



30 March 2007

Councils of the Auckland Region: Joint Submission to the draft **New Zealand Energy Efficiency and Conservation Strategy**

This is a joint submission of the councils of the Auckland region. The councils are:

Auckland Regional Council
Rodney District Council
North Shore City Council
Waitakere City Council
Auckland City Council
Manukau City Council
Papakura District Council
Franklin District Council.

The Auckland Regional Transport Authority was also involved in developing this submission.

This joint submission is based on the councils' role under the Local Government Act 2002, which is to promote the sustainable development of our communities. It is also based on the direction provided under the Local Government (Auckland) Amendment Act 2004, whose purpose includes improving the integration of land use and transport, in line with sustainable development objectives.

The Auckland region is the largest economic centre in the nation comprising one third of the nation's population, jobs and economic output. Therefore, the challenges and opportunities for a secure and sustainable energy system for New Zealand are inextricably linked with overcoming challenges in the Auckland region.

The councils of the Auckland region have three key multi-party strategies, developed to deal with the region's challenges, each of which is relevant to the Government's goals expressed in the NZ Energy Strategy and the NZ Energy Efficiency and Conservation Strategy. These are the Auckland Regional Growth Strategy, Auckland Regional Land Transport Strategy, and Auckland Regional Economic Development Strategy.

The Auckland Regional Growth Strategy aims to manage the region's growing population in a sustainable way, by accommodating people more densely within regional boundaries, encouraging mixed land use and intensification along major transport routes and within town centres. This is to reduce the adverse impacts of sprawl on the environment and on productive land, and is also about using resources such as energy more efficiently as the region grows. This strategy is currently under review.

The Auckland Regional Land Transport Strategy supports the Regional Growth Strategy, by integrating transport planning with land use planning, and by directing more investment into public transport.

The Auckland Regional Economic Development Strategy is a key mechanism for the achievement in Auckland of the Government's goal of economic transformation for New Zealand. The Metro Project action plan under this strategy aims to improve the region's infrastructure, including improving security for electricity infrastructure through the Auckland Energy Prospectus within the Metro project, as security of supply is a key concern for Auckland's economic viability.

In addition, the councils of the Auckland region and central government agencies are developing a Long Term Sustainability Framework for the region. This Framework will provide overarching direction to regional strategies. Energy has been a theme in its own right in the development of the Framework, in recognition that energy matters have a strong influence on the region's sustainability and resilience. The challenge posed by climate change is also recognised within the Framework as a major influence on the region's sustainable development. The councils of the Auckland region recognise that development of a sustainable, resilient energy future for the Auckland region will play a critical role in enabling the sustainable development of the region. The current draft Framework proposes that a regional energy strategy be developed, to address the region's key goals and challenges relating to energy and energy efficiency in an integrated manner with all relevant parties.

Many of the decisions of local government shape cities for the long term, and shape the choices of citizens as they respond to changes, such as increases in energy prices. Auckland councils' core responsibilities directly influence energy efficiency and climate protection. Our roles in land use management, transport network development, urban design, the quality of the built environment and administering building quality can play a key role in delivering the Government's goals in the draft Energy Strategy. Our roles complement central government responsibilities and we acknowledge the importance of working together.

As such, the councils of the Auckland region seek continued close working relations with relevant central government agencies on a range of initiatives that contribute to the goals of this strategy.

Key general points to NZEECS

We understand that the New Zealand Energy Efficiency and Conservation Strategy (NZEECS) presents sector-based action plans and objectives, which support these objectives set out in the New Zealand Energy Strategy (NZES):

1. Maximising how efficiently we use our energy to safeguard affordability, economic productivity and our environment.
2. Maximising the proportion of energy that comes from our abundant renewable energy sources.

We support the draft NZEECS principles and focus areas, which are:

Principles

- *The concept of sustainable development – seeking solutions that provide the best outcomes for the environment, the economy and society.*
- *Maintaining security of energy services is essential and should encompass consideration of supply and demand-side alternatives.*
- *Investment should occur in energy efficiency measures where this is cheaper than the long term costs of building extra supply capacity, including environmental costs.*
- *For the foreseeable future, it is preferable that all new electricity generation is renewable, except to the extent necessary to maintain security of supply.*
- *Where fossil fuel is utilised, priority should be given to using the lowest carbon fuel available.*
- *New forms of renewable energy that can become competitive with fossil fuels over the next ten years will be supported.*

Focus Areas

- *Discovering the realisable potential for efficiency improvements in all sectors of the economy that are more cost-effective than new energy supply.*
- *Developing resilience of energy systems through removal of barriers to investment, in demand response (including smart meters), distributed generation, smart networks and supply side (both generation and distribution energy efficiency).*
- *Using a range of tools, including codes and standards, to require new buildings, products and vehicles to reach their full potential for cost effective energy efficiency.*
- *Removing barriers and investigating incentives to assist cost-effective improvements in the efficiency of existing buildings, products and vehicles.*
- *Encouraging industrial processes, layout of towns and cities, and transport planning to be designed to minimise energy use.*
- *Ensuring consumers have the necessary information to make practical choices to reduce their energy consumption and be rewarded for this.*
- *Ensuring market structure does not present undue barriers to local and small scale renewable sources of energy to enter the market, including embedded renewable generation.*

We propose that an additional principle be added as follows:

- Investment in energy efficiency be pursued to build economic and community adaptability and resilience.

