



## **Sustainable Solutions for our Environment**

### **The ID's vision for our Environment**

The ID firmly upholds the belief that the environment is an integral part of all of our lives by providing the natural resources necessary for us to live. Our vision of the environment is one in which there is greater environmental justice, where there is greater equity in the usage of our natural resources and poor communities are no longer subjected to industrial pollution.

### **Challenges for South Africa**

South Africa is a country blessed with natural resources. It is the third richest country in the world in terms of its diversity of life and it is the only nation that has an entire plant kingdom within its borders. Our seas have a higher habitat and ecosystem diversity than the entire rest of the world as they cover 5 major marine bio-geographical regions. It is therefore clear there is a great responsibility for us to protect this richness for not only ourselves but for future generations and all of humanity.

In the past, however, environmental policy was drawn up in isolation of other socio-economic challenges facing our country. The Independent Democrats firmly believe that the environment is an integral part of all of our lives by providing the resources necessary for sustainable livelihoods. Contrary to popular perceptions, the economy is a sub-set of the environment and not the other way round.

Equitable access to clean water, land that is able to support agriculture; and air that is free of pollutants that are detrimental to our health are all essential components for building a South Africa that is able to sustain our growing population. By giving priority to environmental issues, the Independent Democrats believes that the principles of equity and justice need to be taken into account as unfortunately it is in many cases the poor who have been denied access to natural resources and the enshrined constitutional right of an environment that is not harmful to their health and well-being. It is also in the environmental realm that we have seen some of the worst cases of government corruption as environmental standards have been conveniently ignored in order to fast track industrial and elite developments.

### **The ID's Solutions for the Environment**

#### **Establishment of a Ministry of Sustainable Development**

Historically, the Ministry of Environmental Affairs has been viewed as a soft ministry, which has enjoyed very low priority within the cabinet cluster. It has therefore not enjoyed the importance or budgetary resources that the other ministries have with the result that a largely reactive approach has been taken to environmental issues in South Africa.

The ID would change this pattern by establishing a Ministry of Sustainable Development, which will adopt a proactive stance towards fostering sustainable development in South Africa. This ministry will formulate cross-cutting policies that will actively transform sectors of our economy into more sustainable enterprises. In doing this it will transform our current economic growth model from being

linear in nature to being circular. This means that whereas our economy currently exploits resources to produce products with some of their components then landing up as waste, we will gradually move to an economy in which there is zero waste and all resources are being utilized at a rate at which they can be sustainably replenished.

## **Air**

### **Air Pollution**

The Independent Democrats believe that air pollution is one of our most pressing environmental problems. The government has failed to act in a timely and effective manner in addressing the concerns of communities who live in the pollution hotspots of South Africa. Although the Air Quality Management Act has been passed by parliament in 2004 it has not always been implemented effectively with government often dragging its heels in forcing polluters to comply.

The ID would ensure that the constitutional right to a healthy environment is given absolute priority and government speedily enforces any transgressions. The ID would ensure that the three spheres of government coordinates their efforts so that polluters are unable to escape the full might of the law.

### **Greenhouse Gas Emissions**

South Africa is currently the 14th biggest emitter of the greenhouse gases in the world that are responsible for global climate change. Climate change is one of the most pressing environmental challenges facing the world over this century and in a South African context is predicted to destroy half of our rich biodiversity, increase our water scarcity and threaten low lying areas such as the Cape Flats with sea water intrusion. It is therefore imperative that we put in place measures now to address our greenhouse gas emissions that are predominantly caused by the burning of coal for electricity generation. The only way to achieve this is through increasing our energy efficiency and supporting the growth of renewable energy technologies.

The ID would lobby for a study being conducted on radiation levels of the surrounding areas of Koeberg Nuclear power station and the nuclear waste disposal site in the Northern Cape as recent studies in the United States has shown there to be a 32.5 percent increase in cancer rates of children living near nuclear facilities.

## **Earth**

### **Return to the Land – Getting Serious about Land Reform**

*It is clear that the government has not been serious about land reform or agricultural development over the last 14 years. The land reform target has become a moving target with every five years the government revising how much land will be redistributed and by when. The government has also not given nearly enough budget to effect a proper land reform process in South Africa. On the other side, it is clear that some farmers have stalled the process by trying to push up the price of their land beyond market value and often only the most marginalized land has been sold making it very difficult for the land beneficiaries to farm productively. We clearly need a new approach to land and agriculture in South Africa.*

The ID would firstly conduct land audits in all municipalities to see what land is held by what entities, public and private. On the basis of the IDP we would then set about procuring land that is needed for specific purposes. The government has not played a proactive role in the land market and has rather waited for land to come on to the market before purchasing it. We need to be more proactive while still living up to the constitutional provision that appropriate compensation must be paid.

