

Renewable Energy can also get SA working

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Are there just ‘ten ways to get SA working’ as is claimed by Alan Miller from Stanlib Asset Management (This Day, 28 April 2004)? A pertinent question to ask just before Workers Day, and at a time when SA faces a crisis of unemployment – up to 40% of South Africans are without work.

In the energy sector alone there have been thousands of job losses. In the last 20 years, 70 000 jobs have been lost (130 108 to 59 987) even though the amount of electricity generated increased by over 60% between 1980 and 2000.¹

Why has increased electricity generation been accompanied by massive job losses? Blame it on the centralised, hierarchical and increasingly mechanised nature of electricity supply in South Africa.

Government’s plans to provide electricity in the future reveal little basis to expect more jobs. The emphasis is still on a centralised and hierarchical system, which is increasingly skills rather than labour intensive, as illustrated by the development of pebble bed modular reactors. If the PBMR is allowed to go ahead, it will not be available to deal with the looming energy crisis envisaged from as early as 2007, as South Africa’s demand exceeds capacity, while renewable energy technologies can be rapidly deployed.

If government decided that just 15% of our total electricity in 2020 should be generated using renewable energy technology (RET), it would create 36 400 new jobs without taking any jobs away from coal-based electricity.

This is according to a study commissioned by the Sustainable Energy and Climate Change Partnership (a project of Earthlife Africa, Johannesburg). The study looks at the number of people needed to generate 267 terra watts an hour – the amount of electricity that SA is predicted to need in 2020.

To illustrate its point, the researchers worked out how many people are employed to produce electricity using conventional energy technology (CET) and renewable energy technology. The results are striking, with RET having the potential to employ many times more people than CET. For instance, 0.3 people are currently employed for each GigaWatt hour (i.e. 1 million household units) of electricity generated from coal, while 0.1 people would be employed to produce one GigaWatt hour from pebble bed modular reactors. In contrast, producing 1 GigaWatt hour of electricity from solar thermal energy would employ 10.4 people, from wind energy would employ 12.6 people, from capturing the energy in landfills would employ 23 people, and a significant 62 people would be employed for each GigaWatt hour of electricity generated from solar panels.

¹ Employment Potential of Renewable Energy in South Africa, research commissioned by SECCP, undertaken by Agama Energy, November 2003.

The labour intensive nature of renewable energy technology, including producing, installing and maintaining these technologies means that thousands more people would be employed **if they were** supported by government.

It's the words 'if they were' that lead us to the crux of the matter, because currently RETs are not supported in government policy. In fact, government's target of 10 000 GWh by 2013 is ambiguous. Parliament last year approved a target that was clarified, in the White Paper, as: "*This is equivalent to replacing two (2x 660 MW) units of Eskom's combined coal fired power stations.*" Such units would generate about 10 000 GWh per annum, yet Department of Minerals and Energy officials insist that the target is cumulative, i.e. to source 10 000 GWh from renewables between now and end 2013. Secondly, even the more progressive interpretation would give a target for additional renewable energy in 2013 that is about 1.5% of annual energy consumption in 2000.

So, we're a far way off from 15% of our electricity in 2020 being from RET.

If government is not convinced by South African research commissioned by civil society, a World Bank study may make politicians more willing to set more ambitious RE targets as a sound strategy for dealing with unemployment and poverty. The World Bank's Extractive Industries Review concluded that fossil fuel projects, oil and coal in particular, do not serve the mandate of poverty reduction and recommended that World Bank lending for fossil fuel development be phased out by 2008.

A clear opportunity for our government to set more ambitious energy targets has been presented as it prepares a position for the Bonn *renewables2004* Conference to be held in Germany from 1-4 June this year. *renewables2004* is being held as a follow up to the World Summit on Sustainable Development (WSSD) that was held 19 months ago, and aims at establishing new and ambitious renewable energy targets for countries around the world.

A wide range of civil society organizations, including various trade unions are affiliated to the Energy Caucus, which is calling for a just transition to sustainable energy on the basis that it creates jobs and allows for community participation. Lets hope that government listens to these voices and sets long-term renewable energy targets that will stimulate local production and resulting employment.