

# Presentation to NERSA (Port Elizabeth) 16 January 2019

(Retired) Chief Engineer Generation Engineering Eskom  
(Driessen) Struwig

# Presentation Overview

- Presenter
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- Summary

# Presenter – Driessen Struwig

- Qualifications
  - University of Johannesburg in Mechanical Engineering
  - Government Certificate of Competency for Engineers ( Factories),
  - BCom (Business Economics and Industrial Psychology )
- Previous Power Station Manager at Ingagane , Matimba and Arnot Power Stations
- MegaWatt Park member pre-retirement as Chief Engineer responsible inter alia for Major Incident Investigations and recommendations for corrective measures
- Mothballing of older Power Stations,
- Worldwide study of Manpower Requirements for Power Generation
- Currently Director Driessen Vehicles (Pty) Ltd, trading as Driessen Consultants
  - assisted by Pr Ing Johan van Drimmelen ( BSc Electro-technical Systems Engineer - ECSA ret. )

# Objective

- Rebuilding Eskom to its former International Status,
- with additional and independent , sustained, longer-term, Quality Assurance Programmes,
- utilizing previously involved Technical and Financial Expertise to improve:
  - Effectiveness,
  - Efficiency,
  - Economical Viability,
  - Transparency,
  - Traceability,
  - Business Ethics,
  - Accountability,
  - Financial-Admin and Engineering Integrity,
  - driven by PFMA ( Public Financial Management Act ) principles

# Statement

- Tariffs are derivatives of Power Generation and Power Distribution Effectiveness and Efficiency
- As experienced by the user/consumer, the current tariff negotiations, resembles a futile bartering exercise, not addressing the real technical/economic/ financial matters contributing to the costing and tariff increases,
- This is posing huge crucial short- medium- and long-term challenges in the following Technical and Financial Management System disciplines:
  - Eskom Power Generation
  - Eskom Power Transmission
  - Eskom Power Distribution and Bulk Sales
  - Municipal Power redistribution and diversification

# Proposals

- Launch a Specialist Work Group (SWG), on a National Level, consisting of:
  - Technical Financial Experts, previously Involved in Eskom
  - Supported by Technical Financial Experts, Previously sub-contracted by Eskom in the appropriate technical and financial fields of endeavour (Foreign Nationals not excluded).

# Proposals

- The SWG to do the following,
  - Develop application-specific ad-hoc Technical Financial Operational and Maintenance Plans for each major Power Station
    - Power Stations chosen on the Pareto Principle
    - Problems addressed also using the Pareto Principle ).

# Proposals

- The SWG shall be responsible for:
  - Technical and Financial 5-day investigations into each of the larger and more critical Power Stations: (ANNEXURE A has Reference as a broad-based schematic)
  - Proposing improved Short- Medium- and Long-Term Maintenance and Refurbishment, Corrective Action Plans, and suggest Specialized Tailor-Made Prescriptions, Application-Specific for each Power-Station. (To be integrated into existing generic documentation).
  - Revisiting these Power Stations quarterly for at least 3 to 5 years, interacting with them, on progress and additional corrective and preventative measures to be taken. (ANNEXURE A)
  - Giving Quarterly Feedback to NERSA, in positive support for both Eskom and NERSA, on the RSA-situation, showing progress and new challenges found, as they may occur, from time to time.



# Summary

- Rebuild Eskom to its former Technical and Financial International Status.
- Launch a Specialist Work Group (SWG), on a National Level
- Apply the most economical methodologies such as
  - the PARETO principle
  - Situational Leadership Methods i.e. Yetton and Vroom ; Hersey and Blanchard
  - Quality Circles
  - Motivational Models i.e. Herzberg etc.
- Additional Focus-Points for SWG's attention, so as to reduce tariffs:
  - Revised kVA-tariff-structure for Farmers, to allow for seasonal variables, as experienced country-wide.
    - For instance Quarterly or Monthly reset/zeroing of Maximum Demand metering systems.
  - Municipal Consumers to pay Eskom direct, for Eskom to afterwards compensate Municipalities for Power Re-Distribution, so as to counter the current Debt, due to non-payment by Municipalities to Eskom.

2019/24 Independent Quality Re-Engineering.  
 External/Internal QA Audit & Corrective Action Planning.  
 Enhanced Repair, Refurbish, Maintenance, Operation.  
 Long-Term Decommissioning Planning.