Secondly, we would ensure that where possible all unproductive State land that is not being used for a certain purpose is transferred to communities.

Thirdly, the ID would ensure that land reform recipients actually stay on the land rather than only farm on it periodically.

Fourthly, we would provide greater financial and technical support for both land reform recipients and current small scale farmers so that they can create a viable livelihood from farming.

Fifthly, we would prioritise rural development by making the rural areas an attractive place to live through the urgent provision of quality services such as schools, clinics, electricity, water and sanitation and road infrastructure that can open up markets for small scale farmers.

Finally, the ID would review government policy on agriculture, where farmers are currently being squeezed between monopoly prices on the input side with products such as fertilisers and collusion on the processing side that keeps the prices of agricultural produce low while pushing up the prices that consumers pay. In addition there is very little protection in the way of tariffs or subsidies for farmers and they are often unable to compete against the subsidized markets of the North. The ID would therefore institute a comprehensive rural development programme, complete with land reform and beefing up the much needed support to our farming community.

### **Set Aside more Land for Conservation and Eco-tourism**

The Independent Democrats believe that we should aim to increase the land set aside for conservation to meet the international standard of 10 percent. It is also important for the surrounding communities to be more involved in decision making and sharing of the benefits from national parks as past policy excluded them and generated animosity towards conservation ideals.

### **Support for Small Scale Farmers**

The current government has placed most of its emphasis on the large scale farming sector while neglecting the needs of small scale producers.

We believe a central component of increasing household food security and building self-reliant communities is through the propagation of food gardens. In order to encourage such a practice we would be in favour of establishing a large scale permaculture centre of excellence that could train agricultural extension workers to empower rural households to use the resources of their land optimally.

### **Combating Desertification**

Declining soil quality is found to be having a huge impact on nutritional levels in food, making the case for organic farming even stronger. South Africa should be promoting and supporting organic farmers to a much a greater extent, particularly given the increasing demand for organic produce in Europe and the commensurate export opportunities that therefore exist in this sector.

### **Confronting the Dangers of Genetically Modified Organisms**

The Independent Democrats question the reliance on failed models of industrial agriculture that have damaged our soils, rivers and the sustainability of farming. The most recent of these is crops that contain Genetically Modified Organisms. These crops do not increase production and hold unique dangers that have not been properly investigated. We would push for a review of the GMO

Act so as to put in place greater measures to protect our biodiversity. We believe that greater access to information should be afforded to the public with regards to both GMO tests and labelling of food products.

### **Promoting Recycling**

The large waste stream in South Africa needs to be urgently addressed as many of the major cities are running out of landfill space. Recycling must be encouraged by instituting user pays principles for all waste generation, from household to industrial scale.

The majority of recycling activities in South Africa are carried out by homeless people who use waste as a way of creating sustainable livelihoods for themselves. It is important that this environmental service is recognised and that these activities are legitimised and that the price that people are paid for these recycled materials is subsidised. This subsidisation should be directly correlated to the amount of money that local authorities save by having these materials kept out of landfill sites.

### **Water**

#### **Demand Side Management of Water**

We recognise that South Africa is a water scarce country and that we need to enact all measures possible to ensure that we conserve this resource properly. Greater demand side management measures need to be instituted such as raising tariffs for high volume users.

#### **Improving Water Quality**

South Africa is currently in the midst of a water crisis – something which the government seems to be in a state of denial over. Our water quality has declined considerably due mainly to pollution from mines, industrial activity and inadequate sewerage treatment.

The ID would ensure proper environmental compliance on the part of mining companies. The ID fought hard to ensure that new legislation was passed that shifted environmental authorization from the Department of Minerals and Energy to the Department of Environmental Affairs and Tourism. The ID would ensure that all disused mines are rehabilitated so that they do not continue to pollute the environment. Where possible, we will ensure that the companies responsible are held liable for such rehabilitation measures. Any future mining activities will be subjected to strict environmental compliance so that we can turn around the terrible environmental legacy that mining has wrought on our country.

