

POLITICS OF ALTERNATIVE ENERGY 2

Queanbeyan Soft Drink Factory

"Solar energy used to produce canned coke at Queanbeyan": A great leap forward in the deployment of solar energy? Or should we even be marketing soft drinks in cans? FOE Canberra take a

close look at this development and reveal the political myopia of simply slotting in solar power in place of fossil fuels in our existing productive system.



In a Queanbeyan soft drink factory, the CSIRO is trying out a heating system using solar energy. Part of the heat used in the manufacturing process, normally produced by burning oil, is being generated through the use of solar collectors.

Surely this is a step forward! The use of solar energy promises to ease the energy crisis. And what's more, solar energy will never run out and is almost totally free of pollution. But let's not be hasty. Let's look first at what the energy is being used for, at who is benefitting from it, and what other alternatives there may be.

In the Queanbeyan soft drink factory, the heat being produced by collection of solar energy is used to heat up the soft drink cans after they have been filled and sealed. The reason is this: In a previous stage of the process, the cans are cooled; if the cans were allowed to heat up naturally, water would condense on them and soften the cardboard cartons in which they are packed immediately afterwards. In short, the cans are heated so that water will not condense on them.

Looking at things this way, it is obvious that there is another way of getting around the problem: allow the cans to dry off before packing them in the cardboard cartons. This would mean that no added energy would be needed, neither solar energy nor back-up heat from oil.

Let's look a bit closer at the soft drink factory. One reason that manufacturing soft drinks requires so much energy is that the soft drink cans are made of aluminium, a metal whose production requires large amounts of energy. Steel cans require much less energy to produce. But if energy is a problem, why not use bottles, which can be reused? Instead of using energy to produce a can or bottle for every new drink, reusing the materials would greatly cut down on energy requirements.

Why is it that manufacturers don't look at ways to save energy by changing production methods? Partly it is

because energy is cheaper than it should be. Tax money is used in various ways for the development of energy resources, from subsidies for oil exploration, construction of hydro electric schemes, construction of freeways, to solar research. But even without these subsidies, energy is undervalued in the market because non-renewable resources such as oil are treated as if they were not going to run out — capital is treated like income. Finally, energy is undervalued on the market because the side effects of its use — pollution in particular — are not taken into account.

So the Queanbeyan soft drink manufacturers are not really so much to blame for their unnecessary degree of energy use. The company, after all, is just doing what is most economical, and hence best, for *itself*. What is a problem is government policies which subsidise excessive energy use, and the economic system which treats energy as a commodity and encourages looking for short-term gains and ignoring long-term social effects.

Let's look once again at the manufacture of soft drinks. Why should they be manufactured in a central place (a factory), therefore requiring all the trouble of packaging, distributing, selling, and disposing of the containers? Why not just distribute the soft drink formula (which is mostly sugar anyway) so that people could make their own soft drinks, like they make coffee and tea now. This would eliminate the need for large amounts of energy: the energy used to mine bauxite and produce aluminium, the energy used to build the factory, and the energy used to distribute and sell the drinks.

This is all very well, but this idea raises lot of questions. What about the profit motive? And what about employment? — what about all the miners, factory workers, sales people, garbage workers, and executives whose incomes depend on soft drink manufacturing? — what about their jobs?

Soft drinks have no nutritional value. In addition, the caffeine in many of them makes them addictive, their sugar causes tooth decay, and artificial flavourings and colourings may cause hyperactivity in children. How did the 'need' for soft drinks come about anyway?



At this stage it is easy to see that resource and environmental problems are more than just technical issues. There are lots of ways to cut energy use. But some of these ways conflict with present social, political and economic practices. Rather than rejecting these alternatives out of hand, it is valuable to study them in more detail. If they are beneficial to people in other ways as well as just improving the environment of a few, then it may be worth trying to change some established practices.

Employment

From the point of view of employment, distributing the soft drink formula would seem at first sight to be a bad thing. Producing the formula for home use would not take much effort; it might even be possible for individuals to make it on their own for supply to the local community. All this means less paid employment in the conventional sense.

But first look at the situation from the point of view of the community as a whole. First the community receives the same material goods — soft drinks — at a reduced cost. Second, the total amount of labour required to produce these goods is much less. And the labour that is made unnecessary — the work that goes into mining, the factory assembly line, distribution and sales, and waste disposal — is for the most part not greatly rewarding.

