South Africa: Electricity Pricing Considerations

Presentation at the National Electricity Summit

16 May 2008
Eskom Application for a Review of the 2008/9 Price Increase in Context
As a result Eskom’s Average Selling Price has been declining.
If prices kept up with inflation alone since 1990, this would translate to a tariff level close to what is achieved with a 60% increase in 2008/09.

The resultant tariff is within 7% of what is currently requested by Eskom.

2005 (Nominal equivalent) 2006 (Nominal) 2007 (Nominal) 2008 (Nominal)
Input Costs

• Coal and Diesel form a large part of Eskom’s input costs

• Prices of these two Primary Energy sources have been rising at a rate much higher than inflation whilst Eskom’s prices have been declining in real terms

• Input Costs have been rising at a rate higher than inflation vs. Eskom’s price which has been declining in real terms
Producer Price Inflation – Coal (rising faster than CPIX or PPI)

Since January 2004, Coal index has increased by 93% compared to PPI of 29%

Source: StatsSA P0142.1 PPI Report Table 14, Mining and Quarrying - Coal
Producer Price Inflation – Diesel
(rising faster than CPIX or PPI)

Since January 2004, Diesel index has increased by 190%
compared to PPI of 29%

Source: StatsSA P0142.1 PPI Report Table 16, Diesel Oil- Coast and Witwatersrand
What has Eskom Applied for?
Application for Review of 2008/9 Price Increase based on:

- Primary Energy Expenditure > MYPD Allowance of R 12.921bn over the current 3 year period:
  - 2006/7 (Actual) = R 2.041bn
  - 2007/8 (Projected) = R 5.489bn
  - 2008/9 (Forecast) = R 5.391bn

- Accelerated Demand Side Management Expenditure > MYPD Allowance of R2.518bn over the current 3 year period (Target increased from 459MW to 1414MW):
  - 2006/7 (Actual) = R 226m
  - 2007/8 (Projected) = R 279m
  - 2008/9 (Forecast) = R 2.013bn
Proposed Price Increase (53% Real/60 Nominal)
Additional Cost Recovery of R21.037bn for the MYPD (2006/7-2008/9)

Awarded 20 December 2008 = R 5 598bn
Additional Applied for = R 15.439bn

<table>
<thead>
<tr>
<th>Price %</th>
<th>Budget 2008/9</th>
<th>PE 2008/9</th>
<th>PE 2007/8</th>
<th>PE 2006/7</th>
<th>DSM 2008/9</th>
<th>Total</th>
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<tbody>
<tr>
<td>(R 5 598m)</td>
<td>14.05%</td>
<td>13.53%</td>
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<td></td>
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<td>52.79%</td>
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<tr>
<td>(R 5 489m)</td>
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<td></td>
<td>13.77%</td>
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<td>(R 2 041m)</td>
<td></td>
<td></td>
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<td>5.12%</td>
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<td>(R 2 518m)</td>
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<td></td>
<td>6.32%</td>
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<tr>
<td>(R 5 391m)</td>
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Total: 52.79%
Cents per kWh (Constant Rands) – 53% (real)
Annual Price Increases Going Forward (based on 53% increase in 2008/9)

Real Price Increases (above CPIX)

-20%  -10%  0%  10%  20%  30%  40%  50%  60%  70%  80%  90%  100%


Actual (1%)

PE Full MYPD + DSM Full (53%)
Proposed Tariff Smoothing

• To limit the negative effects of a sharp increase of tariffs on the economy and poor households

• Proposals have been developed to smooth the tariff over the next 5 years

• However it is critical that the wholesale tariff reach 46c/kwh by 2011/12, which would be Eskom’s levelised costs
Proposed Smoothing Options
Real Price Increases

