



Form 3
**Submission on proposal for national policy statement for
renewable electricity generation**

In accordance with section 49 of the Resource Management Act 1991

To The Chairperson
Board of Inquiry

This is a submission on the (following) proposed national policy statement for renewable electricity generation (the proposal) that was publicly notified on 6 September 2008.

The specific provisions of the proposal that this submission relates to are:

Policy 5 – Supporting small and community-scale renewable electricity generation

This submission is:

We support in general a National Policy Statement (NPS) supporting a renewable electricity generation objective, but have some concerns about the combined effects of the Policies.

We specifically support the inclusion of Policy 5.

The attached explanation outlines our views in more detail. We provide comment on each Policy in the hope that it may contribute to an overall decision on any changes.

We seek the following changes to the proposal:

Policy 5 - Add:

... taking particular regard to small-scale renewable electricity generation attributes:

- (i) low environmental impact and high level of reversibility
- (ii) reduced losses and deferment of large scale infrastructure
- (ii) individual access to a renewable alternative to grid-mix electricity supply

We **do** wish to be heard in support of this submission.



.....
Signature of submitter (*or* person authorised to sign on behalf of submitter)

Sustainable Electricity Association of New Zealand (SEANZ)

Date: 31st October, 2008

(A signature is not required if you make your submission by electronic means.)

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Dear Board of Enquiry,

Thank you for the opportunity to comment on this proposal.

SEANZ is generally in favour of a National Policy Statement (NPS) supporting a renewable electricity generation objective.

SEANZ represents developers, suppliers and installers of small scale renewable generation systems based on wind, PV and micro-hydro. As much as possible we restrict our response below to issues in relation to these areas of renewable electricity generation.

Overall comment – Solar PV Electricity Generation

We wish to express our concern, that in the light of the ongoing growth of the photovoltaic industry internationally and predictions that this will continue, there is still no official recognition of the potential of this form of generation within the residential electricity supply infrastructure. On page 10 of the Proposed National Policy Statement for Renewable Electricity Generation, there is no mention of a role for PV at all, yet a proposed 50 MW of marine energy is listed for 2021-2025. This, when PV technologies are commercially mature, the market is growing at 40% per annum, PV predicted to deliver a substantial portion of electricity generation in many developed economies by 2020, and New Zealand has a very good solar resource. As yet, apart from barrage schemes, there is as yet no proven commercial marine technology available.

We strongly urge that and documentation supporting the NPS recognise a role for solar PV as an alternative form of generation, and its potential role in relation to relative cost – benefits against other future technologies.

Comment on 5.2 Evaluation of the Policies

Policy 1 – Focus on core benefits

The three main benefits listed: increasing generation capacity, mitigation of GHG, and increasing security of supply are all relevant. However, further benefits are possible from some desirable generator technologies such as small scale renewable distributed or embedded generation (SSR/DG). These include reducing transmission and distribution (T&D) losses within the system, and in some circumstances avoidance or deferment of the need for upgrading T&D infrastructure. These attributes also need to be given weight in a NPS, or these substantial benefits are likely to be ignored.¹ At present these cost benefits are not fully captured by SSR/DG. A further important attribute of distributed generation at the smaller

¹ This value is substantial- e.g. avoided T&D losses can reach 20% at peak demand times, and T&D upgrades combined can represent \$2,000-5,000/kW.

scale is to opportunity for diversification of supply and customer choice. SSR/DG does not in theory need the involvement of centralised generators and the wholesale market, and in the interest of competition and freedom of choice should be made easy for individuals to utilise if they so choose.

Policy 2 – Nature and location

Since each resource consent application is essentially assessed in isolation, we are concerned that this policy may “tip the balance” against the preservation of remaining areas of natural and physical uniqueness. For example, the few remaining braided river systems. We think there should be a counter balance which elevates the effects of the loss of natural diversity within the country as a whole through renewable energy projects to more than minor, even if the development represents a less than minor local environmental effect.