We support the Government's intention to move to a "stronger emphasis on incentives and mandatory measures (where cost-effective)" (as expressed on p. 61), following on from the greater emphasis on voluntary measures in the 2001 NEECS.

We are concerned generally, however, with the lack of specifics in some parts of the action plans, and with the mixing of existing and proposed projects, because it is difficult to separate out what is "new" and additional to initiatives that are already underway. Also, it is critical that each of the action plans presents a robust rationale as well as satisfying the reader that they will be effective.

For greater clarity and certainty within the NZEECS action plans we request:

- The explicit costs of measures are recognised as well as the high levels of benefits.
- A layout that more clearly separates new, additional projects from existing initiatives.
- A clear indication in the final document for the projects listed of the government's funding commitment for development and implementation.
- Details on how actions will be moved towards delivery through the five year timeframe of the detailed action plans.
- Further detail in the actions to demonstrate alignment with the strategy's objectives and focuses.

To achieve greater security of energy supply for the Auckland region, there is a need to invest in energy efficiency measures where end-use efficiency is cheaper than new generation. Many energy efficiency measures have merit on economic grounds alone due to being more cost effective than new generation and associated transmission. Energy efficiency and energy conservation measures and targets must be regularly reviewed and increased over time to ensure they continue to drive improvements.

Measures to ensure sustained behaviour change are needed. New Zealand has demonstrated an ability to significantly improve energy efficiency and conservation in response to energy crises; we consider that measures such as behaviour change campaigns and incentives are needed to embed this in people's "business as usual" behaviour. An example of where this approach has been successful is in road safety campaigns.

Specific Comments in Relation to the Action Plans

Better Products – Using Less Energy and Saving More Money.

Key Points

- **Accelerate the introduction of MEPS**
- **Recognise the relationship between energy and waste**

Overall this section of the detailed action plans is supported as providing one of the greatest opportunities for energy savings. Well targeted regulatory intervention in relation to products will maximise energy conservation without reliance upon behaviour change.

We support the Minimum Energy Performance Standards (MEPS) and comparative labelling for appliances, however, we believe that 2015 is very late for the introduction of new product classes – this should be accelerated.

We note Australia's recent announcement of its intention to phase out the sale of incandescent household light bulbs over the next three years. We propose that a household lighting minimum energy performance standard be introduced.

The scope of this section should also be broadened to recognise the relationships between this section and initiatives designed to reduce the waste (and embodied energy) from packaging including the 2004 New Zealand Packaging Accord and the NZ Waste Strategy. There is no discussion of the strong links between energy and waste. i.e. the embodied energy lost in waste products.

Healthy Homes – More Comfortable With Less Energy

Key Points

- **We support home energy rating- type schemes**
- **Rationalise the building rating schemes**
- **Don't pick favourites in terms of measures to support energy efficiency**
- **Recognise changes to the Building Code may result in additional resource requirements for local government.**

We regard a package of measures that result in better energy efficiency of buildings, particularly domestic houses, to be a priority for the NZEECS. Residential assets last longer than vehicles and building designs will affect future energy use for decades to come. Focusing effort on longer-lived assets will have longer-lived impacts.

There are now a number of building rating schemes that have been developed, or are in the process of development. While schemes such as Green Star, Tool for Urban Sustainability (TUSC), Home Energy Ratings Scheme (HERS) and Leadership in Energy and Environmental Design (LEED) each have their own merits, there is a need for a clear rating standard that takes the best scheme fit for purpose and location. The public must be able to compare the performance of buildings and this will be difficult with multiple standards.

The Auckland region supports the review of the Building Code to increase the standards and performance of buildings. The consumer driven aspect of the 'acceptable, better, best' performance levels for components of buildings such as insulation and its accompaniment by acceptable solutions is supported. This supports the consumer driven nature of information tools such as the (HERS). A HERS type scheme should be extended to cover all homes for sale or rent. Investment/rental property owners currently have little incentive to insulate or install energy efficiency measures within tenanted properties. Requiring home energy ratings for rented houses is a well targeted regulatory measure that will inform tenants of the relative costs between available properties of home heating as well as providing a market incentive to landlords to improve the energy performance of investment/rental properties.

