



Consumers must be protected from renewable energy pass through costs

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Last week I stated explicitly that as a country, we needed to engage a new thought process on how to fund the Independent Power Producers (IPPs) Bid Windows 1 to 3.5 instead of unfairly passing the cost through to the consumer.

I further said that Eskom will purchase 7 210 gigawatt hours (GWh) at a cost of R15.5 billion for 2016/17 financial year from renewable IPPs at a resultant average cost price of 214 cents per kilowatt hour (c/kWh). Assuming Eskom signs up to Bid Window 4.5, in 2021/22, the outcome would be that 20 141 GWh would be bought at a cost of R41.4 billion from renewable IPPs at a resultant average cost of 206 c/kWh. These costs will be fully passed through to the already over-burdened consumer, driving electricity tariffs sky high and making electricity practically unaffordable. This will result in a constrained economic growth, which will mainly affect the mining and manufacturing sectors.

Let me remind you that renewable IPP programme resulted in a net economic loss of R4.27 billion to the South African economy for the first six months of 2016, compared to a net economic benefit of R3.97 billion for the same period in 2015. The benefit was as a result of unserved energy and the use of diesel by Eskom to minimise load curtailment. As things stand, the energy system is not constrained and there is surplus capacity even when diesel generators are excluded.

Given the medium-term energy outlook, the net economic loss of R4.27 billion cannot be justified further. Eskom is duty bound to protect the consumer from pass through costs linked to Bid Windows 1 to 3.5. This can be achieved by not signing the remaining renewable IPPs including Bid Window 4.5, then ring-fencing all costs linked to Bid Windows 1 to 3.5 and funding them separately. This will serve as a crucial first step towards protecting South African electricity consumers from high tariffs. At the moment electricity supply is adequate up until 2021 and Eskom is justified not to sign-up additional IPPs. This point remains valid even at an exaggerated 3.3 percent compounded annual growth rate. Eskom will still be able to meet the required reserve margin of 19 percent as prescribed by National Energy Regulator of South Africa up to 2021. This will be achieved by accelerating the current new build programme, further improvements in energy availability and extending the life of the existing generation fleet.

Eskom has been and continues to be heavily criticised for getting involved in policy matters when it raises issues in defence of the consumer and its bottom line. This reminds us of the White Paper on the Energy Policy of the Republic of South Africa published in December 1998, which states that new generating capacity must be built by the private sector. Many would argue that the idea was stillborn because the real price of electricity was too low to provide the required return on investment for the private sector to build



additional capacity. Eskom stayed out of the policy space knowing full well that the country would run out of peaking capacity by 2007 and base load capacity by 2010. In 2007, the country indeed ran out of peaking capacity and thereafter experienced the first generation of load curtailment.

The Eskom leadership was soon thereafter lambasted for not being bold enough. Former President Thabo Mbeki set the record straight by issuing an apology to Eskom in December 2007; he said “Eskom was right and government was wrong” after indicating that government was asked earlier to invest more in electricity to keep up with the country’s growth. Eskom can therefore not afford to repeat the same mistake by keeping quiet on this matter.

Eskom must highlight that South Africa will once again run out of generating capacity in 2022. There is a growing narrative that suggests that this shortfall can be met with a combination of renewables and gas. This narrative, further suggests that this combination of renewables and gas power can be scaled up to effectively emulate base load without the need for nuclear or coal, and can be achieved before 2022. When this energy mix is fully implemented the generation capacity will be 125 GW and will consist of 65 GW of wind generation, 25 GW of solar generation and 35 GW of gas generation. This system will generate 261 terawatt hours per annum. Eskom’s system operator is currently modelling this energy mix and what is beginning to emerge is that a base load of 40 GW cannot be reliably supported by this energy mix. The amount of renewables will need to be limited to attain grid stability.

Regardless of the scale of renewable energy capacity installed in 2022, non-renewable generation alone must be able to meet the peak demand on the worst day. This peak demand could be as high as 40 GW. The only available non-renewable generation currently in the pipeline is the coal IPPs. If they were to be signed-on today, they should be in commercial operation by 2022. Eskom therefore supports the roll out of coal IPPs and so desires that they reach commercial operation before 2022 to make a meaningful contribution.

The next capacity challenge is projected to be in 2026-2028. It is for this reason that nuclear as a base load solution must be considered and the request for proposal be issued as soon as possible. The South African government is at present reconsidering who should take the lead in the procurement of nuclear power. Whatever the outcome, Eskom will be intimately involved in the procurement process as the planned owner and operator, and we are equal to the task.

Since the initiation of “Nuclear-1” project in 2007, Eskom has managed a comprehensive development programme in preparation for the procurement and execution phase of the next generation of nuclear fleet. The development spanned a wide range of activities such as the identification and acquisition of appropriate sites, grid integration studies, management of environmental approvals as well as other appropriate approvals stipulated



by the National Nuclear Regulator. Eskom has confidence that while it will be challenging, it is well within the overall capability of South Africa. The organisation is in support of the new nuclear build programme and is confident that it will prove to be a necessary cornerstone in South Africa's plans to move towards sustainable energy solutions while unlocking further economic growth.