

Draft National Energy Efficiency and Conservation Strategy

Wellington Regional Council Submission

1. Introduction

- 1.1 The Wellington Regional Council is pleased to have the opportunity to make a submission on the Draft National Energy Efficiency and Conservation Strategy (“the Draft Strategy”). The document represents an important step forward in recognising how important it will be to move towards greater sustainability in energy management, both for our economy and for the local and global environment.
- 1.2 There are many positives in the Draft Strategy. The goals of greater efficiency in use of energy, management of the environmental effects of production and use, reduction in CO₂ emissions, improving economic productivity and economic resilience, and greater use of (NZ’s) renewable energy sources are strongly supported. These are the very same goals as we have in the Regional Policy Statement for the Wellington Region.
- 1.3 The Draft Strategy also begins to provide a balance between broad scale policy direction, targets to aim for, and specific actions to be taken, but further progress is needed. Some better articulation might be necessary on the programmes and actions identified, and their time scale. Also, the relationship between organisational responsibilities (for companies, government agencies) and individual actions, and how the two marry to produce necessary behavioural changes, requires more thought and better coverage.
- 1.4 The remainder of the submission addresses some broad themes, provides some general comments about the structure and terminology used in the document, and makes specific points (referenced to sections and paragraph numbers in the Draft Strategy).

2. Energy Conservation – where is it in the Strategy?

- 2.1 Despite its title and the important comment made in Section 1.2 (The Challenge – Clean Energy and a Dynamic Economy), the Draft Strategy pays little attention to energy conservation. “Conservation” in the context of the Draft Strategy seems only to refer to energy that is saved as a result of improved efficiency.
- 2.2 There is a major problem here. A 20% improvement in efficiency on a 50% increase in the *quantity* of energy used is not conservation. The problems

addressed by the Strategy will get more serious and further frustrate the achievement of many of the outcomes sought in the Draft Strategy (notably, the reduction in CO₂ emissions). As the document itself notes, the amount of energy used continues to rise. The Strategy must directly address the issue of quantity, not just efficiency of performance in the use of (more and more) energy.

- 2.3 The Regional Council recognises that talking about energy conservation perhaps carries a message of stopping, or controlling, individual choice, or that a restraint on energy use will harm households and the wider economy. There may even be a subliminal association of the phrase “Business-as-usual” with damage to business if the “usual” use of energy is disrupted in some way!
- 2.4. One way of addressing conservation may therefore be to think of it in terms of *moderating energy demand*. Perhaps there might even be merit in borrowing the notion of “turning the tide” from the Biodiversity Strategy, so that the notion of a gradual (but purposeful) change in energy use behaviour is communicated.
- 2.5. The Draft Strategy has targets for improvements in energy efficiency and greater use of renewable energy sources. There should also be a target for moderating energy demand. Having an explicit target for moderating energy demand has a number of benefits:
 - it helps promote the idea that if we reduce current use, we enable a longer time period for developing technology and infrastructure for using renewable energy sources;
 - slower use of finite fossil fuel resources also postpones (or avoids) the adverse environmental effects of energy production, transmission and use of such carbon-based fuels;
 - conversely, rapid depletion of finite fossil fuels cuts down both their quantity and the time for research into their alternative future uses, perhaps for significant purposes of which we are not even yet aware.
- 2.6 In brief, moderating energy demand produces a lot of win-win situations consistent with the aims of the Draft Strategy.
- 2.7 Figure 1 in the Draft Strategy provides an example of why active conservation is needed. Under a Business-as-Usual (!) scenario shown in the Figure, stabilising CO₂ emissions at 1990 levels would require a big improvement in efficiency, some reasonably early and significant switches to renewable energy sources, and the introduction of (carbon) trading.
- 2.8. Trading may need to become a major component in this mix, but as yet, details on the mechanisms of trading are unresolved and its effectiveness questionable. Also, as currently written, the Draft Strategy expects renewable sources to be a longer-term option, at least in terms of electricity supply. This places a high expectation on efficiency gains as the silver bullet for reducing CO₂ emissions.

- 2.9 As we note below, it will be hard to sustain year on year improvements in efficiency. Also, thinking in terms of CO₂, transport is a significant source of such emissions. It is heavily dependent on fossil fuels rather than renewables, and is the fastest growing area of energy use, with efficiency gains swamped by additional fuel used.
- 2.10 Together, these points reinforce the need to think now about more active measures to curb increasing energy use as part of the Strategy mix.

