to hasten the uptake of renewable electricity generation[4].

The Government has previously considered another regulatory mechanism to support renewables. For example, in 2010 the Board of Inquiry into the Proposed National Policy Statement for Renewable Electricity Regulation (NPS-REG) recommended providing guidelines and promulgating a National Environmental Standard to complement the provisions of the NPS-REG[5].

In 2016 the Ministry for Environment review into the effectiveness of the NPS-REG identified that both Councils and generators identified that National Environmental Standards were needed to provide nationally consistent rules[6].

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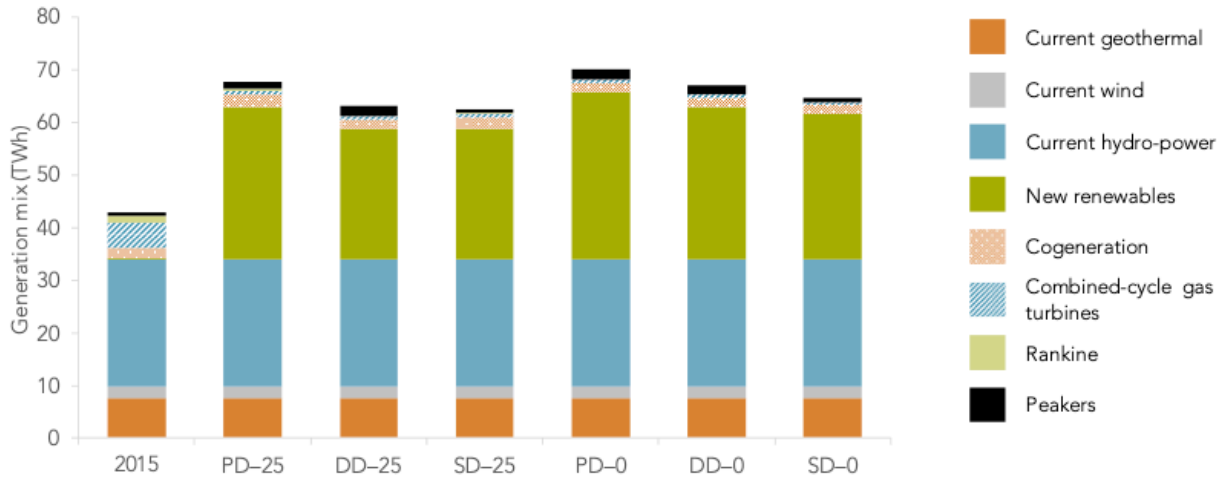
[2] www.ben.p2power.co.nz.
[3] https://www.odt.co.nz/news/dunedin/climate-safe-house-opened
[4] Please see: https://www.ren21.net/gsr-2019/chapters/chapter_02/chapter_02/#sub_5
[5] Report and Recommendations of the Board of Enquiry into the Proposed National Policy Statement for Renewable Electricity Generation, prepared in March 2010 by the Board of Board of Enquiry into the Proposed National Policy Statement for Renewable Electricity Generation, see page 20 https://bit.ly/2I1gg0d
[6] Ministry for the Environment. 2016. *Report of the Outcome Evaluation of the National Policy Statement for Renewable Electricity Generation*. Wellington: Ministry for the Environment

Key concept: National Environmental Standards

The discussion document refers to enabling development of renewable energy under the Resource Management Act. The greatest barrier to the rapid decarbonisation of our electricity system is the regulatory barriers and diversity of implementation of policy across different jurisdictions. As the Productivity Commission's report on the Low Emissions Economy has modelled, wind power must expand significantly to meet our zero carbon target[7]. Environmental standards provide the fastest, simplest and most effective way to reduce cost and confusion and are an essential part of enhancing the NPS-REG.

Figure 3-12 All pathways involve substantial growth in electricity demand to 2050, provided mainly by renewables



Source: Concept Consulting et al. (2018a).

Diagram from the Productivity Commission's Low Emissions Economy Report, page 63.

[7] See https://bit.ly/32x03ck, pages 62 - 63.

