Introduction

My name is Ronald Rodenbaugh,and I have been an Australian citizen for just over a year. I have a BS in Business Administration and more than a passing interest in science and technology.

I am the father of twins and, while I don't believe that global warming Will significantly impact my life, I am sure that my children will experience major repercussions from global warming by the time they reach my current age (46).

Reasons for this submission

I am deeply concerned about the long term effects of global warming for the reasons stated above, and the fact that people view the problem as too large, or too costly to address.

The problem can be insurmountable if it is viewed this way.

I am sure that there is a golden opportunity to clean up the environment, while also producing a substantial revenue stream for Australia.
It has been reported in the news that Dubai is prepared to spend a significant amount of money on the development of environmentally friendly power sources. Does anyone honestly believe that a nation would devote significant financial resources for purely altruistic reasons? I believe that they realise that there is a real potential to realise significant financial gains from the development of this technology.

Australia (as we all know), like the rest of the world is facing an economic crisis.

The massive stimulus package enacted by the Prime Minister has within it the potential to lead Australia through the dark times ahead and into a brighter future than few of us can imagine.

I believe that some of the stimulus should be spent on the development of technology that can have a demonstrable return on investment (ROI), while also allowing Australia as a nation to far exceed the Kyoto Accord Emission Reduction Targets.

Proposals

I am proposing the development of two technologies which could allow Australia to lead the world in both emission reduction, and emission reduction technology. These technologies (if realised) will allow Australia as a nation to produce income by selling the technology to other nations, selling carbon credits to the rest of the world, and also has the potential to reduce or eliminate Australia's dependence on imported oil.

Proposal #1

The first technology proposal is a geosynchronous satellite orbiting over a desert location in Australia. As we all know, Australia has a number of sites that would more than meet this specification.

Geosynchronous satellites have assisted communications for many years, and will continue to do so long into the future, but the purpose of this satellite is not for communication.

The satellite I am proposing will be fitted with a mirror array, and put into a suitable orbit to allow it to beam sunlight to the earth twenty-four hours per day. I further propose that a solar power generation facility be constructed at the site where the beam of sunlight reaches the earth.

The reason for proposing a desert location is that the environmental impact should be minimised in this location, and also the interruption in the beam due to cloud cover would also be minimised.

If a successful prototype satellite is developed and deployed, Australia can sell the technology to other countries, thereby allowing for carbon emission reductions on a global scale, while also producing revenue to offset the development and deployment costs of the satellite.

There is also the added possibility of attracting tourists who may wish to visit a place where the sun shines at night.

I also firmly believe that Sir Richard Branson may be interested in this proposal, as he has set up the Virgin Earth Challenge to encourage the development of environmentally friendly technology.

More to the point, if the satellite proposal is successful, the reduction in greenhouse gas emissions may be significant enough that his air travel interests could be deemed carbon neutral.

Proposal #2

The second proposed technology development has to do with harnessing the power of underwater (so called) submarine vents.

Some of you will know that submarine vents are volcanic vents that are opened to the sea. These vents boil seawater, changing it to steam. Harnessing this steam would allow turbines to generate electric power without the need to burn fossil fuel.

Some of these vents exist in the deepest parts of the ocean, but some are much closer to land masses in relatively shallow water. According to a map generated by the Australian Geothermal Energy Group, a likely spot for a vent to be accessible is between Burketown and Karumba in far north Queensland, but I believe that Barry Goldstein (see below) or one of his colleagues could supply additional potentially viable locations.

Barry is involved in “Hot Rocks” technology, but drilling to depths
That make Hot Rock technology viable is extremely expensive, and that is
Why I am proposing the tapping of steam already being generated in the oceans around the world.

Before you dismiss this idea out of hand, or decide it is for the “too hard” bin, please be aware that I have previously submitted this idea to PIRSA (also known as the Department of Primary Industry and Resources SA, http://www.pir.sa.gov.au).

My contact at PIRSA was Barry A. Goldstein, Director - Petroleum / Geothermal, PIRSA, Chair - Australian Geothermal Energy Group (AGEG) Executive Committee, IEA Geothermal Implementing Agreement (GIA). The result of my contact with Barry was an RFP from a company called NineSigma.

I am prepared to substantiate the contact with Mr. Goldstein, as I still have the e-mails, but I would seek Mr. Goldstein’s permission before releasing them.

It should be noted that the submarine vent idea was submitted to the Prime Minister in 2007, but in a note I received on his behalf, I was informed that technology like this will be left to the private sector to develop.

In a nutshell, the idea I sent to the PM was to use decommissioned military vessels fitted with steam generators.

The ships could be deployed to where the submarine vent was, and from there, a suitably heat and corrosion resistant conduit could be deployed into the steam resource. As pressure outside the conduit would be higher than the pressure inside, the "liquid" steam should flow into the conduit with great force, and then channelled into the generator.

I have not solved the problem of transmitting the generated power from the mobile floating generators into a power grid.

I know that our American friends at MIT have done work which has shown that electric power can be sent through the air, but I do not know what range limitations there are and whether this technique is suitable for the transmission of large amounts of power.

The reason I proposed using decommissioned military vessels is twofold. First off, it would allow these ships to continue their proud history of service to Australia, and it would also (as the ships are owned already) allow for a lower cost of entry into the geothermal market.

I know the idea I have proposed has technical challenges associated it with it, but i also know that Australia has some fabulously clever people living here who love solving problems.

If after reading this, you decide that one or both of these technologies should be developed by the private sector, please consider that a partnership between government and business would probably result in expedited development of these technologies.

Development of these proposals would be the first stage of an environmental program that I am happy to spell out in detail, should any of you express further interest. I am also prepared to provide more detailed information (by phone, e-mail or in person) concerning each of these proposals, if requested.

Potential source of funding

The proposals are ideally suited to a partnership between the government and corporate sponsors.

I would recommend using a portion of the stimulus package to initially fund The proposals, but for ongoing funding and other environmental improvements, a lottery ticket (scratchy) printed on recycled paper with a similar payout structure to the existing lotteries.

If people have a choice between lottery tickets, with no difference in the payout structure, I predict that they will opt for the lottery ticket that improves the environment, while also reducing their chances of paying additional taxes for environmental improvement.

These projects (if realised) have the potential to pay for themselves many times over via the selling of emission trading credits to other countries.

The successful development of these projects would also allow the Government to create new jobs for the increasing number of unemployed Australians.

Conclusion

At this point, I have taken more than enough of your valuable time.

I am happy for these proposals to be considered jointly, or individually.

Although some of you may not agree with the synopsis of the two ideas I have proposed, I hope that all of you will see that the reduction of greenhouse gases has the potential to stimulate the Australian economy in both the short and longer term.

Regardless of your party affiliation, I sincerely urge you to a act as one united body to serve the Australian public and potentially, the world.

Technologies like the ones proposed could relegate global warming to the history books as a tragedy averted by a proactive and definitive response.

The successful development of these technologies is the first stage of a comprehensive plan which will produce jobs and increase crop yields, as well as revitalising the Murray River, by constructing desalination plants powered by solar or geothermal to increase the flow rate of the river.

Please note: These technology proposals were developed solely by me, and there are potentially commercial applications for the technology.

As stated previously, one of these proposals reached the request for proposal stage, but I have no further information on the status of the RFP.

Yours Faithfully,
Ronald Rodenbaugh