

# AUCKLAND UNITARY PLAN

**Report To: Unitary Plan Political Working Party**

**Report Name: Infrastructure workstream: Issues and approaches**

## Executive summary

The infrastructure workstream has been divided into the following topics:

- transport
- network utilities
- energy
- designations.

There are overlaps between these topics. The infrastructure workstream does not include social infrastructure such as education facilities, community facilities and open space. These topics are included within the heritage, cultural and community workstream.

This report identifies:

- the priority issues which need to be addressed in the unitary plan for each of these topics, and
- the recommended broad approaches for addressing the identified issues.

This report does not address the full range of resource management issues associated with each topic. Rather it concentrates on the priority issues which warrant the most attention within the tight timeframe set for the development of the unitary plan.

## Transport

The priority issues for transport are summarised as follows:

1. Carbon emissions from transport need to be reduced to achieve a more sustainable and liveable Auckland.
2. Growth in the use of private vehicles has exceeded capacity along key routes. Resulting traffic congestion adversely affects general amenity, has negative economic effects, and increases vehicle emissions which affect human health.
3. Land use and transport have not been well integrated in the past. Land use has too often occurred in a manner that is difficult to service with sustainable transport modes i.e. public transport, walking and cycling.
4. Noise and air emissions from road traffic, and the noise from rail traffic, can have adverse effects on adjacent land uses. Likewise, land uses which are sensitive to noise and air emissions can, where located adjacent to existing or proposed major roads or rail corridors, compromise the development and operation of those networks.
5. Roads have different functions which sometimes conflict. Roads are used to move goods, services and people between destinations but they also provide access to land use activities connected to them. In addition, roads have a place making function which is related to their role as part of the public realm.
6. The parking standards in existing district plans are, in general, outdated and not supportive of the region's wider goals of achieving urban intensification and a more sustainable transport system.
7. The current plan rules for vehicle access and parking in the Auckland region are too complicated and lack consistency in like situations.
8. The existing district plans use a variety of techniques to manage the roading network in the Auckland region.

This report identifies approaches to:

- better integrate land use and transport,
- better manage the road network,
- better manage parking.

The recommended approaches for addressing the issues are summarised as follows:

1. Plan an efficient urban form where the location, scale, intensity and type of land use encourages and supports reduced reliance on private vehicles by providing for sustainable transport modes that offer alternatives.
2. Require the use of tools, such as integrated transport assessments, as part of the resource consent or plan change process.
3. Include objectives and policies which discourage road upgrading to accommodate more private vehicles except where alternative management options are not sufficient to address growth in travel demand.
4. Investigate and decide methods for managing the noise effects associated with road and rail traffic, and air emission effects associated with road traffic.
5. Investigate options for using financial contributions and/or development contributions to provide for the requirements of a particular development and to mitigate the adverse effects arising from that development.
6. Develop a region wide system for classifying roads according to their movement and access functions and taking into account their place making function. Also ensure that the unitary plan team participates in the development of corridor management plans, which is the responsibility of Auckland Transport.
7. Investigate how to best provide for roading infrastructure in the unitary plan. This includes considering the costs and benefits of zoning or designating existing roads.
8. Implement strategic approaches to parking which recognise the role of parking supply as a tool for managing travel demand. Such approaches include introducing maximum parking standards in suitable locations such as town centres in conjunction with a comprehensive parking management plan for each centre.
9. Update, standardise and simplify the rules which specify:
  - the number of parking and loading spaces required for particular activities
  - the standards for vehicle access and design of parking and loading spaces.

### **Network utilities**

The priority issues for network utilities are summarised as follows:

1. The RMA requires the unitary plan to give effect to the National Policy Statements ('NPS') on Electricity Transmission 2008 and the NPS on Renewable Electricity Generation 2011.
2. The existing objectives, policies and rules for network utilities in the Auckland region are too complicated because there are nine district plans.
3. The ongoing operation, maintenance and upgrading of critical network utilities can be compromised by adjacent land use activities, e.g. incompatible subdivision, use and development.
4. Land use change and infrastructure development need to be integrated so that network utilities are provided in a coordinated manner when there is a change in land use. This is particularly critical in areas of growth and intensification.

The recommended approaches for addressing the issues are summarised as follows:

1. Ensure that the unitary plan gives effect to the NPS on Electricity Transmission 2008 and the NPS on Renewable Electricity Generation 2011 and specifically demonstrates this in the summary section 32 report.

2. Update and standardise the objectives, policies and rules applying to network utilities which commonly occur throughout the region. Simplify the rules, and apply like rules, for like activities, in like environments.
3. Incorporate the two National Environmental Standards ('NES') (on Telecommunication Facilities 2008 and on Electricity Transmission Activities 2010) into the unitary plan.
4. Identify methods for addressing the concerns of network utility operators about potential reverse sensitivity effects for their critical network utilities.
5. Take the requirements of network utility operators into account prior to zoning land for more intensive development.

## **Energy**

The priority issues for energy are summarised as follows:

1. The RMA requires the unitary plan to give effect to the NPS on Renewable Electricity Generation 2011.
2. Existing and potential locations for renewable energy generation activities are sometimes in areas of high cultural, ecological and landscape values.
3. Developers of renewable energy generation projects find the consenting costs too high, processing times too long and the conditions of consent inequitable.
4. Renewable energy generation activities can have adverse effects on local communities, while GHG reduction benefits the nation.
5. Eight legacy district plans (excluding the Franklin Plan) do not explicitly encourage renewable energy generation activities in the Auckland region.
6. Reverse sensitivity effects, where potential and existing renewable energy generation activities can be compromised by sensitive adjacent land uses.
7. The Auckland population are high energy users and require secure access to large amounts of imported non-renewable energy.
8. GHG<sup>1</sup> emissions are rapidly increasing as people are using more energy and less efficiently, which contributes to global warming and climate change.

The recommended approaches for addressing the issues are summarised as follows:

1. Ensure that the unitary plan gives effect to the NPS on Renewable Electricity Generation 2011 by:
  - a. Investigating the criteria based approach, and the site identification approach, for protecting and encouraging potential renewable energy resource sites and activities;
  - b. Developing provisions encouraging renewable energy generation projects in appropriate locations, and discouraging projects in areas of high cultural, ecological and landscape values;
  - c. Investigating if the unitary plan should provide guidance on how tradeoffs between localised adverse effects and national benefits of renewable energy generation should be made;
  - d. Providing for small-scale renewable energy generation as a permitted activity;
  - e. Avoiding reverse sensitivity effects on renewable energy generation activities, by restricting sensitive development within close proximity of any sites and projects;

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<sup>1</sup> Anthropogenic GHG emissions, which means GHG emissions caused by human activities, as opposed to natural sources.

- f. Investigating options for streamlining the consenting process for renewable energy generation projects;
  - g. Identifying non-regulatory methods to encourage renewable energy generation activities.
2. Encourage GHG reduction by:
    - a. Developing provisions that protect existing vegetation, and further identify and protect potential vegetation in the Auckland region, for carbon sequestration.
    - b. Planning an efficient urban form where the location, scale, intensity and type of land use encourages and supports reduced reliance on private vehicles by providing for sustainable transport modes that offer alternatives.
    - c. Encouraging through provisions reduced GHG emissions in the residential sector of the unitary plan.
    - d. Investigating options for using financial contributions or development contributions to fund renewable energy generation projects.
    - e. Investigating ways businesses can reduce GHG emissions from the production and movement of goods and/or services
  3. Investigate how the unitary plan can protect existing and future major infrastructure sites, transmission lines and pipelines.

## **Designations**

The priority issues for designations are summarised as follows:

1. Requiring authorities have an opportunity to review their existing designations and determine whether those designations are still required and whether they should be modified to provide for future works, update conditions, and better address potential environmental effects.
2. The council has an opportunity to include its own requirements for new designations in the proposed plan.
3. Some other requiring authorities may also see the pending notification of the unitary plan as an opportunity for them to include in notices of requirement for new designations.

The recommended approaches for addressing the issues are summarised as follows:

1. Ask the requiring authorities to specifically consider whether modifications to their existing designations are necessary to provide for the next 15 years, more fully describe the activity and better address adverse effects.
2. Work with the relevant managers in Auckland Council to ensure that they understand their roles, responsibilities and options related to the status of Auckland Council as a requiring authority.
3. Decide whether the council is willing to receive new notices of requirement from external requiring authorities and from its CCOs to include in the unitary plan.

## **Recommendation**

That the issues and broad approaches in the Infrastructure Workstream Issues and Approaches paper be confirmed to enable further work to be undertaken.

## **Opportunities for innovation**

The approaches identified to address the issues outlined in this report include the following opportunities for innovation:

- Implementing strategic approaches to parking in the unitary plan which recognise that parking supply is a critical tool for managing travel demand;
- Ensuring in so far as is possible, that the provisions in the unitary plan for network utilities cater for the for new and emerging technology;
- Providing opportunities for renewable energy generation activities, while protecting areas of high cultural, ecological and landscape values;
- Reducing GHG emissions by encouraging sustainable buildings and site design.

## **Appendices**

Appendix 1: New Zealand Coastal Policy Statement 2010

Appendix 2: National Policy Statement on Electricity Transmission 2008

Appendix 3: National Policy Statement for Renewable Electricity Generation 2011

Appendix 4: New Zealand Energy Strategy 2007 and New Zealand Energy Efficiency and Conservation Strategy 2007 visions and targets

Appendix 5: Draft New Zealand Energy Strategy 2010 and Draft New Zealand Energy Efficiency and Conservation Strategy 2010 visions and target

## 1.0 Transport: Issues and approaches

### 1.1 Introduction

Transport issues must be addressed by a package of complementary statutory and non-statutory methods. As well as using the methods available through the unitary plan, Auckland Council and Auckland Transport need to address transport issues by:

- investing in transport infrastructure – including roads, walkways, cycleways, public transport and wharf facilities;
- managing Auckland Transport's on and off street parking;
- appropriately allocating road space to different types of transport, e.g. public transport, cycling, walking, general traffic and freight;
- working with other transport providers, in particular the New Zealand Transport Agency and KiwiRail;
- public education and advocacy to encourage behaviour change e.g. greater use of public transport, walking and cycling.

Resource management issues associated with transport broadly fall into two categories:

- the effects of transport on the environment, and
- the effects of the development and use of land on transport.

This report does not address the full range of resource management issues associated with transport. Rather it concentrates on the priority issues which warrant the most attention within the short timelines set out for the development of the unitary plan.

Transport overlaps strongly with other topics in the infrastructure workstream i.e. network utilities, designations and energy. The designation process is usually used to provide for major transport projects such as new state highways.

The transport topic affects all workstreams due to the relationship between land use and transport. However it particularly overlaps with the built environment workstream and the special areas workstream. The built environment workstream is relevant to transport because it considers the location, scale, intensity and type of land use development, including subdivision, provided for in the urban parts of the region. The special areas workstream covers the CBD including the Ports of Auckland activities.

### 1.2 Legislative requirements

Some provisions of the Resource Management Act ('RMA') 1991, Hauraki Gulf Marine Park Act 2000 and the Waitakere Ranges Heritage Area Act 2008, need to be considered for all topics. This section of the report only identifies the legislative requirements which are of more specific relevance to transport.

#### Land Transport Management Act 2003

The purpose of the Land Transport Management Act 2003 is "to contribute to the aim of achieving an affordable, integrated, safe, responsive, and sustainable land transport system." The Act provides for national and regional land transport strategies. The New Zealand Transport Strategy 2008 is prepared under this Act as is the Government Policy Statement on Land Transport Funding 2009/10-2018/19 ('GPS').

This Act requires the council to prepare a regional land transport strategy covering a period of 30 years. The Auckland Regional Land Transport Strategy 2010-2040 ('RLTS') is a legacy document which has helped to identify the issues for the unitary plan. The RLTS has also informed the development of the Auckland Plan.

The government has announced changes to the Land Transport Management Act to remove the requirement for a RLTS. However the RLTS remains the council's strategic transport document

until it is reviewed or replaced e.g. by a transport strategy developed under the Auckland Plan. The changes to the Land Transport Management Act also propose to amend the purpose of the Act so that it is "to contribute to an effective, efficient and safe transport system to support New Zealand's economic, social, cultural and environmental well-being."

To give effect to the RLTS, the legacy organisations (the Auckland Regional Transport Authority or 'ARTA', and the Auckland Regional Council or 'ARC') prepared a number of associated plans and strategies<sup>2</sup>. These have helped to identify issues for the unitary plan.

### **Local Government (Auckland) Amendment Act 2004**

The Local Government (Auckland) Amendment Act 2004 ('LGAAA') required Auckland local authorities to change their policy statements and plans prepared under the RMA to integrate the land transport and land use provisions and to make those provisions consistent with the Auckland Regional Growth Strategy. Under section 40(1)(b), the changes were required to contribute, in an integrated manner, to the matters specified in schedule 5. The matters specified in schedule 5 are as follows:

- "(a) providing increased certainty in the assessment of resource consents, designations, and plan changes related to transport and urban form, and ensuring that transport and land use patterns are aligned to achieve sustainability, efficiency, and liveability in the Auckland region; and
- (b) managing transport and transport infrastructure, facilitating a multimodal transport network, and facilitating integrated transport management; and
- (c) reducing adverse effects of transport on the environment (including improving air and water quality, reducing noise and stormwater, improving heritage protection and reducing community disruption and transport land use), and reducing the adverse effects and increasing the positive interactions of transport and land use; and
- (d) supporting compact sustainable urban form and sustainable urban land use intensification (including location, timing and sequencing issues, and associated quality, character, and values of urban form and design); and
- (e) integrating transport and land use policies to reinforce metropolitan urban and rural objectives of the Auckland Regional Policy Statement, the development of a competitive and efficient economy and high quality of life, underpinned by a quality environment and amenity."

### **New Zealand Coastal Policy Statement 2010**

The following policies from the New Zealand Coastal Policy Statement 2010 include specific reference to infrastructure or transport matters:

- policy 1(2)(i)
- policy 6(1)(a) and (b)
- policy 9
- policy 10(3)
- policy 18(c)
- policy 19
- policy 20
- policy 25(d)
- policy 27(1)(c).