Section 7 – Enabling development of energy under the Resource Management Act 1991

Proposal 7.1 - Amend the National Policy Statement for Renewable Electricity Regulation

Q7.1 *Do you consider that the current NPSREG gives sufficient weight and direction to the importance of renewable energy?*

No. We agree with the Productivity Commission's assessment that the language in NPSREG is not directive enough.

Small scale renewable electricity projects have been notoriously difficult to obtain resource consent for. The current NPSREG has ensured that the benefits of renewable generation are taken into account, but has been unable to break the deadlock between that and other competing values, particularly the values identified in s 7 of the RMA. In BEL's view, amendment of the NPSREG is required to ensure that renewable electricity generation takes precedence over the matters identified in s 7. Climate change itself will have more extreme impacts on the landscapes s 7 seeks to protect than wind turbines, for example, could ever have.

Q7.2 *What changes to the NPSREG would facilitate future development of renewable energy? In particular, what policies could be introduced or amended to provide sufficient direction to councils regarding the matters listed in points a-i mentioned on page 59 of the discussion document?*

We echo the Productivity Commission's position as described in the Discussion Document: "The Government should issue a new National Environmental Standard for Renewable Electricity Generation that sets out the conditions under which renewable energy activities are either permitted, controlled, restricted discretionary or non-complying activities under the Resource Management Act 1991."

Q7.3 *How should the NPSREG address the balancing of local environmental effects and the national benefits of renewable energy development in RMA decisions?*

Amendment of the NPS is required to ensure that renewable electricity generation takes precedence over the matters identified in s 7.

Q7.5 *Do you have any suggestions for how changes to the NPSREG could help achieve the right balance between renewable energy development and environmental outcomes?*

As a resource, water is under great demand from irrigators, conservationists and power generators. The Government's "Action for healthy waterways" initiative is further restricting water as a reliable resource for generation, with good reason. We need healthy waterways. Conversely, wind is everywhere and used by no one and has few if any adverse environmental effects.

Q7.5 *What objectives or policies could be included in the NPSREG regarding councils' role in locating and planning strategically for renewable energy resources?*

Councils' do not have the required expertise and are not well placed to locate or strategically plan for REG, except in providing clear rules and implementing National Environmental Standards.

Q7.8 *What specific policies could be included in the NPSREG for small-scale renewable energy projects?*

An National Environmental Standard for small-scale wind development is essential and urgently required. BEL is of the view that an NES could enable small-scale wind development as a permitted (or controlled) activity subject to compliance with certain standards such as:

a. turbine height;
b. distance to nearest residence;
c. compliance with NZS for noise;
d. Not being within an outstanding natural landscape identified within a regional policy statement or district plan, and;
e. maximum number of turbines.

If one or more of the standards was not complied with, a restricted discretionary consent would be required with consideration limited to matter of non-compliance.

Q7.9 *The NPSREG currently does not provide any definition or threshold for "small and community-scale renewable electricity generation activities". Do you have any view on the definition or threshold for these activities?*

Yes. We believe that an NES for for small-scale wind development should exclusively consider the following: Scale, Height, Distance, Noise, Quantity.

For example Any activity meeting the following standards shall be deemed "small scale wind" and classified as a ***restricted discretionary*** activity.

Scale

The overall output of the cluster of turbines must be less than or equal to 10 MW.

Height

The maximum height of any individual turbine shall not exceed 160 metres as measured from blade tip (top-dead-centre) to ground.

Distance

The minimum set back from any affected party's boundary shall be at least the height of an individual turbine (4.2).

Noise

Any project that meets the NZS:6808 noise standard is deemed to meet the noise requirement for this NES.

Quantity

The maximum number of turbines in a single consent application cannot exceed five, otherwise the application is not deemed "small-scale" and this NES does not apply.

Q7.11 *Are there any downsides or risks to amending the NPSREG?*

The only risk to amending the NPSREG is if it is given priority over the development of National Environmental Standards which supplement the NPSREG. Any amendment to the NPSREG will necessarily require amendments of relevant regional and district documents, but this takes many, many years, time New Zealand can ill afford to waste. It is clear from the existing NPSREG that territorial authorities are exceedingly slow in giving effect to national policy statements. In Dunedin for example, no changes have become legally effective in its Operative District Plan. That means that almost 10 years have elapsed since the NPSREG became operative, and we are still waiting for the local authority to give effect to it. The scale of this delay is in our view unacceptable in the context of climate change and New Zealand's need to act swiftly. A National Environmental Standard in contrast, takes effect immediately and does not need interpretation.

