



ROCKET LAUNCH AFTER A LONG COUNTDOWN – THE RISE OF SOUTH AFRICA’S WIND INDUSTRY

Background, statistics and facts on wind energy and the renewables programme in South Africa

Background

- In 2010, the Department of Energy, the Treasury and the Development Bank of Southern Africa collaborated to set up the Independent Power Producer (IPP) office and designed the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP). At the heart of the programme was the provision that Eskom enter into Power Purchase Agreements (PPAs), ensuring that investors could forecast accurately their profits and bankability – which is enhanced by having payment risk mitigated by government guarantee.
- The Department of Energy has committed to 13,225MW of renewable energy generation by 2025. This will be secured under the Renewable Energy Independent Power Producer’s Procurement Programme (REIPPPP), which has been running since 2011 and has already completed 4 successful bidding rounds.
- SA’s 2010 Integrated Resource Plan (2010-2030) calls for 17,800 MW of renewable energy to be energy Nation place by 2030. That equals more than one fifth of the county’s predicted demand.
- The overarching National Development Plan calls for a ‘greater mix of energy sources and a greater diversity of independent power producers (IPPs) in the energy industry’, acknowledging that energy market must look very different in years to come that how it appears now.
- In 2009 President Jacob Zuma committed South Africa to take mitigating action that would reduce emissions by 34% by 2020, and 42% by 2025 below “business as usual”, provided the international community supported the country with financial aid and the transfer of technology. In a short space of time these goals are being realised and we now have a flourishing and expanding renewable energy sector.

Electricity added to the grid

- To date 43 REIPPPP facilitated projects are fully operational, adding 2062 MW to the grid. Details are:
 - 13 fully operational wind farm developments feeding 953 MW into the national grid.
 - 27 solar photovoltaic developments equalling 995MW
 - 1 Concentrated Solar Power plant at 100MW
 - 2 hydroelectric power plants totalling 14.3MW
- There are now more than 400 wind turbines creating electricity throughout South Africa
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- The REIPPPP is bringing renewable energy to the National grid fast and cheaper than new-build coal. Construction times for projects average less than two years, and the electricity price paid to projects has declined 68% within three years.
- The price of wind energy in Round 4(a) was R619/MWh almost 40% cheaper than forecast prices for Eskom's new-build coal plants Medupi and Kusile.

Community benefits

- Local communities (within a 50 mile radius of developments) are already substantial beneficiaries of renewables, with an average shareholding of 10.5% in renewable projects. This constitutes more than four times obligated minimum of 2.5% which forms part of the criteria of the REIPPPP.
- Host communities will have billions of Rand invested in socioeconomic development from funds provided by these developments.
- The total projected value of goods and services to be procured from broad-based black economic empowerment suppliers is more than R101bn.
- The Department of Energy announced last month (October 2015) that R91.1 billion is committed to various development initiatives under the REIPPPP
- Significant job creation has come along with the REIPPPP and will continue to grow as the allocation expands and renewable energy development escalates.
- Local manufacturing has been boosted by the wind industry with DCD manufacturing wind turbine towers in Port Elizabeth and Spain's Gestamp Renewable Industries also recently opening a wind turbine tower manufacturing facility in Atlantis outside Cape Town.

Attracting investment

- According to the Treasury, as of October 2015, 92 projects had been selected as part of the REIPPPP, attracting R193bn in private sector investment totalling a contribution of 6 327 MW of capacity to the national grid.
- 28% of this total comes from foreign investment – R53.2bn. This equals 85.8% of total direct foreign investment in South Africa last year.
- Investment in renewables grew 20,500% in one year between 2011 and 2012 – the first year of the REIPPPP.

Country-specific achievements

- South Africa has a world-first wind atlas – a high-definition map which shows Independent Power Producers the best sites for wind energy development, allowing them to short-cut access to data to help them identify potential wind farm sites. The map was produced by



- South African National Energy Development Institute (SANEDI) and is available here: www.wasaproject.info
- Renewable energy production so far has cut the equivalent of 4.4million tonnes of carbon dioxide.
- The 2014 United Nations Environment Programme put South Africa among the top 10 countries for renewable energy investments.
- According to a report by the Council for Scientific and Industrial Research, wind energy produced net savings of R1.8 billion in the first half of 2015 and was also cash positive for Eskom by R300 million. Collectively wind energy and solar power (photovoltaic) saved R4 billion from January to June this year.