3. Efficiency – is the target achievable?

- 3.1 The Draft Strategy sets a target of “at least 20% improvement in economy-wide energy efficiency by 2012”. While some sectors may be able to achieve significant percentage improvement in the short term (because they are inefficient now), there are very real practical and behavioural difficulties in maintaining year on year gains in energy efficiency. As noted above, efficiency improvements in vehicles are lost in the continuing rise in vehicle usage
- 3.2 Based on the Regional Council’s experience in improving energy efficiency, another observation is that the issues are not straightforward. For example, the Water Supply Group in the Council is constantly looking for new efficiency measures because it makes good business sense to do so. Energy efficient equipment has been introduced and control systems upgraded. But in calculating how best to supply water, we have to balance factors in addition to energy costs, such as chemical costs. At present, the lowest marginal cost of production is achieved at the water supply plant that has a high energy (electricity) input and low chemical input. Extra complicating factors include power costs that vary throughout the year, the dollar exchange rate and costs of chemicals only obtainable from overseas, and waste disposal cost issues.
- 3.3 Further, electric drive motors are already close to 100% efficiency and the pumps we use, the best currently available, are over 80% efficient. One way that we could reduce energy intensity is to achieve a significant reduction in water consumption (possibly through universal metering). However, because of the capital and transactional costs of introducing metering, its use is precluded. There is also a legislative responsibility for local authorities to be publicly accountable, operating by strict cost minimisation criteria rather than with longer term environmental considerations in mind.
- 3.4 A target of 15% energy intensity reduction for local government in 5 years, at least in terms of our major energy using function, water supply, is therefore beyond us. Further, the Strategy itself notes (paragraph 22) that end-use energy efficiency is projected to improve only at the historic rate of change. The questions that arise then are:
- 1) Is the target for efficiency improvement realistic?

- 2) Will efficiency, as the major thrust of the Strategy, deliver the outcomes sought?

4. A Strategy...but is it a strategic approach?

4. The Draft Strategy has a section headed the Strategic Challenge (page 11). It is an important section in the Strategy, arguably the most important, since it explains why the policy direction set out earlier in the document is necessary. The main points raised in this section of the Draft Strategy are all supported, and the comments provided below are not intended to counter those points, but rather, to complement them.

4.2 Comment has already been made about the need to provide considerably more focus on energy conservation. While there is some discussion on the range and possible roles of renewable energy sources in the Draft Strategy, there is a similar and closely inter-related requirement to give renewable sources more prominence.

4.3 The (final) Strategy needs to be a three-pronged **strategic approach** to sustainable energy management, and should show how all three prongs are important in their own way at different times. Those prongs are energy conservation, greater use of renewables and improved efficiency in the production, transmission and end use of all energy, irrespective of energy source. The three prongs are complementary, each deserves a target for achievement, and together, can usefully provide a framework on which the Strategy can hang specific programmes and actions.

4.4 A more **strategic approach** also requires there to be better integration across relevant legislation to produce the range of energy, economic and environmental outcomes sought by the Draft Strategy. In particular, transport and environmental legislation needs close alignment (and there is more comment on these areas of legislation later in Section 6 of the submission).

4.5 The **strategic approach** includes the identification of complementary roles for different agencies. It includes a time frame for individuals and agencies to implement their roles through specific actions and programmes. It recognises that appropriate funding is needed for these implementation roles, and indicates where agencies and individuals might expect to seek funding for the Strategy's programmes and actions.

5. Transport and energy management

5.1 The transport sector is the major user of energy, and that use has been growing at 3.5% or more per annum from 1990-99. The Strategy expects oil, mainly for transport, to grow by a further 23% between 2000 and 2012. As noted earlier, and confirmed in the Draft Strategy, despite efficiency gains, the quantum of increase in travel and the types of transport modes used offset any benefit (paragraph 81). In addition, there is the cold reality of the Draft's

related comment that energy use is “a secondary consideration in transport decision-making, with energy efficiency being ignored or traded off against other objectives”. This indicates a significant barrier to changing behaviour in a sector where change is critical to achievement of the Draft Strategy’s objectives.