Policy 3 – Reversibility

On the balance, we think the reversibility policy is desirable if it establishes only marginal preference for a reversible scheme over a non-reversible scheme. However it must not be used as a reason to suppress other tests of acceptability. Policy 2 and Policy 3 combined may result in a persuasive argument to exploit the resource irrespective of that remaining unmodified nationally. Hence our concern noted in Policy 2 above that there needs to be a counterbalance test if there is a national scarcity of unmodified environments, such that schemes to modify the remaining natural environment do not go ahead.

Hydro-generation - if it makes the resource consent process easier, we can see benefits in applying a reversibility test to very small scale hydro generation projects, since in many cases for both headwater and run of river type schemes, they could be easily dismantled if they do not comply, or create unforeseen “more than minor” effects. The same applies to microwind generators, and PV systems. Local authorities could be directed to apply more weight to reversibility for all SSR/DG including micro-hydro to encourage their uptake (Policy 5).

Security of supply – If security of supply benefits can be demonstrated for a particular scheme, it is not unreasonable to argue that this to some extent should negate the reversibility preference. But we have no strong view on this. Likewise, a scheme that can demonstrate security of supply reliability as well as potentially reversibility should be awarded even more preference. SSR/DG schemes with hydro, batteries or other forms of storage can have this attribute, and could be encouraged through positive support in this manner (Policy 5).

Policy 4 – Investigation support

This policy should be helpful, and we support it. It needs to particularly include policies to support access to local resource knowledge for application or renewable electricity generation at all scales, down to individual customer-generator level (Policy 5). Access to meaningful energy resource knowledge is the most difficult for this group of potential generators, as



individually they do not have the means to collect it. Collectively, they have the potential to contribute substantially to the future electricity generation diversity.

Policy 5 - Small and community scale distributed renewable electricity generation (SSR/DG)

We strongly endorse this policy to “enable” activities associated the development and operation of SSR/DG. We have a number of comments and suggestions.

We have no particular view on the maximum threshold for this Policy action. The appropriate level very much depends on technology and the potential environmental impacts. 4 MW represents a large PV or biomass cogeneration scheme, but a modest wind or hydro scheme. Probably the most useful aspect is to align the threshold as much as possible with other policy/regulatory classifications.

It is unclear if the intent is to primarily promote community schemes. Our view is that ALL small scale SSR/DG schemes should receive encouragement. In general, individual/private applications are easier to implement and hold the most promise for significant growth.

Under the Section 5.2.5.4 Conclusion, a comment is made that small projects “are likely to be developed primarily to service remote rural villages”. This seems to imply a lack of understanding of the potential for SSR/DG at the most fundamental level, and is certainly contrary to the strategic plans for electricity infrastructure transformation of many other countries. Germany, Japan, Korea, China, UK, USA, etc. all recognise the urban importance of SSR/DG. We would be very concerned if this view persisted through into the final NPS.

Please include our earlier comments under other Policies for consideration under Policy 5:

Policy 1 – address how the attributes of reduced losses, upgrade deferral and customer choice can be recognised for SSR/DG

Policy 3 - consider how the fact that SSR/DG systems are generally readily reversible may be used to streamline consenting options

Policy 4 – making local energy resource data more available to SSR/DG stakeholders

One of the key issues with consenting SSR/DG schemes is the inconsistent and unclear local authority policies that vary from region to region. New Zealand is a small jurisdiction and should have a consistent set of rules and interpretations for very small schemes with low individual impact. There appears to be a role for a central advisory guideline or even mandated requirement for common SSR/DG technologies (wind, PV, hydro) perhaps similar to the “call in” provisions for large schemes.

Under Section 5.2.5.3 Costs, it is commented that specific policy support for small-scale activities could be misinterpreted as indicating “particular support for small-scale over large-scale”. We see no conflict in providing this support. If the government has a strategic policy to deliver the NPS objective, and some particular (emerging) means are disadvantaged through traditional market structures and rules designed for a centralised generation



infrastructure, it is in order for the government to redress this, through both long term and short term (market encouragement) policy.

We think the timeframe for action on this Policy is too long (2012), but recognise that it would be difficult to shorten it. Perhaps consideration could be given to a requirement to produce draft plans for public consultation by 2010 and final notification by 2012.

Yours Sincerely,

Charmaine Watts

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For the Sustainable Electricity Association of New Zealand