These policies are attached in Appendix 1.

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<sup>2</sup> The following ARTA or ARC documents were considered:  
Sustainable Transport Plan 2006-2016  
Auckland Regional Freight Strategy 2006  
Auckland Passenger Transport Network Plan 2006-2016  
Auckland Regional Parking Strategy 2009  
Auckland Arterial Road Plan 2009  
Auckland Regional Road Safety Plan 2009/2012

## 1.3 Issues

### **Issue 1: Carbon emissions from transport need to be reduced**

Carbon emissions from transport need to be reduced to achieve a more sustainable and liveable Auckland. Approximately half of the carbon emissions in Auckland are from transport<sup>3</sup> and within that, most of the transport related emissions result from the use of the private vehicle.

Substantially reducing carbon emissions in Auckland therefore requires less reliance on the private vehicle and greater use of public transport, walking and cycling. Road transport is estimated to have accounted for 35 per cent of the Auckland region's carbon emissions in 2009, according to background research undertaken for the Auckland Plan. The Mayor has set a target of a 40% reduction in Auckland's carbon emissions by 2031 based on 1990 levels.

### **Issue 2: Traffic congestion has negative effects**

Growth in the use of private vehicles has exceeded capacity along key routes contributing to traffic congestion which is no longer limited to peak periods. Excessive traffic congestion adversely affects general amenity, has negative economic effects, and increases vehicle emissions which affect human health. Past methods of allocating transport resources, such as road space, have sought to provide for estimated demand. It is now recognised that such methods are not able to meet the growing demand for transport and reduce overall vehicle dependency.

#### *Explanation*

Some traffic congestion is good and is expected. Slower travelling traffic makes for safer environments for both pedestrians and vehicles.

### **Issue 3: Land use and transport have not been well integrated**

Land use and transport have not been well integrated in the past. Land use has too often occurred in a manner that is difficult to serve with sustainable transport modes which provide alternatives to private vehicle use. Land use patterns need to support reduced travel demand and encourage increased use of public transport, walking and cycling. Better integrating land use and transport can reduce the need to travel or the length of journeys as well as provide a greater choice of travel modes. The legacy councils undertook changes to their district plans and Regional Policy Statement to integrate land transport and land use provisions as required by the LGAAA. These changes were a very significant step forward in better integrating land use and transport within the region's planning documents. The unitary plan provides an opportunity to make further progress on this matter.

### **Issue 4: Noise and air emissions have adverse effects**

Noise and air emissions from road traffic, and the noise from rail traffic, can have adverse effects on adjacent land uses. Likewise land uses which are sensitive to noise and air emissions can, where located adjacent to existing or proposed major roads or rail corridors, compromise the development and operation of those networks.

#### *Explanation*

A resource consent or designation (or both) is usually required before a significant new road or rail corridor can be constructed. The consent or designation process provides an opportunity to require mitigation to reduce noise or air emission effects. Possible methods of mitigation include noise barriers, undergrounding, setbacks or acoustic insulation of existing buildings at the cost of the developer.

However, where new development occurs adjacent to existing or proposed major roads or rail corridors, there are potential reverse sensitivity effects. This needs to be addressed in the unitary

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<sup>3</sup> According to the background research on the Auckland Plan the transport sector contributed to 39.7% of carbon emissions in 2009.



plan as urban intensification seeks to achieve more intense development around major transport nodes including adjacent to regional arterial roads and rail corridors.

### **Issue 5: Roads have sometimes conflicting movement, access and place making functions**

Roads have different functions. Firstly, roads are used to move goods, services and people between destinations. This is known as the movement or traffic function. Secondly, roads also provide access to land use activities along and connected to them. This is known as the access or land service function. Different land use activities, e.g. residential, business, education, or recreation, have different movement characteristics and requirements.

In addition, greater awareness of urban design has highlighted potential conflicts between the movement and place making functions of roads, particularly where more intensive development is proposed along arterial roads. Arterial roads are heavily trafficked and some are key freight routes for the heavy vehicles which are important for the Auckland economy.

### **Issue 6: Current parking standards undermine regional strategy**

The parking standards in existing district plans are, in general, outdated and not supportive of the region's goals of achieving urban intensification and a more sustainable transport system. Therefore, the current parking standards need to be reviewed to ensure that they do not encourage an oversupply of free parking at locations where good alternatives are available. The parking standards need to consider available road capacity for the associated traffic generated and accessibility by public transport, cycling and walking. The unitary plan also provides an opportunity to achieve a consistent approach to parking across the region.

#### *Explanation*

With some exceptions (e.g. the CBD and Newmarket<sup>4</sup>), the parking standards that apply over most of the region were developed at a time when the emphasis was on requiring sufficient off street parking to provide for the expected traffic generated from the activity or activities occurring on the site. This 'predict and provide' approach assumes a continued high reliance on the private vehicle, creates congestion and does not align with council's current growth management objectives. There is now a greater acknowledgement of the role of parking supply as a tool for managing travel demand. Appropriately limiting and pricing parking supply can reduce private vehicle use, thereby better managing traffic congestion and achieving a more sustainable region. Auckland's high level strategic planning documents i.e. the Auckland Regional Policy Statement 1999, Auckland Regional Growth Strategy 1999, and the RLTS recognised the need to manage parking supply to achieve desired growth management outcomes. However, a process of amending the region's district plans to reflect this approach is in its early stages. It is essential to ensure that the parking standards in the unitary plan are aligned with the council's growth strategy and strategic direction which will be set in the Auckland Plan. It is also necessary to integrate the supply and management of parking with improvements to the public transport system.

The Regional Parking Strategy notes that, as well as influencing decisions about car use, the availability and cost of parking can also:

- "add significantly to development costs
- take up a considerable amount of space reducing the density of development
- reduce the amenity and walkability of an area
- lead to vast, unfriendly spaces dominated by impervious surfaces, and
- affect the economic viability and vitality of individual businesses and centres of activity.<sup>5</sup>"

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<sup>4</sup> See also plan changes 15 (Massey North) and 17 (New Lynn) to the Waitakere Plan.

<sup>5</sup> Auckland Regional Parking Strategy 2009, page 10.

## **Issue 7: Vehicle access and parking rules are complex and inconsistent**

Due to the existence of the nine district plans, the current plan rules for vehicle access and parking in the Auckland region are complicated and lack consistency in like situations. For example, the amount of parking required for similar activities varies between the district plans. In addition, some existing parking standards are based on overseas information or on outdated assumptions about how buildings are used. The formation of the Auckland Council and the development of the unitary plan provides an opportunity to review and update the rules and provide regional consistency where appropriate. This will make the plan easier to use and will assist the council to apply and justify the rules in a robust manner.

## **Issue 8: Techniques for managing the road network lack regional consistency**

The nine district plans use a variety of techniques to manage the roading network in the Auckland region. Each of the plans has a system for classifying the roads, generally related to the access and movement functions. Some plans also zone the roads (e.g. Manukau), and some plans designate roads (e.g. Auckland Isthmus and Auckland Central Area). The formation of the Auckland Council provides an opportunity to provide regional consistency where appropriate. In addition, established roading hierarchies have followed the traditional approach and focused on the traffic function of roads. There is a need to develop a transport network management system or classification that recognises the role and priority of different modes in different parts of the network. The different modes that need to be recognised include public transport, freight, general motor traffic and walking and cycling.

## **1.4 Approaches**

### **Approaches to better integrate land use and transport**

1. Implement the strategic approaches to parking identified below.
2. Plan an efficient urban form where the location, scale, intensity and type of land use encourages and supports reduced reliance on private vehicles by providing for sustainable transport modes that offer alternatives. This includes:
  - providing for growth and intensification in centres and corridors, with high quality public transport and walking and cycling connections;
  - directing intensive and high traffic generating land uses to highly accessible locations;
  - planning and encouraging growth within communities in a manner that balances jobs (employment activities) and workers (residential activities). People can then choose to reduce their travel distances by living close to where they work. Providing for a mix of residential and business uses in town centres assists with this;
3. Require the use of tools such as integrated transport assessments (ITAs) as part of a resource consent or plan change process. ITAs provide a method of ensuring that the development of new areas or sites is designed and implemented in a manner which promotes access by all transport modes and manages travel demand.
4. Include objectives and policies which discourage road upgrading to accommodate more private vehicles except where alternative management options are not sufficient to address growth in travel demand.
5. Investigate and decide methods for managing the noise effects associated with road and rail traffic, and air emission effects associated with road traffic. Potential methods include:
  - setting standards to apply to new road or rail corridors, or where major upgrading occurs particularly where the upgrading extends beyond the existing road boundary or designated rail corridor;
  - controlling the location of sensitive land uses such as residential uses or schools;
  - requiring buildings to be set back a certain distance from the road or rail corridor;
  - requiring acoustic insulation to be provided in new buildings located along high noise routes adjacent to existing or designated major roads or rail corridors;

- controlling the location, design and siting of new development proposed adjacent to existing or designated major roads or rail corridors.
6. Investigate options for using financial contributions and/or development contributions to fund transport infrastructure to provide for the requirements of a particular development and to mitigate the adverse effects arising from that development. It is envisaged that this work would be done outside of the infrastructure workstream as financial and development contributions are a specialist area that affects most workstreams. However, it is important to note this matter in this issues paper as the difficulty in aligning transport investment with land use outcomes is a major contributor to poor land use and transport integration.
  7. Ensure that the unitary plan team participates in the development of Corridor Management Plans, that are the responsibility of Auckland Transport. Contribute where required to ensure that any strategic vision identified through a Corridor Management Plan can be linked to the unitary plan.

### **Approaches to better manage the road network**

1. Implement the strategic approaches to parking identified below.
2. Implement the approaches identified above to better integrate land use and transport.
3. Develop a region wide system for classifying all roads according to their movement and access functions and taking into account their place making function, so that this information can be used to inform land use and unitary plan rules.
4. Investigate how to best provide for roading infrastructure in the unitary plan. This includes considering the costs and benefits of zoning or designating existing roads in the unitary plan. However, the decision as to whether a designation should be sought for existing roads rests with Auckland Transport.

### **Approaches to better manage parking**

#### *Strategic approaches*

1. Implement the strategic approach to parking identified in the policies and actions of the Auckland Regional Land Transport Strategy 2010-2040 (RLTS) and the Auckland Regional Parking Strategy 2009 (RPS). In particular address the following matters:
  - a. Introduce maximum parking standards for non-residential developments in suitable town centres. This should be done as an integral part of preparing and implementing Comprehensive Parking Management Plans ('CPMPs') for each centre.
  - b. Revise parking standards for high-density residential development in high density mixed-use town centres.
  - c. Develop parking standards which differentiate between short stay/visitor/operational parking and long stay/employee parking.
  - d. Control the supply of long stay/commuter off street parking (in so far as this can be done through the unitary plan).
  - e. Include standards for bicycle parking and 'end of trip' facilities i.e. bike storage, showers, lockers and laundry facilities.
2. Develop principles for applying maximum (rather than only minimum) parking standards through the unitary plan.

#### *Explanation (for 1 (a) and 2 above)*

Minimum parking standards currently apply throughout much of the region. Minimum parking standards require a certain level of parking to be provided. Maximum parking standards specify the maximum amount of parking which may be provided. The developer or business owner can then decide how much parking they wish to provide up to the maximum amount.

In some locations, public transport services have improved significantly since the time that the parking standards in current district plans were developed. Introducing parking maximums in those locations would allow developers or owners to reduce on site parking to below current requirements without having to apply for a resource consent.

Introducing maximum standards can increase pressure on nearby on street parking and lead to an overspill of parking in adjacent areas. The RLTS and the RPS therefore link introducing maximum standards with preparing and implementing CPMP. CPMPs allow the parking management and supply policies to be adapted to the particular characteristics and requirements of each town centre. The CPMP should include measures to deal with potential parking spillover effects resulting from the introduction of parking maximums. Auckland Transport is now responsible for preparing CPMPs.

In applying maximum parking standards in centres, there is a need to ensure that this does not have the unintended consequence of driving intensive developments to locate outside centres where parking restrictions do not apply. While the requirement to provide parking does add to the cost of undertaking development, the availability of free parking can also be a key attractor for tenants.

*Explanation (for 1 (b) above)*

The RPS notes that parking standards for higher density residential developments varies considerably across the region and that on the whole they appear to be relatively high when compared with equivalent standards overseas. Existing standards need to be reviewed to ensure that they are consistent with car ownership and car parking needs for residents of intensive residential development located in the centres.

*Explanation (for 1 (c) and (d) above)*

This report recommends that short stay or visitor parking be treated differently than long stay or commuter parking. The RPS explains the reasons for this as follows:

"The parking strategy clearly distinguishes between short stay or visitor parking (defined as parking for less than 4 hours), and long stay or commuter parking. The former is vital for the economy of businesses and town centres as a whole and an adequate supply of efficiently managed short stay parking is essential. The supply and management (including pricing) of long stay/commuter parking on the other hand has a direct influence on decisions on the use of the car for the trip to work. The management of commuter parking should be coordinated with the availability and quality of public transport and the feasibility and attractiveness of working or cycling to work in each town centre."<sup>6</sup>

Commuter parking generates a high proportion of the trips made during the morning and evening peaks. In general commuter trips are also more easily converted to public transport, walking or cycling when compared with short stay or visitor trips.

*Region wide parking and manoeuvring rules*

3. Update, standardise and simplify the standards which specify the number of parking and loading spaces required for particular activities. While there may be local or site-specific variations, there should be a generic default standard.
4. Develop generic standards for vehicle access and design of parking and loading spaces for the unitary plan. These standards should include requirements relating to the following matters:
  - sightlines at road intersections and road/rail crossings;

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<sup>6</sup> Auckland Regional Parking Strategy 2009, page 5.

- design and location of vehicle crossings;
- design of parking and circulation areas and loading spaces;
- parking for disabled persons;
- access to sites and parking areas;
- cycle parking dimensions.

