5.10 Energy

5.10.1 Introduction

The energy chapter in the *Regional Policy Statement for the Wellington Region 1995* begins by saying that "energy is an essential input to natural and economic systems, but its use has both good and bad effects". Affordable, reliable energy also underpins the lifestyle we enjoy – freedom and mobility to go where we want, hot water and heating in our homes, and power to run the many appliances, equipment and gadgets we use in our domestic and working lives.

Little has changed, in the last decade, in the fundamental importance of energy in maintaining the long-term sustainability of our economy and way of life.

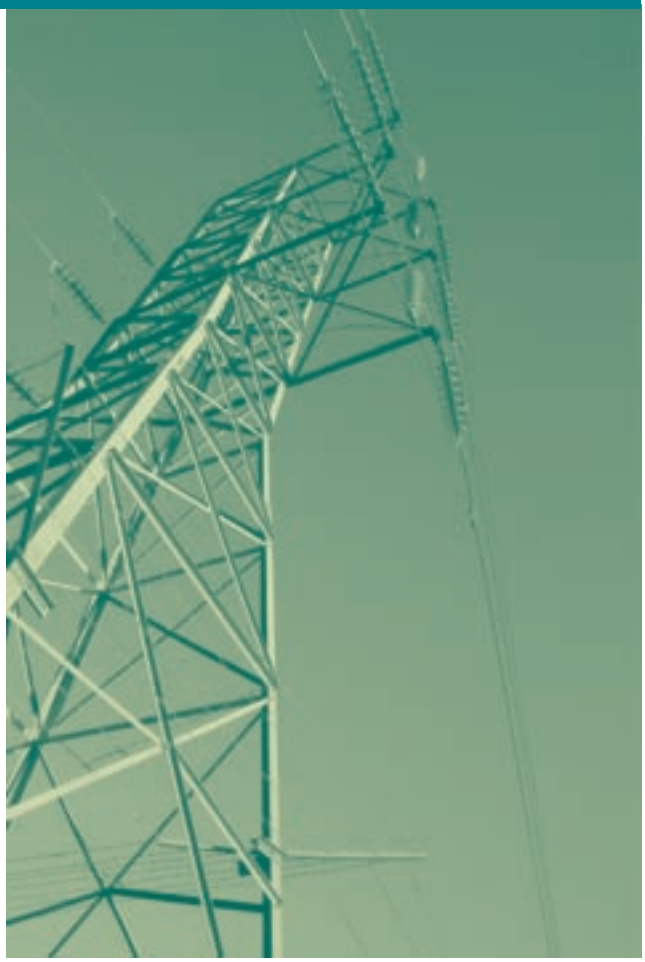
Unfortunately, what has changed is our accelerating demand for energy, and especially, for imported transport fuels. Everyone knows these fuels are finite and that we may be approaching "peak oil" – the time when supply of fossil fuels declines and increasingly fails to meet demand. We're also learning more and more about the consequences of burning fossil fuels on global climate.

Security of supply, price rises and the environmental consequences of using fossil fuels as energy sources are all highlighted as issues in the Regional Policy Statement. In the absence of national guidance, the Regional Policy Statement has tried to provide a regional framework for sustainable energy management.

5.10.2 How successful has the Regional Policy Statement been?

The Regional Policy Statement objectives aim to moderate energy demand for fossil fuel-based energy, promote greater production from renewable energy sources, be more efficient in the energy we use, and manage the adverse effects of energy production, transmission and use.

The *National Energy Efficiency and Conservation Strategy 2001* (NEECS) also has goals for renewable energy production and energy efficiency. However, neither NEECS nor the Regional Policy Statement have been at all successful in achieving their goals.



Nationally, the production of energy from renewable sources has been largely static for many years. The modest target set by NEECS of an additional 30 petajoules from renewables by 2012 is already acknowledged as unachievable. The intention to improve energy efficiency across all sectors of the New Zealand economy by 20 per cent has also proved unrealistic. The NEECS is currently under review.

For the Wellington region, it is hard to assess the effectiveness of the Regional Policy Statement because there is so little energy data available. What there is, however, indicates that national trends of growing demand are being followed in the region too (see also issues identified in the **built environment and transportation** chapter).

Assessment is also difficult because many actions specified in the Regional Policy Statement depend on agencies (particularly the Energy Efficiency and Conservation Authority) and public authorities

(including Greater Wellington and city and district councils) voluntarily taking various initiatives. Whether such initiatives were acted upon (in most cases, they have not been) has probably been less driven by the Regional Policy Statement than by other factors specific to the agencies involved, such as lack of resources, higher priorities and no statutory mandate for action.

Does this lack of achievement mean that the objectives and policies in the Regional Policy Statement are wrong, or are they just not being effectively implemented?

5.10.3 What's changed, and what are the energy issues now and for the future?

Since the Regional Policy Statement became operative in 1995, there have been amendments to section 7 of the *Resource Management Act 1991* (RMA) that have had the effect of raising the profile and importance of sustainable energy management.

The RMA now identifies end use efficiency, the benefits to be derived from the use and development of renewable energy and the effects of climate change as matters to which "particular regard" shall be had. Together, these changes have given a clearer mandate to tackle energy (and climate change) issues. (See chapter on **climate change**.)

What are the current energy issues for the region and the foreseeable future? Greater Wellington's state of the environment report, *Measuring up 2005*, highlights that:

- The region's total demand for energy continues to grow.
- Imported finite fossil fuels continue to be the largest area of energy growth, raising issues of security and reliability of supply, as well as exposure to price uncertainties.
- Transport is the sector showing the highest, and accelerating, growth in energy use. Transport is also the main source of energy-related carbon dioxide emissions.
- Thirty three per cent of primary energy is "lost" in processing (e.g. refining crude oil), conversion (e.g. burning coal to generate electricity) and transmission (e.g. carrying electricity long distances through power lines).
- There is a further loss of effective energy by inefficient appliances, equipment, buildings systems and vehicles because of how they work. Vehicles, for example, only use 15 per cent of the energy poured into them to actually move us around.
- Carbon dioxide emissions from energy production and use have grown by over 40 per cent between 1990 and 2003.
- Renewable energy production from the region's plentiful wind resource is beginning to show small, but positive, signs of development.
- Any energy-related development, from whatever source, can cause effects that need to be carefully managed.

5.10.4 Comments and questions for you to consider

Most of the sustainable energy management issues are large-scale. It could be argued that central government should be doing something, if anyone should. The Government is considering the preparation of a National Energy Strategy, but the scope and responsibilities are yet to be finalised. However, we expect that the Strategy will have similar generic aims as the objectives and policies in the Regional Policy Statement.

It is also arguable that energy issues are global, that government regulation would be largely ineffective and that the international energy supply and demand market will resolve things. But major energy supply corporations have vested (and sometimes conflicting) interests and there is considerable debate and uncertainty about energy supplies and availability. When will "peak oil" be reached? How might it affect us – nationally, regionally and locally?

Question 1:

Do you think we have identified the right energy management issues? Are there other issues we should address in the region?

Question 2:

Do you believe that these are the sorts of issues that should be dealt with by the Regional Policy Statement?

Question 3:

How could policy implementation be improved? Can the Regional Policy Statement help in any way or should decisions be left to central government or energy supply companies? Who, if anyone, should be leading energy management?

Question 4:

Would implementation be more effective if there was a strong and more directive set of policies, actions and responsibilities in the Regional Policy Statement?

Question 5:

How important is energy management? Would there be benefits from closer and practical linkage between energy objectives, policies and actions and those identified elsewhere in the Regional Policy Statement for transport, climate change, local air quality and the management of the urban environment?