We strongly support initiatives that provide consumers with information to make better decisions.

The detailed action plans need to avoid picking favourites in relation to incentivising some energy efficiency or technology measures over others. We support the development of performance-based standards to support innovation and flexibility in the use of specific technology changes, e.g. hot water heat pumps, fireplace wetbacks and other technologies. They should be treated equally with solar water heating. Different technologies suit different individual properties and local climates, and have a different impact overall and peak electricity demand – so each technology has its place. We note BRANZ's Year 10 HEEP (Home Energy Efficiency Project) report supports the direct use of clean burning wood appliances, and other fuels, for low grade heat uses, such as space and water heating, as having a high potential to compliment and strengthen the bulk electricity supply system (providing local air quality targets can also be met).

The councils of the Auckland region note with respect to the Building Code, that if there is an increase in local government requirements to implement and monitor, there will be a need for additional funding mechanisms to cover any increased costs.

Smarter Commercial Buildings - More Productive Work Environments.

Key points

- **We support new and existing public buildings becoming more sustainable.**
- **Ensure BERS Scheme does not duplicate Green Star Scheme.**

- **We support Government initiatives to promote “smarter commercial buildings” and to reduce workforce energy use.**

All new public sector buildings should be designed and constructed to meet best practice for sustainable building construction (e.g. New Zealand Green Building Council four-star standards) rather than minimum standards. We note that recent government buildings (MfE and DOC) have been built with sustainability in mind. Government should assist with industry capacity building, for example by ensuring that all of their owned and leased buildings are rated by such tools. This can then be followed by later bringing in minimum performance standards for their owned or leased buildings. The local government sector could include this type of initiative as part of their property planning activities. Many of the Auckland councils are already improving energy efficiency in construction of new council buildings.

Within the Auckland region the Urban Form Design and Development work strand of the Auckland Sustainable Cities Programme identified a goal of achieving a regional commitment by 2007 to building sustainable public buildings.

The Department Of Building and Housing should be mindful of re-establishing a BERS (Building Energy rating Scheme) type scheme given that much of this work has been undertaken by the New Zealand Green Building Council. This relates to our earlier point about presenting a clear picture to the public about how to rate the performance of buildings.

We support smarter commercial buildings and believe the government should be active in promoting smarter commercial buildings and building design. As part of this, it is suggested that lighting and air conditioning and the design of such systems is an area of great potential for improvements for energy efficiency. Other initiatives should include accelerating the depreciation for new energy efficient plant and equipment for existing buildings.

For reducing the energy use related to the workforce, it is also suggested that the government lead the way by supporting initiatives such as teleworking and hot-desking. Industries such as teleworking can depend on how fast The Digital Strategy is implemented. The potential offered by broadband needs to be recognised in the NZEECS.

Further, there are acres of rooftops in industrial and commercial parts of the Auckland region that could be utilised for harnessing solar energy or wind energy for electricity at a local scale. Latent opportunities that would locate supply close to demand and also lead to community-based and smaller-scale energy generation should be explored.

Increased Energy Productivity in Industry

Key points

- **Provide greater support for medium term payback period initiatives for energy efficiency**

End use efficiency measures by businesses are targeting a two to three year payback period whereas new generation is developed based on a 15 to 20 year payback period, with some transmission projects based on even longer paybacks. In recognition of this difference in payback periods it is requested that far greater support needs to be given to end use efficiency projects where the payback falls between business's three year payback limit and the much longer payback of bulk electricity infrastructure. This is a gap in the NZEECS.

For example, a supportive action could be to accelerate depreciation on new replacement plant and equipment that may currently have a longer than three year payback period. The potential efficiency gains available from upgrading plant and equipment remain uncaptured by industry under the current system.

We support compulsory reporting in company annual reports of greenhouse gas emissions and energy efficiencies. We consider that any mandatory (or voluntary) reporting needs to be supported by consistent reporting standards for measurement and monitoring. These should also be consistent with any standards developed for greenhouse gas accounting.

Sustainable Agriculture – Efficient and Low-carbon Farms, Orchards and Vineyards.

Key points

- **Protect the ability of peri-urban productive land uses to support urban systems**

The councils of the Auckland region are concerned about the loss of arable soils within the peri-urban urban area due to urban sprawl. From a resilience perspective it is essential to safeguard these soils due to their proximity to markets. Also of concern is the conversion of these arable soils from food production to other uses such as biofuel crops. While it is recognised that market forces will have a strong bearing on land uses, broader food security and sustainability issues need to be addressed. These issues are further developed in the draft Long Term Sustainability Framework for the Auckland region, which was developed by the START project with local and central government participation.

