



**2014 Policy Budget Speech by the Minister of Energy**

**Ms Tina Joemat-Pettersson, MP**

**Good Hope Chambers, Parliament, Cape Town**

**21<sup>st</sup> July 2014**

Honourable Chairperson of this Extended Parliamentary Committee

Honourable Deputy Minister Ambassador Thembisile Majola, MP

Honourable Chairperson of the Portfolio Committee Mr Fikile Majola, MP

Honourable Chairperson of the Select Committee

Members of the Portfolio Committee on Energy

Cabinet Colleagues

Leadership of our Trade Unions

Acting Director-General and senior officials of the Department of Energy

The Leadership of our State Owned Entities

Invited Guests and Stakeholders

Ladies and Gentlemen

I want to greet you firstly in the name of our beloved leader, former President Nelson Mandela, whose birthday we celebrated last week. I ask that we debate this matter with the same spirit and intensity with which he fought against injustice, but also with the same degree of humility that Madiba would have shown. I am pleased to record that the Department, together with a number of private sector partners, heeded the call to “Clean up for Madiba” by visiting the Mamelodi Tateni Community Centre, and the Kido’s educare’ Centre in Soweto. Besides cleaning up and painting the facilities, the Department was able to install solar water heaters and efficient lighting in each of these venues. One of our agencies, SANEDI, also announced that they will build a learning centre for pre-school children at the Children’s Home.

Chairperson

On 17<sup>th</sup> June 2014, on the occasion of the First State of the Nation Address of our fifth democratic administration, President Jacob Zuma affirmed the imperative to address our country's energy challenges in order to create a favourable environment for economic growth and development.

In that address, our government made it clear that addressing our energy constraints is an apex priority, and that energy supply in various forms is a primary catalyst in our efforts to transform our economy, and our society, in an accelerated and radical manner.

To set the tone I must repeat what the President has said. He first recognised the problem, in saying: ***“We need to respond decisively to the country's energy constraints in order to create a conducive environment for growth.”***

He then led us towards a solution, in stating that: ***“This situation calls for a radical transformation of the energy sector, to develop a sustainable energy mix that comprises coal, solar, wind, hydro, gas and nuclear energy.”***

So the direction is clear: we must tackle the energy constraints, and we must do so in a way which properly balances the many alternatives that we have. My task today is to show you how we plan to do so, as the Ministry of Energy.

Honourable Members

We accept the responsibility that our people have placed on the shoulders of the African National Congress, through their vote on the 7<sup>th</sup> May 2014. Our role is to keep the lights on and the cars on the road, and we will do our best to ensure this happens. But I also want to ensure that energy is something that is understood by ordinary people, that it is accessible and affordable, and that we build a national consensus about how we are going to take our country forward. This is in part a problem for the scientists and the engineers, to produce more energy, especially clean energy. But it is also something that each one of us can help with, as we try to

use energy more efficiently. It is not just a challenge for government; it is a problem for the private sector, it is a problem for the public, and we must solve it collectively.

And that is why, I hope you have noticed, I have already advertised for nominations to an expert panel which I plan to convene. I hope all interested parties will put forward names of suitable people, with the right expertise, who can help us to bring about the radical economic transformation we desire.

Chairperson

We are committed to the countrywide roll-out of our economic and social infrastructure programme, especially in the energy sector. We see this as a major instrument to catalyse and spur positive economic growth and job creation, as well as making a positive difference in the lives of citizens, whether they live in town (“on the grid”), or in a rural village, and get electricity from alternative, off-grid sources.

As a starting point, we have taken steps to ensuring that that there is security of coal supplies to existing and future power stations. We have also set ambitious targets to produce additional cleaner energy and ensure energy self-sufficiency in the future. We further stated that both traditional and green energy will be expanded to ensure a platform for growth and social inclusion. Ladies and gentlemen, this will include the use of nuclear power for base-load energy generation, which will be in a safe and environmentally sustainable manner.

The Manifesto of the ruling party states that additional energy will be generated through the completion of large power stations and that solar and wind power will feed into the electricity grid to increase our generation capacity and promote environmental sustainability.

