

Chairperson and Community Board Members  
**ŌTAKI COMMUNITY BOARD**

22 March 2011

Meeting Status: Public

Purpose of Report: For Decision

## **GREATER ŌTAKI PROJECT: NEXT STEPS ON THE ŌTAKI ‘OFF-GRID’ CONCEPT.**

### **PURPOSE OF REPORT**

- 1 The purpose of this report is to update the Community Board on recent initiatives and to seek approval for a range of actions to be undertaken by Council in relation to this broad concept.

### **SIGNIFICANCE OF DECISION**

- 2 The Council’s significance policy is not triggered.

### **BACKGROUND**

- 3 In 2010, the Community Board adopted a concept of Ōtaki becoming a place that was a net supplier of energy to the electricity grid as part of the Greater Ōtaki vision, to be formally included in the Greater Ōtaki Project document.

*‘That the Ōtaki community aspires to be the first New Zealand ‘off-grid’ town by becoming a net supplier to the national energy grid’.*

- 4 Subsequently the community was consulted with on the goal via the Ōtaki Mail and following positive feedback it was added to the Greater Ōtaki Vision document which has the status of a Local Outcome Statement. It adopted the goal for the following broad reasons:

- improving Ōtaki’s economy through new activities and capturing the flow-on social benefits;
- making households and businesses in Ōtaki more resilient to future energy price increases and increasing reliance in the face of energy supply disruptions;
- improving residents’ health and wellbeing, via such things as housing insulation;
- achieving environmental benefits through reduced fossil fuel use;
- adding to the distinctiveness and the existing strong sense of place.

- 5 The Board also had an immediate focus on complementing the Clean Technology Centre which at the time was to be located in Ōtaki as part of the regional Clean Technology Centre of Excellence concept. The concept would contribute to the sustainable economic development goals for the town and wider area which exist within the Greater Ōtaki Vision.
- 6 The Community Board identified two broad areas of action:
  - Implementing innovative energy efficiency systems for housing, other buildings and systems;
  - Micro-generation initiatives on the household, neighbourhood or town scale.
- 7 The Council subsequently endorsed and supported this vision.
- 8 As with other aspects of the Greater Ōtaki Project, the intention behind articulating this idea is to stimulate people to take action under a broad vision. The Community Board role is to retain an overview of the Greater Ōtaki Vision and Project and to work with Council staff on specific projects undertaken by Council or the Board which supports this broad community vision.
- 9 In the case of the ‘off-grid’ project it is timely report back on specific actions which Council might undertake via the Community Board to support this particular concept.
- 10 At present, the Ōtaki community obtains its energy requirements almost entirely from sources outside its geographic area. Local energy production is limited to firewood and a few small solar and wind installations.
- 11 Since the endorsement of the vision council officers have begun to develop the concepts related to the high-level energy goal and form recommendations on an outline strategy for progressing towards this goal. The endorsement of the Community Board is sought to share this outline strategy with the community and seek their input.

## CONSIDERATIONS

- 12 Over the last six months there have been a number of initiatives undertaken by individuals, community groups and via Council processes which are relevant to this goal. These include:
  - Opening of the Clean Technology Centre;
  - Council staff meeting with Electra;
  - Development of solar heating and other energy-saving initiatives at the swimming pool;
  - Transition Towns meeting on the topic of ‘Off-Grid’ Ōtaki

This is an encouraging start. The remainder of this paper focuses on the work that Council can undertake now to support these kinds of initiatives.

## **Clarifying the Vision**

### *Finding an alternative name to ‘off-grid’*

- 13 While the term ‘off-grid’ is useful for encapsulating some of the concepts relating to the goal, it has the potential to be misleading in that implies that the town would be literally taken off the national electricity grid.
- 14 As stated in the original report, it is unlikely that disconnecting from the national electricity grid would be desirable. For Ōtaki to go off-grid, it would require not just the creation of new electricity generation infrastructure, but also large capacity for energy storage, which is needed to balance electricity supply with demand. At present the task of balancing electricity supply with demand is a service provided by the national grid.
- 15 The words ‘off-grid’ were instead intended to convey the types of actions the Ōtaki community could undertake – e.g. generating electricity, reducing energy demand and becoming more self-sufficient. It is implicit in the goal statement that Ōtaki would not disconnect from the national grid as it cannot be a net supplier to the national grid if it is not connected to it.
- 16 For clarity therefore, it is recommended that the term ‘off-grid’ is not used as a name for the project. A working title of ‘Ōtaki Future Energy’ has been adopted by officers in the meantime. Work has been done to develop names that better encapsulate the concept. It is proposed that interested members of the community be asked to vote for one of three possible names. These names will be tabled at the Community Board meeting.