Scope National Environmental Standards or National Planning Standards specific to renewable energy

Proposal 7.2 – Option A: Scope National Environmental Standards for Renewable Energy Facilities and Activities

Q7.12 *Do you think National Environmental Standards (NES) would be an effective and appropriate tool to accelerate the development of new renewables and streamline re-consenting? What are the pros and cons?*

Yes. Pros are: clarity for regulatory authorities and developers alike, a reduction in cost and development time time-frames and standardisation of regulation rather than a hotch-potch of interpretation. It is hard to see any Cons.

Q7.13 *What do you see as the relative merits and priorities of changes to the NPSREG compared with work on NES?*

Please see the answer to Q7.11. In BEL's view, local councils have demonstrated they are ill-equipped to deal with applications for wind developments. Despite the NPSREG having been in effect since 2011, very few district or regional councils have implemented NPSREG directives within district plans. Policy E, F and G of the NPSREG requires councils to incorporate specific provisions for renewable electricity, including provisions to assist in identifying areas suitable for renewable electricity generation. Few however have done so, and where they have, it has been after significant delays that offend NPSREG Policy H. Resource consent applications for wind generation are left to be made and assessed on a case-by-case basis with many recurring issues being raised in each instance.

For example, in the case of the Blueskin Wind, matters such as bird-strike and noise required a significant amount of costly evidence despite the fact that both issues have been well-traversed nationally and internationally. In both areas, the effects are well understood and are more than capable of being appropriately addressed through the imposition of conditions of consent.

In the case of noise, recent cases from the Environment Court have placed a higher threshold on wind farm operators than required by NZS 6808:2010 due to concerns about amenity. This is despite the fact that noise levels identified in the NZS are considered appropriate to avoid any adverse effects on health. This is another example where section 7 matters are prevailing over New Zealand's urgent need to increase the supply of renewable electricity.

A national environmental standard would normalise the rules applicable to small-scale, distributed wind generation and enable the establishment of such wind farms relatively quickly. In the currently regulatory context, BEL believes that efforts to develop small-scale wind development will continue to fail due to the significant regulatory risks and relatively modest financial returns. Compare hydro as an alternative to wind in meeting our country's targets and it quickly becomes obvious that we are missing a great opportunity to harvest the low-hanging fruit.

Q7.14 *What are the downsides and risks to developing NES?*
There are no perceivable downsides.

Q7.15 *What renewables activities (including both REG activities and other types of renewable energy) would best be suited to NES? For example:*

- *What technical issues could best be dealt with under a standardised national approach?*
- *Would it be practical for NES to set different types of activity status for activities with certain effects, for consenting or re-consenting? For example, are there any aspects of renewable activities that would have low environmental effects and would be suitable for having the status of permitted or controlled activities under the RMA?*

An NES for for small-scale wind development is the most urgent priority as it will hasten the democratisation of our electricity network, enable community ownership and hence acceptance of wind power and reduce, overall, the cost for all wind farm developments.
Re-consenting wind developments should be enabled and an NES may be helpful for this purpose.

Q7.16 *Do you have any suggestions for what rules or standards could be included in NES or National Planning Standards to help achieve the right balance between renewable energy development and environmental outcomes?*
Please see the answer to Q7.9

Q7.17 *Would National Planning Standards or any other RMA tools be more suitable for providing councils with national direction on renewables than the NPSREG or NES?*
No.

Section 8 – Supporting renewable electricity generation investment

Option 8.1 – Power Purchase Agreement (PPA) Platform

Q8.1 *Do you agree there is a role for government to provide information, facilitate match-making and/or assume some financial risk for PPAs?*

Yes. During the pre-consenting phase of the Blueskin Wind development we initiated discussions to prepare a PPA. It quickly became apparent that achieving a PPA on manageable terms would be extremely difficult for a new market entrant.

Q8.2 *Would support for PPAs effectively encourage electrification and new renewable generation investment?*

Undoubtedly yes.