We will intensify work to ensure that further hydro-electric energy will be secured domestically and regionally for our national grid.

Over the term of this government, over 1 million homes will be equipped with solar water heaters, ensuring cheaper hot water and lower energy use for more than 7 million South Africans. An additional 1.5 million households will also be connected to energy sources, either through the grid or through non-grid means.

Lastly, the pace of oil and gas exploration – including shale gas exploration – by the state and other players in the industry will be intensified as part of the country's effort to ensure national self-sufficiency and energy security, again, whilst actively promoting environmental sustainability.

Honourable Chairperson,

The Energy sector has been shown to be an economic game changer globally. For South Africa, energy is the catalyst to revolutionize our economy and drive economic transformation. However, the current global energy situation is faced with many uncertainties. These include the complex environmental and climate change issues, in which energy is a major player. There are also the persistent global economic challenges still faced by some of our major trade partners, as well as continuing turmoil in the Middle East and the Ukraine. All of these impact on our energy security and therefore our economy. We need to be responsive to all of these circumstances as we chart a course into the future.

These uncertainties, and how we respond to them, however remind us that as a nation, South Africa needs to engage in a national dialogue about our energy future. How do we meet the imperative of ensuring a sustained and secure supply of energy, especially cleaner energy? In taking on this debate, we will continue to build and strengthen relations within SADC, and the African Continent. We have just returned from the BRICS Summit in Brazil, where our relations with these major players were further strengthened, and we will be guided by the experience of these major economies. Of course, we will also engage other countries, both in the north and the south, which can help us to develop a common perspective on energy.

The Department of Energy operates in this dynamic global environment, as it takes on the substantial domestic challenges. But we have a determination to deliver on the goals and objectives that we have included in our Strategic Plans, as our contribution towards the priorities and outcomes of government.

But we must recognize that existing Infrastructure constraints, some of which are the result of inadequate infrastructure development planning, make this task a difficult one. Declining budgets, rating downgrades, and the shortage of skills in the energy

sector, all contribute to rising electricity costs and volatile oil prices, which contribute to the critical energy situation. These factors, many of which are out of our hands, place severe strains on the energy supply chain, and we must work together to collectively address these challenges.

Honourable Members

The Department of Energy has made a number of strides since its formal establishment in 2010, and these have contributed to the overall development agenda of government. I do not wish to repeat the “good story” that we have been writing, together with our people and social partners, but do permit me, Chairperson, to reflect briefly on some of the key areas of work undertaken during the last fiscal year.

We have introduced **a revised regulatory framework** for facilitating the **introduction of new generation capacity through independent power producers**. This culminated in reaching financial close and commencing with the construction of 1000MW of open cycle gas turbines at Avon in KwaZulu Natal and Coega in the Eastern Cape, as well as 3900MW of renewable energy plants based on solar, biomass, hydro, wind and landfill gas. It gives me pleasure to indicate that out of 28 IPPs approved during Window 1, a total of 14 generation plants have been completed, producing over 600 MW of green power into the national grid as I am speaking.

A **New Household Electrification Strategy** was approved by Cabinet in June 2013 to address electrification backlogs and to ensure universal access by 2025. This will be done by means of utilizing grid extension, but also by means of non-grid PV solar systems. This is in line with the proposals of the NDP for reaching universal access, however a progressive roll-out programme is being implemented through the New Household Electrification Strategy to reach the target of universal access earlier.

The **electrification target** for 2013/14 Financial Year was to grid electrify 260 000 households, we have achieved a total of 292 714, and in addition 14 059 non-grid connections were also completed. During the past financial year therefore a total of 306 773 households received access to electricity for the first time, which is 46 773 connections above target. In the main, this is due the good cooperation and support

from Eskom and some municipalities and Metros. In addition to this, a number of substations and lines have been upgraded to further ensure that capacity exist for this expansion.

We implemented the **Regulatory Accounting System** for the Petroleum sector which is used to determine appropriate margins for petrol at wholesale, retail, secondary storage and secondary distribution level. It also seeks to introduce transparency into the market as well as root out inefficiencies, cross subsidization and uncontrolled costs. This provides certainty to investors with regard to the return on assets throughout the petroleum value chain.