## 1.5 Glossary

This section explains some of the technical terms used.

**Comprehensive Parking Management Plans (CPMP)** – The Regional Parking Strategy describes the functions of a comprehensive parking management plan as follows:

- "To set out the parking policy objectives for the centre including parking demand management, and the council's [now Auckland Transport's] policies for the supply and management of car parking, both short stay and long stay.
- To integrate parking policy with land use development and transport improvements for the centre concerned. This includes the means by which the council is responding to:
  - changes in land uses including higher density, mixed use development where appropriate,
  - future transport investment (roading, public transport, walking & cycling ) and public transport service improvements.
- To identify policies for the management and supply of public parking, both on-street and off-street and anticipated changes over time. This includes prioritising short stay parking where appropriate, and measures for protecting residential areas from any spill-over of commuter parking.
- To integrate the supply and management of parking for the centre with planned improvements to the passenger transport system serving the centre. This will assist in giving ARTA [now Auckland Transport] confidence that the council will ensure that PT improvements are supported by changes in the supply of long stay parking.
- To set out the criteria that would be used to assess applications for commercial parking buildings and for parking above the maximum standards set out in the District Plan.
- To set out conditions for assessing applications for parking above the site cap of 100 parking spaces
- To enable developers to be fully informed of the future parking supply and management regime applying to the centre. This could help give developers the confidence to put forward developments with a more innovative approach to parking.
- Where appropriate, to set out the process for determining the maximum parking standards applying to the centre concerned.<sup>7</sup>

**Corridor Management Plans (CMP)** – A planning tool which seeks to establish the existing and future operation of an entire corridor along a regional arterial road, through an integrated assessment of transport routes and land uses within the corridor. The Regional Arterial Road Plan 2009 ('RARP') encourages road controlling authorities (such as Auckland Transport) to prepare CMPs for all regional arterial routes. The RARP includes guidelines aimed at assisting decision making on the allocation of scarce regional arterial road space among different and competing demands to promote efficiency and effectiveness.<sup>8</sup>

<sup>7</sup> Auckland Regional Parking Strategy 2009, page 29.

<sup>8</sup> Auckland Regional Arterial Road Plan 2009, ARTA, page 25.

**Integrated Transport Assessments (ITA)** – An ITA is a comprehensive review of all the potential transport impacts from a Structure Plan, proposed Plan Change, a Metropolitan Urban Limits (MUL) shift or major trip generating activity. It aims to balance the need for public transport, freight, general motor traffic, vehicle parking and non motorised traffic. It is expected that the ITA would be undertaken at the beginning of the planning process and that the findings of the assessment would be taken into consideration to identify and inform any actions required to avoid, remedy or mitigate adverse effects of the development proposal on the transport system.  
[Definition from RLTS]

**Travel Demand Management (TDM)** – The term used to describe initiatives aimed at modifying travel behaviour in order to maximise the efficient use of transport systems. Examples of TDM measures include teleworking, ride sharing, more flexible work and educational hours, road pricing, parking constraints, cycling, walking and land use policies that support intensive mixed-use development. Such measures can avoid more costly expansion of the transport system by relieving the need to construct roads or provide more public transport.  
[Definition from RLTS]

## 2.0 Network utilities: Issues and approaches

### 2.1 Introduction

Network utilities include networks and facilities associated with pipelines, telecommunications and radio communications, electricity, water supply, drainage and sewerage systems, and transport (road, rail, airports). Most district plans have a chapter which deals specifically with network utilities. Network utilities are also often provided for by means of designations in district plans.

The topic of network utilities overlaps strongly with other topics within the infrastructure workstream i.e. transport, designations and energy. There is also an overlap with the special areas workstream which covers the CBD including the Ports of Auckland activities. For some types of network utilities there is also a strong overlap with the air, land and water component of the natural environment workstream. This particularly affects network utilities associated with stormwater and wastewater which involve discharges to land and water.

### 2.2 Legislative requirements

Some provisions of the RMA, the Hauraki Gulf Marine Park Act 2000 and the Waitakere Ranges Heritage Area Act 2008, need to be considered for all topics. This section of the report only identifies the legislative requirements which are of more specific relevance to network utilities.

#### Spatial plan

The requirement for Auckland Council to prepare a spatial plan is set out in the Local Government (Auckland Council) Amendment Act 2010. Section 79(3)(c) states that the spatial plan will –

- "(c) enable coherent and coordinated decision-making by the Auckland Council (as the spatial planning agency) and other parties to determine the future location and timing of critical infrastructure, services, and investment within Auckland in accordance with the strategy;"

(Underlining added)

Section 79 (4) of that Act includes requirements that the spatial plans must –

- "(b) visually illustrate how Auckland may develop in the future, including how growth may be sequenced and how infrastructure may be provided; and

...

- (d) identify the existing and future location and mix of –

...

- (ii) critical infrastructure, services, and investment within Auckland (including, for example, services relating to cultural and social infrastructure, transport, open space, water supply, wastewater, and stormwater, and services managed by network utility operators); and

..."

(Underlining added)

Section 80 of the Act specifically identifies "infrastructure providers (including network utility operators)" as parties that the council must involve throughout the preparation and development of the spatial plan. The council must also endeavour to secure and maintain their support and cooperation in the implementation of the spatial plan.

#### Specific Resource Management Act 1991 provisions

Section 30(1)(gb) identifies the following as a function of every regional council for the purpose of giving effect to the Act in its region:

"The strategic integration of infrastructure with land use through objectives, policies, and methods:"

Section 2 of the RMA defines the term infrastructure, as it is used in section 30, as follows:

"**infrastructure**, in section 30, means—

- (a) pipelines that distribute or transmit natural or manufactured gas, petroleum, biofuel, or geothermal energy;
- (b) a network for the purpose of telecommunication as defined in section 5 of the Telecommunications Act 2001;
- (c) a network for the purpose of radiocommunication as defined in section 2(1) of the Radiocommunications Act 1989;
- (d) facilities for the generation of electricity, lines used or intended to be used to convey electricity, and support structures for lines used or intended to be used to convey electricity, excluding facilities, lines, and support structures if a person—
  - (i) uses them in connection with the generation of electricity for the person's use; and
  - (ii) does not use them to generate any electricity for supply to any other person;
- (e) a water supply distribution system, including a system for irrigation;
- (f) a drainage or sewerage system;
- (g) structures for transport on land by cycleways, rail, roads, walkways, or any other means;
- (h) facilities for the loading or unloading of cargo or passengers transported on land by any means:
  - (i) an airport as defined in section 2 of the Airport Authorities Act 1966;
  - (j) a navigation installation as defined in section 2 of the Civil Aviation Act 1990;
  - (k) facilities for the loading or unloading of cargo or passengers carried by sea, including a port related commercial undertaking as defined in section 2(1) or of the Port Companies Act 1988;
- l) anything described as a network utility operation in regulations made for the purposes of the definition of network utility operator in section 166."

The term 'network utility operator' is defined in section 166 of the RMA as follows:

"**network utility operator** means a person who—

- (a) undertakes or proposes to undertake the distribution or transmission by pipeline of natural or manufactured gas, petroleum, biofuel, or geothermal energy; or
  - (b) operates or proposes to operate a network for the purpose of—
    - (i) telecommunication as defined in section 5 of the Telecommunications Act 2001; or
    - (ii) radiocommunication as defined in section 2(1) of the Radiocommunications Act 1989; or
  - (c) is an electricity operator or electricity distributor as defined in section 2 of the Electricity Act 1992 for the purpose of line function services as defined in that section; or
  - (d) undertakes or proposes to undertake the distribution of water for supply (including irrigation); or
  - (e) undertakes or proposes to undertake a drainage or sewerage system; or
  - (f) constructs, operates, or proposes to construct or operate, a road or railway line; or
  - (g) is an airport authority as defined by the Airport Authorities Act 1966 for the purposes of operating an airport as defined by that Act; or
  - (h) is a provider of any approach control service within the meaning of the Civil Aviation Act 1990; or
  - (i) undertakes or proposes to undertake a project or work prescribed as a network utility operation for the purposes of this definition by regulations made under this Act,—
- and the words **network utility operation** have a corresponding meaning"



Under section 167 of the RMA, network utility operators can apply for approval as a requiring authority. This enables them to use the designation process to provide for their activities in district plans.

### **New Zealand Coastal Policy Statement 2010**

The following policies contained in the New Zealand Coastal Policy Statement 2010 include specific reference to infrastructure:

- policy 1(2)(i)
- policy 6(1)(a) and (b)
- policy 10(3)
- policy 25(d)
- policy 27(1)(c).

These policies are attached in Appendix 1.

### **National Policy Statements**

The NPS on Electricity Transmission 2008 has the following objective:

"To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:

- managing the adverse environmental effects of the network; and
- managing the adverse effects of other activities on the network."

The NPS includes the following definition:

**"Electricity transmission network, electricity transmission and transmission activities/assets/infrastructure/resources/system** all mean part of the national grid of transmission lines and cables (aerial, underground and undersea, including the high voltage direct current link), stations and substations and other work used to connect grid injection points and grid exit points to convey electricity through the North and South Islands of New Zealand."

The NPS includes policies under the headings of recognising the national benefits of transmission, managing the environmental effects of transmission, managing the adverse effects of third parties on the transmission network, and long-term strategic planning for transmission assets. The council is expected to apply the NPS broadly, as stated in the preamble to the NPS:

"The national policy statement is to be applied by decision-makers under the Act. The objective and policies are intended to guide decision-makers in drafting plan rules, in making decisions on the notification of resource consents and in the determination of resource consent applications, and in considering notices of requirement for designations for transmission activities."

This policy is attached as Appendix 2.

Also of relevance is the NPS for Renewable Electricity Generation 2011. The objective of the NPS is:

"To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's target for renewable electricity generation."

The implications of this NPS is considered in more detail elsewhere in this report under the topic of renewable energy. This policy is attached as Appendix 3.

## **National Environmental Standards**

There are also two NES which set regulations on a national scale for certain types of network utilities. The relevant NES are:

- NES for Telecommunication Facilities 2008, and the
- NES for Electricity Transmission Activities 2009.

The NES for Telecommunication Facilities 2008 sets national standards for radiofrequency fields for telecommunication facilities and the dimensions and noise levels of telecommunication facilities in road reserves. The standards take precedence over existing rules in district plans that address the same matters. However the standards do allow district plans to include rules that are more stringent in terms of trees and vegetation, historic heritage, visual amenity and/or proximity to coastal marine areas. A rule or consent cannot be more stringent in its bulk and location standards than the NES.

The NES for Electricity Transmission Activities 2009 categorises activities that relate to the operation, maintenance, upgrade, relocation or removal of existing transmission lines. Activities are categorised as permitted activities, controlled activities, restricted discretionary activities, non-complying activities, or discretionary activities.

## **Other legislation**

Apart from the RMA, network utility operators also rely on other legislation to provide for their activities e.g. Electricity Act 1992, Railways Act 2005, Gas Act 1992, Transport Act 1962, Local Government Act 1974. The Utilities Access Act 2010 requires utility operators and corridor managers to comply with a national code of practice that regulates access to transport corridors i.e. roads, motorways and railway land.

## **2.3 Issues**

### **Issue 1: Giving effect to the NPS on Electricity Transmission 2008**

The RMA requires the unitary plan to give effect to the NPS on Electricity Transmission 2008. This NPS has identified as a matter of national significance the need to operate, maintain, develop and upgrade the electricity transmission network.

### **Issue 2: Existing provisions for network utilities are complex and lack consistency**

While the two NES provides some standardisation, the existing regulatory environment in the Auckland region for network utilities is still too complicated, because there are nine district plans. The creation of the Auckland Council provides an opportunity to provide regional consistency where appropriate. This will be easier for users of the plan and will assist the council to apply and justify the rules in the robust manner. The rules can also be updated to take into account technological changes which have affected the way in which network utilities are provided.

### **Issue 3: Adjacent land use activities can compromise critical network utilities**

The way in which critical network utilities can be provided, operated, maintained and upgraded can be compromised by adjacent land use activities e.g. incompatible subdivision, use and development.

#### *Explanation*

The Auckland Plan uses the term 'critical infrastructure' as this is the term used in the Local Government (Auckland Council) Amendment Act 2010. The Act does not define the term.

Proposed Change 6<sup>9</sup> to the Auckland Regional Policy Statement includes the following definition of regionally significant infrastructure:

**"Regionally Significant Infrastructure**

means infrastructure which is of greater than local significance. This can include infrastructure that is nationally significant.

The following are examples of regionally significant infrastructure:

- Mangere Wastewater Treatment Plant
- North Shore Wastewater Treatment Plant
- Ports of Auckland and Onehunga
- Auckland International and Ardmore Airports
- Energy and telecommunications networks, including electricity generation facilities (such as Otahuhu A and Otahuhu B) and electricity distribution networks
- Bulk water supply infrastructure
- Wiri Oil Supply Terminal and its associated bulk fuel supply infrastructure
- Regional Strategic Routes and Regional Arterial Roads
- The Rapid Transit Network
- The rail network, including North Island Main Trunk, North Auckland and branch lines
- Regional institutions, including universities such as the University of Auckland, other public tertiary institutions and prisons
- Regional Reserves and Parks
- Regionally significant reserves, such as Auckland Domain
- Auckland Public Hospital
- National defence establishments."

The Draft Proposed Regional Policy Statement includes the following definition:

**"Regionally significant infrastructure** means facilities and installations needed for the functioning of the community and which exhibit one or more of the following characteristics:

- the infrastructure provides a critical service, whose interruption would have a serious impact on a large proportion of the region's population;
- the infrastructure meets the definition of a lifeline or core emergency service under the Civil Defence and Emergency Management Act (2002);
- the infrastructure is or will be operated by a requiring authority (as defined by s166 of the RMA 1991) and has either a significant economic, educational, recreational benefit to the region;
- the infrastructure will generate electricity from renewable resources at a level which would contribute significantly to the region's energy supply."