- 5.2 Not only is energy use a “secondary consideration”, but also, there are growing numbers of cars, and hence, more car owners that think of it that way! There is a strong correlation between car use and car ownership, with higher use following on from growing ownership (a trend “driven” by the availability of cheap new or used vehicles, some of the which – the larger 4-wheel drive models – have a very high weight/fuel use ratio). Even with modest population growth, these trends produce a “double whammy” effect – more vehicles, used more - compounding the problems associated with growth in transport energy use.
- 5.3 The Strategy discusses traffic demand management (TDM) and pricing. One aspect of TDM could include a strategy for car ownership to address the point made above. Another aspect of TDM is more active management of the link between land use and travel demand. Allowing urban areas to sprawl increases car dependency and average trip lengths, with consequent increases in energy consumption and environmental impacts. Conversely, developments that are not designed to encourage access for pedestrians, cyclists and public transport users indirectly increase car dependency. The Regional Council experience in promoting these other modes has not been particularly successful, and some further comment is made later (in the discussion of Legislation) about the value of statutory district plans in helping to implement transport policies.
- 5.4 Paragraph 88 of the Draft Strategy discusses pricing, and by way of example, looks at the benefits of congestion pricing. Congestion pricing is only likely to be relevant in a few places, for relatively short periods of the day. Further, congestion pricing may well perversely encourage extra off-peak car use, which is already growing fast. Off peak travel in Auckland and at some locations in Wellington is now becoming (or soon will be) congested.
- 5.5 Paragraph 93 contains some disturbing information about the negligible effect on energy use arising from a doubling of public transport over the next ten years (a 1% reduction). The Strategy acknowledges that modal shifts (and energy savings) are possible, but the alternatives need to be attractive. The document suggests that the “major responsibilities” for bringing about the shift lie with road controlling authorities and regional councils (via Land Transport Strategies).
- 5.6 As a general comment, the Draft Strategy’s analysis of transport issues and the discussion of solutions is overly simplistic, and strongly reliant on “agencies” (such as the Regional Council) to implement the ideas. The Regional Council believes that responsibilities will be individual and organisational. For example, if Government is serious about increasing public transport use, then it needs to remove some of the institutional barriers that currently exist (e.g.

rail issues in Wellington), and change the way that Transfund NZ is set up to deal with funding support for public transport projects.

- 5.7 An example of a perhaps too simplistic approach can be seen in paragraph 86, where some ideas for reducing travel demand are listed. In reality, the schemes identified have at best a marginal impact. This comment is not made to belittle the proposals, but rather, it emphasises the need to think about multiple solutions to a variable range of factors that motivate people's needs for accessibility.
- 5.8 The transport area is a complex and contentious one, dealing as it does with the choices, rights, and responsibilities of individual transport users. Underlying the difficult area of transport are the figures mentioned earlier about the rate of growth in energy use by transport, both in the past and predicted for the future. Because of the urgent need to address transport's energy use and associated effects, many of the ideas considered in the Draft Strategy will have a place in what needs to be a comprehensive approach to management of those effects. More efficient vehicles, greater use of public transport, road (possibly congestion) pricing, carbon taxes, improvements to vehicle performance standards, import management, demand management, urban form and land use based initiatives – all of these things and more will contribute. Some will be carrots, some will be sticks.

6. Integrated legislation

- 6.1 Local government is seen to be a “lead partner” in the Strategy (paragraph 142, under the title of Institutional Roles). The Draft Strategy states that “many aspects of energy use and supply fall within the jurisdiction of regional councils and territorial authorities”. The Regional Council feels that there are a number of qualifications that need to be made in relation to the Strategy's suggested role for local government.
- 6.2 There are various pieces of legislation that enable local government to both directly and indirectly influence energy use and supply. Direct use, as a sector, is clearly an area where local government can provide a role model (although there may need to be a degree of encouragement for authorities to perform this role.) However, many of the other areas where local government might have a role are less direct. Setting policy direction for transport or resource management potentially has a major role, as the Draft Strategy notes, but there are difficulties in translating worthy aims into effective action.
- 6.3 The Resource Management Act 1991 (RMA) is referred to at several points through the Draft Strategy. There are questions about the suitability of the RMA to deal with particular issues (e.g. managing local impacts of vehicle emissions, discussed in paragraph 27). There are assumptions about the potential effectiveness of some of its mechanisms (e.g. incorporation of sustainable energy outcomes into “local and regional plans” in paragraph 127). There is also the idea of a National Policy Statement on Energy, prepared under the RMA.

