KEYNOTE ADDRESS BY THE HONOURABLE DEPUTY MINISTER OF ENERGY, MS BARBARA THOMPSON ON THE DIALOGUE OF THE "WHETHER THE GERMAN ENERGY TRANSITION MODEL COULD BE A MODEL FOR SOUTH AFRICA" DURING COP17 IN DURBAN ON 05 DECEMBER 2011

Honourable Dr. Georg Maue of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety,

Honourable Dr. Hermann Ott, Member of the German Parliament, Alliance 90/ The Greens,

Dr. Antonie Nord, Director of the Heinrich Boll Stiftung,

Esteemed speakers,

International agencies represented,

Senior government officials,

Honoured guests,

Ladies and gentlemen,

First of all, I would like to extend my gratitude to the Heinrich Boll Stiftung for inviting me to share South Africa's experiences on the challenges, opportunities and successes of transitioning to a renewable energy economy. To the guest speakers and other highly revered participants, it is an honour to be among you, to learn from your experiences and as South Africans we always keep an open mind to novel yet successful approaches to increasing the share of renewable energy in our country's energy mix. Our country has pinned a lot of hope on using this green energy sector to stimulate economic growth and create jobs for our unemployed masses a majority of whom are women and youth.

Ladies and gentlemen, please indulge me to remind ourselves about two of the most important factors that made Germany one of the leading greening economies;

Firstly, **it is an early start** – German policies have been encouraging green innovation and infrastructure over the past 40 or so years which involved the refocusing of all levels of government policies to be geared towards promotion of environmentally sustainable growth. This has resulted in the streamlining of environmental and natural resource policies into crucial and central spheres of the economy.

Secondly, **the scarcity of natural resources** and high population density undoubtedly also compelled Germans to embrace sustainability in almost all aspects of economic activity.

Recently, in 2010, the Federal Government of Germany adopted its Energy concept for an environmentally sound, affordable and reliable energy supply (hereafter referred to as the Energy Concept). The Energy Concept sets out a broad and clear framework for German Energy Policy until 2050 that is expected to be dependable for industry and consumers over the period.

Under this framework targets are set for renewable energy, greenhouse gas emission reductions and energy efficiency. Renewables in particular are set to account for 18% of final energy consumption by 2020, and some 80% of electricity consumption by 2050. To achieve this impressive share of renewable energy in the final energy mix in the stipulated timeframes, the Germany has favoured introduction of high tax rates on oil and other fossil-based fuels and other fiscal instruments e.g. feed in tariffs for renewables. This government intervention has had the desired effect of gradually reducing fossil fuel consumption and related Carbon dioxide emissions.

In addition, the European Union's (EU) Renewable Energy Directive encourages each member state to increase its share of renewable energy such that the overall share is to rise from 8.5% in 2010 to 20% in 2020. This directive led Germany's renewable-generated power to increase from 6% in 2000 to 16% in 2009 and create employment for some 340 000 people mainly from biomass, wind and solar energy in 2010. I understand from your invitation that "renewable energy currently employs 370 000 people".

Coupled to the EU's Renewable Energy Directive, Germany's own Renewable Energy Sources Act of 2000 which is a feed-in tariff entrenched in climate and energy policy framework is designed to maximize the deployment of renewable energy, energy efficiency and cogeneration.

In comparison, South Africa is still a young democracy yet steadily growing in terms of economic development and energy policies. However, we have taken great strides since our independence in 1994. The publication of a newly developed, overarching White Paper on Energy Policy in 1998 became an essential stepping stone for successive policies, strategies and plans. This was consulted with various sectors so as to ensure that it encapsulates the views of all South African as well as the government's vision for this very important sector.

In 2003 the South African Government promulgated the "White Paper on Renewable Energy". In this policy, the government's goal was to achieve a target of 10, 000 GWh renewable energy contribution to final energy consumption by 2013, to be produced mainly from biomass, wind, solar and small scale hydro. The energy derived from renewables is to be utilised for power generation, biofuels production and use as well as other non-electric uses such as solar water heating.