#### **Installation of Biogas Digesters**

The ID believes that our current system of dealing with sewerage is hopelessly outdated. Firstly, thirty percent of all water that households utilize is used for the express purpose of flushing away human waste, which in itself is a valuable resource. The ID would therefore consider wherever possible implementing compost toilets. This is especially necessary in many rural areas which do not have any form of sanitation and the human run-off creates the conditions for cholera and typhoid. In addition, the ID would look at installing biogas digesters in municipal sewerage works which can treat waste while providing fertilizer and a clean energy source.

#### **Reducing the Negative Effects of Dams**

The Independent Democrats also believe that the guidelines set by the World Commission on Dams need to be adhered to when deciding on the building of any new dams.

## **Solutions for a Sustainable Energy Future**

### **The ID's Vision of our Energy Future**

The ID has a bold vision for the energy sector of South Africa in which hundreds of thousands of jobs are created through harnessing the enormous potential of South Africa's abundant renewable energy resources. It is a vision that sees South Africa at the forefront of the global energy revolution, where we can strategically position ourselves as a leader in certain technologies, particularly solar thermal and solar photovoltaic.

### **Present Challenges**

Government has failed us and our economy by not adequately planning and investing in our energy infrastructure. This failure to act despite constant warnings has a projected cost to the South African economy in excess of R50 billion and has created unnecessary hardships for many citizens. The electricity crisis has effectively squandered one of the few comparative advantages that South Africa possessed, namely, cheap and reliable electricity. As a result of the government's mismanagement of the energy sector South Africa's energy supply will be under severe strain for at least the next seven years, forcing us to live with the constant threat of black-outs. In addition to this, it is a sad fact that 30 percent of households in South Africa do not have access to any form of electricity.

In the past, South Africa's economy has been largely built on a minerals-energy complex, where cheap electricity was used to mine our country's vast mineral resources. Unfortunately this form of development, while generating some benefits, has also come at a huge cost to our natural environment. It is for instance estimated that over 4000 deaths can annually be attributed to the pollution emanating from our coal-fired electricity production.

South Africa's reserve electricity margin has dropped from 34 percent in 1994 to only 7 percent in 2008. This has brought with it the constant threat of black-outs and has constrained our economic growth prospects.

It will take at least seven to ten years to build new coal fired and nuclear powered generating plants, thereby putting our security of electricity supply under threat in the short to medium term.

The vast majority of our electricity is generated by burning coal with massive local, regional and global pollution impacts.

South Africa's economy is extremely energy intensive and the 14<sup>th</sup> biggest emitter of greenhouse gases in the world.

Eskom wants to undertake a massive new build programme which will cost in excess of R1.3 trillion over the next 25 years and runs the risk of substantially increasing our foreign debt.

The price of electricity is being raised with little concern for the impact on the poor.

### **The ID's Plan for a Sustainable Energy Future**

The ID has a progressive plan for meeting South Africa's future energy needs. We would alleviate our immediate electricity crisis through employing two measures. Firstly, we would run a comprehensive and well-resourced energy efficiency campaign that reduces the energy intensity of our economy. Secondly, we would fast-track the implementation of renewable energy projects that can be brought on stream within the next few years. This will be achieved through opening up the grid and paying appropriate tariffs for different renewable energy technologies.

The ID totally rejects the current government proposal of spending R700 billion on contracts with foreign companies to build nuclear power stations. This ill-conceived plan will only plunge South Africa into huge foreign debt while creating minimal jobs for South Africans. In the long-term, South Africa could utilize this money to build up a renewable energy industry that could provide for most of

our energy needs in a sustainable manner while creating far more jobs at a more appropriate skills level.

### **Ensuring Short-Term Energy Security through a Comprehensive Energy Efficiency Campaign**

The most important initiative that government can advance in resolving the short-term electricity crisis is energy efficiency and demand side management measures. Government, however, has not been effective at rolling out this campaign and has struggled to reduce the bureaucratic hurdles involved in obtaining subsidies and incentives for such measures. The current subsidy scheme for solar water heaters is hopelessly inadequate at providing an incentive for their uptake and government will not come close to meeting its target of a million solar water heaters within three years.

The ID would ensure that all responsibility and funds for energy efficiency is removed from Eskom and placed in the National Energy Efficiency Agency. The ID would further ensure that Energy Service Companies (ESCO's) receive approval and funding for their energy efficiency proposals within two months as opposed to the year long wait they are currently subjected to. The ID would institute a comprehensively funded government initiative that would install solar water heaters in households throughout South Africa. The ID would change the building regulations to make solar water heaters mandatory in all new constructions. At the same time the ID would institute a massive training programme for unemployed South Africans to become skilled in installing solar water heaters. This alone should create in excess of twenty thousand new jobs and save more than ten percent of South Africa's electricity demand.

