



Kāpiti Coast District Council

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New Zealand



for sustainable initiatives
in local government

5 January 2012

Submissions
Electricity Authority
PO Box 10041
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Submission from Kāpiti Coast District Council (Council) to the Electricity Authority Consultation “2012/13 Appropriations, Authority Path to Competition, Reliability and Efficiency (CRE) 2012/2013 and 2013/2014 and EECA Work Programme”.

Kāpiti Coast District Council welcomes the opportunity to comment on the draft work programme. As requested in the call for submissions, this submission has been structured to separate comments directed to the Electricity Authority (The Authority) from those directed to Energy Efficiency and Conservation Authority (EECA).

With the tight timeframe for consultation, Council has not had the opportunity to consider or formally approve this staff submission.

A Council’s interest in Energy Efficiency and CRE in the Electricity System

The Council has a keen interest in energy efficiency issues both as a large user of electricity in our district and as a recipient of programmes arising from the work of the Authority and EECA.

The Council has a strong focus on sustainability, and has centred its draft economic development strategy on the development and use of ‘clean’ technology and renewable energy. As part of this, the Council has supported the establishment of the Clean Technology Centre New Zealand in Ōtaki – an incubator for clean-technology businesses - and has adopted the goal for the Greater Ōtaki area to become a net exporter of renewable energy (known as Energise Ōtaki).

Council as the operator of water and waste water systems, and recreational facilities has also sought to ensure that it demonstrates leadership by applying its sustainability focus to its own operations. It has sought to ensure the resilience of Council operational plant by making its facilities more energy efficient. This has included retrofitting existing community housing with solar water heating, installing a wood fired boiler at the waste water treatment plant and installing solar water heating at the Ōtaki swimming pool.

Increasingly, the continuing upward pressure on electricity prices and diminishing opportunities for further energy efficiency has led Council to increase its focus on small scale electricity generation. In partnership with the local network company Electra, the Council has recently installed a 2.0kW grid-tied solar photovoltaic system on the Library and Memorial Hall complex in Ōtaki as public demonstration of the technology and is contemplating further similar investments within the Council estate.

delivering on the community’s plan



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B Comments to the Electricity Authority on Appendix D: Draft Path to Competition, Reliability and Efficiency (CRE)

The Council is supportive of the Authority's work to achieve improved operational efficiency and reliability in the electricity system, and to improve competitiveness. The following comments relate to renewable energy and the regulatory and pricing barriers to investment in small scale generation.

Small Scale Generation

The Council is pleased that the Authority is conducting a project looking at purchase of power by retailers from small scale generation, and regulatory barriers to investment in small-scale generation. The Council has a stake in the outcome of this work because of its interest in installing more generation and supporting the development of clean technology.

The Council notes several barriers that need to be examined as part of the scope of this work. Removing them will enable further investment in the electricity system, supporting development of export-earning businesses and provide for a fair and efficient electricity market. These barriers are:

1. The availability from retailers of only limited contractual price arrangements to small generators (e.g. no fixed term or fixed price contracts) and the barrier to investment this causes due to uncertainty in financial return.
2. The relatively low wholesale price most retailers will pay for electricity export. This reduces the financial viability of small scale generation relative to the amount of electricity export that occurs, and therefore restricts the scope for investment to sites that have on-site electricity demand that can absorb the majority of the electricity generated.
3. The lack of flexibility in the wholesale pricing that retailers offer small scale generators and the subsequent retail price electricity is on sold for, does not recognise the inherent benefits of generation assets located close to areas of electricity demand ('distributed' generation)
 - avoidance of transmission and distribution line losses
 - reduced demands on transmission and to a lesser extent distribution networks
 - increased resilience in the electricity system due to the reduced demand on the network and increased diversity of generation sources
4. The current limitations within electricity market rules to creating contracting arrangements whereby a body such as the Council can purchase electricity directly from a local small scale generator (including itself), and/or be able to secure use-of-system charges which fairly reflect the benefits outlined in the point above.
 - For example, the Council's PV installation in Ōtaki is electrically connected to the Memorial Hall's main circuit board, as connecting to the Library's MSB was impractical because of cable-routing issues. Also the library did not have a suitable panel mounting location close to its MSB, whereas the