This White Paper on Renewable Energy Policy is subject to review to assess progress and to build on the medium to long term targets contained in the Integrated Resource Plan 2010-2030 (IRP). Ladies and gentleman I shall expand on the IRP matter shortly.

To date, government has done a lot of work in injecting the much-needed thrust into this young but fast growing industry. Work done includes:

1. Approval of Biofuels Industrial Strategy in 2007;
2. Creation of a legal and regulatory frameworks for RE through Electricity Regulations on New Generation Capacity (2009 and 2011); and
3. Introduction of financial support particularly for the first RE power generation projects such as the Bethlehem Hydro and Ethekwini Land fill gas which are our flagship projects showcased at this COP 17 event, Solar Water Heating market

through a rebate programme managed by the national utility Eskom, in an attempt to assist the market to realize the government's RE policy objectives and targets.

4. Promulgation of the Integrated Resource Plan 2010 – 2030 with the following targets for new build power generation options: Combined Cycle Gas Turbines (2,37 GW); Onshore Wind (8,4 GW); Concentrated Solar Power (1 GW); Solar PV (8,4 GW). IRP 2010-2030. IRP formally refers to the coordinated schedule for generation expansion and demand side intervention programmes taking into consideration multiple criteria to meet electricity demand. Essentially its main focus is to advance planning for electricity generation and usage so as to create policy certainty, improve security of supply and dependability for the industry and consumers at large.

5. In 2011 we launched the renewable energy independent power producer procurement programme. I shall elaborate on this shortly.

Programme Director, recognizing the versatility of renewable energy technologies, our Government explicitly identified two roles for renewables within the power sector. These are, demand side management through solar water heating interventions and expansion and diversification of energy generation. Targets have been set on both fronts.

With regards to demand side management, the government has set a target of 1 million Solar Water heating installations by the end of 2014/15 financial year so as to reduce demand by diverting consumption away from electric powered hot water geysers into solar geysers. These solar water heating units will be installed in residential, commercial and industrial areas and achievement of the target should enable government to defer the further building of another power station (other than the planned ones); contribute towards SA's Renewable Energy targets (2013); and contribute towards government's socio-economic imperatives (e.g. job creation, improved livelihoods, service delivery, etc.). This programme is funded through the fiscus (direct subsidies from government) and electricity tariffs (electricity users).

To answer the question you have posed, Programme Director i.e. how can the energy transition be balanced with economic imperatives of each country? I would like to use South Africa's Integrated Resource Plan to illustrate my argument. The IRP was designed to balance economic, social and environmental objectives, provide affordable energy while ensuring security of supply, provide opportunities for the creation of local industry clusters and help to achieve the emission targets. In other words;

- Security of energy supply must not be compromised;
- Affordability is a key consideration and must not be ignored;
- To cater for the needs of our growing economy and population, like Germany we strongly believe that renewables have to be combined with energy efficiency but also to reach approximately 50000MW which is required for our growing economy, gas, coal and nuclear must come into the mix;
- Given the anticipated significant increase in real electricity prices, any additional carbon tax on power generation should be considered carefully.

Coming back to the current Renewable Energy Independent Power Producers Procurement Programme (REIPP), we have placed a very strong focus on the following Economic Development Elements:

- Job creation with a focus on RSA citizens, blacks and local communities;
- Local content with a focus on a % spent in RSA of the total project cost;
- Ownership with a focus on blacks and local communities;
- Black management;
- Preferential procurement on black enterprises and women owned;
- Enterprise development especially in local communities; and
- Socio economic development.

In terms of the bidding process which we have recently concluded, the Request for Proposals that was published on 3 August 2011 had the following allocation the different renewable energy technologies:

- 1850 MW for onshore wind;

- 1450 MW for Solar PV;
- 200 MW for CSP;
- 12.5 MW for biomass;
- 12.5 MW for biogas;
- 25 MW for landfill gas;
- 75 MW for small hydro; and,
- 100 MW for small projects up to 5 MW each.

