**Renewable energy contributes positively to electricity supply, economic development**

SAPVIA has read with concern a recent media report[[1]](https://mail.google.com/mail/u/0/" \l "m_9091306644979330445__ftn2" \o "), attributed to Eskom’s CEO Brian Molefe, about the performance of renewable energy plants in South Africa. If the statements as reported are an accurate representation of the views of the CEO and his advisors, SAPVIA finds those views ill-informed at best, and misleading at worst.

Renewable energy contributed to a reduction in diesel consumption during 2014/15, thus freeing up resources required to supply peak demand (e.g. early evening). This was especially helpful in cases where open-cycle gas turbines (OCGTs) would otherwise have been required to run for much longer periods, thus putting additional upward pressure on diesel costs and availability.

This was confirmed by recent studies undertaken by the CSIR[[2]](https://mail.google.com/mail/u/0/" \l "m_9091306644979330445__ftn3" \o "), according to which the operational wind and PV generation facilities that formed part of the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) resulted in diesel cost-savings of R3.7bn and R3.5bn, during the whole of 2014, and the half-year period between January and June 2015, respectively. Taking into account their contribution towards reducing load-shedding during these periods, the facilities resulted in a net-saving to the economy of R4.8bn.

This has been accompanied by reductions in the prices of wind and PV generation. Considering that there are no ‘fuel’ purchases associated with these facilities, they effectively represent a ‘hedge’ against future electricity price increases.

These benefits stem from 20-year power purchase agreements (PPAs), without which the investments that have resulted from the REIPPPP – at a time when capital investment levels in South Africa have been very low – would not have been possible. As mentioned recently by the Minister of Energy, the total value of investments in the renewable energy sector so far is close to R200bn, and is expected to increase to R255bn by the close of the current procurement rounds.

According to the IPP Office, other benefits of the renewable energy programme include:

* R30.7 billion spending on BBBEE during construction so far, which in excess of a planned amount of R26.6 billion;
* Shareholding for local communities, estimated to result in net income of R29.2 billion over the 20 year PPA tenure;
* Stimulation of local business, for instance through the procurement of South African goods and services worth R143bn, related to current procurement rounds.  From SAPVIA’s perspective, this amount is expected to increase as factors such as the weakening currency exchange rate and enhancements in local capabilities render local industrialisation more viable.
* The commitment by IPPs of some R15.2bn towards socio-economic development over the 20 year life span of the PPAs, typically in parts of the country that have traditionally been economically depressed.

The typical statements made by detractors of PV is that it does not provide supply during peak periods. This is not true, given the contribution to PV to energy supply during the morning peak period in South Africa. Furthermore, the focus on peaking supply ignores the requirement for an energy mix that consists of technologies that serve different purposes – a position clearly articulated in all of Government’s energy policy documents. For instance, PV and wind are traditionally not designed to supply capacity, in the same way that diesel-fired OCGTs are not designed to operate beyond peak periods. Notwithstanding this, recent studies[[3]](https://mail.google.com/mail/u/0/" \l "m_9091306644979330445__ftn4" \o ") have shown that an optimal combination of PV and wind power plants, geographically-dispersed across South Africa, have the capability to increase the level of energy security. Additionally, the notion that peak electricity demand should be supplied at any cost is questionable, as there are more efficient approaches to supplying the thermal applications that typically result in the peak demand. That is where the focus of a responsible, informed discussion on South Africa’s energy transition should lie.

As the production profile of PV across the whole of South Africa is now very well-known, it can be planned for from a system operations perspective. This eliminates planning ‘surprises’, or even ‘disappointments’. As Moeketsi Thobela, SAPVIA CEO, notes “In many parts of the world the innovative application of new technologies is driving the evolution of power system operations. During an energy transition such as South Africa is going through, there is a place for an energy mix that consists of different technologies, and the focus should be on how these can be deployed optimally”.

While the low GDP growth levels experienced in recent times – resulting in suppressed electricity consumption - may create a false sense of “energy supply security”, what South Africa requires at this stage is an open and honest engagement on what options are most suitable to address the energy supply requirements of an economy that is required to serve the welfare of its citizens. SAPVIA members, working in conjunction with relevant stakeholders – including Eskom - have demonstrated the capability and willingness to contribute towards providing the energy the economy requires, on time and on budget. This is despite challenges that have been faced with regard to access to the grid.

SAPVIA would like to extend an invitation to Eskom’s CEO and his advisors to meet and discuss any of their concerns regarding the value adding proposition of renewable energy and to assist in creating a mutually beneficial understanding of its role towards the welfare of the citizens of South Africa.

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[1] [http://www.moneyweb.co.za/news/industry/renewables-disappointed-us-molefe/](http://www.moneyweb.co.za/news/industry/renewables-disappointed-us-molefe/" \t "_blank)

[2] Financial benefits of renewables in South Africa – as published by the CSIR respectively in January and August 2015.

[3] ‘Analysis of options for the future allocation of PV farms’ (GIZ-MPE, February 2015) and ‘Wind and PV aggregation study’ (CSIR – Fraunhofer IWES, March 2016)