1. Introduction

The position of “key industrial customers”, also referred to as potentially “contestable customers”, in the restructuring of the EDI has not yet been clarified by the policy makers. The first RED is planned for middle 2005 and this issue needs urgent attention. Key industrial customers form the engine of the South African economy and use large amounts of energy. In some cases their electricity consumption makes up more than 30% of their operating cost. As far back as 1996, Key Industrial Customers expressed their opinion, as part of an NER Large Customer Task Team, stating that they want “Choice of Supplier” in the Electricity Industry. In the industry many opinions exist about this topic, but unfortunately not enough time is devoted to this subject in the various restructuring debates.

The first part of this paper explores the various alternatives available to decision makers in the EDI restructuring phase before the introduction of a Multi-Market Model or full ESI restructuring and analyses the advantages and disadvantages for the major players such as the SA Government, REDs, Eskom, EDI Holdings and Key Industrial Customers.

2. Key Customer Definition

The definition of a “key industrial customer” which later changed to the term “contestable customer” was approved by the NER to include the following criteria:

i) Annual electricity consumption of ≥ 100 GWh
ii) On a single contiguous site
iii) Under a common management structure

This definition was incidentally also later accepted as the definition of a qualifying WEPS customer and is also currently applied to individual municipalities. There will of course be additional “market rule” requirements from the NER for potential wholesale participants as discussed in the second part of the paper.

3. Key Customer Needs

The needs of the key industrial market segment were expressed in the report of the NER’s Large Customer Task Team in 1996 and again in a position paper published by the Energy-Intensive Users Group. In summary, these are:

(1) Internationally competitive and cost-reflective pricing of electricity,
(2) Appropriate quality and reliability of supply,
(3) The ability to negotiate mutually beneficial contracts with their electricity supplier, and
(4) The right to choose their electricity supplier.

They also recognized the need to contribute to electrification and rural levies, but would be unhappy to contribute to municipal taxes on top of it. The preference is rather to be taxed on profits.

4. Key Customer Options

When one considers the various options that could be considered in deciding how to deal with key industrial customers during the restructuring of the EDI, five possibilities come to mind. These are:

A. All customers are allocated to the REDs (REDs)
B. Key Industrial Customers are allocated to Eskom and the rest of the (captive) customers are allocated to the REDs (Eskom) (A variation of this option could be that both Eskom and the Munics/REDs retain their existing key industrial customers.)
C. Key Industrial Customers are offered (limited) choice between Eskom and the REDs (Limited Choice)
D. Full retail contestability is introduced to the key industrial segment (Contestability)
E. Contestability is phased in to a wider customer base but restricted to the industrial segment. (Phased Contestability)
When one considers the merits of these options, the assumption is made that contestability or customer choice could be introduced without introducing generation competition at the same time. The energy rates will therefore be regulated as part of the WEPS methodology.

5. Evaluation Criteria

Any option needs to be tested and the following factors have been identified as possible evaluation criteria:

i) Political Acceptance by all players
ii) Skills Availability
iii) SA Economic Impact
iv) Customer Acceptance
v) Impact on RED viability
vi) Impact on Market Liberalisation

The difficulty in choosing criteria is that someone else will always come up with another set. Be that as it may, the author has based his analysis on the above.

6. Analysis of options

The analysis of the options become very complex as each of the options needs to be viewed from the major stakeholders’ point of view, these being Key Industrial Customers, REDs, Eskom and the Government.

6.1 Political Acceptance by all players

There is a perception that unless the REDs have the full geographical customer base within its supply area, it will not be able to levy electricity for cross-subsidisation purposes. This is further exacerbated by the picture of total revenue contribution to the total ESI. This issue is further discussed in 6.5 below. I believe a better understanding of the revenue flows in the industry will assist in making a more informed decision.

6.2 Skills Availability

Over the last few years, Eskom has identified critical skills required for the industry and has embarked on extensive training and development programmes, specifically in the specialist areas of electricity pricing, energy trading and forecasting. The complex capability for trading has been built up in the Eskom regions and is still in the process of further development. However when one considers the specialist nature required to deal with contestable customers, there are not enough skills to go around in six REDs. That is why Eskom has centralised the critical skills required to service this complex customer market. The type of complexities that arise are related to issues of special agreements such as commodity-linked and foreign currency agreements and related risk management and hedging mechanisms as well as mechanisms to motivate customer participation in dynamic short term products. In the absence of an electricity market, these products are developed in close co-operation with the System Operator and Eskom Generation to facilitate customer participation.