I must however hasten to add that the rollout of this system has not been as smooth as we would have expected, with the power relations between oil companies and retail companies continuing to be a challenge. We intend to engage with this matter urgently.

With regard to the **development of our gas resources**, including the regional gas opportunities in neighbouring countries and our own shale gas resources, a draft of the **Gas Utilization Master Plan** is being finalized, and will be taken through Cabinet before starting with stakeholder consultations.

**Energy efficiency** is at the core of our energy security strategy, given its cost effectiveness, speed of deployment and job creation potential. Interventions in public buildings, industry and the residential sectors are pillars in the Energy Efficiency Strategy and Action Plan that we have recently revised. The completed Energy Efficiency Target Monitoring System provides a platform for quantifying the responsiveness of our energy efficiency efforts.

The **liquefied petroleum gas maximum refinery gate price** regulatory framework discussion document has been developed, with the intention to facilitate the importation of LPG especially during supply constraints in the winter season.

The road map for the implementation of the nuclear procurement programme is progressing well, and the Department is currently working with sister departments and entities to finalise work in this regard.

**Honourable members,**

I am pleased to announce that for the previous financial year, the Department of Energy was appropriated R6.5 billion, and spent 99.6% of this allocated budget.

The appropriation for this year is R7.4 billion, with 93% of this amount being earmarked for transfer to Municipalities and State Owned Entities. Only the remaining 7% is utilized for the Department's operational and capital expenditure. So it is clear that the actual delivery of energy is largely in the hands of other statutory bodies, and we will have to work closely with both SALGA and the relevant state owned entities to keep the lights on.

The 2014/15 appropriation is 14% higher than the 2013/14's final appropriation. The increased allocation will enable the expansion of the Integrated National Electrification Programme (INEP) to increase the number of households connected to the electricity grid and also the number of non-grid connections. We will focus on substation infrastructure, and promote energy efficiency through the continuation of the solar water geyser programme.

INEP therefore receives an allocation of R4.1 billion, with Eskom and Municipalities allocated R2.5 billion and R1.6 billion respectively. A further R96 million is allocated to the non-grid electrification programme.

As government we have sought, through Eskom and municipalities, to improve the implementation of energy efficiency and expand the use of clean energy technologies. The Department will continue with the roll out of the Solar Water Heater project, which seeks to make solar water units more affordable and accessible to our citizens. To this end, Eskom will use their R1.6 billion for the installation of more than 200 000 solar water heating units in residential areas

On the nuclear front, R850 million has been allocated to the Department and its relevant agencies in order to undertake further research and development, especially in regard to safety matters. Regulations for the handling of hazardous materials, in terms of international obligations, and the development of nuclear policies and legislation to ensure the peaceful use of nuclear energy, will also be pursued.

Chairperson and Honourable Members

In line with the injunctions of the NDP, my Department is central to the processes of developing policies and innovative energy strategies. We are expected to implement programmes which will ensure that South Africa has an energy sector that promotes economic growth and development, fosters social equity through expanded access to energy services, as well as pursuing environmental sustainability.

Our Departments' mandate is unambiguous – **To ensure energy security for a growing and job creating economy!** We invite everyone to join us in pursuing this.

The President has been unambiguous on what is expected from Ministry of Energy, and what will constitute a radical transformation of the energy sector. The **Energy Master Plan** has been developed to crystalise the immediate actions that the Department of Energy and the entire Energy sector will have to undertake. I will be undertaking a comprehensive review of the entire sector, and where necessary will bring about structural changes within the Department of Energy, and in the role and functioning of the various State Owned Entities.

In doing so we will be guided by the need for further diversification of the energy mix. Wind and solar energy sources are growing dramatically, especially in the Northern Cape. Together with imported and locally sourced natural gas, as well as introduction of 9.6 Giga Watt of nuclear power, we will lay the foundations for a new mix of national energy sources.

We are directed to intensify the Integrated National Electrification programme, in pursuit of the universal access targets of the NDP. We will ensure renewed focus and energy towards the critical area of electricity infrastructure upgrades, working with identified municipalities.