- 6.4 The RMA will have a role to play in the Strategy, but its limitations need to be recognised and the need for links with other legislation acknowledged and developed. If too high an expectation is placed on the RMA, there will be further criticism when it fails to deliver on something that might have been better handled in a different way.
- 6.5 The RMA is often described as an effects-based piece of resource management legislation. The notion of thinking ahead, preparing for the needs of future generations (and ecosystems), is at best handled in a reactive way as specific proposals for change arrive. For energy, a resource within the definition of the Act, it has been particularly difficult to think ahead in terms of managing the use of a resource that underpins economic and social activity. In terms of the sustainability principles set out in paragraph 150 of the Draft Strategy, there needs to be some complementary recognition in the RMA that energy management, in an anticipatory as well as a reactive sense, is a legitimate concern for those implementing or having responsibilities under the RMA.
- 6.6 If energy management provisions are to be put in “regional and local plans”, experience has shown the development of plans (and National Policy Statements) to be a long and tortuous process. There will be no quick fix on energy management if there is reliance on the RMA as an implementation tool. But on a positive point, energy management provisions in plans, particularly if linked to other legislation, are certainly potentially helpful in providing a policy basis for more active energy-related decisions under the RMA.
- 6.7 Another difficulty experienced in the Wellington Region has been that even when there are suitable policy provisions in plans (and Regional Land Transport Strategies), implementation is problematical. Objectives and policies can refer to access by various modes of transport (car, foot, cycle, public transport), but it seems to be difficult to develop rules that “bite” when it comes to considering specific development proposals. Too often, alternatives to the car are an after thought, an inconvenience to tack on to a design drawn up with the motorist in mind. With these other modes seen as the poor relations of accessibility, the message of “keep driving” is a strong one. People who may want alternatives, to support the Draft Strategy, will find that there is not an infrastructure to support their behaviour.
- 6.8 Also at the local level, using the RMA (effects-based legislation) to manage effects has been a problem. The Strategy has noted difficulties with the local impact of vehicle emissions (paragraph 27). Other difficulties have included getting data on energy use and its local environmental effects (on aquatic ecosystems, air quality, amenity, stormwater), and recognising the need for local action on CO₂ via energy and transport management (“our contribution to the problem is too small to worry about”). Tackling some of these issues gets into areas of data confidentiality and, among other things, vehicle purchasing, management and performance. These areas are not best dealt with via the RMA.

- 6.9 The link between the RMA and transport legislation is not a strong one at present. Stronger requirements on regional and territorial authorities to make specific provisions in their RMA plans for transport policies developed under transport legislation would be helpful. Equally important would be requirements under transport legislation for land transport strategies (national and regional) to reflect RMA plan provisions, and the provisions of the Energy Efficiency and Conservation Strategy.

7. Barriers and voluntary action

- 7.1 The Draft Strategy puts a lot of stress on voluntary action – people doing the right thing. But there are plenty of barriers to doing the “right thing” for individuals, companies or government agencies. Barriers can be institutional, attitudinal or practical (e.g. availability of energy efficient products). People need information and encouragement/structures to support the actions needed - they need to clearly see, for example, that it makes financial sense to do something, and have the means to do it. One area where people can make individual choices - in home energy management - is not obviously seen to be a beneficial action. People move home much more frequently than the pay-back periods for most energy-efficiency "investments" and either postpone or actively decide not to invest.
- 7.2 The Draft Strategy recognises some of these barriers (text box on page 32) but needs to more clearly deal with some very real behavioural and organisational issues if it is to rely primarily on voluntary action. Some targeted regulation, pricing, incentives, information and education and training are all in the basket of implementation methods identified in the Draft Strategy (page 33).
- 7.3 While supporting a mix of “carrots” and “sticks”, the Regional Council would note that relying on voluntary action has not been particularly effective in prompting appropriate energy management responses, notably in the area of transport. The Draft Strategy itself notes (in paragraph 28) that huge sums of money are spent annually on energy by individuals and organisations, and despite knowledge about potential savings through efficiency, historic rates of efficiency improvement have been very low. Much lower, in fact, than the Strategy needs to reach it’s stated targets.
- 7.4 A strategic approach to action, noted earlier in the submission, is needed, recognising a mix of actions and responsibilities across a host of players, and dealing not only with energy efficiency, but also with moderating energy demand and greater use of renewable energy sources.

