



South African Institute of Electrical Engineers



SARPA ANNUAL CONVENTION 2010-07-29/30

BEYOND MYPD(2) 2009 – SAIEE PERSPECTIVE

DU TOIT GROBLER

SAIEE CENTENARY PRESIDENT 2009

IntPI(SA)(EE), Pr Ing, Pr Dipl Ing

B Sc(Ing)(Elek)(Pret)

FSAIEE, SMICMEESA

CONTENTS

- The SAIEE
- Background
- Developments since MYPD (2) 2009
- Anomalies in structures in the country
- What happened to the SAIEE comments
- Conclusion

THE SA INSTITUTE OF ELECTRICAL ENGINEERS

- ESTABLISHED 101 YEARS AGO IN 1909
- A VOLUNTARY LEARNED SOCIETY OF ELECTRICAL ENGINEERING PRACTITIONERS: ENGINEERS, CERTIFICATED ENGINEERS, TECHNOLOGISTS AND TECHNICIANS, RECOGNISED BY ECSA
- 5500+ MEMBERS MANY OF WHOM ARE REGISTERED AS ENGINEERING PROFESSIONALS WITH ECSA
- 6 ACTIVE CENTRES AND 2 INTEREST GROUPS IN THE COUNTRY
- MEMBERS INCLUDE ORDINARY HOUSE HOLD CONSUMERS OF ELECTRICITY, ACADEMICS, ENGINEERING CONSULTANTS: IN-HOUSE AND IN PRIVATE PRACTICE, PRACTITIONERS IN INDUSTRY, COMMERCE, GOVERNMENT RESPONSIBLE TO GENERATE, DISTRIBUTE AND APPLY ELECTRICAL POWER IN INDUSTRY TO PROVIDE IN THE NEEDS OF THE CITIZENS OF THE COUNTRY AND TO CREATE WEALTH FOR ALL

BACKGROUND

- The SAIEE registered as a stakeholder and invited its members to comment on the Eskom MYPD(2) 2009 application for 35% tariff increases dated 2009-11-30.
- The SAIEE submitted to NERSA a response base on the comments received from its members on 2009-12-14.
- The SAIEE made presentations based on its response at 5 of the NERSA public hearing held around the country between 2010-01-12 and 2010-01-22.
- On 2010-02-24 NERSA announced increases for the three year commencing on 2010-04-01 24,8%, 25,8% and 25,9% respectively for direct Eskom customers and 15,33%, 16,03% and 16,16% for municipalities who received 34% increases during 2009/2010.
- On 2010-03-16 NERSA announced increases between 19 and 21% for all other municipalities.

DEVELOPMENTS SINCE MYPD(2) 2009

- **1. Integrated Electricity Resource Plan: IRP(2)(E)2010**
- IRP(1) 2009 was published on 2009-12-31 to meet one of NERSA's prerequisites for the MYPD(2) 2009. The less said about that document the better.
- The Department of Energy has commenced work on the preparation of the 20 year IRP (2) (E) 2010 which is intended to become part of an Integrated **Energy** Plan for the country. There is no known progress on the latter.
- 29 Input parameters were published and commented on by the public in plenary meetings on 2010-07/8 and in writing by 2010-06-11. The SAIEE is a registered stakeholder.

DEVELOPMENTS SINCE MYPD(2) 2009

- **1. Integrated Resource Plan for Electricity (cont)**
- 831 Responses were received and were collated into the updated Input Parameters on which the modelling was based.
- During August 2010 the DraftIRP2010 will be subjected to inter-governmental consultation and then published in the Government Gazette 2010 for public comments.
- Plan to be revised reviewed and updated regularly
- The concern remains that what is not in the plan, will not be allowed in future

DEVELOPMENTS SINCE MYPD(2) 2009

- **2. National Planning Commission (NPC)**
 - 25 Members were announced on 2010-04-31
 - Chaired by the Hon Trevor Manuel, Min in the Presidency
 - “The NPC will be responsible for developing a draft long term vision and strategic plan for SA. The process of developing this draft plan will include discussion and engagement across our country and will also provide opportunities for people to come forward with ideas and suggestions. This draft will be considered by Cabinet and accepted, amended or rejected. The NCP will also advise on cross-cutting issues that impact on SA’s long term development.” Quote:<http://www.thepresidency.gov.za/nationalplanningcommission.asp>