The IPP programme will remain another key area of engagement and focus. We will continue to consult and refine the Independent Suppliers and Market Operators Bill (ISMO), which will seek to provide a better regulatory environment for power providers. Once it is ready we will commence with the legislative processes in Parliament.

Chairperson, allow me to highlight some of the key programmes and initiatives that the Department will be focusing on in the financial year, which is also in line with the Medium Term Strategic Framework of Government.

As enjoined by the President in the State of the Nation Address, my immediate priority is to ensure that the Integrated Energy Plan is finalised. This plan must be geared to address the short, medium and long term energy requirements of the country, and be supported by effective policies, institutions, governance systems, and regulation, within a competitive market place.

Given the overall global energy challenges, one of the key objectives of the revised Integrated Energy Plan will be to look at multiple and alternative energy sources. South Africa cannot afford to find itself at the mercy of geo-political developments over which we have no control, and we must find sources that are secure and sovereign.

It is therefore necessary to reflect on the questions we identified as being critical for South Africa's energy future such as improved Energy Efficiency, the diversification of our energy mix towards a low carbon economy, finalization of the nuclear power option, future electricity tariff increases, and universal access to modern energy technologies for the un-electrified. Our energy plan should especially address the plight of rural women and youth, and lift them out of a situation of unemployment and energy poverty.

### **Planning and new electricity generation capacity**

The introduction of new power stations across a range of technologies is outlined in the Integrated Resource Plan, which proposes the development of new generation capacity in a way that optimizes costs, promotes job creation and mitigates adverse climate change.

In the period up to 2030, the Integrated Resource Plan makes provision for 9,6 Gigawatts of nuclear power, together with 6,3 Gigawatts of coal power, 11,4 Gigawatts from renewables, and 11,0 Gigawatts from other generation sources.

The implementation of the Plan is well underway. This is evidenced by the IPP Bidding Programme, which has approved the provision of 3 625 Megawatts of capacity from Independent Power Producers. So far the IPP process has lived up to expectations by attracting international investment to the value of about R120 billion. We are confident that this will boost employment growth, and we know we can further improve on this.

We have no intention of abandoning the coal option, but we are determined to find cleaner technologies that will reduce the adverse environmental impact associated with greenhouse gas emissions from coal generation.

Institutionally, we have formed the Carbon Capture and Storage Leadership Forum, which serves a critical role in fast tracking our technology research efforts in collaboration with other countries. The South African National Energy Development Institute (SANEDI), which is our state owned entity responsible for energy research, leads this programme.

You may not be aware that for the past five years, underground coal gasification has been underway at Matimba power station. This programme is aimed at developing the technology needed to exploit our extensive coal reserves in the form of gas rather than through traditional combustion means.

Apart from our local research efforts, we eagerly watch international research developments that exploit coal, using clean technologies. I am glad to report that the Medupi and Kusile power stations, representing our latest technology coal-fired power stations, are ready for state of the art carbon capture and storage processes.

### **Electrification Programme**

R4.1 billion has been made available for the electrification programme, and we are confident of delivering at least 285 000 new grid and non-grid connections in this budget cycle. For the first time the non-grid programme will also be implemented in urban areas of the country, with a view to rendering a basic electricity service to

informal households. This is especially important where it is not safe to supply these households with high-voltage grid electricity.

To improve the non-grid delivery, more service providers will be appointed to assist with this programme. We are also in the process, with the assistance with the EU, to develop a more sustainable delivery model with respect to non-grid programme.

We aim to finalize by the end of this calendar year, the first draft of the Electrification Master Plan to ensure that universal access can be reached by 2025.

### **Gas and associated infrastructure**

Despite recent discoveries in Mozambique, Tanzania and even locally on our West Coast, the lack of gas infrastructure, including pipelines and storage facilities has made it difficult for gas to feature as a major energy carrier in our current mix.