General Transport Comments

We would like to reiterate comments made in our submission on the NZ Energy Strategy: The draft Strategy fundamentally fails to address the primary challenges facing the transport system, namely reducing greenhouse gas emissions, ensuring sustainable economic growth while transport energy growth is constrained, improving the transport system's overall efficiency, including freight and all modes. It does not contain a convincing strategic approach that will enable the country to achieve a "resilient, low-carbon transport system" by 2050.

There are a number of positive initiatives planned or underway; however, we urge that a greater emphasis be put on structural changes to land use and greater use of efficient transport modes.

These key issues are:

1. A wider spread of actions is required

The Transport and Environment Select Committee report in 1998 on reducing the environmental effects of transport, noted actions in all of these areas are required to reduce environmental effects:

- Reduce need to travel
- Switch to lower impact modes of travel
- Switch to lower impact fuels

- Improve fuel efficiency.

The NZEECS does cover actions relating to the vehicle fleet and fuels. There needs to be greater attention paid to infrastructure (including urban form and public transport) and to travel behaviour change, to achieve the first two points above.

We request a greater acknowledgement and a commitment to the role that land use planning, urban design, building design, and networks such as digital connections and transport play in shaping energy demand; there should be more emphasis on “building in” energy efficiency. These are structural changes that are long-term but need to be started now. (This is true for transport efficiency and efficiency of electricity use.) This point is elaborated further in the “Living and Working” section below.

2. Fuel efficiency goals should extend to rail electrification and to bus standards

There is discussion of electric cars in the strategy, but not electric trains. We consider electrification of the Auckland passenger rail network to be a high priority and a necessary step in ensuring a significant shift to public transport. Buses also need to be fuel efficient and low emission vehicles. It is our view that the NZEECS should aim to have a low-emission, efficient public transport fleet.

3. Funding mechanisms for public transport remain to be resolved.

We acknowledge the support the Government is providing Auckland local government and in particular the Auckland Regional Transport Authority (ARTA) in relation to increased public transport funding and support the work to investigate existing or new mechanisms to increase funding levels.

4. The NZEECS needs to provide direction for land transport programmes

All agencies developing land transport programmes (ARTA, territorial authorities, regional councils, etc.) are required to take into account the NEECS (under the Land Transport Management Act). The NEECS 2001 provided both financial and technical support for agencies to initiate its major demand management initiatives, the regional travel planning programme including school travel plans and walking school buses. While this NZEECS continues to support existing projects and commitments, there is also an opportunity to lift behaviour change and demand management further. For example, we would like the NZEECS to provide support for new initiatives to promote travel behaviour change. We seek the introduction of a regional fuel tax and consider that such a fuel tax could provide a funding stream for public transport and also encourage fuel efficiency throughout the private vehicle fleet. This forms part of the Auckland councils’ proposal to Government to strengthen regional governance in the Auckland region.

Further on a Full Tank

Key points

- **We support pricing signals to encourage fuel efficiency**
- **We do not support fuel switching to diesel due to air quality impacts on Auckland region**
- **Linkages between various transport strategies need to be illustrated**
- **We wish to support the Ministry of Transport with development of the Vehicle Fleet Strategy.**

We support improving the fuel efficiency of vehicles with progressive penalties for less efficient vehicles and additional rewards for more efficient vehicles. We support

differential registration fees to encourage fuel efficient vehicles. We also support the setting of fuel efficiency standards for new and used imported vehicles.

As the councils of the Auckland region we are concerned about the target on page 34 of 'increase uptake of light clean diesel vehicles, where greater fuel economy benefits are available'. There are two matters at stake here. Firstly, it is acknowledged that modern Euro 5 diesel vehicles are comparatively more fuel efficient than a petrol vehicle. Secondly, however, diesel vehicles (even Euro 5) emit more PM₁₀ emissions than a comparable petrol vehicle. Unless regularly maintained, the emissions from diesel vehicles become far greater than equivalent petrol vehicles. The Auckland region is required by the Air Quality National Environmental Standards to reduce particulates in its air shed by 53% of current levels by 2013. We have serious concerns as to whether the target of increasing the uptake of 'light, clean diesel' vehicles will enable the region to meet this National Environmental Standard. At the least, a measure to encourage diesel vehicles would need to be complimented by comprehensive Warrant of Fitness testing of emissions from diesels to ensure particulates are kept to a minimum. It is not considered appropriate to trade off the fuel economy advantages of diesel vehicles against the air quality of the Auckland region.

Reference is made on page 34 to a Vehicle Fleet Strategy currently being developed. Given the existence of the New Zealand Transport Strategy and the NZEECS proposal to develop NZ Shipping Strategy and NZ Rail Strategy there is a need for an explanation of the linkage between the different strategies. There is also a need for an explanation of how they each play a role in enabling the achievement of the NZEECS objectives of energy efficiency and maximising renewable energy generation.