Q8.4 *What are your views and preferences in relation to different options A to D above?*

We strongly support Option C – Government guaranteed contracts to de-risk electrification projects and enable regional development.

Option 8.4 – Developing offshore wind assets

Q8.15 *Do you consider the development of an offshore wind market to be a priority for the energy sector?*

No. NZ has a wealth of on-shore wind potential and the greatest barrier to its development is the regulatory regime. Offshore wind is extremely costly to construct, maintain and repower.

Q8.16 *What do you perceive to be the major benefits and costs or risks to developing offshore wind assets in New Zealand?*

The major risks to developing offshore wind assets in NZ is a diversion of resources and capital from faster, more cost effective onshore wind development.

Section 9 – Facilitating local and community engagement in renewable energy and energy efficiency

Q9.1 *Should New Zealand be encouraging greater development of community energy projects?*

Yes, without a doubt. Community energy initiatives, in our experience effectively build community energy awareness or 'energy literacy', assist with energy demand reduction, reduce energy hardship and build social licence for and engagement with renewable energy and action on climate change. For example in 2009 in partnership with EECA and the Otago Regional Council our shareholder BRCT facilitated the delivery of over $780 000 of insulation retrofits to over 400 priority households in just 4 months. Blueskin Bay also has an extremely high percentage of solar installations and EV owners,

significantly above the national average as a result of our work in the community since 2008. For example, the 4.37% of households connected to the Waitati sub-station in 2018 were solar households (NZ average in 2018: 0.542%), while the Blueskin township of Waitati registered 48.7 EVs per 1000 residents in June 2019, while Dunedin overall registered 3.7 EVs per 1000 residents.

Innovation is born in community energy initiatives.

Q9.2 *What types of community energy project are most relevant in the New Zealand context?*

Community energy initiatives tend not to be separated in silos. For example, both BEL and its shareholder BRCT have provided energy awareness services through events, workshops and regular communication; energy demand reduction through energy advice, the large 2009 insulation retrofit programme and energy audits; growing renewables and low carbon options through developing a community wind project, supporting solar installations, providing the Blueskin Energy Network, and making bulk firewood available for residents.

The flax-roots approach that exemplifies community energy projects is more likely to be anchored in community need. What is most critical to community energy is not 'what type' but rather 'what capacity' and how can it be enhanced.

Q9.3 *What are the key benefits and downsides/risks of a focus on community energy?*

The benefits of community energy are wide ranging. They are:

- Economic – keeping the energy dollar local and generating a multiplier effect, counteracting regional decline
- Social – building community connectedness and energy and climate awareness
- Environmental – enabling an acceleration in renewable technologies and reduced social licence for non-renewables
- Technical – by often operating in low voltage networks or at the 'grid edge', community energy can enable greater flexibility and efficiency, enabling transmission and distribution system operators to prioritise and coordinate transmission investment[8].

A major benefit of a focus on community energy is a community engaged in the just transition to zero carbon. Research shows that 'community-led development' builds "[c]ommunities [that] are stronger and more resilient [when] they are cohesive and engaged with each other.[9]" Through inclusive decision-making processes and rich engagement.

Another critical benefit is innovation. Innovation thrives in a less structured environment. The Blueskin area is somewhat like an open air energy laboratory through the facilitation and enabling of

[8] Please see the IPAG submission for detail on 'flexibility'

[9] Please see Janet Stephenson et all, Motu Note #29 - January 2018. Communities and Climate Change: Vulnerability to rising seas and more frequent flooding. Motu: https://bit.ly/32xJU6v

organisations like BEL and BRCT, and other member organisations of the Community Energy Network[10] can affirm similar experiences in their own areas.

We do not support the statement in the Discussion Document that "the likely small scale of community energy projects (in the near term) means they are a less cost-effective means of decarbonising the national energy system, in comparison to utility-scale projects". Broadly speaking, large clusters of turbines (50+) in remote areas away from view and away from the national grid do not operate to create a resilient baseload of electricity generated by wind. Because wind is a variable resource when too many towers are situated in close proximity, the relative output per turbine is diminished.

