Eskom's MYPD2 (2010/11 – 2012/13) Revenue Application

Briefing to the Parliamentary Portfolio Committee on Public Enterprises

By the

National Energy Regulator of South Africa

(NERSA)

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Presentation outline

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Electricity Price Regulation Background (1)

- Regulation of electricity prices started after the National Electricity Regulator (NER) was established in 1995.
- At the time of first licensing there were 379 electricity distributors, after the rationalisation of local government in 2000 the number was reduced to 177.
- The initial efforts of the regulator were directed at rationalising tariff structures and achieving transparency and cost reflective pricing.
- The following standards and guidelines were established by the NER:
  - Tariff structuring guidelines – to achieve alignment between distributors;
  - Cost of supply methodology – to guide the establishment of cost reflective tariffs;
  - Framework for negotiated pricing agreements – to provide the principles for negotiating price agreements to new energy intensive loads.
  - Wholesale electricity pricing system (WEPS) – to set a transfer price for electricity within Eskom to Eskom and other transmission connected distributors.
- Initially Eskom's price adjustments were regulated by pricing compacts
  - Customer compact to reduce the real price of electricity by 20% between 1992 and 1996;
  - RDP commitment to reduce the real price of electricity by 15% between 1994 and 2000.

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Electricity Price Regulation Background (2)

- The analysis of Eskom's price increase application by the Regulator improved each year. The development of a uniform regulatory methodology for Eskom and Municipalities was initiated in 2001.
- The Eskom price increase application for 2003 was unbundled for the first time into separate applications for their regulated businesses of generation, transmission and distribution.
- In 2003 a framework for economic regulation based on the Rate of Return (ROR) Methodology was approved for application in the determination of the Eskom 2004 price increase.
- In 2005 it was decided to move to a multi-year price determination (MYPD) for Eskom covering the period April 2006 to March 2007. The MYPD would allow price stability in the period when Eskom would start providing for massive capital investments in new generation capacity.
- In February 2006 the first MYPD revenue requirement was decided on by the NER granting Eskom a price increase of CPI plus 1% (5.1%, 5.9%, and 6.2% for financial years 06/07, 07/08, 08/09 respectively) .

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Electricity Price Regulation Background (3)

- The National Energy Regulator (NERSA) was established on 1 October 2005 Its predecessor, the National Electricity Regulator (NER) regulated the electricity industry from 1995 until 16 July 2006.
- On 30 April 2007, after one year of operating under the MYPD1 control, Eskom applied for a rule change to reduce their revenue risk exposure.
- On 20 December 2007, following wide consultation, the Regulator:
  - Declined the rule change for consideration in the second MYPD, but recognised Eskom's capital financing needs;
  - Granted Eskom a 14.2% increase in 2008/9, translating into a 12% increase for municipalities.
- From January 2008 to March 2008 Eskom engaged in extensive load shedding due to a national electricity supply shortage.
- On 18 March 2008 Eskom applied for a revision of the 14.2% increase to 60% from 1 April 2008 based on changes in its business environment, increased primary energy costs and an accelerated DSM programme due to the power conservation programme (PCP).
- On 18 June 2008, the Regulator approved a price increase of 13.3% in addition to the already approved 14.2% (27.5% overall increase for 2008/9).

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Electricity Price Regulation Background (4)

- Eskom did not apply for the MYPD2 price control in September 2008 and postponed their submission date pending the resolution of a funding model with Government.
- DOE published the South African Electricity Pricing Policy (EPP) in December 2008.
- In January 2009 the MYPD2 rules were approved by the Energy Regulator following consultation and a public hearing.
- On 5 May 2009 Eskom applied for a 34% price increase. The Regulator granted a 31.3% increase, including that Eskom absorb the 2c/kWh environmental levy imposed by the Minister of Finance from 1 July 2009.
- Eskom now has now submitted their MYPD2 revenue application for April 2010 to March 2013 by end September 2009 to obtain the necessary approvals for implementation in March 2010.
- Despite the large nominal increase in Eskom's prices, in real terms it is still below the price level experienced during the generation expansion in the 1970's.

Electricity price trend

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Requirements of the Act

- Section 15 of the Electricity Regulation Act, 2006 (Act No 40 of 2006) requires inter alia that:
  - *"The regulation of revenues*
    - *Must allow an efficient licensee to recover the full cost of its licensed activities, including a reasonable margin or return;*
    - *Must provide for or prescribe incentives for continued improvement of technical and economic efficiency with which services are to be delivered."*
  - *"Charges and tariffs*
    - *Must give end users proper information regarding the costs that their consumption imposes on the licensees business;*
    - *Must avoid undue discrimination between customer categories;*
    - *May permit the cross-subsidy of tariffs to certain classes of customers".*
- Various regulatory methodologies are used to ensure that the allowed revenues, charges and tariffs comply with the requirement of the Act.

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Rate of Return (ROR) Methodology

- The ROR methodology is applied on an annual basis and does not provide incentives.
- ROR was used for regulating Eskom's revenue from 2003 to 2005 and is currently being implemented for regulating the electricity distribution businesses of Metros.
- Key requirements to implement the methodology are:
  - Ringfencing of assets and expenditure for the electricity business;
  - A starting value of the regulatory asset base.
- The allowed revenue consists of the following components:
  - Allowed operating expenses based on rules;
  - Allowed assets based on rules – the Regulatory Asset Base (RAB)
  - Allowed return on the RAB based on the weighted average cost of capital (WACC)
  - Correction factor to claw-back or return over or under recovery of revenue.
- Allowed revenue is the tariff revenue net of charges (E.g. connection charges) and negotiated pricing agreements (NPA).
- Tariff revenue divided by the target budgeted sales volume gives the average price (c/kWh). The price increase is expressed as a % of the actual price in the previous determination.