### *Is it just Ōtaki Town or the Greater Ōtaki Area?*

- 17 The original committee paper could be read as suggesting that the goal would relate specifically to activities taken exclusively within the town of Ōtaki. The implication of this is that the opportunities to generate energy are greatly reduced, as preliminary assessment indicates that significant resources exist in the rural hinterland and small settlements. The energy resources within the town include bio-energy from sewage, food and green waste, and solar energy. Small wind turbines within built-up areas are unlikely to provide large or cost-effective contributions of energy because of the low wind speeds and turbulence created by buildings.
- 18 While the town will present some of the best opportunities for energy efficiency, energy conservation and solar energy production, this by itself is not likely to be sufficient and it is important that areas outside the town are included. The rural hinterland presents greater scope for energy production, for example from energy crops and agricultural wastes.
- 19 Any energy production activity of significant scale would need careful assessment of its impacts – e.g. use of land for energy crops would need to be evaluated with respect to impact on food production, biodiversity and cultural values. By increasing community involvement in local energy production ventures, including ownership, it may make it easier to develop projects that are satisfactory from social, environmental, economic and cultural perspectives, or in other words, that are sustainable.

- 20 While ultimately the Ōtaki community may decide not to pursue certain opportunities, and some energy production techniques may not prove to be viable, it would be prudent to investigate what the opportunities are and assess their merits before excluding them.
- 21 It is therefore recommended that it be made clearer that the geographic scope of the net-exporter goal includes the Greater Ōtaki area.

Electricity or energy

- 22 The original committee paper discussed being a net exporter of energy to the National Grid, which could be read as implying that the project was concerned solely with electricity, as that is the type of energy the national grid carries. However, Ōtaki uses many different energy sources other than electricity, including natural gas, LPG, petrol, diesel, wood and coal. These energy types can be substituted for electricity (or vice versa) in certain situations, and many are just as vital as electricity to the functioning of the local economy. Therefore it is important that they are included in the net-exporter goal or it may result in perverse outcomes.
- 23 For example, greater usage of electric vehicles would increase the usage of electricity while reducing use of petrol and diesel. Development of this ‘clean’ technology is likely to be desirable and would clearly linked to the Clean Technology Centre.
- 24 It is recommended that the wording of the goal explicitly include all types of energy.
- 25 This does raise a risk that the goal could be achieved by exporting large quantities of one energy type to compensate for importing large quantities of another. The strategy that supports the net-exporter goal could be shaped to avoid this outcome if it was seen as undesirable.

Clean technology and environment

- 26 Economic development work by the Council in Ōtaki in recent times has related to ‘clean tech’ businesses, and the net-exporter goal is related to this. The original report suggested that the goal would be achieved by increasing energy efficiency, energy conservation and local renewable energy supplies, but did not specifically exclude development of non-renewable (e.g. fossil fuel) energy supplies, although that was the intention. It needs to be made clearer that there is focus away from fossil fuels, consistent with the Council’s commitment to sustainable development and addressing climate change.
- 27 Some flexibility is needed to address the fact that renewable energy sources may rely on some component of fossil fuels – e.g. the fuel used to harvest and transport wood fuel - and that some fossil fuels have lower emissions than others – e.g. natural gas compared to petrol, diesel and coal. It is suggested that if an energy source has lower greenhouse gas emissions per unit of energy delivered than the sources presently used, it could potentially be supported in relation to the net-exporter goal.
- 28 If the previous three revisions are accepted, the goal statement could be:

*That the Greater Ōtaki community aspires to be a net exporter of energy. This will be achieved through increasing energy efficiency, energy conservation, local renewable energy production and use of lower-carbon energy sources.*

