Are Eskom's concerns relating to Renewable Energy Independent Power Purchase Agreements valid?

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Executive Summary

By April 2015, after the successful conclusion of 3 bid rounds involving 64 individual projects, the Minister of Energy had announced thirty-eight Preferred Bidders for the next rounds of government's internationally acclaimed Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). Only one project which was from the CSP round 3.5 has since signed a power purchase agreements (PPAs) with Eskom.

The remaining 37 Preferred Bidders[1] should normally have signed power purchase agreements (PPAs) with Eskom by no later than April 2016. Instead, the agreements remain unsigned, thus delaying a R58.5 billion investment and the creation of over 13 000 construction jobs – all at a time when the country desperately needs economic stimulus.

Furthermore, renewable industry employees at power plants, construction companies, manufacturing facilities, service providers and other related firms are facing retrenchment and many local firms face significant financial losses due to Eskom's actions.

While it has voiced certain concerns at different times in different public fora, at no time has Eskom formally stated why it is refusing to sign these PPAs.

This paper aims to provide a concise summary of the current situation and to address the concerns informally raised by Eskom, none of which, in SAREC's view, justify the ongoing delay in finalising agreements. We also provide a list of urgent actions required in order to prevent further damage to the renewable IPP sector in South Africa.

Six reasons why duly procured renewable energy PPAs should be signed

1. R58.5bn-worth of investment and c.13,000 construction depend on these agreements. The projects are ready to go and construction will typically take less than two years to complete, depending on when Eskom can make grid connections available.
2. Thanks to government's regulatory requirements, these projects will generate R13.4 billion of socio-economic and enterprise development expenditure into their communities over their 20 year lifetimes. They will also distribute R6 billion of dividends to local community shareholder groups.

[1] One Preferred Bidder for the CSP round 3.5, twenty-six Preferred Bidders for the 4th round and ten Preferred Bidders for the 1st round of the Smalls programme.

3. The President and other members of Cabinet have repeatedly stated over the past year that government requires Eskom to sign the PPAs. The REIPPPP is, after all, a policy of this administration and has been a widely-hailed success.
4. A number of senior counsel opinions have confirmed that Eskom has no authority to review or reject the duly procured PPAs. The law obliges Eskom to sign, just as it has done in the past.
5. Signature of the PPAs would signal to South African citizens and to global investors that the country is committed to renewables as part of its long-term energy mix. The resulting policy confidence will encourage citizens seeking government leadership and stimulate investment in domestic manufacturing which has currently stalled.
6. The continued growth of renewable electricity will help South Africa meet its commitments under the National Development Plan, the Energy White Paper and the Paris Accord.

What are Eskom's informally stated reasons for stalling on PPAs?

1. Legal uncertainties relating to the tariff

Eskom has suggested that it cannot sign the REIPPPP PPAs due to legal uncertainties about the annual increase in its regulated retail tariffs, i.e. the average price at which it is allowed to sell electricity.

How are Eskom's tariffs regulated?
Eskom's tariffs are regulated by the National Energy Regulator of South Africa (NERSA) through a well-defined multi-year pricing determination (MYPD) that sets out a five-year tariff path based on assumptions of demand growth, power production costs, plant performance and returns on capital. This system provides for annual adjustments to the MYPD increases to cater for variances from the original assumptions via a process known as the regulatory clearing account (RCA). For instance, if costs are higher than expected Eskom can request a higher tariff increase than the original pricing determination, in order to close the deficit on the RCA.

How does the regulatory framework cater for independent power costs?
Eskom incurs costs when purchasing power from independent power producers, be they renewable or any other generation technology. The utility enters into such power purchase agreements as a consequence of executive decisions known as ministerial determinations which give rise to government procurement processes such as the REIPPPP. Eskom's tariffs are regulated to ensure that independent power purchase costs are a direct 'pass-through' to the consumer. The net cost of the PPAs (any difference between purchase and sale price) is treated as part of Eskom's revenue requirement and NERSA guarantees that Eskom will be allowed to recover this revenue as part of its MYPD ruling.