#### **Issue 4: Land use change and infrastructure development are not well integrated**

Land use change and infrastructure development need to be better integrated. Network utilities need to be provided in a co-ordinated and timely manner sequenced with changes in land use particularly in areas of growth and intensification.

### **2.4 Approaches**

1. Ensure that the unitary plan gives effect to the NPS on Electricity Transmission 2008 and the NPS on Renewable Electricity Generation 2011 and specifically demonstrate this in the summary section 32 report relating to network utilities. Give effect to policy 14 of the NPS on Electricity Transmission 2008 by including in the unitary plan, objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with land uses.

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<sup>9</sup> Change 6 seeks to give effect to the regional growth concept and integrate land use and transport.

2. Standardise the objectives, policies and rules applying to network utilities which commonly occur throughout the region. Apply like rules, for like activities, in like environments<sup>10</sup>. Some changes will be needed to the existing approaches to reflect the national direction given in the NPS on Electricity Transmission 2008 and in the NPS on Renewable Electricity Generation 2011. Otherwise, it is expected that the objectives, policies and rules will continue to address the same themes as the existing legacy plans. The themes addressed in the existing legacy plans include:
  - the benefits and importance of network utilities;
  - servicing new or changed demand associated with growth and development or technological innovation;
  - environmental effects – modification of landscapes and vegetation, water discharges, emissions, visual impact particularly in areas of significant landscape value;
  - operational and management constraints;
  - reverse sensitivity.
3. Incorporate the two NES (on Telecommunication Facilities 2008 and on Electricity Transmission Activities 2009) into the unitary plan so it is clear to users which rules apply.
4. Give effect to policy 11 of the NPS on Electricity Transmission 2008 by consulting with the operator of the national grid (Transpower New Zealand) to identify an appropriate buffer corridor<sup>11</sup> within which it can be expected that sensitive activities will not generally be provided for in plans and/or given resource consent.
5. Work with the other network utility operators to understand their concerns about potential reverse sensitivity effects for their critical network utilities. Identify:
  - what types of use and development would be of concern if located adjacent to the particular network utility;
  - how close that use and development must be located to be of concern;
  - methods for addressing these concerns in the unitary plan.

#### *Explanation*

Potential methods for protecting critical network utilities from reverse sensitivity effects include:

- introducing or retaining designations. This action must be undertaken by the requiring authority responsible for the particular network utility;
  - using the planning maps to identify, where practicable, the location of critical network utilities;
  - applying a specific zoning to the network utility so that it is clear what level of development is provided for;
  - constraints on adjacent land use, especially activities which are likely to be sensitive to the particular network utility.
6. Engage with network utility operators and take their requirements into account prior to zoning land for more intensive development.

<sup>10</sup> Network utilities are also subject to the rules of the Regional Plan: Air, Land and Water. Some of that Plan is being considered for exclusion from the unitary plan in the short term, but the longer term intention is to include it.

<sup>11</sup> In the implementation guidance provided to support the NPS, Ministry for the Environment ('MfE') advised that "The creation of a buffer corridor would not result in 'sterilised' land use corridors. A range of land use can still occur in such corridors with little or minimal risks of adverse effects on the operational and maintenance requirements of Transpower. Also, the resource consent process for some developments and activities within the buffer corridor would ensure that appropriate design and performance controls could be imposed without unduly impeding land use." (Page 18, National Policy Statement on Electricity Transmission: Implementation Guidance for Local Authorities, MfE, 2010).

### *Explanation*

The council needs to involve network utility operators when it makes decisions about:

- where growth will be provided for
- the timing of the growth
- how the unitary plan can better align land use development with providing network utilities e.g. by developing a structure plan.

The Auckland Plan will set the strategic direction, including how growth may be sequenced and how infrastructure may be provided. The unitary plan has a key role in giving effect to the strategic direction by providing appropriate zonings and other statutory methods.

## 3.0 Energy: Issues and approaches

### 3.1 Introduction

The increase in the use of non-renewable energy, and subsequently in GHG<sup>12</sup> emissions, significantly contributes to climate change. Central government's strategic target is that 90 per cent of electricity will be generated by renewable energy sources in 2025 and that there will be a 50 per cent reduction in GHG emissions by 2050<sup>13</sup>. Currently 70 per cent of electricity is generated from renewable energy in New Zealand<sup>14</sup>. This gives effect to the New Zealand Emissions Trading Scheme, and enables New Zealand to meet its national obligations under the United Nations Framework Convention on Climate Change and Kyoto Protocol.

The Mayor's vision for Auckland is to create 'The most liveable city in the world,' and involves meeting the target of a 40 per cent reduction in GHG emissions by 2031 (based on 1990 levels). The RLTS 2010-2040 targets further reinforce this vision and target by aiming to reduce GHG emissions from domestic transport to 2007 levels, and increasing the mode share of public transport, walking and cycling across the CBD and isthmus. Auckland, according to background research on the Auckland Plan, accounts for approximately 12 per cent of New Zealand's GHG emissions. If no action is taken to reduce GHG emissions, they could increase to 46 per cent by 2025. Most of Auckland's energy comes from external<sup>15</sup> and non-renewable sources, including oil, gas and coal<sup>16</sup>.

To increase renewable energy generation, and decrease GHG emissions, Auckland Council needs to combine regulatory and non-regulatory methods. These include:

- Giving effect to the NPS for Renewable Electricity Generation 2011;
- Managing the tradeoffs between high cultural, ecological and landscape values and renewable energy generation activities;
- Considering ways of streamlining the consenting process for renewable energy generation projects;
- Managing the tradeoffs between local effects and national benefits for renewable energy generation;
- Avoiding reverse sensitivity effects which compromise opportunities for renewable energy generation;
- Reducing GHG emissions, particularly from the transport and residential sectors;
- Encouraging energy security and resilience, by providing for a diverse power supply, comprising of both renewable generation and existing large-scale generation;
- Advocating, providing advice and information on renewable energy generation and GHG emission reduction.

There is a strong overlap between the topic of energy and the other topics within the infrastructure workstream, i.e. transport, designations and network utilities. There is also an overlap with the built environment workstream, specifically with the topic of design, and with the rural and coastal workstream. This section of the report concentrates on renewable energy generation and GHG emission reduction.

### 3.2 Legislative requirements

Some provisions in the Hauraki Gulf Marine Park Act 2000, Waitakere Ranges Heritage Area Act 2008 and Local Government (Auckland Council) Amendment Act 2010, will need to be considered for all topics. This section of the report only identifies the legislative requirements which are of more specific relevance to energy.

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<sup>12</sup> Anthropogenic GHG emissions, which means GHG emissions caused by human activity, as opposed to natural sources.

<sup>13</sup> Priority given to renewable electricity (press release), 12 April 2011, Nick Smith, paragraph 2.

<sup>14</sup> Renewable energy in New Zealand, 2 March 2009, Te Ara, para 3.

<sup>15</sup> Nationally and internationally.

<sup>16</sup> Renewable Energy Assessment, Auckland Region, Final Report, 16 March 2007, SKM, page 9.

## **Energy Efficiency and Conservation Act 2000**

The purpose of the Energy Efficiency and Conservation Act 2000 is “to promote, in New Zealand, energy efficiency, energy conservation, and the use of renewable sources of energy.” The Minister of Energy and Resources, under the Act, is responsible for developing a national energy efficiency and conservation strategy. The New Zealand Energy Efficiency and Conservation Strategy 2007 is prepared under this Act, and is a companion document to, and will give effect to the objectives in, the New Zealand Energy Strategy 2007.

These strategies encourage council, through regional policy statements and regional and district plans, to identify and manage the effects of energy and support the development of renewable energy sources<sup>17</sup>. They also support the development of regional and local energy strategies. The vision and targets have informed the development of the Auckland Plan and identified issues to be addressed in the unitary plan. These strategies will be replaced by the Draft New Zealand Energy Strategy 2010 and the Draft New Zealand Energy Efficiency Conservation Strategy 2010. The visions and targets of the strategies and draft strategies are attached as Appendices 4 and 5.

## **Resource Management Act 1991**

The RMA does not define ‘energy’ but it is included in the definition of natural and physical resources. Under section 5 and section 7(b), a mandate is given to promote the sustainable management of the energy resource and have particular regard to the efficient use and development of energy resources, respectively.

Renewable energy is defined by the RMA as “energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave, and ocean current sources.” Regional councils and district authorities, according to section 7(j), shall have particular regard to “the benefits to be derived from the use and development of renewable energy.”

Regional councils and district authorities, under section 30(1) and 31(1), have functions in giving effect to the Act in the district or region. These include recognition of NPS and NES, under sections 55 and 44A (and more specifically sections 62(3), 67(3)(a) and 75(3)(a)), in regional policy statements and regional and district plans. The unitary plan must give effect to any relevant NPSs and NESs, such as the NPS on Renewable Electricity Generation 2011.

Although regional councils and consent authorities, under sections 70A and 104E, when considering an application for a discharge permit or coastal permit must not have regard to the effects on climate change unless the proposal involves the use or development of renewable energy (and only then the positive effects of a reduction in GHG emissions). These sections are a result of the 2004 amendments to the RMA, as central government intended to deal with GHG emissions by the carbon tax that has since been replaced with the Emissions Trading Scheme.

## **New Zealand Coastal Policy Statement 2010**

The following policies contained in the New Zealand Coastal Policy Statement 2010 include specific reference to infrastructure or energy matters:

- policy 1(2)(i)
- policy 2(a)
- policy 6(1)(a), (b) and (g)
- policy 10(3)
- policy 25(d)
- policy 27(1)(c).

These policies are attached in Appendix 1.

## **National Policy Statement for Renewable Electricity Generation 2011**

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<sup>17</sup> Draft New Zealand Energy Strategy, March 2011, Ministry of Economic Development, page 21.

The NPS for Renewable Electricity Generation 2011 has the following objective:

"To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation."

It also includes policies under the headings of recognising the benefits of renewable electricity generation activities, acknowledging the practical implications of achieving the target and the practical constraints of renewable electricity generation activities, managing reverse sensitivity effects, incorporation into regional policy statements and regional and district plans, and identification of renewable electricity possibilities.

The NPS on Renewable Electricity Generation 2011 defines 'renewable electricity generation' and 'small and community-scale distributed electricity generation'. The definitions of these terms are in the Glossary, section 3.5 of this report. .

The NPS also requires councils to include objectives, policies and methods in regional policy statements and regional and district plans to provide for the development, operation, maintenance and upgrading of:

- New and existing renewable electricity generation activities using solar, biomass, tidal, wave and ocean current energy resources;
- New and existing hydro-electricity generation activities;
- New and existing wind energy generation activities;
- New and existing electricity generation activities using geothermal resources;
- Small and community-scale distributed renewable electricity generation from any renewable electricity source.

The NPS also requires provisions for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation and prospective generators. The NPS is attached as Appendix 3.

The NPS on Electricity Transmission 2008 and the NES on Electricity Transmission Activities 2010 are addressed in the network utilities part of this report.

In the Auckland Plan, the council has identified energy as a priority area<sup>18</sup>. The council will develop an Energy Strategy<sup>19</sup> and a Greenhouse Gas Emission Reduction Strategy<sup>20</sup> that informs the high level direction of the Auckland Plan and suggests interventions and regulatory mechanisms for the unitary plan.

### **3.3 Issues**

#### ***Renewable Energy Generation***

##### **Issue 1: Giving effect to the NPS for Renewable Electricity Generation 2011**

The NPS on Renewable Electricity Generation 2011 identifies as matters of national significance the need to develop, operate, maintain and upgrade renewable electricity generation throughout New Zealand and the benefits of renewable electricity generation. The RMA requires the unitary plan to give effect to this NPS. This includes a requirement to include objectives, policies and methods in the unitary plan about specific matters.

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<sup>18</sup> Energy issues acknowledged in the Auckland Plan Discussion Document 2011 include the increasing energy demand, with over half of the demand from transport, and non-transport energy having a heavy reliance on external generation.

<sup>19</sup> The Energy Strategy is focussed on the physical infrastructure associated with energy.

<sup>20</sup> The Greenhouse Gas Emission Reduction Strategy is a result of the Mayor's target to reduce GHG emissions 40 per cent by 2031 (based on 1990 levels).



## **Issue 2: Tradeoffs in areas of high cultural, ecological and landscape values**

In many instances, existing and potential locations for renewable energy generation activities are in areas of high cultural, ecological and landscape values<sup>21</sup>. Renewable energy generation activities are constrained by the location of the energy resource and by the technical constraints of then harnessing that resource. For example, wind resources<sup>22</sup> for wind power generation are sometimes found in areas of high landscape value. The unitary plan needs to provide guidance on balancing environmental and cultural values with renewable energy generation requirements.

### *Explanation*

In the RMA, under Part II, there are competing issues and tensions as a result of sections 6 and 7 in relation to environmental/cultural values and renewable energy generation activities. Section 6 sets out matters of national importance that decision makers are required to 'recognise and provide for,' while section 7 sets out other matters that decision makers are required to 'have particular regard to,' which creates a hierarchy of priorities for decision makers. However, section 5 seeks to promote the sustainable management of natural and physical resources, and although this does not specifically mention electricity generation it leaves it to decision makers to balance the competing issues and tensions between environmental/cultural values and electricity generation activities<sup>23</sup>.

These competing issues and tensions between environmental/cultural values and electricity generation activities are also between the New Zealand Coastal Policy Statement 2010 and the NPSs on Biodiversity, Freshwater Management and Renewable Electricity Generation. Guidance on the competing issues and tensions between the environmental/cultural values and renewable energy generation activities therefore needs to be provided in the unitary plan.

## **Issue 3: Consenting process for projects**

A report undertaken for Auckland City Council in 2007 noted that developers for renewable energy generation projects find the consenting costs too high and processing times too long. Also, there is no distinction between small and large scale renewable energy generation activities effects, as the "mitigation" fees for small scale projects can be the same as for the large scale projects<sup>24</sup>.

This, in combination with the upfront capital costs for electricity being higher than the comparable costs for fossil fuels, is a barrier for developers of renewable energy generation projects<sup>25</sup>. In order to encourage small and large scale renewable energy generation projects in the Auckland region the council should further consider the costs, processing time and conditions of consents.