### **Open up the Electricity Grid to all South Africans – Democratise Energy and make everyone part of the solution!**

Eskom currently has monopoly control over the South African electricity market. Eskom therefore unilaterally makes decisions over South Africa's energy future and controls both the generation and transmission side of the electricity market, making it very difficult for Independent Power Producers to break into the market.

The ID believes that the electricity grid belongs to all South Africans and not to Eskom alone. The ID would open up the grid to other energy producers by ensuring that independent power producers are guaranteed a certain price for any energy that they provide.

### **Set Realistic Feed-in Tariffs for Renewable Energy**

At present renewable energy generators cannot obtain a realistic price for their energy from Eskom. This is despite the fact that Eskom is running their gas fired turbines off diesel for fifty percent of the time at the astronomical cost of R2.80 a kilowatt hour. Many renewable energy technologies could provide electricity at a quarter of that price.

The ID would immediately announce feed-in tariffs for different forms of renewable energy generation that are commensurate with their production costs. These tariffs would be set in such a way that they would decrease by 10 percent each year so as to encourage early uptake and advances in the technologies. The ID would allow for two-way metering so as to offer households an economic incentive to generate their own electricity using solar panels on their roofs.

### **Position South Africa as a World Leader in Solar Energy**

South Africa receives double the world's average solar radiation, with some parts of the country recognized as the best in the world for solar thermal technologies. Despite this abundant solar resource, South Africa has still not built a single solar thermal plant even though it is a mature technology, which has been producing energy in the United States for over twenty years. Seventy

percent of the components can also be built in South Africa, thereby providing enormous opportunities for large scale employment generation. In addition, certain parts of South Africa have excellent resources of pure grade silicon, which is utilized to manufacture photovoltaic panels. The ID therefore maintains that South Africa must implement an industrial policy that can create a thriving solar energy technology industry, which will create huge amounts of jobs while opening up massive future export opportunities.

In addition to solar energy technologies, South Africa has the requisite skills base to start producing turbine blades for the global market. Currently there is a global shortage of turbine blades due to the huge growth of the wind industry and South Africa can benefit immensely from this.

In the longer term South Africa the potential to generate energy from our long coastline through utilizing both wave and ocean current energy. In order to capitalize on this potential more research and development funds need to be channelled to these areas of study by the Department of Science and Technology.

### **Pull the Plug on the Pebble Bed Modular Reactor**

The ID has been an outspoken critic of the government sponsored nuclear experiment called the Pebble Bed Modular Reactor. Over R8 billion of taxpayers money has been wasted on this expensive vanity project with very little to show for it. It is behind schedule by almost ten years and it will require a further R10 billion before the first demonstration plant is even built. In addition this type of technology does not create many jobs and has only made a few nuclear scientists wealthy. Until recently, the ID has been the only political party to consistently oppose this project every time millions of taxpayers money was wantonly set aside for it in the country's budget. The ID believes that if this money had been spent on solar thermal technology we would already have had a functioning plant producing megawatts of electricity.

### **Invest in Clean Coal Technology**

It is an unfortunate reality that in the short to medium term South Africa will still depend on coal fired electricity generation for a large amount of its electricity production. Although the ID believes that the transition to a sustainable energy economy can occur fairly rapidly, in the interim all measures will need to be put in place that can reduce the harmful pollution of our coal-fired plants. This would include the installation of scrubbers that can reduce the acid rain problem as well as fluidized bed technologies. In addition, the ID maintains that all new coal-fired power stations need to be fitted with carbon capture and storage capabilities so as to ensure that future carbon emissions can be captured when the technology comes of age.

### **Implementation of a comprehensive and well-funded Electrification Programme**

The National Electrification programme that was started by Eskom in 1994 initially saw millions of households connected to the electricity grid. This programme, however, slowed considerably from 2000 onwards as Eskom was corporatized and the mandate for electrification shifted to the Department of Minerals and Energy. Currently over 30 percent of South African households do not have access to any form of electricity, many of which are in remote rural areas making the cost of grid connection exorbitantly expensive. Once again the ID maintains that there is enormous scope for renewable energy to provide for the energy needs of such households. In order to make this programme a success though, the ID would provide the requisite resources and set targets for the complete electrification of the country by 2014.