ROR Formula

WACC Formula

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Multi year price determination (MYPD)

- The MYPD is applied to Eskom over a 3 year control period.
- The multi year approach provides certainty of price increases in the control period and smoothes the price increase over the control period.
- Each business (Generation, Transmission, Distribution) is regulated separately to manage the complex interrelationships;
- The allowed revenue of Distribution determines Eskom's retail tariff
- The allowed revenue of each entity consists of the following components:
  - Expenditure: Cost of sales, Operating expenditure and Depreciation
  - Return on the Regulatory Asset Base (as for ROR)
  - Service incentives (Tx and Dx quality of supply incentives: System minutes, SAIDI; EEDSM allowance)
  - Ex post risk management adjustments (variances in sales volume, primary energy expenditure, capital expenditure, CPI)
  - Correction factor to claw-back or return over or under recovery of revenue.
- Note that capital recovery is not provided for, but that planned capital work under construction is included in the RAB.
- The determination may be re-opened when certain control parameters are exceeded (size of adjustments, variance from target earnings).

Interrelationships

MYPD Formula

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Municipal Tariffs

- Municipal electricity distributors are provided with an annual price increase guideline based largely on the Eskom price increase.
- Municipalities that wish to deviate from the guideline need to fully motivate for such deviations.
- The Guidelines includes the following aspects:
  - Guideline % price increase.
  - Target expenditure on maintaining electricity infrastructure (>5% Revenue)
- Benchmark tariff levels are provided for municipal distributors grouped per RED for the following customer categories:
  - Domestic low (100kWh/m), Domestic high (800kWh/m)
  - Commercial / Commercial prepaid
  - Industrial
- Municipalities submit applications for tariff increases and structural adjustment to the Regulator after municipal budgets have been approved
- Challenges include:
  - Compliance with timelines for approvals by Council and Regulator
  - Failure to submit information on financial and operational performance to the Regulator
  - Failure to obtain approval from the Regulator (Illegal tariffs)

Benchmark price levels

Timeframes

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Eskom Retail Tariff Structural Adjustments (ERTSA)

- Tariffs are the means to recover the utility's revenue;
- Tariffs need to be structured in the combination of different charging parameters that will recover the revenue
- The Act and the Electricity Pricing Policy of the DOE guides the structuring of tariffs
- A 5 year tariff plan guide the design of Eskom's standard retail tariff structures to comply with requirements
- Key issues are:
  - Making tariffs more cost reflective
  - Unbundling tariff components
- Structural changes to Eskom are approved by the Energy Regulator following consultation. Changes are implemented with Eskom's price increases

Eskom Tariffs

Cost reflectivity

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Negotiated Pricing Agreements (NPAs)

- NPAs are agreements with large industrial users entered into by Eskom during the period of excess generation capacity (1990 to 2000)
- Basis for NPAs are:
  - Negotiated with new industries for which the electricity price is a key factor for establishing the industry in South Africa (smelters);
  - Available to all customers in that industry;
  - Negotiated at the highest price above the marginal cost of electricity such that sales to the industry reduces the fixed cost of Eskom which would be payable by tariff customers.
  - Duration as short as possible to meet the objectives of the various parties involved in the NPA. Duration should not exceed the period of surplus capacity
- All NPAs with short contract periods have run out.
- Current NPA consumption amounts to 7.5% of Eskom sales.
- NPA Characteristics
  - Most of the NPAs are commodity price and foreign currency linked;

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Protecting the Poor (1)

- Addressing affordability is a major issue during periods of high price increases
- The following measures have been introduced to protect the poor:
  - Facilitating access to electricity through government subsidised electrification;
  - Free basic electricity (FBE) to the indigent. First 50kWh/m is provided free of charge. Subsidised from the fiscus.
  - Free connections provided to Eskom's low consumption residential customers;
  - Lower price increases applied to low consumption domestic customers. (15% vs. general increase of 31.3% for 2009/10)
- Residential inclining block (RIB) tariffs being investigated by regulator.

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Protecting the Poor (2)

- Electricity Pricing policy: Qualifying customers shall be subsidised through the application of a life line tariff (single energy rate with no fixed charge and limited in capacity to 20 Amps with a nominal connection fee).
- Further options that could be implemented include:
  - Increase the FBE volume;
  - Making low consumption domestic tariffs VAT free;
  - Energy efficient housing.
- The principles of cost of supply and cross subsidies need further debate for equitable tariff structures and tariff levels:
  - Review the current interpretation of "life line" tariff. One part and two part tariffs
  - Review the current principle of "inclining block" tariffs. Eskom Residential Tariffs
  - Allow equity considerations to influence common cost allocation

Cross subsidies

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MYPD2 Application

- Application received from Eskom on 30 September 2009
- October 2009 - Eskom applies for confidentiality and NERSA decides;
- NERSA also ensures that application complies to the minimum filing requirements;
- November 2009 - NERSA publishes application for public participation;
- December 2009 – Closing date for stakeholder and Eskom inputs;
- January 2010 - Draft Decision incorporating stakeholder comments. Publication of draft decision; and
- February/Early March 2010 – Public hearing on draft decision. Energy Regulator decides on Eskom's application.

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END OF PRESENTATION

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