NZ Centre for Political Research
Forum

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The New Zealand Centre for Political Debate

The Species Hoax

During late January the ex-Act MP, Gerry Eckhoff, was leading some Otago farmers' charge against DoC's demands to enter their properties to survey some "endangered" trees.Farmers remember when they last invited DoC researchers onto their land, only to find the information was used to designate huge areas of their farms as "significant natural areas" and subject to all manner of RMA rules and controls.This time DoC's claim a right to trespass to examine the "endangered species" of trees such as Olearia Hectorii, Olearia Fibriata and Olearia Lineata.In their authoritative text, New Zealand Native Plants, Cave and Pattison point out there are about 135 species of Olearia in New Zealand . They note that different species thrive in different locations. Species that thrive in Northland – where I live – may well be scarce in Central Otago – where Gerry lives. That's the whole point of different species of the one genus – they have adapted to local environments.

Sure enough Olearia Lineata appears to be rare down South. If this worries DoC staff they should visit the Forever Native nursery, just along the road from my office, where they can buy as many as they like. They can even buy them off the web. If they don't want to reach so far North they can try the Taranaki Regional Council Nurseries. They can buy 3m tall Olearia Hectori from Matai Nurseries in Canterbury .It's difficult to see how any plant can be endangered, when you can it from local nurseries.

We are told almost every day that New Zealand is the "endangered species capital" of the world. But it's dead easy to win the endangered species Olympics if you include every species which happens to be rare in some location because the environment doesn't suit. Dogs are not an endangered species because Chihuahua don't thrive on the Alaskan ice.

Should we care? If DoC wants to list locally rare species as endangered why should that bother Business? After all, Business has its own problems – such as access to cheap reliable electricity.

However, if you care about your electricity supply I suggest you watch the endangered species debate with more than passing interest.

Broadband and the Snail Take the humble snail

Snails don't move around much. If you find a snail which is running around on legs, or flying on wings, or swimming with fins, you can be reasonably sure it is not a snail. Snails find it hard to make new friends and meet new people. Hence, if a group of snails spend a few thousand years in one valley or forest glade they will interbreed and create yet another variety of one of the 65,000 species of snail.

Because they are a distinct variety their genetic code will be slightly different – just as blonde humans have genes which are slightly different to brunettes'. Such genetic differences tempt our conservationists to label any local "variety" as yet another new "species". The researcher gets a journal article and we are told we have yet another "rare and endangered species".Snails are slow which is why we call regular mail "snail mail". Being in business you like fast – not slow. The world is moving quickly and your business needs to move quickly too. You want high speed broadband. Regular dial up internet uses about one watt of electricity, and only on demand.

Broadband uses closer to twenty watts of electricity – all the time. So if one million New Zealanders switch from dial up to broadband New Zealand 's demand for power will increase by about 20 megawatts.

Now that's not much. Trustpower's new windfarm has a planned capacity of 500 megawatts. However, the watts which drive your broadband connection are the lowest entropy, cleanest, tidiest, most stable, convenient and accessible form of energy

there is. Getting that energy from the furnace to the microprocessor, where it can drive those quantum mechanical systems in your desktop computer, means that the original furnace energy has to go through a multitude of transformations. The second law of thermodynamics insists that each and every one of those transformations sheds energy to the environment. This is the "virtuous waste" of our energy system. This waste has nothing to do with inefficiency or bad management. It happens to be the way the universe works.

If you want to reduce entropy – or increase order – in one part of a system, you have to increase entropy – or increase disorder – in another. The power station's cooling tower is just as important as the furnace. If we want electricity to come out of Huntly power station we have to warm the Waikato River , and the air above the chimneys. That's the way the universe works.The result is that delivering one watt of highly organised, low entropy, reliable, clean and stable DC electricity to your computer, someone, somewhere, has to be running some kind of furnace at about two hundred watts.

So the 20 megawatts needed by our million people on broadband actually needs 2,000 megawatts of "furnace" energy. We can now understand why the US uses more energy per head than anyone else. It's not because Americans drive round in gas-guzzlers. Oil use accounts for only 40% of the US energy consumption. 60% of the US economy is powered by electricity and that percentage increases all the time because electricity is the most orderly form of energy, and low entropy power is what the modern knowledge-based, intelligent-system driven and communication-based economy needs.We fail to understand this at our peril.[1]

Yet, Pete Hodgson, as Minister of Energy, declared that one of his government's goals was to decouple energy use from growth. The only way to do that is to reduce our use of high speed intelligent systems. Such a policy is not so much "Luddite" as "Lethargic".The "Lethargists" want us all to slow down – while the rest of the world speeds up.Energy efficiency organizations, such as the EECA, are enthusiastic Lethargists. For example, they believe we can seek redemption by using long-life low-energy light bulbs. They fail to realize that to the physicist a cellphone is a light-bulb – and scores of thousands of them light up the whole New Zealand countryside every day. If our eyes could see microwave radiation a rock concert would be a sea of cell-phone candles."Efficiency" enthusiasts just don't get it.The cheapest and most plentiful fuel to light up all those furnaces is coal. If New Zealand wants to keep up with the modern world, rather than wallow in lethargy, we had better start mining coal for ourselves and building clean coal-fired power stations.

The trouble is wherever we try to dig up some coal we're bound to find a rare variety of snail.If we let the lethargists persuade us that every variety of snail is an endangered species we're doomed to be stuck in the slow lane.The good news is that Conservation Minister Chris Carter has just allowed Solid Energy to move a small population of snails away from the southern end of its Stockton Mine. I come to praise Mr Carter; he has reached a sensible decision in the national interest.

The Ministry of Economic Development, and in particular the Crown Minerals Department, does seem to be promoting access to our natural resource wealth rather than letting DoC lock it all up. We have to give Jim Anderton his due.

So next time you hear some farmers complaining about DoC and their "endangered species", don't ask for whom they moan.They moan for thee.

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[1] For more info on this topic read Peter Huber and Mark Mills: The Bottomless Well: The Twilight of Fuel, the Virtue of Waste, and Why We Will Never Run Out of Energy. For an excellent review see: http://www.automation.com/sitepages/pid1907.php

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