We understand that the Government's proposal to develop a Vehicle Fleet Strategy is to examine how the country's fleet will perform with respect to air quality, fuel consumption, etc. We would like to work with the Ministry of Transport to develop the vehicle fleet strategy, as we hold technical information pertaining to vehicle emissions and are interested in the outcomes for the Auckland region transport fleet and air quality.

It is noted that modeling of increased fuel efficiencies in the vehicle fleet needs to factor the effect of congestion levels on reducing fuel efficiencies achieved in practice. Incentivising fuel efficient car engines can happen now whilst waiting for bio-fuels and other technologies to arrive.

Effective Freight Movement

Key points

- **Develop a New Zealand Freight Strategy instead of a NZ Shipping Strategy**
- **Extend the Vehicle Fleet Strategy to cover all classes of vehicles**

We welcome the focus on effective freight movement. Freight transport and economic activity go hand in hand. The cost of transport affects the price of goods and raw materials; hence an efficient transport system can help to keep those prices low. Freight transport also impacts on the quality of the environment this there is a need to manage and mitigate consequential effects.

The recently endorsed Auckland Regional Freight Strategy proposes six policies to encourage the sustainable growth and development of freight movement in the region. This includes the development of a "clean, quiet and safe freight system" in the region. We would particularly welcome initiatives around the promotion of low emission freight vehicles and clean fuels as part of EECA's efforts.

We welcome a New Zealand Shipping Strategy but propose that the idea be extended further into a NZ Freight Strategy. Presumably the aim of a shipping strategy would be to encourage shipping as a lower impact freight mode. We suggest that to achieve the Government's goal of "efficient freight movement", a New Zealand Freight Strategy should be developed that looks across all freight modes. Mode-based strategies tend to result in each strategy aiming to promote that mode. A cross-modal strategy should aim to encourage freight to be carried by the most appropriate and lowest-impact mode for each freight type. It should aim to encourage efficiencies and best practice across all modes, including trucks and aviation. If separate mode-based strategies are developed, there needs to be very strong integration between the strategies to ensure perverse outcomes are avoided.

A New Zealand Freight Strategy can also consider the interface between different freight movement modes.

It is understood that the NZ Vehicle Fleet Strategy focuses on light road vehicles – we want this extended to cover all vehicles including all classes of heavy vehicles as well.

Introducing Renewable Transport Fuels

Key points

- **We support the use of biofuels providing they are sourced sustainably**
- **We support the use of bio-diesel over bio-ethanol**

We support the introduction of targets for biofuels (and note the Prime Minister's commitment to a 3.4% biofuels target by 2012), providing the biofuel production is from an environmentally sustainable and preferably New Zealand waste or byproduct sources, e.g. whey and tallow, and that other aspects of the environment and human health are not sacrificed for a climate change benefit.

We particularly support the use of biodiesel in the Auckland region, as tests have confirmed that a B20 blend can reduce fine particulate (PM₁₀) emissions by 10%. PM₁₀ emissions in cities carry a significant health burden in terms of premature deaths, cancer, developmental effects, hospitalisations and increased asthma attacks. In the Auckland urban area, 51% of particulate emissions come from transport, and 91% of these come from the combustion of diesel, mainly in heavy duty vehicles. Only 9% is estimated to come from the combustion of petrol in vehicles. We would particularly support the use of biodiesel in heavy duty vehicles where the reduction in fine particulate would be the greatest.

We retain some concerns relating to the use of bio-ethanol:

- We are particularly concerned about vehicle operability issues, particularly in relation to the large proportion of Japanese vehicles in our fleet.
- We oppose proposals from the private sector to "relax" the current regulations on fuel properties and double-skinning of ethanol blend fuel tanks, as these "relaxations" will potentially result in unacceptable ozone levels (due to increased evaporative emissions producing more photochemical smog over Auckland) and potential groundwater contamination (ethanol is soluble in both water and petrol and therefore the tanks need to be extra secure).

We support further investigation of bio-ethanol in New Zealand to address our concerns.

Living and Working – Better Mobility, Lifestyles and Communities

Key points

- **The co-benefits of better urban design need to be recognised**
- **Truly integrated planning is needed – not consistency with functions of one crown entity**
- **We support urban renewal initiatives**
- **Don't extend the Choke the Smoke campaign to cover fuel efficiency and mode shifting**
- **We support targeted travel behaviour change programmes.**

The councils of the Auckland region share the objective of this section, to maintain and enhance peoples' mobility and access to services whilst working towards a reduction in per capita vehicle kilometres travelled. Urban planning documents such as the Auckland Regional Growth Strategy and District Plans aim to manage a change in urban form, to lock-in a reduced need for travel and to foster a modal shift to lower impact forms of travel. We consider that integrated land use and transport planning and good urban design has a significant role to play in ensuring services and facilities are provided locally to reduce the need to travel.