## **Issue 4: Tradeoffs between local effects and national benefits**

The adverse effects of renewable energy generation activities are experienced locally, while the benefits of GHG reduction are experienced nationally. Renewable energy generation activities may have adverse effects on local communities, such as noise and visual impact on the landscape from wind power generation. The unitary plan needs to address this issue of adverse effects on local communities.

## **Issue 5: Lack of provision in the legacy district plans**

Eight of the legacy district plans (excluding the Franklin Plan) do not explicitly encourage renewable energy generation activities in the Auckland region<sup>26</sup>. The Franklin Plan has specific

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<sup>21</sup> Renewable Energy Assessment, Auckland Region, Final Report, 16 March 2007, SKM, page i.

<sup>22</sup> Wind resources means wind speed.

<sup>23</sup> National Policy Statement on Renewable Electricity Generation, Evaluation under Section 32 of the Resource Management Act with additional information on various policies, March 2011, NZIER and Harrison Grierson, page 4-5.

<sup>24</sup> Renewable Energy Assessment, Auckland Region, Final Report, 16 March 2007, SKM, page 20.

<sup>25</sup> Renewable Energy Assessment, Auckland Region, Final Report, 16 March 2007, SKM, page 11.

<sup>26</sup> The following district plans were reviewed:

rules allowing small-scale solar and wind generation as permitted activities. The creation of the Auckland Council provides an opportunity to have specific provisions relating to the generation of energy or the use of renewable energy sources in the unitary plan.

#### **Issue 6: Reverse sensitivity effects**

Reverse sensitivity effects means that potential and existing renewable energy generation activities can be compromised by sensitive adjacent land uses, such as residential development.

#### ***Security of energy supply***

#### **Issue 7: Security of Energy supply**

The Auckland population are high energy users and require secure access to large amounts of imported non-renewable energy for everyday activities.

#### ***Explanation***

Auckland is reliant on external and non-renewable energy sources. It only generates 25 per cent of power from a combination of major generation facilities<sup>27</sup>.

Auckland's energy supply comes into the region via the national grid, such as natural gas from Taranaki and petrol and aviation fuel from Marsden Point. The national grid is subject to natural threats, as a result of its close proximity to volcanically sensitive areas. It can also be disrupted by day-to-day activities such as residential and business.

Auckland's population, as a result of the low density sprawl, is dependent on private vehicles and subsequently has a high transport fuel consumption. Transport accounts for 56 per cent of energy use in the region, according to background research undertaken for the Auckland Plan. This percentage will increase, further increasing GHG emissions and susceptibility to the national grid, and reducing resilience to changing energy suppliers<sup>28</sup>.

#### ***GHG Reduction***

#### **Issue 8: GHG emissions and energy efficiency**

GHG emissions are rapidly increasing as a result of people using more energy and less efficiently, for example the burning of fossil fuels, which contributes to global warming and climate change.

#### ***Explanation***

Auckland's total emissions (excluding forestry) have increased 17 per cent from 1990 to 2009, according to background research undertaken for the Auckland Plan. This is a result of growth in the total energy demanded, which is closely linked to economic activity from rising incomes and new technology powered by electricity, and population growth. Auckland's population in 2051 is projected to be 2.3 million, approximately 40 per cent of the nation's population, according to the Draft Proposed Auckland Regional Policy Statement 2010.

In the transport sector, private vehicles followed by freight, constitute the largest amount of emissions in the Auckland region. Many people use private vehicles, as they live and work in different areas, and are therefore unable to use public transport or active transport modes i.e.

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Auckland City Council – Central Area Section Plan (2005), Auckland City Council – Isthmus Section Plan (1999), Auckland City Council – Hauraki Gulf Islands Section Plan (operative 1996 and decision 2009), Franklin District Council Plan (2000), Manukau City Council Plan (2002), North Shore City Council Plan (2002), Rodney District Council Plan (operative in part 2006), Waitakere District Council Plan (2003).

<sup>27</sup> These include the Otahuhu B (gas-fired turbine), Southdown (gas-fired turbine), Glenbrook (co-generation unit), Greenmount Landfill (landfill gas), Rosedale Landfill (landfill gas) and Mangatangi Water Supply Dam (hydroelectric).

<sup>28</sup> For example, the international oil market is increasingly volatile and concerns have grown as a result of "peak oil" and dwindling international oil reserves, which may impact on Auckland's supply of energy.

walking and cycling. This is particularly the case in rural districts such as Franklin, as people need private vehicles to get to work and to facilities/services, which are usually located in different communities and settlements.

In the manufacturing and industry sector, Franklin district as a result of the Glenbrook Steel Mill has the highest amount of GHG emissions.

Many buildings and sites are not energy efficient, as they were not developed using sustainable and low impact design principles, and use non-renewable energy for appliances. Emissions within the residential sector are mostly due to hot water heating, space heating and appliance use.

If no action is taken to reduce GHG emissions, by 2021 Auckland's total carbon emissions (excluding forestry) would have increased 54 per cent from 1990 levels and 31 per cent from 2009 levels.

### **3.4 Approaches**

#### ***Renewable Energy Generation***

##### **Approaches to the NPS on Renewable Electricity Generation 2011**

1. Ensure that the unitary plan gives effect to this NPS on Renewable Electricity Generation 2011 and that this is specifically demonstrated in the summary section 32 report relating to energy.
2. Investigate the criteria based approach, and the site identification approach,<sup>29</sup> for protecting and encouraging potential renewable energy resource sites and activities.

#### *Explanation*

Legacy plans and policies use the criteria based approach by providing assessment criteria for infrastructure proposals, and identifying areas where infrastructure is not acceptable, leaving the site selection to the industry.

The New Zealand Coastal Policy Statement 2010, under policy 13(1)(c), requires the unitary plan to identify areas of high natural character by mapping and other means. The previous Auckland Regional Council, as part of the Draft Proposed Auckland Regional Policy Statement 2010, has already identified areas of high natural character on maps.

The NPS for Renewable Electricity Generation 2011 under policy G requires the unitary plan to enable the 'identification of renewable energy generation possibilities.' However Auckland Council does not have the technical or commercial knowledge to identify potential renewable energy resource sites.

There are advantages and disadvantages of both approaches. Further research needs to be undertaken to identify the approach that achieves the best outcome for the protection of high cultural, ecological and landscape values and potential renewable energy generation sites and activities.

3. Develop objectives, policies and methods that encourage renewable energy generation projects in appropriate locations and discourage projects in areas of high cultural, ecological and landscape values.
4. Investigate if the unitary plan should provide guidance on how tradeoffs between localised adverse effects and national benefits of renewable energy generation activities should be made.

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<sup>29</sup> This approach is based on background research undertaken for the Auckland Plan.

5. Provide for small-scale renewable energy generation as a permitted activity, for example, Franklin District Plan has low-level solar and wind generation as a permitted activity.
6. Give effect to policy D of the NPS for Renewable Electricity Generation 2011, by managing activities to avoid reverse sensitivity effects on consented and existing renewable energy generation activities.
7. Work with operators of existing renewable energy generation projects and determine their concerns about potential reverse sensitivity effects. This includes determining:
  - What types of uses and developments would be of concern if located adjacent to a particular project;
  - How close that land use and development must be located to be of concern;
  - Methods for addressing these concerns in the unitary plan.
8. Further develop provisions that restrict sensitive development within close proximity of potential renewable energy resource sites and projects.

### **Other approaches (non-regulatory and consent processing)**

1. Investigate options for streamlining the consenting process for renewable energy generation projects, for example by:
  - reducing the costs,
  - processing within shorter timeframes,
  - limiting notification requirements, and
  - increasing the length of time for which an unimplemented consent is valid.
2. Identify non-regulatory methods to encourage renewable energy generation activities. This could be by advocating the benefits of renewable energy generation activities, and by providing technical advice and information to applicants (especially in regards to the resource consent processes) for renewable energy generation projects. Non-regulatory methods can be identified in the unitary plan.

### **Security of energy supply**

1. Investigate how the unitary plan can protect existing and future major energy infrastructure sites, transmission lines and pipelines. For example, the thermal plants that maintain the peak supply in Auckland, which includes the Glenbrook, Otahuhu and Southdown sites.

#### *Explanation*

A diverse power supply, comprising of both renewable generation and existing large-scale generation, is required to achieve energy security and resilience in the near future.

### **GHG Reduction**

#### **Approaches in the unitary plan**

1. Plan an efficient urban form where the location, scale, intensity and type of land use encourages and supports reduced reliance on private vehicles by providing for sustainable transport modes that offer alternatives. This includes:
  - providing for growth and intensification in highly accessible locations, e.g. centres and corridors, with high quality public transport and walking/cycling connections;
  - directing intensive and high traffic generating land uses to highly accessible locations;
  - planning and encouraging growth within communities in a manner that balances jobs (employment activities) and workers (residential activities). People can then choose to reduce their travel distances by living close to where they work;
  - managing parking through the unitary plan in a manner that supports a compact urban form.

### *Explanation*

Compact urban form reduces people's private vehicle ownership and increases their use of alternative modes of transport, such as public transport and walking and cycling.

2. Develop provisions that protect existing vegetation, and further identify and protect areas suitable for planting vegetation, for carbon sequestration<sup>30</sup>.

### *Explanation*

Vegetation is likely to be protected in the unitary plan for other reasons, such as biodiversity and amenity, but objectives and policies should also recognise GHG reduction benefits.

3. Encourage reduced GHG emissions in the residential sector through the unitary plan by:
  - Developing objectives and policies encouraging sustainable buildings and site design;
  - Developing rules that enable buildings and sites to support renewable energy production, such as for solar heating and natural ventilation;
  - Developing rules that do not preclude domestic scale renewable energy production, such as photovoltaics;
  - Developing rules that protect properties' solar access, such as through development controls on maximum height<sup>31</sup> and on height in relation to boundary.

### *Explanation*

Buildings and sites which meet sustainable design standards minimise the effects on global warming and climate change. They are energy efficient, using renewable heat and less energy, with lower household energy and water costs. The buildings are also warmer, drier and healthier, increasing the occupant's quality of life.

Further approaches to reduce the GHG emissions of the residential sector are outlined in the built environment workstream, specifically within the design section of that report.

4. Investigate options for using financial contributions or development contributions to fund renewable energy generation projects.

### *Explanation*

Financial contributions "could be used to charge a greater contribution to energy generation methods that create the greatest environmental change" (SKM, 2007, p. 62). It is envisaged that this work would be done outside of the infrastructure workstream as financial contributions and development contributions are specialist areas and affect a range of workstreams. However, it is important to note this matter in this issue paper as the difficulty of achieving investment in renewable energy generation projects is a major contributor to the lack of developments in the region.

## **Other approaches (not within the unitary plan)**

1. Investigate regulatory and non-regulatory methods outside the unitary plan for reducing reliance on private vehicles. Such methods include charging and tolling private vehicles to fund public transport, and parking management.

### *Explanation*

Charges and tolls for public transport infrastructure funding, not only seek to encourage substantial shifts away from the use of private vehicles, but also make public transport a more attractive and affordable alternative.

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<sup>30</sup> Carbon sequestration is the process of removing carbon dioxide (and other forms of carbon) from the atmosphere and storing them in carbon sinks, such as forests, oceans or soils.

<sup>31</sup> Renewable Energy Assessment, Auckland Region, Final Report, 16 March 2007, SKM, page 70.

High parking prices seek to encourage less use of private vehicles and increased use of public transport.

2. As a non-regulatory approach, work with businesses in the commercial, industrial and manufacturing sectors to investigate ways to reduce the GHG emissions from the production and movement of goods and/or services. This can also reduce businesses running costs, increasing profits and sustainable reputation amongst clients and competitors.

### 3.5 Glossary

This section explains some of the technical terms used.

**Greenhouse gases (GHG)** – Gases in the atmosphere that retain more energy from outgoing infra red radiation than from incoming solar radiation. They include carbon dioxide, methane and water vapour.

[Definition from the New Zealand Energy Efficiency and Conservation Strategy 2007]

**Renewable electricity generation** – means generation of electricity from solar, wind, hydro-electricity, geothermal, biomass, tidal, wave, or ocean current energy sources.

[Definition from the NPS for Renewable Electricity Generation 2011]

**Renewable electricity generation activities** – means the construction, operation and maintenance of structures associated with renewable electricity generation. This includes small and community-scale distributed renewable generation activities and the system of electricity conveyance required to convey electricity to the distribution network and/or the national grid and electricity storage technologies associated with renewable electricity.

[Definition from the NPS for Renewable Electricity Generation 2011]

**Renewable energy** – means energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave, and ocean current sources.

[Definition from the Resource Management Act 1991]

**Small and community-scale distributed electricity generation** – means renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network.

[Definition from the NPS on Renewable Electricity Generation 2011]

## **4.0 Designations: Issues and approaches**

### **4.1 Introduction**

The RMA provides for public works and some private project works by way of designations. Those organisations that are able to designate land are referred to as requiring authorities. Requiring authorities include Ministers of the Crown, local authorities and the network utility operators who have been approved as requiring authorities under section 167 of the RMA. Works that are commonly provided for by way of designations include schools, electricity substations, police stations, motorways and roading improvements. Once the designation is included in the district plan, works that are authorised by the designation can proceed subject to the conditions attached to the designation. The work does not need to comply with the district plan zonings and rules which would otherwise normally apply. However any rules from the applicable regional plan(s) still continue to apply. This is particularly relevant to large construction projects as these usually require regional consents for earthworks, contamination and stormwater discharge.

Before notifying the unitary plan, the council must follow the process set out in clause 4 of schedule 1 in the RMA. This involves inviting requiring authorities which have a designation in the legacy plans that has not lapsed to give written notice stating whether they require the designation to be included in the proposed plan, with or without modification. This is often referred to as a process of 'rolling over' designations. Designations which are rolled over into new plans, with or without modification, are then open for submission and hearing when the plan is notified.

