

# South Africa's Folly

The South African Cabinet's recent decision to stop funding the Pebble Bed Modular Reactor project is a self-defeating folly that dooms the majority of that nation's people to a hopeless future. In effect, the Cabinet has closed down a main avenue to future financial prosperity in the name of current cost-cutting.

No nation can prosper without a science driver, a challenging long-term mission, like President Kennedy's 1960s Apollo Program in the United States. Such a project multiplies the initial investment many-fold: Every dollar spent on the Apollo Project returned 10 dollars or more to the economy, by conservative estimates. And it educated and inspired millions of people around the world.

For South Africa, the PBMR is such a science driver, creating a mission for the South African nation at the frontiers of nuclear science and engineering. It put South Africa on the map as a leader of the coming revolution in power production: building a fourth-generation reactor that is meltdown-proof, affordable, mass-producible, quick to construct, and very suitable for use in industrializing the developing sector.

The governmental cost involved—a few tens of millions of dollars over the past 11 years—is not much, by big project standards, even for a developing economy. First-of-a-kind reactors necessarily cost more than later models will cost, coming off an assembly line. And by definition, such projects come up against unexpected and often costly problems. Whatever was spent, however, pales in comparison to the incalculably high loss to the future of the nation, by shutting down the PBMR.

## The South Korean Model

South Africa could learn from studying South Korea's nuclear program. In 1958, after years of war, when the nation was in shambles and its population near starvation, the decision was made to put precious funds into developing from scratch a nuclear program, which would not begin to bear fruit for at least 20 years. The mission succeeded, as can be seen in South Korea's position today as

an exporter of nuclear plants, and a nation with a high per capita income. Had the South Korean government not taken that risk, of investing in the development of a then-new technology, it would not have rocketed from least-developed country status to a world industrial leader.

## Nuclear vs. Malthus

There is no way to power a modern industrial economy without nuclear (and in the future, fusion energy). No other sources come near the energy flux density of these advanced power sources. Those who argue for windmills and solar will keep South Africa in poverty. It is no accident that the environmentalist movement worldwide was launched by the Malthusian oligarchs Prince Philip and the late Prince Bernhard of the Netherlands, who want to reduce world population down to 2 billion. South Africa and other developing nations are slated to contribute the lion's share of those 4 billion or so deaths required to satisfy Prince Philip and the renewables he advocates.

The de-funding of the PBMR (like the proposed de-funding of a Moon-Mars program and lack of nuclear investment in the United States), is a sure way to a new dark age. Likewise, throwing millions into useless so-called "green" technologies will only serve to keep the African continent in the dark.

The scientific way to compare power production sources is to look at comparative energy flux densities, in which nuclear power is many millions of times ahead of the alternatives, including gas and coal. Because of its energy flux density, nuclear power has a transformative capability for the physical economy, which renewables are totally lacking.

Think about it: Could you provide the high temperatures and cheap source of heat to liquefy coal with renewables? Could you feed all your people, and supply them with the 3 to 5 kilowatts of power per capita, necessary in a modern economy? Could you get to the Moon or Mars in a wind-powered rocket?

—Marjorie Mazel Hecht



## Wind and Wickedness

### To the Editor:

As a physicist (energy expert) and long-time environmental advocate, I applaud your efforts to educate the public about energy issues (e.g. Laurence Hecht, "The Astounding High Cost of 'Free' Energy," [www.21stcenturysciencetech.com/Articles%202008/Energy\\_cost.pdf](http://www.21stcenturysciencetech.com/Articles%202008/Energy_cost.pdf)).

After talking to a lot of people about renewables (like wind power), my conclusion is that almost everyone has only a superficial understanding of this very technical matter. Additionally, the public and political perception of wind energy is being driven by special interest lobbyists, and by environmentalists who are well-intentioned but misguided.

My belief is that such complex technical matters should be based on science, rather than on inputs from those who stand to economically or politically profit.

The simple webpage where I have collected some pertinent documents is at <http://windpowerfacts.info>.

John Droz, Jr.  
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## The Editor Replies

We would add one crucial point of clarification: While some environmentalists could fairly be characterized as well-intentioned dupes, the character of the movement itself is fascist. The program of World Wildlife Fund founders Prince Philip and Prince Bernhard of the Netherlands, to reduce world population to below one-third present levels, remains the guiding policy and intention of the environmental movement.

It is an evil worse than Hitler, and has already claimed more lives, through denial of economic development, bans on life-saving substances such as DDT, and other premeditated actions of mass murder.