We seek the assistance of central government in supporting us in our role of land use planning.

Good urban design includes far more than simply an energy efficient urban form that focuses solely on the connection between land use and transport. While this is critical, it is only one part of the role that better urban design can play in achieving improved sustainability. The perspective of the "Living and working" section needs to be broadened to acknowledge the other benefits of good urban design, such as health benefits, improved amenity, social cohesion and identity, reduced crime, improved productivity and ability to attract investment and talents and improved general wellbeing. An example of where this is already happening is the Auckland city central business district, where there are improvements that give priority to buses and pedestrians, including sections of road that have restricted vehicle access in favour of buses and footpath widening.

In relation to creating more sustainable urban form, it is submitted that the Government mandate the initiatives that can remove structural barriers. As an example, urban renewal opportunities have been identified in the draft Long Term Sustainability Framework for Auckland and have been supported through the regional governance process currently understood to be before cabinet. By mandating urban renewal, strategic opportunities can be taken to unlock the potential of areas, particularly centres, by improving streetscapes, connectivity, vitality, and their economic viability.

In our submission to the draft NZ Energy Strategy, we propose central government levers to support the local government role in urban form could include:

- providing long-term funding certainty to enable increased levels of public transport, directed by regional strategy
- clarifying and supporting the role that both regional and territorial local authorities can play with respect to urban renewal, e.g. in setting up development corporations, or in empowering local authorities to apply inclusionary zoning¹ in appropriate locations to encourage affordable housing and energy efficiency.
- directing central government agencies who make or influence locational decisions of key infrastructure, e.g. of schools, hospitals, social housing, prisons, to work

¹ Allocation of a set minimum of affordable housing in a development or subdivision.

closely with local councils to ensure the decisions support the goals of regional growth strategies and regional land transport strategies in creating more efficient urban form

- developing regulatory measures to ensure the Urban Design Protocol and council efforts to improve urban form have statutory mandate. This could include ensuring the Building Act enables local councils to mandate stronger measures than in the Building Code
- working with local government at a regional level to proactively determine potential locations for new renewable electricity generation, to enable location to better follow central and regional government policy rather than be determined by market feasibility
- continuing to work with the region's councils in the review of the Auckland Regional Growth Strategy
- strengthening central government capacity with respect to urban issues

Some of these actions could be incorporated into this section of the NZEECS. We would like to have further discussions relating to this list.

We also propose that the NZEECS develop indicators, such as, the degree of connectivity within and around centres, so that progress towards a more energy efficient urban form can be enabled and then monitored.

We recognise that the Government, through Land Transport New Zealand and other agencies has greatly increased funding for public transport in recent years. We also applaud that the draft NZ Energy Strategy has an action, "Public transport and non-motorised forms of transport will need continued and increasing support" and that this action is followed in the NZEECS, with the action, "Increase investment in infrastructure and services for public transport, walking and cycling" through existing initiatives. We wholeheartedly look forward to seeing the funding issues resolved. Funding is needed to a level that enables a 'step change' in public transport usage in urban areas.

We request that targets be set (in conjunction with local government) for ambitious mode share increases for public transport. Public transport mode share increases have been identified as a regional priority through the Auckland Regional Transport Authority's (ARTA) Auckland Passenger Transport Network Plan, yet a significant funding shortfall has been identified in order to bridge the funding gap.

We query the NZEECS proposed action, "Promote land use planning that is consistent with the functions of Land Transport New Zealand." (p.44). Land use planning is the fundamental responsibility of local government within the Auckland region. Under the Resource Management Act and Local Government Act, land use planning must give effect to the requirements of the Regional Policy Statement and give effect to the growth concept in the Auckland Regional Growth Strategy while also working towards the community outcomes recognised by each local authority's City Plan. The process of integrated planning is a collaborative process, not a process of modifying land use or transportation planning to meet the needs of other. We do not consider it appropriate to integrate land use planning to be consistent with the function of Land Transport New Zealand, given the legislative requirements. This proposed initiative needs further clarification, particularly given that integrated planning is a basic tenet of the Urban Design Protocol that is also identified for promotion and expansion on this same page.

We are concerned that the proposed extension of the 'Choke the Smoke' campaign to cover fuel efficiency and the switching to alternative modes will dilute the messaging of

the initial programme and result in less effective outcomes. We would support communication and education programmes developed as part of a broad transport and sustainability communications strategy. This would ensure effective targeting of message and audience and ensure effective use of limited communications budgets. Market research by the Auckland Regional Council and Auckland Regional Transport Authority has found that people will switch to public transport when service features such as frequency and reliability improve. Promotional campaigns alone have limited impact – they must be linked to service upgrades.