The council is also able to roll over its own existing designations and may also include its own requirements for new designations in the proposed plan. The standard of information that needs to be provided for new requirements included in the plan at the time of notification is no different than is required at other times. There is no obligation for the council to accept new requirements for designations from other requiring authorities and include them in the proposed plan. Requiring authorities are able to lodge new notices of requirement for designations at any time in accordance with the process set out in the RMA. If the council is given a notice of a requirement in the normal manner, and proposes to publicly notify the proposed plan within 40 working days of receipt of that requirement, the council may, with the consent of the requiring authority, include the requirement in its proposed plan instead of independently processing it in accordance with section 169.

The nine legacy district plans contain approximately 1600 designations. About one third of the designations originate from the legacy councils i.e. these are the designations where one of the legacy councils is identified in the relevant district plan as the requiring authority. However, a substantial number of these legacy council designations have been transferred to Auckland Transport or Watercare. There are still council designations for such activities as reserves, community facilities and waste disposal facilities.

As part of the government's phase II Resource Management Reforms there may be some changes to the designation provisions in the RMA. In particular, the Minister for the Environment has indicated his intention to report back to Parliament in early 2012 with options clarifying the nature and detail of information required in notices of requirement and outline plans. This particular matter will be of considerable relevance to the council's approach to both rolled over designations and new notices of requirement.

### **4.2 Legislative requirements**

The following provisions in part 1 of schedule 1 of the RMA relate specifically to how notices of requirement are to be handled when preparing a district plan:

- section 4 - requirements to be inserted prior to notification of a proposed district plan,
- section 5(1B) - notice to directly affected owners and occupiers,
- section 9 - recommendations and decisions on requirements,
- section 11(2) - notification of decision,
- section 13 - decision of requiring authority or heritage protection authority.

Section 4 is of particular relevance and states as follows:

- “4 Requirements to be inserted prior to notification of proposed district plans**
- (1) Before a territorial authority publicly notifies a district plan under [clause 5](#), it shall, by written request, invite requiring authorities which have a designation in the district that has not lapsed to give written notice to the territorial authority stating whether the requiring authority requires the designation to be included in the proposed plan, with or without modification.
  - (2) The written request shall give the requiring authority at least 30 working days to respond, and shall specify the final date for the requiring authority to provide its written notice.
  - (3) Where the requiring authority states that a designation is to be included in the proposed plan, with modifications, the requiring authority shall include in its written notice the nature of the modifications, and the reasons for the modifications.
  - (4) If the requiring authority fails to notify the territorial authority in accordance with subclause (1), no provision for the designation shall be included in the proposed plan.
  - (5) A territorial authority shall include in its proposed plan provision for any designation it receives notice of under this clause, any existing heritage orders, and any requirements for designations and heritage orders to which [sections 170](#) and [192](#) apply.
  - (6) A territorial authority may include in its proposed district plan—
    - (a) any requirement for a designation or heritage order which the territorial authority has responsibility for within its district; and
    - (b) any existing designations or heritage orders, with or without modifications, which the territorial authority has responsibility for within its own district.
  - (7) If a territorial authority includes a requirement, or modification of a requirement, in its proposed district plan under subclause (6), it must make available for public inspection all information about the requirement that is required by the prescribed form for the notice of that requirement.
  - (8) Nothing in this clause applies where a territorial authority publicly notifies a change or variation to a district plan under [clause 5](#).
  - (9) A requiring authority may withdraw a requirement for a designation in accordance with [section 168\(4\)](#) and a heritage protection authority may withdraw a requirement for a heritage order in accordance with [section 189\(4\)](#).
  - (10) If a territorial authority receives notice from a requiring authority that a requirement has been withdrawn, the territorial authority must, as soon as reasonably practicable and without using the process in this schedule, amend its proposed district plan accordingly.”

### **4.3 Issues**

#### **Issue 1: An opportunity for requiring authorities to review existing designations**

Requiring authorities have an opportunity to review their existing designations and determine whether those designations are still required and whether they should be modified to provide for future works, update conditions, and better address potential environmental effects. The council can initially influence this process by encouraging the requiring authorities to properly review their designations and provide a good standard of information with their roll over notices. The council also has a later opportunity to influence this process through its regulatory role in the submission and hearing process.

#### **Issue 2: An opportunity for new council designations**

The council has an opportunity to include its own requirements for new designations in the proposed plan. This can be an effective way of both providing for existing public facilities such as



libraries and for future proposed works. While the council can lodge its own notices of requirement at any time, the preparation of the unitary plan does provide some impetus to do so.

### **Issue 3: Other requiring authorities may seek new designations**

Some other requiring authorities, including CCOs such as Auckland Transport and Watercare, may also see the pending notification of the unitary plan as an opportunity for them to include notices of requirement for new designations. This could include requirements for existing works which are not currently designated. If the council accepts such notices and includes them in the plan, this will have resourcing implications.

## **4.4 Approaches**

1. When the council asks requiring authorities whether they wish to retain their existing designations, the council will specifically ask the requiring authorities to consider whether modifications to their existing designations are necessary to:
  - a. Provide for activities to be undertaken in accordance with the designated purpose over the next 15 years (which is the anticipated life of the unitary plan).
  - b. State the designated purpose more clearly and better describe the nature and extent of activities that are intended to be authorised by the designation, including any proposed changes to the activities (e.g. new technologies or methods of undertaking activities). There are likely to be opportunities to standardise descriptions for similar activities, such as electricity substations, which occur throughout the region.
  - c. Update conditions which are no longer relevant. For instance the conditions may relate to phases of the project which have been completed, e.g. construction and establishment conditions. Alternatively the conditions may refer to specific provisions of the parent district plan.
  - d. Add or modify conditions in order to better avoid, remedy or mitigate environmental effects arising from the activities that will be authorised by the designation. This will be particularly relevant to older designations, already rolled over from earlier planning documents, which sometimes have few or no conditions.
2. The unitary plan team will work with the relevant managers within Auckland Council to ensure that they understand their roles, responsibilities, and options related to the status of Auckland Council as a requiring authority. This relates to both the existing designations and to the opportunities to include new requirements in the unitary plan.
3. The council needs to decide whether it is willing to receive new notices of requirement from external requiring authorities and its CCOs to include in the unitary plan. In deciding its policy on such notices, the council should consider the following:
  - resourcing implications for the unitary plan team
  - charging arrangements – the requiring authority should pay actual and reasonable costs as would normally be the case for a notice affecting the existing district plans
  - timeframes – the requiring authority must accept that processing the notice will be determined by the unitary plan timeframes.

## 5.0 Conclusion and recommendation

This report has identified the priority issues and broad approaches recommended for the infrastructure workstream of the unitary plan. The workstream has been divided into the topics of transport, network utilities, energy and designations. There is considerable overlap between these topics. The issues and approaches have been summarised in the executive summary at the beginning of this report.

The recommendation of this report is:

That the issues and broad approaches in the Infrastructure Workstream Issues and Approaches paper be confirmed to enable further work to be undertaken.

### Signatories

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## **APPENDICES**

(Only the relevant policies referred to in the report are attached)

**APPENDIX 1**  
**New Zealand Coastal Policy Statement 2010**

# Policies

## Policy 1 Extent and characteristics of the coastal environment

- (1) Recognise that the extent and characteristics of the coastal environment vary from region to region and locality to locality; and the issues that arise may have different effects in different localities.
- (2) Recognise that the coastal environment includes:
  - (a) the coastal marine area;
  - (b) islands within the coastal marine area;
  - (c) areas where coastal processes, influences or qualities are significant, including coastal lakes, lagoons, tidal estuaries, saltmarshes, coastal wetlands, and the margins of these;
  - (d) areas at risk from coastal hazards;
  - (e) coastal vegetation and the habitat of indigenous coastal species including migratory birds;
  - (f) elements and features that contribute to the natural character, landscape, visual qualities or amenity values;
  - (g) items of cultural and historic heritage in the coastal marine area or on the coast;
  - (h) inter-related coastal marine and terrestrial systems, including the intertidal zone; and
  - (i) physical resources and built facilities, including infrastructure, that have modified the coastal environment.

## Policy 2 The Treaty of Waitangi, tangata whenua and Māori heritage

In taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi), and kaitiakitanga, in relation to the coastal environment:

- (a) recognise that tangata whenua have traditional and continuing cultural relationships with areas of the coastal environment, including places where they have lived and fished for generations;
- (b) involve iwi authorities or hapū on behalf of tangata whenua in the preparation of regional policy statements, and plans, by undertaking effective consultation with tangata whenua; with such consultation to be early, meaningful, and as far as practicable in accordance with tikanga Māori;
- (c) with the consent of tangata whenua and as far as practicable in accordance with tikanga Māori, incorporate mātauranga Māori<sup>1</sup> in regional policy statements, in plans, and in the consideration of applications for resource consents, notices of requirement for designation and private plan changes;
- (d) provide opportunities in appropriate circumstances for Māori involvement in decision making, for example when a consent application or notice of requirement is dealing with cultural localities or issues of cultural significance, and Māori experts, including pūkenga<sup>2</sup>, may have knowledge not otherwise available;
- (e) take into account any relevant iwi resource management plan and any other relevant planning document recognised by the appropriate iwi authority or hapū

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<sup>1</sup> Mātauranga Māori: as defined in the Glossary.

<sup>2</sup> Pūkenga: as defined in the Glossary.

and lodged with the council, to the extent that its content has a bearing on resource management issues in the region or district; and

- (i) where appropriate incorporate references to, or material from, iwi resource management plans in regional policy statements and in plans; and
  - (ii) consider providing practical assistance to iwi or hapū who have indicated a wish to develop iwi resource management plans;
- (f) provide for opportunities for tangata whenua to exercise kaitiakitanga over waters, forests, lands, and fisheries in the coastal environment through such measures as:
- (i) bringing cultural understanding to monitoring of natural resources;
  - (ii) providing appropriate methods for the management, maintenance and protection of the taonga of tangata whenua;
  - (iii) having regard to regulations, rules or bylaws relating to ensuring sustainability of fisheries resources such as taiāpure, mahinga mātaītai or other non commercial Māori customary fishing; and
- (g) in consultation and collaboration with tangata whenua, working as far as practicable in accordance with tikanga Māori, and recognising that tangata whenua have the right to choose not to identify places or values of historic, cultural or spiritual significance or special value:
- (i) recognise the importance of Māori cultural and heritage values through such methods as historic heritage, landscape and cultural impact assessments; and
  - (ii) provide for the identification, assessment, protection and management of areas or sites of significance or special value to Māori, including by historic analysis and archaeological survey and the development of methods such as alert layers and predictive methodologies for identifying areas of high potential for undiscovered Māori heritage, for example coastal pā or fishing villages.

## **Policy 6 Activities in the coastal environment**

- (1) In relation to the coastal environment:
  - (a) recognise that the provision of infrastructure, the supply and transport of energy including the generation and transmission of electricity, and the extraction of minerals are activities important to the social, economic and cultural well-being of people and communities;
  - (b) consider the rate at which built development and the associated public infrastructure should be enabled to provide for the reasonably foreseeable needs of population growth without compromising the other values of the coastal environment;
  - (c) encourage the consolidation of existing coastal settlements and urban areas where this will contribute to the avoidance or mitigation of sprawling or sporadic patterns of settlement and urban growth;
  - (d) recognise tangata whenua needs for papakāinga<sup>3</sup>, marae and associated developments and make appropriate provision for them;

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<sup>3</sup> Papakāinga: as defined in the Glossary.

- (e) consider where and how built development on land should be controlled so that it does not compromise activities of national or regional importance that have a functional need to locate and operate in the coastal marine area;
  - (f) consider where development that maintains the character of the existing built environment should be encouraged, and where development resulting in a change in character would be acceptable;
  - (g) take into account the potential of renewable resources in the coastal environment, such as energy from wind, waves, currents and tides, to meet the reasonably foreseeable needs of future generations;
  - (h) consider how adverse visual impacts of development can be avoided in areas sensitive to such effects, such as headlands and prominent ridgelines, and as far as practicable and reasonable apply controls or conditions to avoid those effects;
  - (i) set back development from the coastal marine area and other water bodies, where practicable and reasonable, to protect the natural character, open space, public access and amenity values of the coastal environment; and
  - (j) where appropriate, buffer areas and sites of significant indigenous biological diversity, or historic heritage value.
- (2) Additionally, in relation to the coastal marine area:
- (a) recognise potential contributions to the social, economic and cultural wellbeing of people and communities from use and development of the coastal marine area, including the potential for renewable marine energy to contribute to meeting the energy needs of future generations;
  - (b) recognise the need to maintain and enhance the public open space and recreation qualities and values of the coastal marine area;
  - (c) recognise that there are activities that have a functional need to be located in the coastal marine area, and provide for those activities in appropriate places;
  - (d) recognise that activities that do not have a functional need for location in the coastal marine area generally should not be located there; and
  - (e) promote the efficient use of occupied space, including by:
    - (i) requiring that structures be made available for public or multiple use wherever reasonable and practicable;
    - (ii) requiring the removal of any abandoned or redundant structure that has no heritage, amenity or reuse value; and
    - (iii) considering whether consent conditions should be applied to ensure that space occupied for an activity is used for that purpose effectively and without unreasonable delay.

## Policy 9 Ports

Recognise that a sustainable national transport system requires an efficient national network of safe ports, servicing national and international shipping, with efficient connections with other transport modes, including by:

- (a) ensuring that development in the coastal environment does not adversely affect the efficient and safe operation of these ports, or their connections with other transport modes; and
- (b) considering where, how and when to provide in regional policy statements and in plans for the efficient and safe operation of these ports, the development of their capacity for shipping, and their connections with other transport modes.

