



**Electricity Governance Initiative of South Africa  
Briefing Note: Portfolio Committee on Energy  
17 October 2011**

The Department of Energy (DoE) briefed members on the 2<sup>nd</sup> Integrated Resource Plan (IRP2), on the Integrated National Electrification Programme (INEP), as well as on progress towards a strategic integrated energy plan (IEP). Director-General Ms. Neliswe Magubane reported that South Africa is the largest emitter of carbon and must seek to considerably reduce emissions. The DoE explained that the IRP2 is not an energy plan but an electricity-sector plan that will direct expansion over a 20 year period.

**Major Themes from Public Hearings on IRP2**

The DoE received submissions from NGOs and civil society (67 organisations), academics and consultants (63 organisations), and industry and business (70 organisations). Major themes from these submissions include:

- Request for a “low carbon economy”
- Strong opposition to nuclear and coal energy solutions
- By 2050 a range of 20-75% of renewable energy supplied
- Incentives: tax policy, to encourage non-Eskom generation
- General confusion and lack of discrimination between inputs, outcomes, policy, regulating instruments
- Water and Infrastructure
- Future renewable energy: wind, solar, geothermal, sugar cane fibre

**The Department stated that the IRP needed to balance economic, social and environmental concerns.** Affordability, economic demand, security, and “externalities” must be accommodated (slide 8 of DoE presentation, 25 Jan). The process was designed to be “output focused,” and scenarios were produced to allow decision makers to choose the best option. Based on this process, the DoE selected the most cost-effective option in regards to both national and international constraints.

However, the DoE failed to respond to all the questions posed during the committee briefing session. Key circumstances that required further investigation were demand, supply option scenarios, economic impact, climate change, and regional development (electricity import and export). The DoE suggested that renewable energy generation had massive land requirements and a larger footprint than nuclear power (slide 35 of DoE presentation, 25 Jan).

Mr. Aphane (DDG: Nuclear, Coal & RE) reviewed the proposed generation mix to be achieved by 2030: coal-fired power stations, 48%; renewable resources, 16%; nuclear power stations, 14%; and hydro-electricity, gas, and pump storage, 22%.

The Minister of Energy presented the Integrated National Electrification Programme to stress the importance of providing electricity to all of South Africa. At present only 75% of

the population has access to electricity. The new drive is to increase access to electricity from 81% to 92% by 2014. The objective of INEP is to manage the electrification planning, funding and implementation process, with the aim of addressing the electrification backlog so as to reach universal access.

**In addition to the IRP2 and the INEP, the Millennium Development Goals (MDGs) have been discussed by the Committee**

Ms. Thandeka Zungu, Chief Operating Officer, Department of Energy described the Millennium Development Goals (MDGs) as the world's quantified targets for reduction of extreme poverty by 2015. Although the Department was not the core provider of services to achieve these goals, it played a significant role in partnering with other departments to ensure their achievement. The DoE has offered contributions to MDGs 1, 3, 7 and 8:

- **MDG 1** is to eradicate energy poverty through initiatives that allowed for universal access to energy (growth, job creation and agricultural productivity). The Department implemented INEP that focused on rural areas. The Department also introduced regulation of Liquefied Petroleum Gas prices to ensure increased affordability.
- **MDG 3** is aimed at promoting gender equality and at empowering women. This had been promoted through initiatives that focused on the entry of women into the energy sector. Some of the initiatives included the audit of and compliance with the Liquid Fuels Charter (2002), and increasing skills levels of women through initiatives like Learner's Focus Week, and targeted bursaries and internships. Other forums that had given women a platform to share information and promote self-betterment included the Woman in Energy and Gas in South Africa (WOESA) and the South Africa Young Nuclear Professions Society (SAYNPS).
- **MDG 7** is aimed at ensuring environmental sustainability. The Department had responded to this by developing policies and programmes that promoted long term sustainability of energy security and resources. One such policy was the Renewable Energy White Paper, which set out the aim to produce 10,000 watts of renewable energy by 2013. Examples: the Solar Park initiative, the small scale hydro plant at Bethlehem, Free State, and the Waste to Electricity Project at eThekweni.
- **MDG 8** is related to the development of global partnerships for development. Examples include: the Africa-EU partnership on sustainable energy and Clean Energy Ministerial (CEM) meetings. The emphasis on global partnerships with the Department had resulted in the formulation of strong bilateral relationships such as the one between the Department and the UN Industrial Development Organisation (UNIDO) which focused on securing sustainable energy by 2012. In addition, South Africa would be hosting the COP 17 conference from 28 November to 9 December 2011, and the Department would host the Pre-COP Africa Energy Ministers Conference from 15 to 16 September 2011.

**Investing in the Green Economy** (15 Aug)

The Industrial Development Corporation presented its approach toward developing the green economy in the context of the New Growth Path (NGP) and IPAP2. The New Growth Path targets 300 000 additional direct jobs by 2020 to green the economy, with 80 000 in manufacturing and the rest in construction, operations and maintenance of new environmentally friendly infrastructure. The IRP2 targets for renewable energy open up major new opportunities for investment and employment in manufacturing new energy technologies as well as in construction.

The main strategies to achieve these targets are:

- Comprehensive support for energy efficiency and renewable energy as required by the IRP2, including appropriate pricing policies, combined with programmes to encourage the local production of inputs, starting with solar water heaters;
- Public employment and recycling schemes geared to greening the economy;
- Stronger programmes, institutions and systems to diffuse new technologies to SMEs and households;
- Greater support for R&D and tertiary education linked to growth potential and developing South Africa as the higher education hub for the continent; and
- Continuing to reduce the cost of and improve access to broadband.

IPAP2 promotes key sectors of the green economy:

- Power generation through wind, solar photovoltaic, concentrated solar power;
- Industrial energy efficiency
- Water efficiency
- Waste management (including biomass)
- Energy efficient vehicles

The IDC will target investments in key programmes related to areas of green industry development:

1. Renewable energy: non-fuel power, wind power generation, solar voltaic power, concentrated solar power
2. Fuel-based energy: waste to energy, co-generation
3. Energy efficiency: heat, electricity and building efficiency; cleaner industrial production and industrial efficiency; transport efficiency
4. Biofuels: bio-ethanol and bio-diesel
5. Emission and pollution mitigation: air pollution control, water and treatment, waste management and recycling, and clean stoves.

The IDC targets R 14 billion in investments in green industries over five years. It further estimates that IRP2 renewable energy requirements necessitate nearly R 100 billion in investments between 2011 and 2015, over half of which would be allocated to solar PV.

The Central Energy Fund also has some renewable energy investments, such as exploring renewable energy on Robben Island, Lesedi biogas, landfill gas projects, and Johanna solar, but committee members expressed disappointment with CEF's "lull" in activities and its marginal role with the DoE (27 Jun).

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