In theory, the material and human resources freed by distributing the soft-drink formula could be used in a variety of beneficial ways — such as building homes, doing skilled craft work, helping the young to learn, or simply growing vegetables — or could contribute to a reduced work load for everybody. Ideally then, it should be possible to get rid of a great deal of unnecessary and unrewarding labour, and replace it with valuable and rewarding labour, or leisure.

It is precisely because changing things in our society in this way is extremely difficult, that society is far from ideal. Without changing society in other ways, the likely result of distributing the soft drink formula would be greater unemployment, and no more effort at all devoted to socially valuable activities.

This then is the problem: there are numerous ways (see part 3 of this series) in which society could be changed which would reduce waste and unnecessary labour, and provide the opportunity for a more satisfying life. But the structures of society — social customs, and the unequal concentration of political and economic power — resist change that adversely affects vested interest. There are no evil people behind this. The problem is with structures which although they satisfy people's needs (to some extent) do this in a way that selectively benefits an elite few, rather than in a way that serves the interests of the community as a whole.

POLITICS OF ALTERNATIVE ENERGY 3

What sort of society is possible?

How can we move towards a society based on soft-energy technologies and guaranteeing greater social justice and ability of individuals to decide and control their own lives? Fusing the arguments ad-

vanced in the previous two articles of this trilogy, FOE Canberra here sketch a 'people's energy strategy', and suggest collective action to implement it.

How would energy be used in a society in which activities were organised around satisfying people's needs without the present irrationalities in production, transport or bureaucracy? Here only a few suggestions are made; it is important that the people who will be creating and living in a society make the decisions about how that society is structured.

To begin with a few basic desirable features:

- guaranteed provision of material needs (food, clothing, shelter);
- opportunities for all to engage in satisfying labour;
- peace, justice, equality, and a sense of community;
- opportunities for learning, artistic and spiritual activities;
- environmentally conscious lifestyles.

This sounds a tall order! What is it likely to mean?

One change would be that production facilities would no longer be owned and controlled by a few. Instead, management would be by the workers and the community. The control of other people's labour would not be permitted.

Another change would be a great deal of decentralisation of work. Instead of goods being produced centrally, designs would be encouraged which enabled people to build and repair their own goods.

Another change would be a greater reliance on public facilities: public transport, washers, water heaters, and garden plots for a group of households.

There would also be less specialisation in labour tasks. Instead of being forced to do lifting or typing all day to earn a living, people would be able (if they wished) to engage in a variety of tasks.

What would it be like?

But these are only the structural changes. How would such a different society *feel* like to live in?

First, people's lives would be more *secure*.

Today, most of us are at the mercy of events. We cannot plan ahead because of inflation or recession, and the threat of unemployment. Our lives are disrupted by breakdowns due to accidents or strikes. We live in fear from the threat of crime and nuclear war.

In a society in which production was decentralised and more under the control of the people, much of this would change. Production of goods would be to satisfy needs rather than achieve profits, so that continuity of production and employment would be guaranteed. With bicycles and local production of food, energy and goods, people would be less at the mercy of multinationals, oil cartels, and strikes. And with more emphasis on community goods and activities, materialism would be reduced and with it crime.

HOW TO REDUCE ENERGY AND RESOURCE USE AND AT THE SAME TIME PRODUCE SOCIAL BENEFITS

1. Reduce the military establishment. In its place, institute a programme of civilian defence (resistance to enemies by coordinated economic and political action).
2. Get rid of planned obsolescence (goods designed to break down just after the warranty period, and continual style changes), and produce fewer luxuries for the rich.
3. Make it much more difficult and expensive to build freeways and produce and drive cars. Develop alternative means of transport: public rail and bus systems, an extensive system of bicycle paths plus diverse types of bicycles, and special subsidised services (such as taxis) for the aged and infirm.
4. Establish more community goods and facilities to reduce the demand for private goods: low-cost local laundries, community movie/TV, and heavy power tools, trucks, and boats for use by any community members.

5. Make it possible for much work to be done when and where the worker desires. Much office work, for example, requires only a desk and a phone, and so could be done at home or at local collectives. Much factory labour could be replaced by individual or small-group craft production, with no loss of efficiency, with more enjoyment and pride of accomplishment for the workers, and with no need for bosses.

6. Design houses and other buildings with an eye for collecting the sun's heat, for insulation, and for collective efficiency. Solar hot water heaters with a common reservoir, for a small group of houses, can overcome the cold cloudy periods. Diesel generators for a sizeable community or an industrial installation can produce electricity and waste heat in an efficient combined operation.

7. Encourage local production of food in individual or community lots. This can be a satisfying part-time activity replacing much low-paid repetitive agricultural labour. Composting and use of a diversity of crops also avoids some of the need for energy intensive fertiliser and the problems of pesticides.