<table>
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<tr>
<th>Year</th>
<th>Trajectory 2</th>
<th>Trajectory 5</th>
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<tbody>
<tr>
<td>'2007/8</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>'2008/9</td>
<td>35%</td>
<td>10%</td>
</tr>
<tr>
<td>'2009/10</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>'2010/11</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>'2011/12</td>
<td>20%</td>
<td>35%</td>
</tr>
<tr>
<td>'2012/13</td>
<td>5%</td>
<td>40%</td>
</tr>
</tbody>
</table>
Implications of the smoothing

• Smoothing effectively means that in year 1, there is an under recovery of revenue which must be funded by an equity injection into Eskom;
• Tariff increases remain high for a longer period to allow the recovery of all allowable revenues;
• Partly as result of the smoothing of the revenue required and the current sub-prime crisis, there is significant risk of a funding shortfall for Eskom’s investment programme.
Trajectory 2 (33% Real in 2008/9)

In 2007/08 and 2008/09 almost zero returns due to rules of existing MYPD seen in projections for 2007/08. From 2009/10 returns escalate BUT assumes smoothed price increases.
Protecting the Poor

• Implementation of Differential Tariff Increases to protect the Poor.

• Homelight is the tariff Eskom offers for the low income sector. The similar tariff type for SMME is Businessrate4.

• Note that most municipalities offer the same type of tariff for the poor (so-called “lifeline” tariffs), but it will be incumbent on Nersa to ensure Munics adopt a similar approach and implement differential tariff increases.
Differential Increases applied (Eskom Tariffs) to achieve 33% (real) revenue increase for 2008/9

<table>
<thead>
<tr>
<th>Eskom Tariff</th>
<th>Increase (2008/9) (%)</th>
<th>Average Monthly Bill</th>
<th>Increase (2008/9) (Rands)</th>
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<tbody>
<tr>
<td>Homelight 20A</td>
<td>15.0%</td>
<td>R 45.27</td>
<td>R 52.06</td>
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<tr>
<td>Homepower</td>
<td>41.9%</td>
<td>R 367.63</td>
<td>R 521.66</td>
</tr>
<tr>
<td>Businessrate1</td>
<td>41.9%</td>
<td>R 465.11</td>
<td>R 659.99</td>
</tr>
<tr>
<td>Businessrate4</td>
<td>15.0%</td>
<td>R 305.58</td>
<td>R 351.42</td>
</tr>
</tbody>
</table>

- The price increase is assumed over the full Eskom financial year and is expressed as a nominal value (includes inflation).
- CPI-X of 7% assumed
- Municipalities will experience a 53.5% increase in bulk tariff due to a 9 month recovery period in compliance with the MFMA
Conclusion
Why an immediate Tariff Increase?

- Eskom has already spent more on primary energy and demand side management than was budgeted for in the MYPD and will need to accelerate its spend further.
- The Eskom build programme is crucial in the light of the growing electricity demand. A sustainable balance sheet is critical as the bulk of Eskom funding is sourced from the capital markets.
- By 2012 the actual marginal costs of producing electricity will increase to about 46 cents/kwh. Therefore tariffs have to approach this level over time.
- In this context smoothing is proposed given the fact that the 46 cents has to be achieved in 4 years time, therefore the tariff decreases substantially in Year 1 but remains at a relatively high level for the next 3 years before it approaches CPIX.
Initiatives to control Eskom’s cost drivers

- DSM – crucial in ensuring efficient energy utilisation in general
  - Reduced demand means reduced primary energy demand
- Coal strategy – working with DME to increase the amount of coal sourced from cost plus mines
- Operational efficiency and maintenance practice improvements by Eskom
  - Comprehensive benchmarking of Eskom operations
  - Modernisation of maintenance practices
- Capital inputs for the build programme
  - Local source strategy along with local manufacturing capability development
Conclusion

- Electricity tariffs must reflect the economic costs of production.
- A smoothing of the tariff is proposed over the next 5 years
- A pro-poor tariff structure is proposed for distribution customers within Eskom and Municipal supply areas.
Thank you