- Memorial Hall did. (It should be noted that the two buildings are physically joined and are effectively one building).
- The Memorial Hall has a much lower demand for electricity than the Library, and as a result there will be significant export to the grid, from which the Council will obtain only a minimal financial return. Instead, it would be desirable for Council to be able to either:
 - Have a ‘virtual’ aggregate reconciliation meter made up of the two import meters and one export meter in the building complex, and pay a fee for use of the network which was in proportion to the short physical distance (less than 50 metres) that separates the generation from the demand, or
 - Be paid a higher price for the electricity it sells which in effect refunds the overpayment for network and transmission services to get the electricity from the Memorial Hall MSB to the Library MSB.

These barriers and the market failure they represent restricts the development of new businesses specialising in innovative small scale distributed electricity generation and storage technologies, and result in loss of export earnings for NZ Inc. Examples of these businesses include Christchurch-based Enasolar Ltd, which manufactured and supplied the inverter for the Council’s PV system, and Wellington-based ESG Green Energy Ltd who installed the system, and which has also developed new energy storage technology. A more fertile domestic market would provide a base for business such as these to expand their presence in the international market place.

The Council would like to see the Authority’s work on small scale generation raised in priority and the barriers we describe addressed as part of the project. This could include consideration of targeted exceptions and special rules for small scale distributed generation and storage in particular situations, including but not limited to minimum payments for exported electricity from certain types of distributed small scale generation. The Council would also like the project to consider alternative wholesale pricing options including the use of fixed-price, fixed term contracts for purchase of exported electricity from small scale distributed generation.

The Council as a potential investor in small scale electricity generation assets and a significant local stakeholder in the electricity system (on behalf of our residents) would welcome the opportunity to discuss the scope of such a project with the Authority, either via sector representation such as Local Government New Zealand or directly.

Renewable Energy

While Council notes that the former Electricity Commission in recent years conducted a major piece of work on renewables (the Transmission to Enable Renewables project), the draft work programme, with the exception of the two second priority pieces of work on intermittent generation and small scale generation, makes no explicit mention of renewable electricity. For the Government to achieve its commitment to a 90% renewable electricity target by 2025 Council considers that the issue must be given continuing focus as key rather than a secondary priority of the CRE.

C Comments to the ECCA on Appendix E: Proposed EECA Priorities

The Council supports the continuing work of ECCA including the provision of financial incentives and the introduction of improved minimum energy performance standards (MEPS) for a greater variety of electrical equipment, including pumps and fans.

The Council welcomes the information and training programmes on new street lighting technology already included in the draft work plan, and it looks forward to being a beneficiary of this work. Significant energy saving opportunities exist in relation to new street lighting technologies such as LED and induction lighting.

The Council is planning a trial of LED streetlights, and would like to introduce minimum energy performance standards and specifications for streetlights into its subdivision principles and requirements.

The Council sees a role for ECCA to assist it and other local authorities with such trials by:

- Working with the Efficient Road Lighting Project Team (currently led by NZTA)
 - o to ensure that independent and balanced information is made available on the new technologies so that the risks of the benefits of products being ‘oversold’ by suppliers are minimised.
 - o Assisting local government make good decisions on what to buy by developing robust energy performance and quality standards.
- Working with electricity retailers to arrive at a fair and efficient means of metering and reconciliation in relation to street lighting which has dynamic dimming control and can no longer be unmetered. The attitude and approach of some retailers can make the difference between investment in these controls being financially viable for local government or not, regardless of the actual energy savings that are possible.

Yours sincerely



Pat Dougherty
Chief Executive Officer