However the Gas Utilisation Master Plan seeks to anticipate the infrastructure necessary to open up the gas market for the residential, commercial and industrial sectors. The scope includes investigating the development of a gas receiving and storage terminal for liquefied natural gas, and to meet the gas to liquids requirements at the Mossel Bay refinery, as well as investigating the conversion of Eskom's diesel plants. The gas infrastructure development effort is accordingly premised on regional integration with Mozambique in the East, the importation of LNG and the networking of various load centres for transporting and storing shale gas from the Karoo.

These developments herald a new era in the exploitation of this resource for our country, and the private sector is well advised to prepare for their contribution in this regard.

The Integrated Resource Plan targets 2500MW of new gas fired power generation capacity, plus the feedstock needs for the Mossel Bay PetroSA gas to liquid plant. We will soon release the outcomes of a Gas feasibility study that is being completed with collaboration by Transnet, PetroSA, Eskom and government.

Honourable Members,

The prospect for gas to replace imported crude oil in the transport sector is very high on the government agenda, because it bodes well for our macro-economic outlook, particularly in our balance of payments. In the future, gas is likely to be the most common energy carrier for public transport, freight and domestic heating and cooking.

The development of shale gas cannot be dismissed or ignored. On the contrary, we should be learning from others on how to best exploit this resource in the least intrusive and environmentally prudent way. The United States anticipates complete independence from Middle Eastern crude oil by 2020, as a direct result of their development of shale gas reserves. Our government has adopted a cautious and responsible approach that seeks to understand the risks to the environment posed by fracking, and we will ensure, working with the Department of Environmental Affairs, that we implement this programme to the highest environmental standards and regulation.

I am happy to indicate that PetroSA has a dedicated focus on this resource, and has established a unit to ensure it is prepared for shale gas activities.

## **Nuclear energy**

The nuclear expansion option is a central feature in our future energy mix, given the emissions reduction target we have set ourselves, and the possibility of catapulting South Africa into the top echelons of the knowledge economy.

Our plan is to introduce some 9.6 Gigawatts of nuclear energy in the next decade, in addition to running Koeberg power station.

Our country track record in running a nuclear programme speaks for itself. Apart from Koeberg for power generation, our current programme includes Pelindaba, currently one of the world's biggest producer of medical radio isotopes from low enriched uranium. We are therefore not starting from zero base, in fact, we want to build on the expertise and skills base that already exists in the country.

Honourable Members, I intend to focus on and accelerate all the outstanding matters that will lead to the commencement of the nuclear build programme as envisaged in

the IRP. These include the localisation, financing, funding, skills development, fuel cycle and uranium beneficiation strategies to support the nuclear new build programme.

Honourable Chairperson

Regarding the Renewable Energy IPP programme, I am proud to announce that the progress of projects under Window 1 and 2 are 95% on track, with some 350 Mega Watts more green power that will come on line in this financial year in addition to the current 600 Mega Watts.

We have been working towards financial closure for Bid Window 3. Guided by factors such as the volatility of the rand, and in consultation with National Treasury and the Reserve Bank, we have opted to shift the date for financial close to November 2014. This will also allow ESKOM to prepare adequately for the connection of these providers to the grid as planned,

Window 4 of the renewable energy independent power provider programme is on track, with the submission of proposals by August 2014. The scope will include new generation capacity through wind, solar, biomass and hydropower technologies, and will bring up to 1000MW on stream.

Ladies and Gentlemen, in August 2013 the Department released the Small Projects Request for Proposals. The Small Projects Programme seeks to procure energy from small-scale Independent Power Producers, with projects that are between 1 and 5 MW in size. The Department seeks to buy 200 MW in total from SMMEs, generating energy from solar, wind, biomass and landfill gas projects.

One of the biggest challenges regarding the small scale projects is that of providing equity. The Department has taken the initiative to develop standard documents for these projects to reduce transaction costs, and proposed a dedicated fund to assist Small IPPs with transaction costs. This will ensure that new entrepreneurs can also enter the Renewable Energy IPP market. I want to give the small IPP entities and developers the assurance that the fund will be up and running by February 2015, in time for the second round.

## **Biofuels blending framework**

In October 2013, the Minister of Energy determined 2015 as the date by which crude oil refining companies will have to blend biofuels into petrol and diesel on a mandatory basis. This has provided certainty to the funders of the potential biofuels manufacturers that their product will indeed enter the market through the oil companies.