The Department of Energy (DOE) and NERSA have consistently rejected Eskom's assertion that it will make a loss due to energy purchases from renewable IPPs. We understand that these assurances have been provided to Eskom in writing and that the Utility faces no risk whatsoever. In the event that Eskom were to default on a PPA payment the credit risk would fall to the national fiscus via government guarantees that are provided to IPPs via the Implementation Agreements (IAs).

A further agreement between Eskom, NERSA, DOE and National Treasury, known as the Government Support Framework Agreement (GSFA) underpins the government guarantees behind the REIPPPP IAs.

The existence of these agreements ensures that Eskom takes no risk on PPAs with IPPs. Any claim to the effect that signing the PPAs would create a financial risk for Eskom is false and misleading.

2. Renewable IPPs are too costly

The transition to less carbon-based energy is an established policy choice that this government has made, in common with most governments the world over. The utility has no discretion over whether to enter into power purchase agreements that are designed to achieve this transition, nor over the price or the terms of such PPAs.

Whether this policy choice has a positive or negative impact on average electricity prices is of no concern to Eskom. The Utility is fully protected by the regulatory regime described above which makes PPAs a full pass-through cost. IPPs are fully responsible for operations and maintenance costs and must carry any costs of construction delay.

In reality, the rapid decline in bid price driven by the government's competitive auction process has proven that ongoing procurement of renewable energy through independent power procurement is the most cost effective way to achieve affordable power supply.

3. Renewable energy will cause Eskom to close coal power stations

Coal power stations will certainly close. But not because of renewable power as claimed by Eskom. Eskom has had a plan to close its coal plants since they were first commissioned.

Coal plants have a limited life, as do the mines that feed them. Eskom's generation license requires these plants to be decommissioned as they reach the end of their design life and become too expensive to operate and maintain. It is completely misleading to blame renewables for this natural process.

4. There is a risk of over-supply of electricity

There is indeed a risk that South Africa may be entering into a period where electricity supply exceeds demand. This is, in part, to be welcomed, since the economic cost of load shedding in recent years was very high. Growth in electricity demand is always a major uncertainty for electricity planners. Demand over the last 10 years has been relatively flat and is, in fact, yet to exceed the demand experienced in 2007. This lack of demand growth is unprecedented in the 140 year history of South Africa's electricity supply industry.

In legal terms the responsibility for balancing long term demand with sufficient supply capacity falls to the Minister of Energy. The Minister addresses this responsibility through the development and publication of a generation capacity expansion plan known as the Integrated Resource Plan (IRP). Based on this plan the Minister of Energy also initiates processes to procure additional capacity to meet growth in demand and to replace retiring plant, known as Ministerial Determinations on new generation capacity. These processes have always been notoriously difficult to get right. Power plants can take up to 10 years to build and are designed to operate for between 20 and 50 years. Short-term fluctuations in the supply-demand balance can be expected. This is, however, not a good reason to stop planning or to suspend the transition towards cleaner sources of generation.

If Eskom does indeed have serious concerns about the supply-demand balance then it would do well to consider delaying Medupi or Kusile, or indeed cancelling some of their generation units. Instead Eskom has chosen to delay the construction of Government's duly procured renewable energy projects which, by virtue of their much smaller scale, will have far less impact on the supply-demand balance than these two massive coal plants.

What might be the unstated reasons for refusing to sign duly procured RE PPAs?

SAREC understands that Eskom's board took a resolution not to sign PPAs until its concerns are addressed. We are not privy to that board resolution nor to any correspondence that may have taken place between Eskom, NERSA, the Department of Energy (DOE), the Department of Public Enterprises (DPE) and National Treasury (NT) in this regard. None of these parties has clarified formally what Eskom's concerns may be. The Minister of Public Enterprises has issued statements in support of Eskom on several occasions, but she too has yet to clarify the nature of its concerns.

Given the lack of clarity on the basis of Eskom's position, it is worth considering the possibility that the utility is in fact generating a smokescreen to hide the true reasons for its behaviour. What might these reasons be?