A second improvement would be that people would have more *control* over their lives.

With decentralisation and local production, it would be natural for decisions about work priorities, community development, and education to be made by the local communities concerned. But local control is not only desirable because it serves the community's interest: it is also something that makes life vital and stimulating. In fact, one way of deciding how society should be structured is to try to maximise each person's direct influence over the important decisions that affect her or his life.

In such a society, no one would be forced to use public facilities or adopt a number of work roles. What would be different is the structures which make it easy for people to do some things and harder to do others. Today libraries provide an alternative to private ownership of books, and public hospitals provide an alternative to private ownership of vaccines. If low-cost or free community goods and services were provided in other areas (from transport to movies) and private ownership were more expensive, most people would find it natural to use the public goods. There is no question of forcing people to change their needs or preferences. But what can change is the institutions through which people express those needs and preferences.

How to go about making the change?

Fundamental change in society may be a necessity, but it is vital to work for it in the right way, otherwise the wrong change may result. The strategies for achieving change must reflect the sort of society we wish to live in — the means must reflect the ends. The following principles provide some possible guidelines, which then may be applied to particular cases (see box).

1. *The movement must be democratic.* For an elite to take power in the name of the people is a hoax; all that is achieved is the replacement of one set of rulers by another.

In the present society, most important decisions are made by a few select people, in secret. The populace is not encouraged to get involved in decision-making, or to question basic institutions. Public communication is monopolised by the media and is one-way.

A democratic movement for change in society must be different from this; it must be open and participatory. To a protest movement, being democratic means: developing means for collective decision-making and rotation of responsibility; encouraging participation by all interested people; and making all policies and action open and without secrecy.

2. *The movement must attack structures, not people.* The problems in society are due to social, political, and economic structures that lead to poverty, injustice, racism, and militarism. Almost all people mean well in what they do. It is no use attacking individuals or replacing them without altering the structures which condition their actions. This means that protest movements should work on issues and alternatives that have a chance of changing the normal ways of decision-making. Instead of lobbying for preferred policy decisions, it means setting up new democratic organisations to decide on or implement policy themselves.

3. *The movement must be resolutely non-violent.* Violence as a means for attaining social change has

several severe flaws: it often causes suffering; it abdicates moral superiority and alienates potential supporters; it requires secrecy and hence leads to undemocratic decision-making; and if successful, it tends to lead towards a violent and authoritarian new ruling elite.

Non-violent action as a technique avoids all these problems. But non-violent action is not passive. It includes such things as exposure of current institutions, strikes, work-ins, boycotts of goods or elections, sit-ins, and setting up of alternative institutions.

4. *The movement must be positive.* Rather than just opposing present policies, alternatives must be explained, promoted and carried out. This is not easy, since power over planning, employment and production is in the hands of those in charge of current institutions.

Don't get discouraged

Changing society seems to be an immense and impossible task. It is — if you try to do it all by yourself.

The idea that nothing can be done — fatalism — is a useful one to those who wish to resist progressive social change. Beneficial change will not occur just through the actions of a few individuals, but through the combined and collective effort of many people across the world.

To make a positive contribution, one need only do such things as think about alternative structures and talk to friends about them; help in your workplace of community group on issues which challenge current assumptions and institutions; and be ready to join or support community protests when they arise.

Parts 2 and 3 of this trilogy reflect some of the ideas of Friends of the Earth — Canberra; it is not meant to be dogmatic, but to stimulate thought and discussion.

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HOW TO HELP TOWARDS CHANGING UNNECESSARY AND OPPRESSIVE STRUCTURES IN SOCIETY

1. Don't go along with nationalistic and militaristic thinking. Question the need for high technology 'defence' in a world where total war is total disaster. Study and promote plans for changing over to civilian defence. Organise (within the military) to demand a more people-controlled system of defence.

2. Organise (in factories) for better working conditions, and for production of more socially relevant goods. Demand technologies which people can easily produce, use, and repair. Don't go along with the glorification of material possessions.

3. Help groups promoting bicycles and public transport — even if you cannot afford not to drive yourself. Support campaigns (such as opposition to uranium mining) which challenge powerful vested interests, and which lead to questioning of the assumptions underlying the present organisation of society.

4. Organise, join or support groups that orient their activities to the people in them (community planning, deprofessionalised education and health services, local production) rather than lobbying central bureaucracies.

5. Reject parties or groups which claim to want power in the name of the people. Measure success by local involvement and not by being consulted or represented by remote leaders or experts.