DEVELOPMENTS SINCE MYPD(2) 2009

- **3. MYPD(3) 2012**
- **According to Mr Mohamed Adam Snr Gen Manager: Reg Affairs, Eskom one of the Future priorities of Eskom is the preparation of the MYPD(3) 2012**
- **Other future Priorities include:**
 - Establish regulatory function/capability
 - Pricing:
 - Development of a long-term price path
 - Align with NERSA reporting framework
 - Industry structure - independent system operator,
 - introduction of IPP's
 - EDI restructuring

DEVELOPMENTS SINCE MYPD(2) 2009

- **3. MYPD(3) 2012 (continued)**

- **Regulatory strategy**

- Identify regulatory topics and risks
 - Enhance communication and transparency
 - Clarify the roles of corporate and divisions
 - Co-ordinate/lead discussions with NERSA on key priorities
 - Provide guidance on inter-divisional issues to ensure alignment to overall strategy

- SOURCE: http://www.eskom.co.za/annreport10/rlf_affairs.htm

ANOMALIES IN STRUCTURES IN THE COUNTRY

• 1. Promotion of a culture of energy efficiency

- In the current circumstances this is essential.
- In 2000 Government committed to the provision of free basic electricity and water to the poor and is since doing so. In itself commendable.
- In 2005 the Department of Minerals and Energy introduced the voluntary Energy Efficiency Accord which provided for the reduction energy consumption by 2015 by 15% against a base of 2000.
- The latter initiative which is driven by the NBI and is widely supported by Industry certainly promotes energy efficiency – the former certainly does not.

ANOMALIES IN STRUCTURES IN THE COUNTRY

• 2. Tariff versus Consumption

- Large industrial consumers of electricity enjoy the benefits lower tariffs for obvious reasons.
- Larger domestic consumers of electricity are penalised through block tariffs.
- Is this an anomaly?

ANOMALIES IN STRUCTURES IN THE COUNTRY

• 3. Demand Side Management Initiatives

- The Eskom tariff structures allows for DSM
- Previously load shifting (LS) projects attracted a 100% subsidy and energy efficiency (EE) 50%
- Projects are funded up to 100%; the funding for LS is only 75% of the allocation for EE and the threshold only R3,5m versus R5,2m/MW
- How does one view that against the daily presence of two definitive daily demand peaks; Eskom spending billions of Rands on the Ingula pumped-storage peaking station.

ANOMALIES IN STRUCTURES IN THE COUNTRY

• 4. Compliance with Rules

- NERSA announced municipalities on 2010-02-24/03-16
- Applications for increases outside those announced forced NERSA to arranged public hearings to give stakeholders opportunities to object to those increases.
- NUS Consulting Group compared the cost of electricity in a number of SA cities to that of Eskom prior to 2010-07-01

Johannesburg	151	Witbank	139	Vereeniging	137
Durban	132	Port Elizabeth	127	Cape Town	124
Sasolburg	121	East Rand	120	Pietersburg	112
Pretoria	112	Eskom	100	Richards Bay	83

Source: Stephan Dolk, NUS Consulting, Tel 011 268-4500, s.dolk@nusconsulting.co.za

Posted: 04 June 04, 2010

<http://www.eepublishers.co.za/view.php?sid=21758>

WHAT HAPPENED TO THE COMMENTS MADE BY THE SAIEE?

- Comments made by the SAIEE in response to Eskom's revised application for a tariff increase in terms of MYPD(2) 2009 included acknowledgement of the **Good**, the **Bad** and the **Ugly** in the application, and the expression of **Concerns, Ideas and Recommendations** in response to the application.
- The submission can be downloaded from the SAIEE Website: <http://www.saiee.org.za/saiee001.pdf>
- What has happened to all of this since the announcement of the tariffs for the next three years by NERSA on 24 February 2010

WHAT HAPPENED TO THE SAIEE COMMENTS?

- **1. Special Pricing Agreements**
- **Good:** High energy users in Industry who may have had the advantage of effectively subsidised electricity in the past will need to carry a more equitable share of the costs in the future.
- Although the SAIEE was severely criticised by industry circles for this comment, Eskom since then entered into discussions with Anglo American and Billiton to re-negotiate long standing below standard tariff agreements with consumers both inside and outside the country.

WHAT HAPPENED TO THE SAIEE COMMENTS?