A more efficient use of wind, one which is more likely to provide a meaningful baseload of wind generated electricity, is where small clusters (e.g. 3 to 5) are distributed through the landscape. These can be small scale community energy projects. Furthermore, siting small-scale clusters within reasonable distances to the local grid achieves energy resilience.

Unfortunately, the cost of consenting small-scale projects is disproportionate to the return on investment as compared to a large-scale project simply because of the regulatory barriers. We expect that the proposed National Environmental Standard for small scale wind will dramatically lower the cost of obtaining resource consent and shorten, by years, the time it takes to implement small-scale community projects which will then rapidly proliferate through the country, contributing not only regional jobs and employment, but also income for communities and grid resilience.

As you have noted in the "Case Study: Blueskin Energy Network and P2P", BEL, in partnership with emhTrade has created a smart grid retail service shaped to community need. Our business case demonstrates that with kick start funding, our retail business will be able to break even within 3 years, after which point we will be self-funding and generate profit for our shareholder and deliver on our community wellbeing objectives.

The project will be a pathway to achieve the Government's target of 100% renewable electricity generation by 2035 through enabling community energy trading of distributed renewables and improving market choice. It will also give increased benefit to Iwi through cleaner, cheaper, smarter electricity.

The growth potential for small scale renewables (solar PV, and micro wind) and community scale renewables (community wind, solar farms) is enormous. The Blueskin Energy Network will make investment in renewables more attractive. Due to the expansion of distributed renewable energy resources, peer to peer energy trading (P2P) is expected to be one of the key elements of next generation power systems. Advantages of our pathway project include:

[10] https://www.communityenergy.org.nz

- A reduction in power poverty - people can use more affordable power by changing when they use power thus contributing to lowering system costs over time. We plan also to integrate how material improvements in homes can enhance these outcomes too.
- A reduction in the 15.3PJ of electricity line losses (approx 11% of electricity generation) as distributed local generation and energy storage is encouraged and reduces the losses from long distance conveyance of electricity[11].
- A reduction in infrastructure investment and a deferred cost of investment in infrastructure, as the whole value chain is operated with greater transparency enabling better investment decisions and reduced peaks that drive new investment (for instance demand is shifted from peaks; or local energy storage is engaged to reduce peaks).
- Greater infrastructure productivity, by better using existing energy assets (primarily by increasing off-peak use rather than at peak) to increase utilisation.
- Construction of renewable generation assets close to consumption also provides greater security of supply and reduces the need for over-build to protect against natural disasters.

From the hub in Blueskin Bay, the Blueskin Energy Network already allows residents to 'share electricity' and gain benefit from shifting demand to reduce emissions through the pilot. The Blueskin Energy Network is cleaner, cheaper, smarter power. Our ambition is scale the pilot into a nationwide service delivered through a community partnership model. This is a key benefit of a focus on community energy!

Please refer to the infographic on the following page.

[11] https://www.mbie.govt.nz/assets/bc14c2778b/energy-in-nz-2017.pdf

BLUESKIN ENERGY NETWORK

1. The internet of things using smart algorithms and clever inverters allows a community to generate and retrieve power without disturbing the grid's delicate voltage balance. This is called a smart grid; like the BEN model in Blueskin Bay.