Prices have also been capped per technology as follows: wind projects would need to be priced at below 115c/kWh, solar PV and solar thermal at below 285c/kWh; biomass at under 107c/kWh; biogas at below 80c/kWh; landfill gas at below 60c/kWh and mini-hydro at below 103c/kWh.

On 04 November 2011, which was the closing date for bid submissions, 53 bids were received across the different technologies and a majority of the bidders were well prepared which is credited our carefully designed procurement process and opportunities to engage bidders concerns through online queries and the bidders conference. We have ensured that the evaluation team is also divided into legal, financial, technical, environmental and economic development in line with our objectives and expectations on this process.

For the liquid fuels sector, Government spent a number of years building a national consensus on the need for a Biofuels Industrial Strategy for South Africa which was approved in 2007 with a modest target of 2% contribution to final liquid fuels consumption by 2013 or 400 million litres per year (based on 2006 sales figures).

The main focus is on ethanol and biodiesel production and use with the condition that feedstock must be dual purpose crops e.g. sugar cane, sorghum, canola etc, locally available, support proven technologies (i.e. first generation technologies) to enable only sustainable investment. Cabinet decided to withdraw to the use of maize as a feedstock for ethanol production since maize is a staple food crop in South Africa amid concerns

about food security. Due to the strong focus on rural economic development, under-utilised areas in the former homelands will be targeted for growing biofuels feedstock.

I must admit that in this sector, we have not yet made significant progress. To address some of the challenges that have delayed progress, Government undertook two studies for the development of the country's biofuels pricing framework:

- Determination of the break-even price for biofuels; and
- Determination of the blending-value for bioethanol.

The aim of these studies is to enable the government to regulate the transfer price for biofuels. While we are still far behind our target, the experience gained from the RE IPP process indicates that working together as a team with support from international experts we shall be able to conquer the challenges we are currently confronted with in this area too.

Our Government has also identified waste management as an opportunity to address energy security as well as climate change. The recycling industry for example typically creates new products with less energy, hence reducing carbon emissions, than the use of virgin material. For this reason, support for the recycling sector is typically a GHG mitigation action. Within the energy sector specifically, the exploitation of waste from landfill sites provides immense opportunities to reduce methane by harvesting it and converting it into useful energy for electricity generation. This process presents multiple benefits in that the lifespan of landfill sites is extended, waste is reduced and clean energy is generated which reduces our dependence on fossil fuels. Moreover, new job opportunities which are desirable, are also created. Therefore the relevance of the waste management sector in the alleviation of poverty is unquestionable, as a result the contribution of this sector needs to be increased in order to maximize the impact. The potential for generating electricity from waste utilizing landfill sites within the six big metros in our country is currently under utilized. Only eThekwini Municipality which operates a 6MW plant has successfully exploited this option. .

Similar to Germany's experience, South Africa green economy is driven from various government levels and departments, as well as inputs from the business sector and civil

society among others. South Africa's National Growth Path (NGP) sets a goal of five million new jobs by 2020. It projects that, with the right policies and cooperation, large numbers of green jobs can be created.

Government sees the green economy as new economic activities which must provide an important entry-point for broad-based black economic empowerment, while addressing the needs of women and youth entrepreneurs.

Funding to achieve the green economy objectives is being looked at from different sources, ranging from the fiscus to financial support from institutions such as the Industrial Development Corporation and to local and international financing/aid agencies and the private sector.

The answer to the question of how can South Africa and Germany strengthen one another's efforts in the energy transition, lies in the Memorandum of Understanding signed between the two countries. This MoU focuses in the areas of renewable energy and energy efficiency. While some of the elements of this MoU are already being operationalised, some still require robust discussion between the two sides.

Programme Director, let me conclude by saying, Germany has relentlessly pushed the green economy trajectory while having limited natural resources compared to South Africa. However, with resilience and determination, backed up by good financial resources and technical know-how, has been at the forefront of global developments in this sector. We are in no doubt therefore about the huge scope for South Africa to adopt the Germany Energy transition model as we transit into a green economy future.

I thank you.