8. Comments on general structure and terminology

General Structure

- 8.1 Paragraph 148 sets out section 10(2) of the Energy Efficiency and Conservation Act 2000, which identifies the matters that the Strategy should state. In general, the Draft Strategy seems to have met the requirements for content, but as indicated in Point 4 earlier, the Regional Council suggests that the final Strategy should have a more strategic focus
- 8.2 The Council acknowledges the wealth of material and thinking behind the Draft Strategy. The supporting papers testify to this. However, the Draft is a mixture of selected, illustrative facts, rather lightweight analysis of issues, (some) possible options, and multiple terminology for spelling out the strategic direction (see paragraph 8.5 below).
- 8.3 This mix may not be the most advantageous approach. The superficial discussion almost trivialises, rather than simplifying, some of the important points. The final Strategy could be shorter, and focussed on policy and actions, responsibilities and resources, rather than interesting snippets of various issues and aspects.
- 8.4 If the final Strategy is to remain relevant for five years, summarising current debate about selected points seems inappropriate. The supporting information – options not chosen, examples of what happens elsewhere, analysis of issues, etc – could go into another supporting document behind the final Strategy.

Terminology

- 8.5 While the Draft Strategy aims to provide strategic direction, there is a real risk of causing confusion if the current terminology is retained. There are two “*policy directions*” (Section 1.2 on page 6), three “*central components*” (paragraph 6), six “*goals*” (Section 1.3), two “*targets*” (paragraph 7), numerous “*other targets*” (also paragraph 7), and various “*objectives*” (for the five programmes (chapter 3). There are also numerous “*means*” (or types of *measure*) for making things happen, some of which are Category 1 (short term) and others Category 2 (some time in the future).
- 8.6 There is a need to communicate the key elements, relationships and actions much more effectively if a clear strategic direction is to be given by the Draft Strategy. Rationalising the terminology may improve understanding of the Draft Strategy’s direction.

9. Specific comments

- 9.1 The *Minister’s Foreword* provides an accurate summary of what the Draft Strategy’s intent, except in two areas. First, “conservation” is mentioned twice, but tends to be lost within the stock phrase of “energy efficiency,

energy conservation and renewable energy” (third and tenth paragraphs). Second, the Minister talks about capturing the “hearts and minds of New Zealanders”. The Council considers that the Draft Strategy needs to appeal to the pockets of New Zealanders as well, whether as individuals, households or companies. Tangible incentives are needed to bring about changes in behaviour.

- 9.2 **Targets** (Section 1.4) are undoubtedly useful, even if only to trigger some movement towards the targets rather than necessarily achieving them. However, as noted earlier, the Regional Council has particular doubts about the achievability of the targets that are put forward for efficiency improvement by the Draft Strategy, given that the Strategy is heavily dependant on that achievement. Also, Paragraph 17 states that there will be some (small) short-term costs associated with the renewable energy target. However, there is as yet no numerical target to verify this statement. Furthermore, submitters to the Draft Strategy may indicate that they want a high target for renewables, even if it is not the “least cost” option over the short-term. The Council suggests this paragraph would benefit from some clearer indications of potential costs.
- 9.3 Section 1.5, **2012 Outcomes** only refers to benefits from efficiency. There are also many more benefits from greater use of renewable energy sources and energy conservation - for example, local climate and air quality gains, healthier workplaces and more productive workers. The focus on energy efficiency benefits reflects a slightly restricted view of what the Strategy might achieve.
- 9.4 Paragraph 15 supplies figures for government investment in efficiency, primarily targeted at government departments and Section 1.6 (**Costs and Benefits**) has some important points about longer-term reasons for pursuing efficiency and use of renewables (despite the qualifier in Footnote 10). The Regional Council considers that if there is real evidence of savings and if it can be shown why investment is a good business for everyone, these benefits cannot be emphasised too strongly. Headlining the benefits would help in changing perceptions and gaining support for the Draft Strategy.
- 9.5 The implications of **Business-as-Usual** (Section 2.2) begins with discussion of the Kyoto Protocol, current rates of emission production and a statement in paragraph 23 that “continued energy growth...means that meeting New Zealand’s Kyoto responsibilities will be that much harder to achieve”. That may be something of an understatement! Furthermore, the Kyoto Protocol has followed prevarication on earlier agreements for action, the timeline for action has now been further extended and the current base from which we have to get back to 1990 levels has become 20% higher. There is a risk that by relying on voluntary action, the target to achieve and the base from which we work will become even higher. (Note that the Regional Council has earlier this year made submissions on the Role of Local Government in meeting New Zealand’s Climate Change target. A copy of that submission to the Select Committee is attached for information.)