All agencies developing land transport programmes (ARTA, TAs, regional councils, etc.) are required to take into account the NEECS (under the Land Transport Management Act). Under the NEECS 2001, EECA provided both financial and technical support for the Auckland Regional Council to initiate school travel plans and walking school buses. From 2004, the Ministry for the Environment through the government's Sustainable Cities programme supported the setup of the region's major demand management initiative, the Auckland School Travel Plan programme. To date this initiative has reduced morning peak car trips by 3,200 and CO2 emissions by 790 tonnes. While this NZEECS continues to support existing projects and commitments, there is also an opportunity to lift behaviour change and demand management further, to achieve further energy and climate change benefits.

We would like the NZEECS to provide support for new initiatives to promote travel behaviour change and demand management. The schools programme is successful, and will roll out to all schools in the Region, but there is opportunity to significantly expand the level of support provided to schools to promote walking and cycling. Auckland does not have a comprehensive network of school bus services and there would be significant energy benefits from this. The Workplace Travel Plan programme is similar in that it is achieving its current aims, but could aim higher.

We also consider that integration of public transport and walking and cycling strategies will support increased uptake of public transport. For example, where cycling networks are integrated with the public transport system through cycleways and provision of safe, secure cycle parking at stations, the catchment area for public transport is significantly increased, compared to the walking catchment.

More generally, the Auckland Regional Land Transport Strategy proposes a significant increase in passenger transport, walking and cycling investment and highlights the energy and climate change benefits that would ensue from this. However current funding policies are not aligned to delivering the RLTS and the future energy needs of Auckland will be higher if the current balance of investment continues.

Most of the councils of the Auckland region have signed up to the Communities for Climate Protection programme (CCP-NZ) and to the Urban Design Protocol. The NZEECS could include the contribution of both of these programmes.

Smart Electricity Networks – Getting the most from our Electricity Sector.

Key points:

- Provide greater consumer choice through time-of-use electricity pricing, along with smart metering
- Investigate market barriers to new renewable electricity businesses
- Introduce a feed-in tariff to encourage small-scale renewable supply
- Investigate economic co-generation and distributed generation opportunities in the Auckland region

We support the NZEECS's stated intention of improving demand-side participation. We support the introduction of smart metering and request that Government ensure these are open protocol, interactive meters to make the most out of a smart grid. To do this there needs to be a common performance standard to ensure nationwide compatibility for signalling, switching and ability for consumers to change retailers without changing meters.

We also request that the Government ensure that the introduction of smart meter technology facilitates greater consumer choice and control over the costs of their electricity through time-of-use tariffs. Providing choice to consumers through variable pricing regimes will provide consumers with more information and will incentivise them to reduce their use at peak times and will assist with the spreading of peak loads. The technology enables an expansion of small consumers' rights.

We request the Government examine market barriers to new entrants, including the effect the vertical integration of the major retailers and generators has on the ability of small scale or alternative generation companies to enter the market.

We request that a feed-in tariff that favours renewable generation be investigated with consideration of how it may operate alongside any possible greenhouse gas emissions pricing mechanism.

We seek strong incentives for greater self-sufficiency of household, businesses, schools and communities through solar water heating, solar photovoltaic, co-generation, heat pumps, water heating, clean wood and pellet heaters, heat pump space heating including ground-source heat pumps, small scale wind turbines and micro-hydro. This includes lowering the lines charge component of electricity tariffs and making it easy for small-scale generators to supply to the grid.

We request investigation of the potential for co-generation and distributed generation within the Auckland region, and investigation of whether there are opportunities to encourage more co-generation within business land planning.

Clean Electricity and Heat – More Energy from Renewable Sources.

Key points:

- Create an aspirational 100% renewable target for electricity generation by 2030
- Investigate and support options for self-sufficient home heating methods and assist Auckland councils to resolve optimal "clean" home heating solutions for Auckland houses

The councils of the Auckland region support long term renewable energy targets.

Targets need to be sector based. For electricity generation we propose that an aspirational 100% renewable target be set for the year 2030. This should be supported by appropriate intermediary targets based on the practicalities of a transition to renewables electricity generation. Direct use of thermal fuels in industry sectors would have a lower renewable energy target due to the appropriateness of direct use of gas for certain applications where woody biomass, for example, is not appropriate.

BRANZ's Year 10 HEEP report supports the direct use of clean burning wood appliances, and other fuels, for low grade residential heat uses, such as space heating, as this compliments and strengthens the bulk electricity supply system. It also provides

local resilience during certain civil defence situations. Policy consideration should be given to the benefits of locally produced and renewable materials, although promotion of wood burning would also have to advise the need to avoid the health risks of using treated timber and how to minimise the local air quality impacts for the Auckland region.