### **Process**

- 29 As noted at the beginning of the report, the Ōtaki Community Board supported the concept that Greater Ōtaki and the town itself can become a net exporter of energy. It sought feedback on including this in the Greater Ōtaki Vision, building on wider community ideas. As with other aspects of the Greater Ōtaki Vision, the Community Board's role is to provide a focal point where people can develop and monitor that wider vision but the concepts and ideas belong to the wider community. The vision itself becomes a catalyst for a range of individual and community group action which can happen formally or informally.
- 30 The Council, by supporting and recognising the concept as part of the Greater Ōtaki Vision, has made clear that it can contribute to achieving that goal through a range of projects and actions. At the moment, for example, it is focused on:
- continuing to work with Grow Wellington to bed down the Clean Technology Centre;
  - connecting up people who have smart ideas around energy efficiency and energy production business development opportunities and bringing them to Ōtaki to develop their ideas (e.g. housing). Much of this work is being undertaken by a new economic development role based in Ōtaki and focused on supporting the town on such things as the Clean Tech Centre and marketing the town when the Expressway is built.
  - taking opportunities and ideas developed by business operating out of the Clean Technology Centre and finding ways to make things happen in the town;
  - working on Council's own buildings to make them more energy efficient – the most recent is the Ōtaki Swimming Pool;
  - liaising with Electra to obtaining electricity use data and to discuss the implications of the net-exporter goal for the local network.
- 31 The Council working with the Community Board can play an important role in supporting the net-exporter goal. However it does not need to be involved in every project or initiative related to the goal – rather it can help create an environment where initiatives that support the goal can flourish, and be directly involved only where necessary.
- 32 It will be important that people feel there is regular opportunity to come together and exchange ideas and explore possibilities. It is suggested that the Council sponsor a bi-monthly forum where people can come together to discuss and exchange ideas, where people can showcase ideas and develop steps. It is strongly suggested that this is kept as informal as possible and is treated as a communication tool. Should particular projects require more formal project groups these can be developed on an as and when needed basis.

### **Council Contribution**

- 33 In the early stages, there are some key tasks that would help people to come together to build a strategy which would act as a reference point as people develop ideas and initiatives. The Council will provide assistance with the following:
- *Establish an energy use baseline for Ōtaki and system of measuring and monitoring local energy use and production on an ongoing basis.* This will require negotiating with major energy suppliers to the area to obtain the necessary data, collecting data directly from the end users of energy, or a combination of the two.
  - *Promote the goal to ensure it has a continuing profile and build new relationships* relating to the goal with community groups, local iwi, businesses, education and training providers, Electra and other key players in the energy sector.
  - *Carry out an appraisal* of energy efficiency, energy conservation and renewable energy production opportunities using currently available and emerging technologies, assessing their cost effectiveness, merits and drawbacks.
  - *Assess growth projections for Ōtaki and develop different scenarios* on how the net-exporter goal might be achieved in light of this.
- 34 It is recommended that the Community Board support the idea of a bi-monthly forum where people can come together to exchange ideas and develop projects and thinking.

### Financial Considerations

- 35 There are no financial considerations at this stage.

### Delegation

- 36 The Community Board has the authority under clause 6.1, Part D, of the Council's Governance Structure:  
*represent and act as an advocate for the interests of its community.*

### Consultation

- 37 It is proposed that feedback is sought on the modifications to the revised goal within the Greater Ōtaki Vision. This will happen by bringing the revision to the attention of interested individuals and groups via the proposed Forum process.

### Policy Implications

- 38 There are no policy implications at this stage.

## Publicity Considerations

- 39 The points for members of the community and key stakeholders to consider arising from the Community Board's decision will be publicised, and their feedback and input sought.

## RECOMMENDATIONS

- 40 That the Ōtaki Community Board approves the following re-wording within the Greater Ōtaki Vision document, for further feedback from the community via the proposed forum process:

*That the Greater Ōtaki community aspires to be a net exporter of energy. This will be achieved through increasing energy efficiency, energy conservation, local renewable energy production and use of lower-carbon energy sources.*

- 41 That the Ōtaki Community Board sponsors the holding of bi-monthly forums for purpose bringing together of members of the community and interested stakeholders and groups to discuss ideas, exchange information and develop projects related to the net energy exporter goal.

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## ATTACHMENTS:

**03 March 2011 03:33 P.M.**