• 2. ACCESS TO THE GRID

- **Good: Industry that generates surplus electricity during the normal production process can contribute to the grid supply, when suitable long term commercial structures have been mutually agreed**
- Some progress has been reported with the conclusion of Power Purchase Agreements (PPA) between private suppliers of power and Eskom to deliver power to the grid.
- Progress is rather slow in other areas such as the wheeling of private power via the existing transmission infra-structure.
- Lack of agreement left the IPSA gas fuelled power plant in Newcastle unused for months. Recently a short term PPA to deliver power to the grid for 9 days, was concluded.

WHAT HAPPENED TO THE SAIEE COMMENTS?

• 3. THEFT OF ELECTRICITY

- **Concern: Higher prices will drive energy theft and the concomitant risk to human life is also increased.**
- During the public hearings Eskom criticised this comment.
- Theft is rife and on the increase. It contributes to higher electricity prices and the recorded deaths of those making the illegal connections and public in the vicinity of these connections where illegal take-off had been made.
- Eskom and municipalities lose more than 5% of their annual turnover to electricity theft, Energy Minister Dipuo Peters said in recently. She said that up to 50%, or 5850 GWh, of losses in the 2008/09 financial year appeared to be the result of theft of electricity.

WHAT HAPPENED TO THE SAIEE COMMENTS?

- **4. THEFT OF TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE**
- **Concern: The growing extent of theft of electrical infrastructure**
- Copper cable theft costs the SA economy R7-billion a year and Telkom is now pushing government for thieves to be charged with sabotage. No extensive plans have been announce by either Eskom or local authorities to combat the theft of copper cables and other items off the transmission and distribution grids. Recently Public Enterprises Minister Barbara Hogan said that copper may be designated a precious metal to make it more difficult for thieves to trade in stolen copper.

WHAT HAPPENED TO THE SAIEE COMMENTS?

- **5.CROSS-SUBSIDISING IN THE ELECTRICAL SUPPLY INDUSTRY**
- Unintended consequence: Eskom's contribution to the consumer price of electricity is not the only contributing factor and the intermediaries, add layers of inefficiency to the delivery of the service along with multiples of price overheads that are passed on effectively implying that consumers cross-subsidise other municipal inefficiencies. Multiple mark-ups of Eskom rates by Municipalities should not be allowed.
- The practise of cross-subsidising is going ahead unabated and in fact is expanded .

WHAT HAPPENED TO THE SAIEE COMMENTS?

• 6. DAYLIGHT SAVINGS AND TIME ZONES

- Idea: Daylight saving and splitting South Africa into two time zones will spread the peak energy demand across a broader timeframe, thus easing pressure on the reserve margin and buy us time to explore more efficient solutions to the capacity challenge.
- Studies have shown that daylight savings and different time zones can lead to a saving of up to 0,5% through energy savings and 2,6% in the maximum demand. It worth noting the country such as Namibia has introduced daylight savings.

WHAT HAPPENED TO THE SAIEE COMMENTS?

- **7. ELECTRICITY PRICING INDEX**
- **Ideas: The Electricity Regulator must publish on a regular basis, at least twice a year, comparative prices of the different categories of electricity supply prices world wide. This will eliminate speculation both by Eskom and consultants**
- NERSA's response at the Public Hearings, was not encouraging and to date no progress has been made. A recent presentation by Eskom clearly indicated that the 25% year on year increase in the tariffs will move the SA price of electricity well away from being the cheapest in the world.

WHAT HAPPENED TO THE SAIEE COMMENTS?

- **8. MONITORING OF ELECTRICITY PRICING TO ALL CONSUMERS**
- **Recommendation: NERSA must monitor the consumer price of electricity (bulk, industrial and residential) and ensure that unreasonable profits are not carried through from the Eskom wholesale pricing to the retail pricing of electricity.**
- There is little evidence that this is happening effectively if one looks at the price increases being imposed by local distributors of electricity.

CONCLUSION

The SAIEE is continuing to monitor the developments and to take part in initiatives such as the development of the DoE IRP(E)(2) 2010, the work of the newly established National Planning Commission and the Eskom MYPD(3) 2012.



THANK YOU FOR YOUR ATTENTION



“VIS NULLA SINE SCIENTIA”

“THERE IS NO STRENGTH WITHOUT KNOWLEDGE”

du Toit Grobler

IntPI(SA)(EE), Pr Ing, Pr Dipl Ing

CENTENARY PRESIDENT 2009

SA INSTITUTE OF ELECTRICAL ENGINEERS

+27-(0)11-407-8431 (B)

+27-(0)86-673-0887 (F)

+27-(0)83-666-6855 (M)

du.toit.grobler@sappi.com