Given the stringent targets the Auckland region must meet to comply with the Air Quality National Environmental Standards by 2013, we would appreciate the governments' involvement in addressing the need to reduce particulate emissions from domestic fires. The ARC will be shortly looking to direct research into what is the best mix of home heating solutions, including how to promote low emissions, wood burning practices and technologies.

Government Leading the Way – Partnership and Innovation.

The councils of the Auckland region are very supportive of actions by the Government to lead the way. We recognise that the Prime Minister has further supported these actions by pledging six government ministries and departments to becoming carbon neutral by 2012.

We applaud the government leading by example through Govt3 and submit that the Govt3 programme should have rising standards for buildings, procurement, air travel reduction and waste management. Ideally, these standards would cover the whole of the supply chain over time. Performance towards the achievement of these targets should be reported in Parliament and the media and reflected in chief executives performance agreements. The standards set by the Govt3 programme should be actively promoted to the private sector. We consider there is a need for greater focus on implementing this programme and providing support through incentives and sanctions.

We would welcome the opportunity to examine how actions from the Govt3 programme can be made available to local government. To this end, we support a stronger linking of programmes such as the Govt3 programme to other government supported programmes such as the Communities for Climate Protection Programme New Zealand (CCP-NZ).

Answers to set questions

4. *Do you consider the proposed approach towards setting targets and performance indicators, is appropriate?*

Many of the targets appear to be climate change based, not energy efficiency focused. Measurement should also include kWh/unit of measure. The efficiency of a building, process or vehicle is measured by its energy consumption per unit of appropriate measure. It is important to track this as well as how 'clean' the energy source is that is being provided.

6. *How can local government and non-government agencies work with central government to improve the uptake of energy efficiency and renewable energy? What is needed to enable this to happen?*

The Local Government Act 2002 requires local authorities to take a sustainable development approach in performing its role and taking account of the social, economic, cultural wellbeing of people and communities; the need to maintain and enhance the quality of the environment and to address the reasonably foreseeable needs of future generation. This has an overarching effect on how local government will consider and respond to other organisations initiatives or proposals. This provides a fundamental basis for the critical role of local government in contributing to a sustainable energy system.

The councils of the Auckland region consider there is a significant and important role for local government to play in moving towards a sustainable energy system. We consider that this role is primarily focussed on supporting and encouraging initiatives on the demand-side, though we can also encourage and support supply-side initiatives at a local level.

In terms of actions needed to enable improvements in the uptake of energy efficiency and renewable energy we consider that there is a need for a clarification of roles. As the Parliamentary Commissioner for the Environment states in his Annual Report 2005 "The overlapping roles and responsibilities of the Ministry of Economic Development, the Electricity Commission, the Energy Efficiency and Conservation Agency and the Ministry for the Environment need to be clarified." This should be extended to include clarification of the role of local government and non-government agencies.

Funding for local government to enable improvements will also be an issue that needs to be discussed further. Changes to local government responsibilities need to be signalled early. It is expected that the finalised NZEECS will indicate which actions the government is committed to and their timing for implementation.

8. *Have we got the right emphasis on improving technical efficiency versus influencing and modifying New Zealanders' energy purchase and use behaviour?*

The role of the demand-side of the NZEECS is not strong enough. Structural change and courage is required to shift peak demands – peak traffic flows and peak electricity demand. 'Peaks' drive our country's need to build more roads and electricity generation capacity. Peaks also multiply the emissions volumes each day. In this area the NZEECS should be bolder. Initiatives like car pooling incentives, working from home incentives and agreements with industry sectors like education to change their core hours should be investigated. The residential sector should be exposed to suitable electricity price signals. Almost all residential customers pay the same price no matter when they use electricity, even though the cost to produce or purchase it at a wholesale level can fluctuate greatly, both during a 24 hour day and from period to period.

9. *What role do you see, if any, for energy conserving behaviour to reduce energy use and carbon emissions? Should such behaviour be encouraged:*

- *all the time?*
- *to reduce peak electricity demand?*
- *to provide greater electricity security in dry years?*
- *if oil supplies are disrupted?*

End-use efficiency needs to have a much stronger role. The gap needs to be bridged between the three to five year payback projects that businesses are currently unlikely to implement and the 15-20 year payback periods that generation companies accept as part of constructing new power stations. Energy efficiency should be the base activity that is always done first. Energy conservation should be rolled out to assist with specific peaks or supply problems (eg dry years or temporary fuel supply problems).

14. *Are there any big opportunities missed?*

The economic opportunity associated with the exporting of innovative renewables technology is overlooked. New Zealand's natural abundance of renewables plus the ingenuity we're famous for suggest more emphasis and investment (research and development funding or tax breaks) should be committed to the NZEECS.