In the next two months, our focus will be on finalizing the subsidy framework for the manufacturers and the pricing approach for the blended product. In addition, sustainable harvesting of biofuel feedstock need also to be addressed, and I intend engaging with the Ministers for Agriculture and Rural Development in this regard. Our view is that this will have to be a phased process of finalising the crops to be used and the type of land where it will be produced, with the first phase focusing on crops grown on previously unproductive land, which is not under water irrigation. We could then progressively increase the phases to include different crops and in different parts of the country.

Thousands of jobs are expected to be created through the biofuels value chain, starting with the farming of selected energy crops, the development of the infrastructure for producing, storing and transporting the product to refineries and oil depots. It is also important that small and upcoming farmers to enter the production value chain of bio-fuels. We would also look at opportunities of sourcing these projects from the SADC region to meet our demand.

Chairperson

The process towards the establishment of the Cabinet Energy Security Sub-Committee as directed by the President is being refined and Cabinet will pronounce on this matter shortly. The establishment of this structure will contribute immensely to positioning the energy sector at the apex of our national development plan.

Honourable Members, during the course of this year we will review the operations of the Department of Energy, and will seek to position the organisation to respond to the tasks as set out by the President.

I intend to further strengthen the policy and planning capacity within the Department, as well as establish dedicated capacity for effective organisation wide monitoring and

evaluation. We will further streamline and capacitate the Energy Programmes and Projects branch, including the re-positioning and strengthening of our provincial offices to better support provincial and local governments. In this regard, we have already established an Electricity Distribution Response Team in collaboration with other departments and entities to address identified hot spots and the specific Local and District Municipalities that has been highlighted for intervention in the State of the Nation Address.

Furthermore, and as previously publicly stated, I am establishing a Ministerial Advisory Council of Energy, comprised of government, private sector, civil society and academia, to assist me with taking energy to the next level in this country. A Request for Nominations was released yesterday in major Sunday newspapers. I am urging energy sector stakeholders and representatives to submit nominations.

In this financial year, we intend to submit to this House the following pieces of legislation:

**The Electricity Regulation Amendment Bill** which will provide a regulatory framework that promotes IPP participation.

**The National Energy Regulator Amendment Bill** which will Improve credibility of the decision making process by establishing an Appeal Board; Improve the governance, accountability of the regulator; and to, Promote efficient regulation of the energy sector and improve governance.

**The Gas Amendment Bill** that will promote an efficient, competitive and responsive economic growth; and leveraging available gas resources,

and

**The Independent Systems and Market Operator (ISMO) Bill** to assist with the planning of generation, implement electricity dispatch, coordinate electricity wholesale by generators and act as buyer of electricity .

The support of the Portfolio Committee is sought to process these critical pieces of legislation and in so doing, further support the efforts towards a more responsive energy system.

**Honourable Chairperson and Members,**

I would like to take this opportunity to express my sincere gratitude to my predecessors, Ms Dipuo Peters and Mr Ben Martins for laying such a solid foundation.

I want thank the Deputy Minister, Ambassador Thembisile Majola, the Chairpersons and members of the Portfolio Committee and the Select Committee, for their guidance, and the Acting Director-General Mr. Tseliso Maqubela, together with the senior officials and staff of the Department for their continued support for the achievement of our goals.

My deep appreciation is also extended to the State Owned Entities and Energy Sector Stakeholders for their invaluable support and contributions.

I am confident that drawing from past practices, feedback and the comments received during our consultation and engagement, we can build on the solid foundations to drive the required radical and urgent change in the energy sector.

Lastly, I must admit that striving to achieve a balance between work and family is always challenging, especially as a single parent. Fortunately I have the support and understanding of my family, particularly my sons, Terrence and Austin. This has carried me through many of the difficulties and the challenges, and made many things possible. I thank them both very deeply for this.

Honourable Members,

The next five years is about moving South Africa forward towards an Energy Secure Future! I invite all South Africans to be part of this.

It is my honour to present before this House the 2014/2015 Budget Vote of the Department of Energy.

I thank you.