Government and Local Government Programme

- 9.6 The Strategy “invites local government to adopt” a 15% improvement by 2005 (paragraph 47). Based on central (and some local) government experience, this is thought to be an achievable target. Comment has been made earlier about the Regional Council’s own experience in energy efficiency, as it relates to water supply, and how this figure of 15% will be unachievable under current policy and legislation. The Regional Council’s other main area of energy use is as a building owner and occupier. Building managers (including government agencies) use discount rates that often work against longer-term benefits, and particularly intangible benefits or benefits to the environment that are not easily calculated. These time scales and procedures can hinder investments that will pay longer-term dividends. Local government needs a clearer mandate to make the “right” sorts of energy decisions (as also noted elsewhere in the comments on Barriers).
- 9.7 Paragraph 51 notes the importance of better recognition of the impact of current planning on short- and long-term energy use, particularly in view of the in-built inertia associated with major infrastructure. The need to make good energy-use decisions for long-life infrastructure investments is important (notably with road investment decisions, but also for water supply infrastructure, and the effects of both of these on urban form and development).
- 9.8 While recognising the issue, the Draft Strategy does not provide much guidance on what can be done about this matter. Two initiatives are mentioned (sustainability and urban form inquiry, and guidelines on renewable energy developments), but undoubtedly there are others. These might include strengthening links between transport legislation and the RMA, emissions control under the RMA, and the RMA focus on effects and exclusion of finite fossil fuels from sustainability considerations.

Buildings Programme

- 9.9 Paragraph 34, *Energy Service Deprivation*, and the *Buildings Programme* both raise several key questions: How many homes need retrofits? What level of insulation is there compared with what is needed in different parts of the country? How do we handle the problem of old, large, energy inefficient properties let by landlords to poverty line tenants, and neither the landlords or tenants have the desire or resources to upgrade? These questions are not answered in the Buildings Programme chapter, although there is some data that confirms the scale of the problem, given that the Strategy sets a target of all houses being retrofitted in 15 years. The problem is large, both in terms of numbers and in attitudes.
- 9.10 Society as a whole frequently approaches choices and decision-making from a short-term time scale. Homes change hands, on average, every 4 years. But while individual properties change hands relatively frequently, Paragraph 53 suggests that there is slow turnover of the total building stock. There are two trends here working against each other. Setting high energy performance

standards for new construction will only have a slow and marginal impact on the total stock, but efficiency improvements to individual properties is often not seen as an economic investment because of turnover rates. Nonetheless, the Strategy sees improving the existing stock as offering short-term benefit (and unknown, but probably very high costs – acknowledged at the end of paragraph 61). We offer some additional thoughts on the Building Programme below.

- 9.11 The relatively rapid turnover of residential occupation hinders investment in energy saving technology, at least partly due to a false perception problem on the time scale of return on investment. Many energy saving choices can produce good early financial returns, and improve comfort. An additional barrier is that energy saving products are often difficult and the initial outlay makes them expensive to acquire, particularly for poorer households. A further factor to weigh in considering a target of “all houses” being retrofitted within 15 years is that this might lead to inefficient investment in some unsuitable dwellings.
- 9.12 For commercial buildings, and for local government buildings, there are economic or legislative imperatives to perform to low or least cost, and to apply short time horizons when making energy investment decisions. As the Draft Strategy notes, energy is not perceived to be a major cost and ranks relatively low in the order of management priorities. This attitude towards energy management within organisations needs to be directly addressed before real progress can be made to the level anticipated in the Strategy. The Strategy recognises this as a major systemic issue, describing it as the “unsupportive environment” (paragraph 129).
- 9.13 Referring back for a moment to the second objective for central and local government (text box on page 14), the wording involves the integration of sustainable energy outcomes into goals, objectives, statements of intent and planning processes of (local and central) government. The objective also suggests these statements etc should include actions to achieve the Draft Strategy targets. Given the point made in the previous paragraph about there being an “unsupportive environment” for introducing sustainable energy outcomes, the question arises as to whether this objective should be voluntary, mandatory, or somewhere in between. The Council considers there may need to be at least an element of compulsion, given the historical low level of interest in, and commitment to, sustainable energy management.
- 9.14 Paragraph 65 (Commercial Buildings) presumes that energy is a significant component of cost and that business will therefore want to save money by being energy efficient. The Regional Council suggests that businesses tend to seek to keep total energy costs down by working at a macro political scale rather than in-house. Undoubtedly, it makes good sense, financially and image-wise, for companies to be more efficient, but the spread of this enlightenment will only occur if the cost of energy rises dramatically. Of course, this situation may arise if another part of the Draft Strategy is effectively implemented – paying true costs for energy – thus bringing about more interest in efficiency or conservation.

