

# RISK MANAGEMENT PROCESS FOR POWER GENERATION PROJECTS IN SRI LANKA

BY

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## **Abstract**

Risk management helps potential obstacles to be identified and contained early through proper response strategies, thereby minimizing negative impacts on positive aspects on project cost, schedule, scope and quality. Managing potential risks also helps identify opportunities that may enhance the project and have a positive impact on project objectives.

The initial surveys carried out by the author revealed that neither the main power utility in Sri Lanka, the Ceylon Electricity Board nor any of the Independent Power Produces operating in the country either possess or practice any documented, structured Risk Management Process for power generation projects. Therefore, there is a great requirement to develop an appropriate Risk Management Process for Sri Lankan power generation projects.

The main scope of this research is to formulate a Risk Management Process for Power Generation Projects (RMPPGP), taking in to account the current risk management context of the country. In the thesis, the author has proposed an RMPPGP consisting of six sub-process i.e Establishment of the risk management context of the Power Project, Risk identification, Risk analysis, Risk response planning, Risk monitoring & control and Communicate &consult. Comprehensive flow charts for each of these sub-processes and also the required supporting material of the RMPPGP have also been presented for convenient practice.

### **DECLARATION**

I certify that except due acknowledgement has been made, the work is that of the author alone, the work has not been submitted previously, in whole in part, to qualify for any other academic award in any institution.

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#### **ACRONYMS**

APM Association for Project Management, UK

BOT Built Operate and Transfer

C Constructability

CPM Critical Path Method

EIA Environmental Impact Assessment

EPC Engineering, Procurement and Construction

EIA Environmental Impact Assessment

IRM Institute of Risk Management, UK

M Maintainability

NPV Net Present Value

O Operability

PMI Project Management Institute

PERT Programme Evaluation & Review Technique

PM Project Manager

PMBOK Project Management Body of Knowledge (published by PMI)

RO Risk Ownerronic Theses & Dissertations

RBM Risk Breakdown Matrix

RBS Risk Breakdown Structure

REB Risk Evaluation Board

RM Risk Manager

RMP Risk Management Process

RMPPGP Risk Management Process for Power Generation Projects

SME Subject Matter Expert

WBS Work Breakdown Structure