## Policy 10 Reclamation and de-reclamation

- (1) Avoid reclamation of land in the coastal marine area, unless:
  - (a) land outside the coastal marine area is not available for the proposed activity;
  - (b) the activity which requires reclamation can only occur in or adjacent to the coastal marine area;
  - (c) there are no practicable alternative methods of providing the activity; and
  - (d) the reclamation will provide significant regional or national benefit.
- (2) Where a reclamation is considered to be a suitable use of the coastal marine area, in considering its form and design have particular regard to:
  - (a) the potential effects on the site of climate change, including sea level rise, over no less than 100 years;
  - (b) the shape of the reclamation, and, where appropriate, whether the materials used are visually and aesthetically compatible with the adjoining coast;
  - (c) the use of materials in the reclamation, including avoiding the use of contaminated materials that could significantly adversely affect water quality, aquatic ecosystems and indigenous biodiversity in the coastal marine area;
  - (d) providing public access, including providing access to and along the coastal marine area at high tide where practicable, unless a restriction on public access is appropriate as provided for in policy 19;

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- (e) the ability to remedy or mitigate adverse effects on the coastal environment;
  - (f) whether the proposed activity will affect cultural landscapes and sites of significance to tangata whenua; and
  - (g) the ability to avoid consequential erosion and accretion, and other natural hazards.
- (3) In considering proposed reclamations, have particular regard to the extent to which the reclamation and intended purpose would provide for the efficient operation of infrastructure, including ports, airports, coastal roads, pipelines, electricity transmission, railways and ferry terminals, and of marinas and electricity generation.
- (4) De-reclamation of redundant reclaimed land is encouraged where it would:
  - (a) restore the natural character and resources of the coastal marine area; and
  - (b) provide for more public open space.



**Policy 18 Public open space**

Recognise the need for public open space within and adjacent to the coastal marine area, for public use and appreciation including active and passive recreation, and provide for such public open space, including by:

- (a) ensuring that the location and treatment of public open space is compatible with the natural character, natural features and landscapes, and amenity values of the coastal environment;
- (b) taking account of future need for public open space within and adjacent to the coastal marine area, including in and close to cities, towns and other settlements;
- (c) maintaining and enhancing walking access linkages between public open space areas in the coastal environment;
- (d) considering the likely impact of coastal processes and climate change so as not to compromise the ability of future generations to have access to public open space; and
- (e) recognising the important role that esplanade reserves and strips can have in contributing to meeting public open space needs.

**Policy 19 Walking access**

- (1) Recognise the public expectation of and need for walking access to and along the coast that is practical, free of charge and safe for pedestrian use.
- (2) Maintain and enhance public walking access to, along and adjacent to the coastal marine area, including by:
  - (a) identifying how information on where the public have walking access will be made publicly available;
  - (b) avoiding, remedying or mitigating any loss of public walking access resulting from subdivision, use, or development; and
  - (c) identifying opportunities to enhance or restore public walking access, for example where:
    - (i) connections between existing public areas can be provided; or
    - (ii) improving access would promote outdoor recreation; or
    - (iii) physical access for people with disabilities is desirable; or
    - (iv) the long-term availability of public access is threatened by erosion or sea level rise; or
    - (v) access to areas or sites of historic or cultural significance is important; or
    - (vi) subdivision, use, or development of land adjacent to the coastal marine area has reduced public access, or has the potential to do so.
- (3) Only impose a restriction on public walking access to, along or adjacent to the coastal marine area where such a restriction is necessary:
  - (a) to protect threatened indigenous species; or
  - (b) to protect dunes, estuaries and other sensitive natural areas or habitats; or
  - (c) to protect sites and activities of cultural value to Māori; or
  - (d) to protect historic heritage; or
  - (e) to protect public health or safety; or
  - (f) to avoid or reduce conflict between public uses of the coastal marine area and its margins; or
  - (g) for temporary activities or special events; or
  - (h) for defence purposes in accordance with the Defence Act 1990; or

- (i) to ensure a level of security consistent with the purpose of a resource consent; or
  - (j) in other exceptional circumstances sufficient to justify the restriction.
- (4) Before imposing any restriction under (3), consider and where practicable provide for alternative routes that are available to the public free of charge at all times.

**Policy 20 Vehicle access**

- (1) Control use of vehicles, apart from emergency vehicles, on beaches, foreshore, seabed and adjacent public land where:
  - (a) damage to dune or other geological systems and processes; or
  - (b) harm to ecological systems or to indigenous flora and fauna, for example marine mammal and bird habitats or breeding areas and shellfish beds; or
  - (c) danger to other beach users; or
  - (d) disturbance of the peaceful enjoyment of the beach environment; or
  - (e) damage to historic heritage; or
  - (f) damage to the habitats of fisheries resources of significance to customary, commercial or recreational users; or
  - (g) damage to sites of significance to tangata whenua; might result.
- (2) Identify the locations where vehicular access is required for boat launching, or as the only practicable means of access to private property or public facilities, or for the operation of existing commercial activities, and make appropriate provision for such access.
- (3) Identify any areas where and times when recreational vehicular use on beaches, foreshore and seabed may be permitted, with or without restriction as to type of vehicle, without a likelihood of any of (1)(a) to (g) occurring.

**Policy 25 Subdivision, use, and development in areas of coastal hazard risk**

In areas potentially affected by coastal hazards over at least the next 100 years:

- (a) avoid increasing the risk<sup>10</sup> of social, environmental and economic harm from coastal hazards;
- (b) avoid redevelopment, or change in land use, that would increase the risk of adverse effects from coastal hazards;
- (c) encourage redevelopment, or change in land use, where that would reduce the risk of adverse effects from coastal hazards, including managed retreat by relocation or removal of existing structures or their abandonment in extreme circumstances, and designing for relocatability or recoverability from hazard events;
- (d) encourage the location of infrastructure away from areas of hazard risk where practicable;
- (e) discourage hard protection structures and promote the use of alternatives to them, including natural defences; and
- (f) consider the potential effects of tsunami and how to avoid or mitigate them.

Policy 27 Strategies for protecting significant existing development from coastal hazard risk

- (1) In areas of significant existing development likely to be affected by coastal hazards, the range of options for reducing coastal hazard risk that should be assessed includes:
  - (a) promoting and identifying long-term sustainable risk reduction approaches including the relocation or removal of existing development or structures at risk;
  - (b) identifying the consequences of potential strategic options relative to the option of 'do-nothing';
  - (c) recognising that hard protection structures may be the only practical means to protect existing infrastructure of national or regional importance, to sustain the potential of built physical resources to meet the reasonably foreseeable needs of future generations;
  - (d) recognising and considering the environmental and social costs of permitting hard protection structures to protect private property; and
  - (e) identifying and planning for transition mechanisms and timeframes for moving to more sustainable approaches.
- (2) In evaluating options under (1):
  - (a) focus on approaches to risk management that reduce the need for hard protection structures and similar engineering interventions;

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<sup>10</sup> Risk as defined in the Glossary.

- (b) take into account the nature of the coastal hazard risk and how it might change over at least a 100-year timeframe, including the expected effects of climate change; and
  - (c) evaluate the likely costs and benefits of any proposed coastal hazard risk reduction options.
- (3) Where hard protection structures are considered to be necessary, ensure that the form and location of any structures are designed to minimise adverse effects on the coastal environment.
- (4) Hard protection structures, where considered necessary to protect private assets, should not be located on public land if there is no significant public or environmental benefit in doing so.

## APPENDIX 2

### National Policy Statement on Electricity Transmission 2008

*Issued by notice in the Gazette on 13 March 2008*

#### Preamble

This national policy statement sets out the objective and policies to enable the management of the effects of the electricity transmission network under the Resource Management Act 1991.

In accordance with section 55(2A)(a) of the Act, and within four years of approval of this national policy statement, local authorities are to notify and process under the First Schedule to the Act a plan change or review to give effect as appropriate to the provisions of this national policy statement.

The efficient transmission of electricity on the national grid plays a vital role in the well-being of New Zealand, its people and the environment. Electricity transmission has special characteristics that create challenges for its management under the Act. These include:

- Transporting electricity efficiently over long distances requires support structures (towers or poles), conductors, wires and cables, and sub-stations and switching stations.
- These facilities can create environmental effects of a local, regional and national scale. Some of these effects can be significant.
- The transmission network is an extensive and linear system which makes it important that there are consistent policy and regulatory approaches by local authorities.
- Technical, operational and security requirements associated with the transmission network can limit the extent to which it is feasible to avoid or mitigate all adverse environmental effects.
- The operation, maintenance and future development of the transmission network can be significantly constrained by the adverse environmental impact of third party activities and development.
- The adverse environmental effects of the transmission network are often local – while the benefits may be in a different locality and/or extend beyond the local to the regional and national – making it important that those exercising powers and functions under the Act balance local, regional and national environmental effects (positive and negative).
- Ongoing investment in the transmission network and significant upgrades are expected to be required to meet the demand for electricity and to meet the Government's objective for a renewable energy future, therefore strategic planning to provide for transmission infrastructure is required.

The national policy statement is to be applied by decision-makers under the Act. The objective and policies are intended to guide decision-makers in drafting plan rules, in making decisions on the notification of the resource consents and in the determination of resource consent applications, and in considering notices of requirement for designations for transmission activities.

However, the national policy statement is not meant to be a substitute for, or prevail over, the Act's statutory purpose or the statutory tests already in existence. Further, the national policy statement is subject to Part 2 of the Act.

For decision-makers under the Act, the national policy statement is intended to be a relevant consideration to be weighed along with other considerations in achieving the sustainable management purpose of the Act.

This preamble may assist the interpretation of the national policy statement, where this is needed to resolve uncertainty.

#### 1. Title

This national policy statement is the National Policy Statement on Electricity Transmission 2008.

#### 2. Commencement

This national policy statement comes into force on the 28<sup>th</sup> day after the date on which it is notified in the *Gazette*.

### 3. Interpretation

In this national policy statement, unless the context otherwise requires:

**Act** means the Resource Management Act 1991.

**Decision-makers** means all persons exercising functions and powers under the Act.

**Electricity transmission network, electricity transmission and transmission activities/assets/infrastructure/resources/system** all mean part of the national grid of transmission lines and cables (aerial, underground and undersea, including the high-voltage direct current link), stations and sub-stations and other works used to connect grid injection points and grid exit points to convey electricity throughout the North and South Islands of New Zealand.

**National environmental standard** means a standard prescribed by regulations made under the Act.

**National grid** means the assets used or owned by Transpower NZ Limited.

**Sensitive activities** includes schools, residential buildings and hospitals.

### 4. Matter of national significance

The matter of national significance to which this national policy statement applies is the need to operate, maintain, develop and upgrade the electricity transmission network.

### 5. Objective

To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:

- managing the adverse environmental effects of the network; and
- managing the adverse effects of other activities on the network.

### 6. Recognition of the national benefits of transmission

#### POLICY 1

In achieving the purpose of the Act, decision-makers must recognise and provide for the national, regional and local benefits of sustainable, secure and efficient electricity transmission. The benefits relevant to any particular project or development of the electricity transmission network may include:

- i) maintained or improved security of supply of electricity; or
- ii) efficient transfer of energy through a reduction of transmission losses; or
- iii) the facilitation of the use and development of new electricity generation, including renewable generation which assists in the management of the effects of climate change; or
- iv) enhanced supply of electricity through the removal of points of congestion.

The above list of benefits is not intended to be exhaustive and a particular policy, plan, project or development may have or recognise other benefits.

### 7. Managing the environmental effects of transmission

#### POLICY 2

In achieving the purpose of the Act, decision-makers must recognise and provide for the effective operation, maintenance, upgrading and development of the electricity transmission network.

#### POLICY 3

When considering measures to avoid, remedy or mitigate adverse environmental effects of transmission activities, decision-makers must consider the constraints imposed on achieving those measures by the technical and operational requirements of the network.

#### POLICY 4

When considering the environmental effects of new transmission infrastructure or major upgrades of existing transmission infrastructure, decision-makers must have regard to the extent to which any adverse effects have been avoided, remedied or mitigated by the route, site and method selection.

#### POLICY 5

When considering the environmental effects of transmission activities associated with transmission assets, decision-makers must enable the reasonable operational, maintenance and minor upgrade requirements of established electricity transmission assets.

#### POLICY 6

Substantial upgrades of transmission infrastructure should be used as an opportunity to reduce existing adverse effects of transmission including such effects on sensitive activities where appropriate.

#### POLICY 7

Planning and development of the transmission system should minimise adverse effects on urban amenity and avoid adverse effects on town centres and areas of high recreational value or amenity and existing sensitive activities.

#### POLICY 8

In rural environments, planning and development of the transmission system should seek to avoid adverse effects on outstanding natural landscapes, areas of high natural character and areas of high recreation value and amenity and existing sensitive activities.

#### POLICY 9

Provisions dealing with electric and magnetic fields associated with the electricity transmission network must be based on the International Commission on Non-ionising Radiation Protection *Guidelines for limiting exposure to time varying electric magnetic fields (up to 300 GHz)* (Health Physics, 1998, 74(4): 494-522) and recommendations from the World Health Organisation monograph *Environment Health Criteria* (No 238, June 2007) or revisions thereof and any applicable New Zealand standards or national environmental standards.

### **8. Managing the adverse effects of third parties on the transmission network**

#### POLICY 10

In achieving the purpose of the Act, decision-makers must to the extent reasonably possible manage activities to avoid reverse sensitivity effects on the electricity transmission network and to ensure that operation, maintenance, upgrading, and development of the electricity transmission network is not compromised.

#### POLICY 11

Local authorities must consult with the operator of the national grid, to identify an appropriate buffer corridor within which it can be expected that sensitive activities will generally not be provided for in plans and/or given resource consent. To assist local authorities to identify these corridors, they may request the operator of the national grid to provide local authorities with its medium to long-term plans for the alteration or upgrading of each affected section of the national grid (so as to facilitate the long-term strategic planning of the grid).

### **9. Maps**

#### POLICY 12

Territorial authorities must identify the electricity transmission network on their relevant planning maps whether or not the network is designated.

### **10. Long-term strategic planning for transmission assets**

#### POLICY 13

Decision-makers must recognise that the designation process can facilitate long-term planning for the development, operation and maintenance of electricity transmission infrastructure.

#### POLICY 14

Regional councils must include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with land uses.