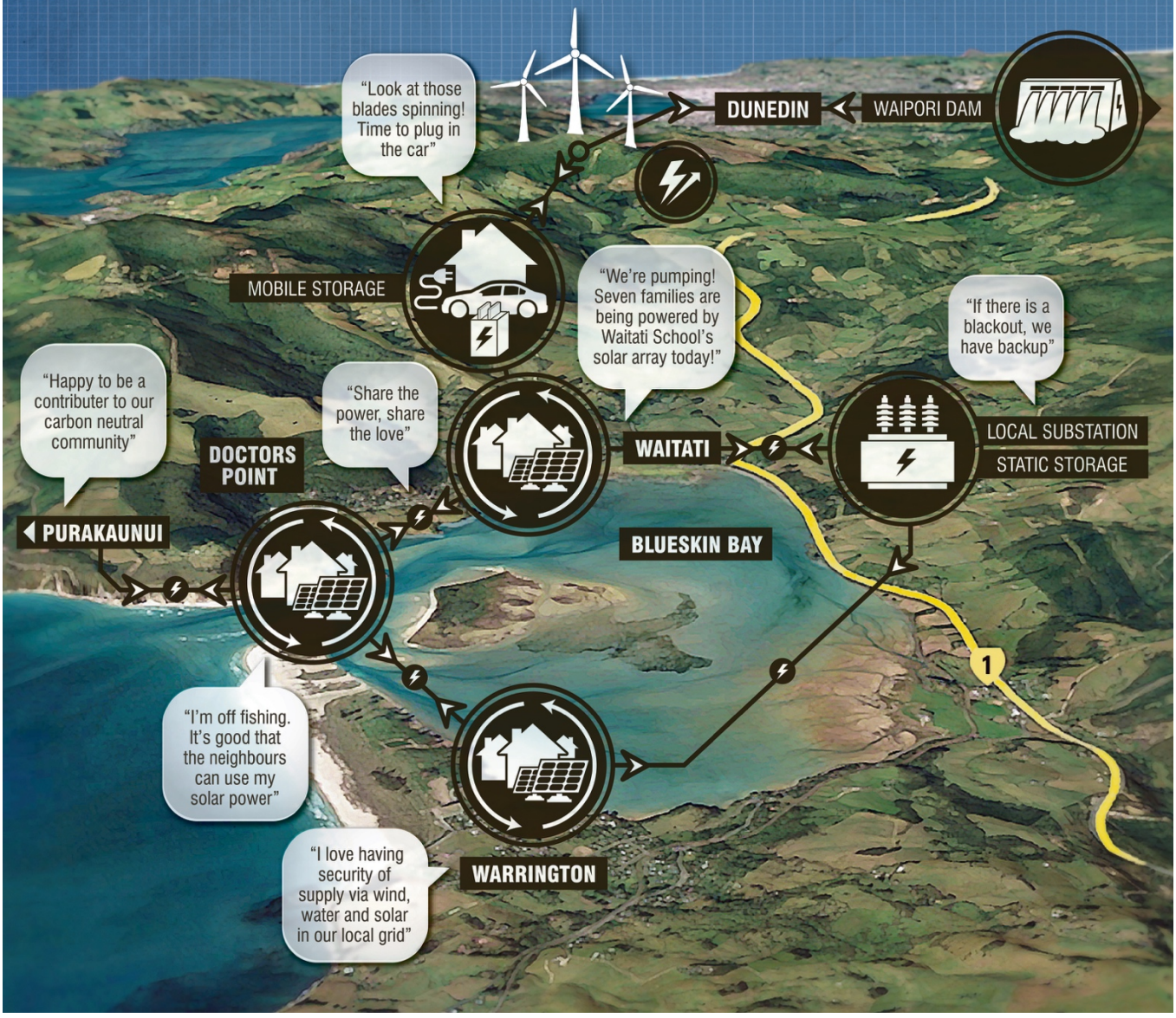
2. Community scale renewable electricity generation embedded in a local network can substantially power a smart grid, and contribute to the goal of 100% renewable electricity.

3. The consumer-centric model of electricity transactions where customers consume, trade, generate and store electricity using digital tools constitutes the motor of the smart grid and is how it functions.

4. If a black-out occurs in the main grid, the smart grid can work in isolation through a combination of community scale (i.e., wind power) and micro generation (i.e, household solar) and static and mobile storage (i.e., substation batteries and electric car batteries) all managed at the level of the local substation.

5. A smart grid using renewables and storage can be 100% renewable and reliable by balancing generation and demand. It makes the power system more efficient by eliminating the 15% loss of electricity from long distance transmission and eliminating power generated at coal and gas-fired power plants.

6. The smart grid can be paired with other local networks to provide a giant, interconnected, resilient system linked through the national grid with each local area able to function independently. In times of crisis, power can also be directed to the most critical needs, i.e., a hospital or police station.



Q9.4 *Have we accurately identified the barriers to community energy proposals? Are there other barriers to community energy not stated here?*

There are many barriers to community energy proposals and you have made a good start. We agree with the submission from the Community Energy Network that paper by Anna Berka, Julie MacArthur and Claudia Gonnelli provides a thorough analysis of the issues[12]. NZ still suffers from the legacy of the 'Think Big' era and there is no government consensus on supporting a sector that is well developed in other countries.

