

## **MEDIA RELEASE**

## 11 February 2015

## Energy expert warns on renewables 'panacea' and country comparisons

Amid the intense debate surrounding the future of electricity supply in South Africa, delays in construction of new power plants, renewables, a re-awakening of nuclear generation and the increasing costs that come with electricity supply, is there an answer to South Africa's power resource conundrum?

While many media and political commentators are quick to recommend overseas energy models for South Africa's current challenges, energy expert Paul Fitzsimons, General Manager of GIBB Consulting Engineers Power & Energy sector, warns that this is a dangerous path to tread.

"Power and energy supply worldwide is an extremely complex business and to simply hold up one nation's apparent solution as a *one size fits all* solution for South Africa is a gross oversimplification of the facts and indicates a lack of understanding of the problems these countries also face," said Fitzsimons.

Comparing, for example, the UK energy supply market with our own on the basis that both countries have similar installed power capacity, and a roughly equal population. This is a dangerous comparison for a number of reasons:

- "The GDP of the UK is 10 times that of South Africa and unlike here their unemployment rate is about 15% of ours, meaning that there are more people able to afford energy.
- The UK energy mix is different to ours with nearly 50% of its generating capacity being supplied by gas fired combined cycle gas turbines. Sixteen percent of supply comes from nuclear stations with 22% derived from coal fired stations – quite the opposite to South Africa.
- The UK has supply agreements and interconnections with both the French and Dutch grids who can supply a combined total of some 3GW or more than 8% of the UK total, if required. Wind energy comprises 3.8% or 1.41GW of the total.
- Of the total energy consumption in the UK, gas represents close to 50% for residential and industrial heating and their climatic conditions are quite different to ours which dictates different solutions."

GIBB is the leading South African black-owned consulting engineering firm with a Level 2 Black Economic Empowerment (BEE) rating and a reliable network spanning the African continent. The firm occupies a market share of approximately 4% and delivers world-class solutions across a diverse range of markets. With over 55 years of experience, GIBB is the partner of choice for the private sector, parastatals and governments who seek knowledgeable people, expertise and excellence.



Fitzsimons comments on the clamour to replace coal and nuclear power stations in favour of 'green' alternatives, but are they really alternatives? "While we would all like a world with less pollution and fewer carbon emissions, wind and solar generation cannot realistically supply base load generation."

"Germany is a good example of this, where instead of reducing its carbon footprint, it actually increased due to its dependence on coal fired stations when wind and solar generation was not sufficient to completely to fill the void left by an exodus of nuclear power. In hindsight, perhaps Germany regrets its decision to phase out nuclear generating capacity post the Fukushima reactor event, which not only resulted in the country closing down many of its nuclear power stations, but also rising energy costs, now amongst the highest in Europe," explained Fitzsimons.

"With that, comparisons with other countries can therefore be academic at best and South Africa will have to find its own particular solution to its energy needs, which will be a mix of available technologies and sources of supply," he continued.

Looking back at Africa, the continent's unmet and increasing energy demand persists in an environment where there is a rapidly rising population and infrastructure investment has stagnated. There is no question that the continent is in need of robust solutions to the energy problems. Ideally solutions that will place less of a reliance on coal and diesel.

With this in mind, engineering has a critical role to play in developing and addressing Africa's energy capacity. Energy solutions for this continent hinge on an integrated approach that includes engineering services amongst other skills sets. GIBB has played this role by providing a comprehensive range of engineering services in the energy sector, which include Energy Master Planning, feasibility studies and energy auditing. The geographic reach of GIBB's projects spans Angola, Botswana, Ghana, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Swaziland, Tanzania, Uganda, Cameroon, DRC, Mauritius, Ethiopia, Senegal, Kenya, Djibouti, Gambia, Zambia and Zimbabwe.

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## Note to Editors:

Leading South African black-owned consulting engineering firm, GIBB, announced its partnership with the largest architectural firm in the country, SVA. The partnership will strengthen the skillset of both companies and grow its confidence in Africa.

With an impressive track record of delivery spanning over 70 years, SVA has successfully delivered over 1000 architectural projects.

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In partnership with SVA, GIBB will now be able to offer clients a full range of architectural services including Master Planning, Urban Design and Building Design.

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