Explanatory note

*This note is not part of the national policy statement but is intended to indicate its general effect*

This national policy statement comes into force 28 days after the date of its notification in the *Gazette*. It provides that electricity transmission is a matter of national significance under the Resource Management Act 1991 and prescribes an objective and policies to guide the making of resource management decisions.

The national policy statement requires local authorities to give effect to its provisions in plans made under the Resource Management Act 1991 by initiating a plan change or review within four years of its approval.

## **APPENDIX 3**

### **National Policy Statement for Renewable Electricity Generation 2011**

*Issued by notice in the Gazette on 14 April 2011*

#### **Preamble**

This national policy statement sets out an objective and policies to enable the sustainable management of renewable electricity generation under the Resource Management Act 1991 ('the Act').

New Zealand's energy demand has been growing steadily and is forecast to continue to grow. New Zealand must confront two major energy challenges as it meets growing energy demand. The first is to respond to the risks of climate change by reducing greenhouse gas emissions caused by the production and use of energy. The second is to deliver clean, secure, affordable energy while treating the environment responsibly.

The contribution of renewable electricity generation, regardless of scale, towards addressing the effects of climate change plays a vital role in the wellbeing of New Zealand, its people and the environment. In considering the risks and opportunities associated with various electricity futures, central government has reaffirmed the strategic target that 90 per cent of electricity generated in New Zealand should be derived from renewable energy sources by 2025 (based on delivered electricity in an average hydrological year) providing this does not affect security of supply.

Development that increases renewable electricity generation capacity can have environmental effects that span local, regional and national scales, often with adverse effects manifesting locally and positive effects manifesting nationally.

This national policy statement does not apply to the allocation and prioritisation of freshwater as these are matters for regional councils to address in a catchment or regional context and may be subject to the development of national guidance in the future.

In some instances the benefits of renewable electricity generation can compete with matters of national importance as set out in section 6 of the Act, and with matters to which decision-makers are required to have particular regard under section 7 of the Act. In particular, the natural resources from which electricity is generated can coincide with areas of significant natural character, significant amenity values, historic heritage, outstanding natural features and landscapes, significant indigenous vegetation and significant habitats of indigenous fauna. There can also be potential conflicts with the relationship of Maori with their taonga and the role of kaitiaki. The New Zealand Coastal Policy Statement 2010 also addresses these issues in the coastal environment. Increased national consistency in addressing the competing values associated with the development of New Zealand's renewable energy resources will provide greater certainty to decision-makers, applicants, and the wider community.



**Title**

This national policy statement is the National Policy Statement for Renewable Electricity Generation 2011.

**Commencement**

This national policy statement will take effect 28 days after the date of its issue by notice in the New Zealand Gazette.

**Interpretation**

In this national policy statement, unless the context otherwise requires:

**Act** means the Resource Management Act 1991.

**Decision-makers** means all persons exercising functions and powers under the Act.

**Distribution network** means a distributor's lines and associated equipment used for the conveyance of electricity on lines other than lines that are part of the national grid.

**Distributor** means a business engaged in distribution of electricity.

**National grid** means the lines and associated equipment used or owned by Transpower to convey electricity.

**Renewable electricity generation** means generation of electricity from solar, wind, hydro-electricity, geothermal, biomass, tidal, wave, or ocean current energy sources.

**Renewable electricity generation activities** means the construction, operation and maintenance of structures associated with renewable electricity generation. This includes small and community-scale distributed renewable generation activities and the system of electricity conveyance required to convey electricity to the distribution network and/or the national grid and electricity storage technologies associated with renewable electricity.

**Small and community-scale distributed electricity generation** means renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network.

Terms given meaning in the Act have the meanings so given.

**Matters of national significance**

The matters of national significance to which this national policy statement applies are:

- a) the need to develop, operate, maintain and upgrade renewable electricity generation activities throughout New Zealand; and
- b) the benefits of renewable electricity generation.

**Objective**

To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.

## **A. Recognising the benefits of renewable electricity generation activities**

### **POLICY A**

Decision-makers shall recognise and provide for the national significance of renewable electricity generation activities, including the national, regional and local benefits relevant to renewable electricity generation activities. These benefits include, but are not limited to:

- a) maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;
- b) maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
- c) using renewable natural resources rather than finite resources;
- d) the reversibility of the adverse effects on the environment of some renewable electricity generation technologies;
- e) avoiding reliance on imported fuels for the purposes of generating electricity.

## **B. Acknowledging the practical implications of achieving New Zealand's target for electricity generation from renewable resources**

### **POLICY B**

Decision-makers shall have particular regard to the following matters:

- a) maintenance of the generation output of existing renewable electricity generation activities can require protection of the assets, operational capacity and continued availability of the renewable energy resource; and
- b) even minor reductions in the generation output of existing renewable electricity generation activities can cumulatively have significant adverse effects on national, regional and local renewable electricity generation output; and
- c) meeting or exceeding the New Zealand Government's national target for the generation of electricity from renewable resources will require the significant development of renewable electricity generation activities.

## **C. Acknowledging the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities**

### **POLICY C1**

Decision-makers shall have particular regard to the following matters:

- a) the need to locate the renewable electricity generation activity where the renewable energy resource is available;
- b) logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity;
- c) the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the distribution network and the national grid in relation to the renewable electricity generation activity, and the need to connect renewable electricity generation activity to the national grid;
- d) designing measures which allow operational requirements to complement and provide for mitigation opportunities; and
- e) adaptive management measures.

### **POLICY C2**

When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.

## **D. Managing reverse sensitivity effects on renewable electricity generation activities**

### **POLICY D**

Decision-makers shall, to the extent reasonably possible, manage activities to avoid reverse sensitivity effects on consented and on existing renewable electricity generation activities.

**E. Incorporating provisions for renewable electricity generation activities into regional policy statements and regional and district plans**

**E1 Solar, biomass, tidal, wave and ocean current resources**

**POLICY E1**

Regional policy statements and regional and district plans shall include objectives, policies and methods (including rules within plans) to provide for the development, operation, maintenance, and upgrading of new and existing renewable electricity generation activities using solar, biomass, tidal, wave and ocean current energy resources to the extent applicable to the region or district.

**E2 Hydro-electricity resources**

**POLICY E2**

Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance, and upgrading of new and existing hydro-electricity generation activities to the extent applicable to the region or district.

**E3 Wind resources**

**POLICY E3**

Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance and upgrading of new and existing wind energy generation activities to the extent applicable to the region or district.

**E4 Geothermal resources**

**POLICY E4**

Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance, and upgrading of new and existing electricity generation activities using geothermal resources to the extent applicable to the region or district.

**F. Incorporating provisions for small and community-scale renewable electricity generation activities into regional policy statements and regional and district plans**

**POLICY F**

As part of giving effect to Policies E1 to E4, regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance and upgrading of small and community-scale distributed renewable electricity generation from any renewable energy source to the extent applicable to the region or district.

**G. Enabling identification of renewable electricity generation possibilities**

**POLICY G**

Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation by existing and prospective generators.

**H. Time within which implementation is required**

**POLICY H1**

Unless already provided for within the relevant regional policy statement or proposed regional policy statement, regional councils shall give effect to Policies A, B, C, D, E, F and G by notifying using Schedule 1 of the Act, a change or variation (whichever applies) within 24 months of the date on which this national policy statement takes effect.

## POLICY H2

Unless already provided for within the relevant regional or district plans or proposed plans, plan changes or variations, local authorities shall give effect to Policies A, B, C, D, E, F and G by notifying using Schedule 1 of the Act, a change or variation (whichever applies) within the following timeframes:

- a) where the relevant regional policy statement or proposed regional policy statement already provides for the Policies, 24 months of the date on which this national policy statement takes effect; or
- b) where a change or variation to the regional policy statement or proposed regional policy statement is required by Policy H1, 12 months of the date on which the change or variation becomes operative.

### **Monitoring and reviewing the implementation and effectiveness of the national policy statement**

To monitor and review the implementation and effectiveness of this national policy statement in achieving the purpose of the Act, the Minister for the Environment should:

- in collaboration with local authorities and relevant government agencies collect data for, and, as far as practicable, incorporate district and regional monitoring information into a nationally consistent monitoring and reporting programme, including monitoring the performance of local authorities against the timeframes for giving effect to this national policy statement;
- utilise other information gathered or monitored that assists in measuring progress towards the Government's national target for the generation of electricity from renewable sources;
- within five years of its taking effect, and thereafter as considered necessary, assess the effect of this national policy statement on relevant regional policy statements and regional or district plans, resource consents and other decision-making; and
- publish a report and conclusions on matters above.

#### Explanatory note

*This note is not part of the national policy statement but is intended to indicate its general effect.* This national policy statement takes effect 28 days after the date of its issue by notice in the *New Zealand Gazette*. It recognises renewable electricity generation activities and the benefits of renewable electricity generation as matters of national significance under the Resource Management Act 1991.

This national policy statement is to be applied by all persons exercising powers and functions under the Act. The objective and policies are intended to guide applicants and decision-makers on applications for resource consent, in making decisions on the notification and determination of resource consent applications, in considering a requirement for a designation or a heritage order, in considering an application for a water conservation order and when exercising other powers as required by the Act. Regional policy statements, regional plans and district plans must give effect to this national policy statement.

This national policy statement requires regional councils, unless they have already provided for renewable electricity generation activities, to give effect to its provisions by notifying changes to existing or proposed regional policy statements within 24 months of the date on which it takes effect. In the case of district plans, proposed plans or variations, local authorities are required to give effect to its provisions by notifying changes within the following timeframes: 24 months of the date on which this national policy statement takes effect where the regional policy statement or proposed regional policy statement already provides for the policies; or, where a change or variation to the regional policy statement or proposed regional policy statement is required, within 12 months of the date on which the change or variation becomes operative.

## APPENDIX 4

### **New Zealand Energy Strategy 2007 and New Zealand Energy Efficiency and Conservation Strategy 2007 visions and targets**

#### **New Zealand Energy Strategy to 2050 – Powering Our Future, October 2007 (Ministry of Economic Development)**

The New Zealand Energy Strategy's vision is "a reliable and resilient system delivering New Zealand sustainable, low emissions energy services" (Ministry of Economic Development, 2007, p.15).

It has seven areas, with key actions, these are:

- Strategic leadership - To provide a clear direction on the future of New Zealand's energy system;
- Markets, regulation and security of supply – To utilise markets and focussed regulation to securely deliver energy services at competitive prices;
- Pricing GHG emissions – To reduce our GHG emissions, including through an emissions trading scheme;
- Using energy more efficiently – To maximise the contribution of cost-effective energy efficiency and conservation of energy;
- Promoting renewable energy – To maximise the contribution of cost-effective renewable energy resources while safeguarding our environment;
- Facilitating environmentally sustainable energy technologies – To promote early adoption of environmentally sustainable energy technologies;
- Supporting consumers through the transition – To support consumers through the transition to a low emissions energy system (Ministry of Economic Development, 2007, p. 17-26).

#### **New Zealand Energy Efficiency and Conservation Strategy – Making It Happen, October 2007 (Energy Efficiency and Conservation Authority)**

The New Zealand Energy Efficiency and Conservation Strategy has five high-level targets, these are:

- Energywise Homes – Warm dry healthy homes, improved air quality and reduced energy costs;
- Energywise Business – More energy efficient and competitive businesses using more renewable energy and emitting less carbon dioxide;
- Energywise Transport – To reduce the overall energy use and GHG emissions from New Zealand's transport system;
- New Zealand's efficient and renewable electricity system;
- Government leading the way (Energy Efficiency and Conservation Authority, 2007, p.12).

Programmes for the targets are expected to deliver:

- 30 petajoule<sup>32</sup> (PJ) of savings in non-transport energy per year by 2025;
- 9.5 PJ of additional direct use of renewable energy per year by 2025;
- 20 PJ of energy savings in the transport sector by 2015 (Energy Efficiency and Conservation Authority, 2007, p.13).

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<sup>32</sup> "1015 joules – approximately the amount of electricity used by a city the size of Nelson each year" (Energy Efficiency and Conservation Authority, 2007, p. 83).

## **APPENDIX 5**

### **Draft New Zealand Energy Strategy 2010 and Draft New Zealand Energy Efficiency and Conservation Strategy 2010 visions and targets**

#### **Draft New Zealand Energy Strategy, July 2010**

The Draft New Zealand Energy Strategy 2010 replaces the New Zealand Energy Strategy 2007.

Its goal “is for New Zealand to make the most of its abundant energy potential, for the benefit of all New Zealanders” (Ministry of Economic Development, 2010, p. 6).

The draft strategy proposes four priorities, and twelve areas of focus, these are:

- Develop resources
  - Develop petroleum and mineral fuel resources
  - Develop renewable energy resources
  - Embrace new energy technologies
- Secure and affordable energy
  - Competitive energy markets that deliver value for money
  - Oil security and transport
  - Reliable electricity supply
- Efficient use
  - Better consumer information to inform energy choices
  - Enhance business competitiveness through energy efficiency
  - An energy efficient transport system
- Environmental responsibility
  - Best practice in environmental management for energy projects
  - Reduce energy-related GHG emissions (Ministry of Economic Development, 2010, p. 7).

#### **Draft New Zealand Energy Efficiency and Conservation Strategy, July 2010**

The Draft New Zealand Energy Efficiency and Conservation Strategy 2010 replaces the New Zealand Energy Efficiency and Conservation Strategy 2007.

Its goal is “to deliver 55 PJ of saving across the economy by 2015” (Energy Efficiency and Conservation Authority, 2010, p. 21).

The objectives of the draft strategy are:

- Transport – A more energy efficient transport system, with a greater diversity of fuels and renewable energy technologies;
- Business - Enhanced business growth and competitiveness from energy productivity investment;
- Homes – Warm, dry and energy efficient homes with improved air quality to avoid ill-health and lost productivity;
- Products – Greater business and consumer uptake of energy efficient products;
- Electricity System – An efficient, renewable electricity system supporting New Zealand’s global competitiveness;
- Public sector – Greater value for money from the public sector through increased energy efficiency (Energy Efficiency and Conservation Authority, 2010, p. 21).