- **Coordination of policy across government**: clearly we need government to recognise the value of community energy, not only as a delivery for energy efficiency services through the Warm Up NZ programme, but as an innovative partner with a significant role in encouraging more households and businesses to install small scale solar and wind, helping satisfy New Zealanders desire to support the growth in renewable electricity production, helping build a fairer, more competitive electricity sector, increasing regional resilience by encouraging more micro-generation of power locally, in a de-centralised model compared to big, old style power stations, supplying electricity more efficiently, generating jobs and generating profit to reinvest in community projects.
- **Small scale of community energy advocates, and lack of networking effects**: while community energy advocates are widely distributed and by nature, small scale, there are networking opportunities that could easily be enhanced through central government support structures. BEL's stakeholder the Blueskin Resilient Communities Trust is a member organisation of the Community Energy Network and of Enviro Hubs Aotearoa and participates in the annual 'Strengthening Communities Hui' as well as regional hui. The networks exist, but participation would be enhanced with greater resourcing of the community energy sector.
- **Resource Management Act barriers**: we have addressed these barriers in Section 7.

Q9.5 *Which barriers do you consider most significant?*

Resource Management Act barriers are the most significant, closely followed by the lack of a coordinated government approach to supporting the community energy sector.

Option 9.3 – Government supports development of a small number of community energy pilot projects

Q9.7 *What do you see as the pros and cons of a clear government position on community energy, and government support for pilot community energy projects?*

Government support for community energy would give a clear signal that Government recognises and values the significant contributions the community energy sector contributes to ensuring a just transition and climate justice. As Jamie Silk of Silk Advisory and an advisor to BEL has made clear in his submission[13], the incumbent supply chain is moving far too slowly - distributor price changes and

[12] Explaining inclusivity in energy transitions: Local and community energy in Aotearoa New Zealand Anna L. Berka, Julie L. MacArthur, Claudia Gonnelli; Environmental Innovation and Societal Transitions 34 (2020) 165-182

[13] Please refer to the 'Silk Advisory' submission on Accelerating Renewable Electricity MBIE Consultation Feb 2020.

distributor use of Distributed Energy Resources in smart grids has been talked about for over a decade and still not delivering.
'Learning by doing' is a very cost effective way of trialling innovation and puts into practice the notion of 'adaptive governance'. Furthermore, "[c]ommunity energy investment is economically efficient as it will often be funded by private spending that generally will not otherwise have been invested in a productive asset or, by enabling community sharing, allow more efficient use of the renewables and shared community use will reduce other avoidable behind the meter investment"[14].

For example, Blueskin Energy Ltd has already made an application to the Provincial Growth Fund for seed funding to grow the successful pilot of a community-owned, renewable energy power retailer, selling cheaper local power to its local community, into a significant community enterprise selling cheaper power to New Zealanders nationwide and generating jobs in rural Otago. Community and electricity sector investment is already a significant contributor to this initiative. If co-funded, this initiative will not only rapidly scale up, it will also be able to be effectively evaluated and appraised.

Through our partnerships we can help communities reduce electricity demand from the national grid, reducing the need for gas-peaker generation plants and assist the inclusion of Electric Vehicles, Vehicle to Grid and static storage to further shave electricity infrastructure investment and reduce demand peaks. This is innovation in practice.

Q9.8 *Any there any other options you can suggest that would support further development of community energy initiatives?*

We support the Silk Advisory submission on this point that "Policy consideration and direction should extend beyond the formal energy sector to consider the impact of sector coupling". A concrete example of this point is BEL's climate safe house project which is at the intersection of housing, energy, research and development.

Other submissions we align with

Due to the short time frame for submissions and number of important consultations underway we have been constrained in our ability to work with others. However we have been able to view draft submissions from:

- The Community Energy Network
- The Innovation and Participation Advisory Group (Electricity Authority)
- Silk Advisory
- Climate Justice Taranaki.

[14] Please refer to the 'Silk Advisory' submission on Accelerating Renewable Electricity MBIE Consultation Feb 2020: page 10.