

# Cost Escalation in the Mega Construction Project Environment: An Eskom Survey

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## **SUMMARY**

### **1. Introduction**

The high-level summary of this research work details the contents of each chapter to establish a picture in the mind of the reader of the factors influencing, and the ensuing challenges related to cost management and specifically the root causes and the influence thereof on cost escalation.

Capital budgeting of megaprojects is performed during the pre-feasibility and feasibility stages and culminates in the final budget at the time of execution. The total budgeted cost for the project can be underestimated should the preceding factors of scoping, designing and approved constructability of the plant not be effectively developed. Cost escalations during the lifetime of the construction project could amount to high percentages of the originally estimated capital budget.

### **2. Problem Statement**

Eskom's mega construction project cost escalation is negatively affecting Eskom's ability to fund future capacity expansion projects, and it has a long-term effect on the Organisation's capital investment in terms of the cost of managing that investment by means of income generated. In this scenario, higher national electricity tariffs will inevitably result; the high amounts of capital investment in the construction of power stations will demand a high return on the investment to sustain the project over the lifecycle of the asset as well as servicing loans debts.

### **3. Objectives**

The primary objective of this study is to determine the root causes of cost escalations of Eskom's mega construction projects. The secondary objective is to review and analyse the capital budgeting decision-making process for Eskom to ensure that potential cost escalations over the long-term construction of the project are effectively catered for.

### **4. Methods Used**

Qualitative and quantitative research methods were used in the study. The two methods were integrated in the mixed method approach to satisfy the design requirements of triangulation

### **5. Findings**

Findings from the structured and semi-structured interviews were that the current Eskom budgeting process is not adequate to support the mega construction projects Medupi and

**Kusile.** The respondents identified some of the major constraints and factors that make the capital budgeting process inefficient. These are:

- Eskom's current systems and project management tools do not support the mega construction projects.
- Lack of qualified and experienced resources to do estimations.
- Poor contracting strategies, multiple contracts with many suppliers and no expertise to negotiate contracts with suppliers do not ensure that Eskom gets the best value for money.
- Insufficient planning for mega projects.
- Lack of skills and resources in the local market.
- Local suppliers not prepared for Medupi and Kusile in terms of resources and the quantities of materials and equipment.
- Market volatility, currency fluctuation, changes in labour.

## **6. Conclusion**

It is therefore evident that complete, accurate, reliable and timely planning and execution of front-end-loading requirements are crucial for mega projects to be completed within the project constraints of time, cost and scope in order to achieve the desired quality of the deliverable.

Dynamic leadership is essential for success of mega projects of this magnitude namely Medupi and Kusile power stations. The Project Manager and other key resources must be involved from the beginning and not at the execution stage only and this is also confirmed by our two mega construction general managers. It is also very important to appoint the correct leader, a motivator, an inspirer, someone with good communication skills and people management. Despite all the challenges encountered by the two megaprojects Medupi and Kusile, the researcher has come to the conclusion which is also supported by her interview with Mr Kobus Steyn the Senior General Manager of Group Capital that the leaders of these two projects are held in high esteem, They are seen as dynamic and resilience leaders to see these projects to fruition and to achieve the mandate to bring more capacity to the whole of South Africa.