WILLING-SELLER/WILLING-BUYER MODEL IN SOUTH AFRICA

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ABSTRACT
Accommodating willing-seller/willing-buyer arrangements could present a number of benefits to South Africa, including alleviation of power shortfall and the encouraging of investment. The main questions posed in this paper are: Can a willing-seller/willing-buyer model be accommodated within the current framework of a single-buyer model in South Africa and what are the key issues that would need to be considered?

INTRODUCTION
In September 2007, the South African government cabinet designated Eskom as the single buyer of power from Independent Power Producers (IPPs). Many details around this decision remain unclear and the implications to the power sector are yet to emerge but the intention seems to be that Eskom will play a significant role in procuring IPPs and will act as the off-taker for the power purchase agreements. It remains to be seen to what extent such a single buyer model will serve to stimulate the development of IPP projects in South Africa and neighbouring countries. A key question arising from the Cabinet decision is whether the single buyer model will preclude bilateral agreements between IPPs (from both within and outside South Africa) and captive customers in South Africa on the basis of a “willing-seller”, “willing-buyer” arrangement and the role to be played by the transmission system operator to facilitate such arrangements. This paper attempts to explore these questions within the context of the current challenges facing the power sector in South Africa.

SINGLE-BUYER MODEL AND WILLING-SELLER/WILLING-BUYER MODEL
Figure 1 depicts a simple schematic model of a seller of power or Independent Power Producer (IPP), a Transmission Company (TC) and/or a Distribution Company (DC) and a buyer of power or a customer. The IPP can either be located in South Africa or a neighbouring country and the customer located in South Africa.

In a typical single-buyer model, the IPP sells electricity to the single-buyer and the single-buyer sells the electricity to its customers. The electricity is sold to the buyer (i.e. the electricity changes ownership) at the point of connection of the IPP to the transmission system. The electricity is transported across the transmission system to the distributors and ultimately to the end-use customers. There is no direct contractual relationship between the IPP and the end-use customers. The IPP pays charges to the TC and/or the DC for the connection to the transmission/distribution system and for the use of the transmission/distribution system. In the willing-seller/willing-buyer model, the IPP may enter into a bilateral agreement with an end-user for the sale of the electricity generated. Typically, the electricity is sold to the end-use customer or the electricity changes ownership at the point of connection of the end-use customer to the transmission or distribution network. The IPP will be required to pay connection charges and wheeling charges to the TC and/or the DC and will typically recover these charges in the price it charges for the electricity sold to the end-use customer. The wheeling charges are structured so that the TC and/or the DC can recover the capital, operating and maintenance costs associated with transporting the electricity to the end-use customer.
Figure 2 depicts a willing-seller/willing-buyer arrangement (shaded generator circle and shaded load triangle, respectively) where the TC/DC system is used to wheel the power between the IPP and the load.

Alternatively, an IPP may in special circumstances, supply electricity to the end-use customer without wheeling the electricity through the transmission distribution system owned by the TC or DC as depicted in Figure 3.

The question that we pose is: Can a willing-seller/willing-buyer model be accommodated within the current framework of a single-buyer model and what are the key issues that would need to be considered? These questions and the issues arising are discussed further, below.

Precedent for the Willing-Seller/Willing-Buyer model in the current framework

It would appear that the South African government’s single-buyer cabinet decision precludes the willing-seller/willing-buyer model; however a number of Power Purchase Agreements (PPAs) directly between large mining houses and power developers are being investigated in South Africa at present. Some of these agreements have recently stalled due to the recent global financial crisis, however if one of these agreements does come to fruition, and the willing-seller/willing-buyer model is shown to work successfully while maintaining the necessary safeguards, it could be argued that a precedent will then have been set and the single-buyer model or cabinet decision would possibly require revising.

Alleviation of Shortfall

In the current environment, Eskom is experiencing challenges in meeting the demand for electricity primarily due to constraints in generation. To meet the demand for the next decade, Eskom and the Government have embarked on the return-to-service of mothballed plants, constructed new open-cycle gas turbine power plants, commenced construction of new coal fired and pumped storage power plants and initiated an IPP procurement processes. Despite these initiatives, the country will continue to experience very low levels of reserve margin in generation. If the willing-seller/willing-buyer model can be accommodated, it can supplement the efforts of Eskom and the Government and help alleviate the power shortfall over the next decade.

Encouraging Investment

The recent outages experienced and the prospect for a worsening reserve margin over the next decade have had a negative impact on investment outlook in the country. Many large customers are reassessing planned mining and industrial activities in the light of the power shortages. Some of the large customers may either individually or as a group be willing to act as the buyer in a willing-seller/willing-buyer arrangement thus preventing these projects from being deferred or cancelled.

Speed

In the willing-seller/willing-buyer model, the IPP enters into a Power Purchase Agreement (PPA) with the end user. The PPA is structured largely on commercial terms and the duration of the negotiations may be shorter due to the specific business requirements of the seller and the buyer. Eskom has embarked on competitive tender processes for the procurement of cogeneration capacity and large coal-fired power plants in the context of the single-buyer model. In a willing-seller/willing-buyer agreement involving two private parties (as opposed to state-owned entities), the commercial arrangements are to be negotiated between the two parties without the need for a protracted competitive tender process as would be required in the case of a single-buyer model.

Tariff

The current tariffs that Eskom charges to end-use customers are based on average tariffs and are likely to remain lower than the tariff from new power plants whether such new plants are owned by Eskom or IPPs. While the tariffs from new IPP plants would discourage many customers from entering into a willing-seller/willing-buyer arrangement, for
some customers, the availability of secure power (even at a price premium) may be attractive. Furthermore, given the expected increases in tariffs expected from Eskom over the next decade, there may not be a significant differential in tariffs from Eskom and new IPP power plants.

**Impact on Eskom, Distributors and Municipalities**

Care should be taken to ensure that accommodating the *willing-seller/willing-buyer* model should be targeted to ensure that Eskom, distributors and municipalities do not lose the income from existing large customers. This could be achieved by, for instance, limiting the *willing-seller/willing-buyer* model only to new customers above a specified level of demand.

**Firm Supply**

Buyers opting for the *willing-seller/willing-buyer* approach will need to understand the limitations of the Sellers’ back-up or firm capacity as the TC may be unwilling or unable to provide back-up supply in the event of unavailability of the Sellers’ plant or the IPP plant.

**Grid Code Compliance**

The IPP will be required to obtain all permits and licenses including generator, trading and/or possibly a transmission license and will be required to comply with the transmission and distribution Grid Codes which will ensure that there is little danger of IPPs and buyers putting the transmission system at risk in the arrangement described in Scenario 1 in Figure 2.

**CONCLUSIONS**

- It is not clear if the single-buyer model can accommodate any *willing-seller/willing-buyer* arrangements during the period when South Africa is expected to experience power shortages, however a number of PPAs directly between large mining houses and power developers are being investigated at present.
- Accommodating *willing-seller/willing-buyer* arrangements will present a number of benefits to South Africa, including alleviation of power shortfall and the encouraging of investment.
- There are likely to be customers who are willing to pay a premium for secure supply from an IPP in a *willing-seller/willing-buyer* arrangement.
- The impact on Eskom, distributors and municipalities should be taken into account when accommodating the *willing-seller/willing-buyer* model. For instance only new customers above a specified demand level may be considered.
- Buyers in the *willing-seller/willing-buyer* model will need to understand the reliability or back-up supply limitations of this approach.

**ACKNOWLEDGEMENTS**

The author wishes to thank Roy Estment of Eskom and PB Power colleagues for their contributions and advice in the formulation of this article.

**REFERENCES**
