

GO EASY ON ENE

THIS SEMINAR marks the beginning of Forest and Bird's Go Easy on Energy Campaign. Forest and Bird is not alone in its concern for an energy efficient New Zealand. We have constant liaison with other conservation groups with similar concerns, and have a good information pool.

Electricity has been selected as the first specific energy sector to come under scrutiny. Other sectors, such as transport, natural gas and alternative energies, are in the final stages of investigation and will be dealt with in due course.

Among the fine attributes of electricity, there is a negative impact. It is this less glamorous side of electricity which lies at the heart of Forest and Bird's interests in this initial stage of our campaign.

The major interests and concerns Forest and Bird has with energy and electricity fall into two broad categories: habitat loss and greenhouse gas emissions.

All the available evidence shows that New Zealand has reached the end of the line as far as habitat loss is concerned. We are particularly concerned about potential loss of river habitat and the diverse conservation values associated with rivers. Forest and Bird has therefore in its provisional energy policy said that a specific action should be "to scrutinise and, where necessary, oppose any further proposals for damming New Zealand rivers and lakes."

There is also a requirement to scrutinise and oppose applications for current water rights, where the enhancement or restoration of critical habitat is of overriding importance.

The picture is not good. New Zealand continues to increase its energy consumption at such a rate that it is properly referred to as an international disgrace.

Electricity consumption is presently growing at an underlying rate of 3 percent. If this rate of increase continues, New Zealand will be utilising all its power stations (including the mothballed Marsden B) about the year 2000.

After that, power stations will have to be built at the rate of about one Huntly per year – and dams built on many of our remaining wild and scenic rivers.

One of the aims of the Go Easy on Energy Campaign is directly related to future water right applications and the potential loss of habitat they represent. The aim is simply stated: to stabilise electricity consumption and halt the growth demand.

Greenhouse Gas Emissions

The second concern is greenhouse gas emissions. Molly Melhuish recently wrote in *Live Lines*:

"Scientists now know that the world's use of fossil fuels has discharged so much carbon dioxide into the environment that a substan-



Energy efficiency expert Amory Lovins spoke live by satellite to the launch of the Electricity Supply Association's energy efficiency campaign in December. On the podium were (from left) Energy Minister John Luxton, ESA president Murray Sweetman and ESA chief executive Barry Leay.

tial degree of global warming is almost certain to occur. Because the ocean acts as a giant "night store", the earth's temperature rise lags behind the increase in carbon dioxide and other gases. Natural variations in weather further obscure the evidence of rising temperatures.

"Even so, all but a few percent of the world's atmospheric scientists believe global warming has begun. Several hot summers in Europe, together with oppressive air pollution have helped to thrust this greenhouse effect into the forefront of international environmental politics.

Geoff Bertram: "If we take on board some of the technological ideas that are out there, we can quite comfortably knock off over half of our electricity consumption."

"In contrast, New Zealand's maritime climate helps mitigate any temperature effects and our clean air does not focus the public attention on our fragile atmosphere.

So popular concern, driven by popular observation and fear of the unknown, is largely absent in New Zealand.

"Overseas, politicians and industrialists are much more cautious than either scientists or the person in the street. Likewise in New Zealand the electricity industry would like to belittle its contribution – after all electricity produces only 17 percent of New Zealand's carbon dioxide emissions."

What is not generally recognised in New Zealand is that every time a consumer chooses to increase electricity use in the household or in industry, Electricorp has to burn fossil fuels to meet all the extra demand. All the recent increase in electricity consumption, 3 percent a year, has been generated by burning fossil fuels. New Zealand releases about 8 million tonnes of CO₂ per year – so last year's increase in electricity consumption represents about 10 percent of total CO₂ emissions. By stabilising electricity consumption, New Zealand would, in effect, reduce its CO₂ emissions by 10 percent and thus go 50 percent of the way to meeting the nation's stated target of a 20 percent reduction in greenhouse gas emissions by the year 2000.

Retirement Fund

There is one other aspect about increased electricity demand which ought not to go unremarked. New Zealand presently has a considerable surplus of generating capacity over demand – a surplus economists refer to