6.3 SA Economic Impact

Electricity has provided South Africa with a real competitive edge over the past decade and has enabled large energy-intensive industries located in South Africa to compete effectively in the international market. A number of key industrial customers have special pricing agreements with Eskom that enhances customer competitiveness. There are also some customers with a national focus that prefer dealing with a national supplier for consistency and predictability.

However, one of the major considerations in attracting investment to South Africa, is the role of a central marketing arm working closely with the Department of Trade and Industry and the Industrial Development Corporation. When a company considers South Africa as a potential location for investment, it would not know from the outset in which geographic area to set up. The negotiation process to conclude an acceptable electricity supply agreement is generally very complex because of the unique requirements of this type of investor.

There are several countries in the world able to provide a favourable environment to energy intensive users. The establishment of a single retailer with the ability to service the key industrial market is a vital strategy to maintain South Africa’s competitiveness against other countries in attracting energy-intensive users. The industry needs a national focus to promote South Africa - not several regional entities competing with each other and also competing against other countries.
When the national environment encourages the attraction of new energy-intensive investments, then every industry and individual in South Africa will benefit from associated economic growth.

6.4 Customer Acceptance

As key industrial customers have repeatedly stated their preference for customer choice, it seems obvious that their preference would be any one of Options C, D or E.

6.5 Impact on RED viability

The fact that the revenue from key industrial customers comprises 40% of Eskom’s revenue, has led to a perception that REDs will not be viable if they do not have this revenue as part of their direct customer base. However, the retail margin for this market segment is around 2 to 3%. This is due to a large portion of the revenue being returned to the REDs in return for the use of distribution wires, as well as the payment of electrification and rural levies.

The short answer therefore is that the financial impact of not having access to the revenue generated by key industrial customers is really 2 to 3% of 40% resulting in an impact of approximately 1% of the total revenue of the Industry. This amount is not going to affect the viability of a RED materially.

However, the major factor that is often overlooked in discussions on this subject is the issue of commodity and currency risk exposure in this market. The possible annual swing in revenue from Aluminium agreements alone can easily wipe out the margin referred to in the previous paragraph. It is also doubtful if a newly formed RED would be able to offset this risk with a financial institution due to the stringent balance sheet requirements from financial institutions.

Internationally, generators have recognised the need for agreements with retailers to reduce their risk in investments in generation capacity. Retailers in turn need access to generation capacity to meet their commitments to customers. The integration of generation and retail is an important development to reduce risk - and reduced risk means reduced cost for consumers.

6.6 Impact on Market Liberalisation

The Energy White Paper calls for the introduction of competition into the South African Electricity Market and this issue has also been favoured by Government over the past few years. However, international incidents and experiences seem to have influenced a reluctance to move too fast with the ESI restructuring. It nevertheless still seems as if a market, or at least a limited market system, will be introduced at some time in the future. It is therefore important to have the necessary mechanisms developed timeously. Examples of such mechanisms are the development of the Wholesale Electricity Pricing System, appropriate Wheeling Charges and the like. Clearly the options allowing customer choice will be a step towards a competitive market, whilst retaining the monopoly relationship with customers as suggested in options A and B, will not be moving forward.

This is especially true if the REDs are going to set up as bundled retail and wires entities. When one considers option B on the other hand, Eskom has created a special division to focus on this particular customer segment. By setting up this division, Eskom has identified many issues in terms of the unbundling of the various relationships and agreements between the various internal components that make up Eskom and the industry. Examples of this are the relationship with the wires owners, energy procurement, and ancillary services.

7. Conclusion

The high level analysis done in this paper confirms that we are dealing with a complex issue, but in the end, the right decision should be one that is in the broader interest of customers and of course the South African economy. The main purpose of this paper was to ensure that the members of the AMEU receive a wider understanding of the issues surrounding the key industrial customer market, with the view of addressing certain incorrect perceptions.
If one then considers the various options put forward in this paper, it certainly appears that Option C, that is “Limited Customer Choice”, offers the best solution for the industry at this point in time. Alternatively, Option B could be considered if a simpler solution is sought before the introduction of complex mechanisms such as contestability. In this scenario, it would probably be advisable that both Eskom and the Municipalities retain their existing customers going into the REDs.

8. References

8.1 NER Large Customer Task Team Report – 1996
8.2 EIUG Position Paper on Electricity Supply Industry Restructuring – 1999
8.3 WEPS reports - 2004