ENERGY CRISIS IN SOUTH AFRICA

30 January 2008

South Africa is experiencing an energy crisis that has all the dimensions of a national disaster. Last Friday all South Africa's gold, platinum, diamond and some coal mines closed. This was because of the dangers to miners during unexpected power failures. Energy-demanding ventilation and dewatering are critical requirements for our mines. Large energy-consuming aluminium and other smelters have closed down. Tens of thousands of workers are out on the streets. Gold and platinum account for about 25% of South Africa's exports. Losses are estimated to exceed R200 million per day from these sources alone.

Our only energy supplier is the semi-state body Eskom. The mining industry uses 12% of Eskom's capacity, accounts for 7% of the economy, 30% of exports and 25% of foreign exchange earnings.

This is only one of the consequences of the energy crisis. There are many examples of how the crisis is affecting all aspects of life in this country. Our national economy has already been adversely affected. On two occasions I visited local shopping centres. The lights were out, doors were closed, and the staff were waiting in the corridors for the power to come on again.

In order to overcome the problem, the authorities intend imposing severe reductions in electricity use. These will be in place for the next five years at least. The reductions include industries (10%), commercial use (15%), shopping centres and hotels (20%), large office complexes (15%), agriculture (5%) and household use (10%). The target is the reduction of national energy demand by 10% to 15%. No mention is made of the mining sector or of the natural growth in demand.

The relative use of electricity of the various sectors is as follows: households (35%), industry (35%), mining (12%), commercial use (9%), export to neighbouring states (4%), agriculture (3%) and transport (2%). The economies of our neighbouring states will also suffer.

I was directly involved in the imposition of water restrictions during the severe drought of the 1980s. These were very difficult to implement. The control of electricity use will be even more difficult. Voluntary reductions on the required scale will not be achieved. It will take at least a year to implement enforceable measures.

Other long-term measures are proposed. They include the compulsory use of energy-saving light bulbs and the installation of solar water heaters. It is not a coincidence that these restriction measures have long been proposed by climate change activists. They are also the basis for South Africa's support for internationally enforceable and economically damaging greenhouse gas control measures.

Now the South African public will directly experience the consequence of these measures long proposed by climate alarmists. There is little prospect of South Africa meeting its goals of halving unemployment and poverty by 2014. Economists are also predicting that we will not achieve the targeted 6% annual economic growth within the foreseeable future.

The South African authorities have acknowledged that the crisis is the result of not taking heed of warnings issued in 1998 that this would happen if our power generation network was not expanded to meet the growing demand. There is some suspicion that the delay was also the result of pressures from environmental activists.

This is a very good example of what will happen to the fragile economies of other developing countries with large disadvantaged populations. It also demonstrates the consequences when developing countries are forced to comply with compulsory reductions in greenhouse gas emissions imposed by developed counties such as the EU for example.

The UK sent Nicholas Stern and David King to South Africa in order to persuade the South African authorities to reduce our greenhouse gas emissions and to persuade other developing counties to follow suite. Now we see the result.

Will Alexander

Professor Emeritus, Department of Civil and Biosystems Engineering, University of Pretoria