Performance: An Unfavourable Comparison
Renewable power procurement in SA has been an unexpected success, with bid tariffs dropping far faster than policy makers expected. Private investor appetite has been huge. Projects have been financed easily, built on time, and completed within budget. By contrast Eskom has struggled to finance its new-build programme and has run massively over-budget and over-time. The first unit of Kusile recently synchronized to the grid – eight years later than the original schedule. These excessive delays are typical of the mega projects favoured by vertically integrated monopolies such as Eskom.

Excessive delays lead to accumulation of excessive amounts of interest during construction, which can dramatically inflate the true cost of a project, and hence the retail tariffs required to recover those costs. In short, Eskom has performed woefully as a builder of power stations over the past decade and would prefer not to face further comparison with IPP performance.

Experience Inappropriate for the Country's Future Energy Pathway
The country stands on the brink of significant policy decisions which will determine the generation mix up to 2050. Recent modelling for the latest iteration of the integrated resource plan (IRP) clearly demonstrated that the least-cost path consists of a mix of renewable power and gas turbines.

Gas turbines are expensive to run but are relatively cheap to build and have the great advantage of being able to be switched on and off at short notice in order to act as a balancing resource to various sources of generation such as renewables.

South Africa has world class wind and solar resources, spread widely across a large country, with an already excellent grid infrastructure in place to convey power to where it is needed. Gas turbines are therefore only required to cater for intermittent low-solar and low-wind periods. By contrast, Eskom's generation experience lies in large coal and large nuclear. All Ministerial determinations to date for renewables and gas have elected to utilize IPPs to deliver new generation capacity, not Eskom.

A Survival Issue
Government's policy choices on future generation capacity (via the IRP) will set Eskom on a particular path. Depending on the choices made, Eskom's share of the generation market in 2050 could decline from the present near-monopoly 94% to a still dominant 70% in a big coal and big nuclear scenario or as low as 7% in the least-cost renewables and gas scenario (CSIR, 2016). These are dramatically different outcomes for the utility. It is not far-fetched to presume that Eskom – which has always regarded generation as its core business – is fighting for its life.

The more that renewable energy succeeds, the cheaper it will become – and the harder it will be for Eskom to justify the generation technology choices that it knows and prefers (coal and nuclear).

A failure of the South African renewable energy sector to scale up and meet its global potential would, in the short term at least, reaffirm Eskom's position as effectively the monopoly generator – a good outcome only from the narrowest possible perspective of Eskom employees and those invested in its coal-fired or nuclear-powered technologies, but not for the country and its electricity-users.

Eskom's narrow interests

President Zuma in his 2010 State of the Nation address committed government to establishing an Independent System Operator:

> "To ensure reliable power supply, we have established an Inter-Ministerial Committee on Energy, to develop a 20-year integrated resource plan.
>
> Among other things, this will look at the participation of independent power producers, and protecting the poor from rising electricity prices. *We will establish an independent system operator, separate from Eskom Holdings*. Eskom will continue to build additional generation capacity and improve the maintenance of its power stations". (Zuma, 2010; emphasis added)

The President's announcement stemmed from the recognition that Eskom faces an inherent conflict of interest between its multiple roles as a generator, as the owner and operator of the national electricity grid, and as the Single Buyer of power.

The failure to reform electricity sector governance has allowed Eskom's conflict of interest to continue, and to result in a situation where the national Utility is delaying signature of REIPPPP projects for no clear reason. This is a significant problem for the industry and the country as a whole. The utility cannot be trusted to put the national agenda ahead of its own narrow interests.

Reforms to the industry and market structure are a necessary condition if we are to benefit fully from the inevitable transition to a modern, renewable-led energy system. Eskom cannot be allowed to hold hostage our collective future.

In conclusion, SAREC therefore appeals to the Ministers of Finance, Energy and Public Enterprises to drive the achievement of:

1. A new, firm date for duly procured RE PPA signatures.
2. Eskom's issuing of valid Budget Quotations to underpin the PPAs.
3. The continuation of South Africa's REIPPPP, so that the full value chain benefits of clean power supply, investment growth, manufacturing development, job creation and rural community benefits can be realised.