- 9.15 The Council suggests to gain a higher profile for efficiency and cost savings, EECA might consider a competition, challenging designers and major energy suppliers to produce homes, commercial buildings, offices, etc at levels of efficiency, insulation, heat retention, comfort and so on that exceeds current ISO standards. This idea was used in Milton Keynes, United Kingdom, during the 1980s. More than 50 houses, all in one area of the new city were designed and built to exceed the British standards for a whole range of performance criteria, in some cases by over 200%. The houses looked normal and used conventional fuels aided by up-to-the-moment technology. Although they were slightly more expensive, they became highly desirable due to their cost effectiveness and were quickly purchased.

Energy supply programme

- 9.16 Section 3.6 begins by noting that a lot of the recommendations in the Draft Strategy concern “investigations” rather than “implementation” (paragraph 101). This is an important point, but while caution is understandable, there is a need for the Strategy to provide a clear strategic direction in resolving some of these issues through tangible action rather than by further research. Prevarication is unnecessary in some key areas, although others do warrant further research. The Regional Council suggests that the final Strategy identify some specific, immediate actions, so that it is a Strategy for Action rather than a Strategy for Research.
- 9.17 Paragraph 102 explains why the electricity and gas sectors are the focus of measures proposed, and why coal and oil are not. The Council considers that the latter two sources are causing the largest environmental impacts, locally and globally, and are an unsustainable source of energy that underpin (and perhaps because of their finite character, undermine) the economy and its associated transport system. The Council considers that coal and oil have to be addressed in conjunction with the electricity and gas sectors.
- 9.18 The Council supports the “specific outcomes sought from supply measures” (text box on page 30), but considers that the Draft Strategy needs to identify more effective means of achieving such outcomes. There needs to be a bridge between these desirable outcomes and on-the-ground actions, and there lies the heart of the Strategy’s role.
- 9.19 The Energy Supply Table (page 31) has a number of measures with timelines before the final Strategy is to be released. The Council would like to see a clearer indication of how the outcomes of these pieces of work are to be incorporated in the final Strategy. Will there be, for example, some interim public document for further input, or do we assume that the drafters of the final Strategy will simply write in the parts of these pieces of work that fit with the overall direction?

Designing the Measures

- 9.20 There is a note at the end of paragraph 127 that in terms of practical experience in energy efficiency, transport and energy supply have not, historically, been a focus of attention. These sectors are difficult to address, as we have noted, but are **absolutely central** to the Draft Strategy's success. The Council recommends that these sectors be addressed in a consistent manner to buildings and industry, as part of an integrated strategic approach to sustainable energy management (see comments in Section 4 of this submission).

4.3 Types of Measures

- 9.21 The Types of Measures to implement the Draft Strategy set out in section 4.3 are all sensible, at the generic level. The Council considers that it is their specific application to individuals, households, communities, businesses and government agencies that is needs to be much more clearly thought through and, if possible, articulated in the final Strategy.

4.4 Institutional Roles

- 9.22 The section on local government (paragraph 142) is superficially correct, but as noted earlier, local government's mandate and the limitations of legislation restrict the power or have only indirect influence on the implementation of many valuable actions. The Council considers that this section on roles needs to be more comprehensive and linked to specific actions that will be identified in the final Strategy.

4.5 Monitoring

- 9.23 The Council considers that paragraph 146 is inadequate. Information about the effects of energy production, transmission and end use is crucial if true costs are to be identified and apportioned. A more in-depth discussion of the difficulties of acquiring data is needed, combined with measures to overcome such difficulties.