Maharashtra State Electricity Transmission Company Limited

Risk Management Policy

RISK MANAGEMENT
COMPANY POILICY, PROCESS AND MEASURES

THIS IS A COMPREHENSIVE GUIDE TO THE ALL EMPLOYEES OF MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LIMITEDTO PRACTICE RISK MANAGEMNT ACROSS ALL FUNCTIONS AND LEVELS TO IDENTIFY AND MITIGATE POTENTIAL RISKS TO OPTIMIZE BUSINESS PERFORMANCE AND ENHANCE STAKEHOLDER VALUE.

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A. BACKGROUND

Maharashtra State Electricity Transmission Co. Ltd. ("the Company" or MSETCL) is a government company incorporated under the Companies Act, 1956. The business activities of the Company carry various internal and external risks.

This document lays down the framework of Risk Management at MSETCL and defines the policy for the same. This document shall be under the authority of the Board of Directors of the Company. It seeks to identify risks inherent in any business operations of the Company and provides guidelines to define, measure, report, control and mitigate the identified risks.

'Risk' in literal terms can be defined as the effect of uncertainty on the objectives. Risk is measured in terms of consequences and likelihood. Risks can be internal and external and are inherent in all administrative and business activities. Every member of any organisation continuously manages various types of risks. Formal and systematic approaches to managing risks have evolved and they are now regarded as good management practice also called as Risk Management.

'Risk Management' is the identification, assessment, and prioritization of risks followed by co-ordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of uncertain events or to maximize the realisation of opportunities. Risk management also provides a system for the setting of priorities when there are competing demands on limited resources.

Effective risk management requires:

(i) A strategic focus,
(ii) Forward thinking and active approaches to management
(iii) Balance between the cost of managing risk and the anticipated benefits, and
(iv) Contingency planning in the event that critical threats are realised.

In today's challenging and competitive environment, strategies for mitigating inherent risks in accomplishing the growth plans of the Company are imperative. The common risks inter alia are: Regulations, competition, Business risk, Technology obsolescence, return on investments, business cycle, increase in price and costs, limited resources, retention of talent, etc.

B. OBJECTIVE

The objective of Risk Management at MSETCL is to create and protect shareholder value by minimizing threats or losses, and identifying and maximizing opportunities. An enterprise-wide risk management framework is applied so that effective management of risks is an integral part of every employee's job.

Strategic Objectives

1. Providing a framework that enables future activities to take place in a consistent and controlled manner
2. Improving decision making, planning and prioritization by comprehensive and structured understanding of business activities, volatility and opportunities/ threats.
3. Contributing towards more efficient use/ allocation of the resources within the organization
4. Protecting and enhancing assets and company image
5. Reducing volatility in various areas of the business
6. Developing and supporting people and knowledge base of the organization.
7. Optimizing operational efficiency.

C. LEGAL FRAMEWORK

Risk Management Policy is framed as per the following regulatory requirements:

A. COMPANIES ACT, 2013

1. Provisions of the Section 134(3)

There shall be attached to financial statements laid before a company in general meeting, a report by its Board of Directors, which shall include—

(n) a statement indicating development and implementation of a risk management policy for the company including identification therein of elements of risk, if any, which in the opinion of the Board may threaten the existence of the company.

2. Section 177(4) stipulates:

Every Audit Committee shall act in accordance with the terms of reference specified in writing by the Board which shall, inter alia, include,—

(vii) evaluation of internal financial controls and risk management systems.

3. SCHEDULE IV [Section 149(8)]

CODE FOR INDEPENDENT DIRECTORS

II. Role and functions:

The independent directors shall:

(1) help in bringing an independent judgment to bear on the Board's deliberations especially on issues of strategy, performance, risk management, resources, key appointments and standards of conduct;

(4) satisfy themselves on the integrity of financial information and those financial controls and the systems of risk management are robust and defensible;

4. PENALTIES

The penalties are prescribed under the Companies Act, 2013 (the Act) under various sections which stipulate having a Risk Management Framework in place and its disclosure.

Section 134 (8) (dealing with disclosure by way of attachment to the Board Report): If a company contravenes the provisions of this section, the company shall be punishable with fine which shall not be less than fifty thousand rupees but which may extend to twenty-five lakh rupees and every officer of the company who is in default shall be punishable with imprisonment for a term which may extend to three years or with fine which shall not be less than fifty thousand rupees but which may extend to five lakh rupees, or with both.

D. KEY DEFINITIONS

(i) "Risk Management Committee or Committee" means Committee of the Company formed for purpose of managing risk.

(ii) "Board of Directors" or "Board" in relation to a Company, means the collective body of Directors of the Company. (Section 2(10) of the Companies Act, 2013)

(iii) "Policy" means Risk Management Policy.

(iv) **Risk Assessment** –The systematic process of identifying and analysing risks. Risk Assessment consists of a detailed study of threats and vulnerability and resultant exposure to various risks.

(v) **Risk Management** –The systematic way of protecting business resources and income against losses so that the objectives of the Company can be achieved without unnecessary interruption.

(vi) **Risk Management Process** - The systematic application of management policies, procedures and practices to the tasks of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risk.

E. APPLICABILITY

This Policy shall come into force with effect from June 2, 2016.

F. ROLE OF BOARD OF DIRECTORS

1. The Board is to ensure framing, implementing and monitoring risk management plan, having in place systems for risk management as part of internal controls with duty being cast upon Independent Directors to bring unbiased angle to the Board's deliberations on making risk management systems more robust.

2. The Board shall define the roles and responsibilities of the Audit Committee and may delegate monitoring and reviewing of the risk management plan to the committee and such other functions as it may deem fit.

G. STRUCTURE AND ROLE OF RISK MANAGEMENT COMMITTEE

The Committee will comprise of senior executives of the company, chaired by the CMD, which will be responsible for defining, implementing and review of risk management processes within MSETCL. The RMC will provide updates to the Board from time to time on key risks faced by the company and the relevant mitigation actions.

The following will be the members of RMC:

1. Chairman & Managing Director-Chairman of Committee
2. Director (Finance)/CGM(F&A)
3. Director (Project)
4. E D (HR)
5. CS
6. S.E. (Regulatory Affairs)-Convenor of the meeting of RMC

The following shall serve as the Role and Responsibility of the Committee for the evaluating the effectiveness of the Risk Management Framework:

1. Review of the strategy for implementing risk management policy
2. To examine the organization structure relating to Risk management
3. Evaluate the efficacy of Risk Management Systems – Recording and Reporting
4. To review all hedging strategies/risk treatment methodologies vis a vis compliance with the Risk Management Policy and relevant regulatory guidelines
5. To define internal control measures to facilitate a smooth functioning of the risk management systems
6. To approve the Guidelines for dealing with the risks and communicate to the personnel for implementation.
7. To approve the Risk Management (including Risk Treatment) strategy, control structure and policy guidelines and delegate authority and accountability for risk management to the Company's executive team.
8. Ensure periodic review of operations and contingency plans and reporting to Board in order to counter possibilities of adverse factors having a bearing on the risk management systems.

The RMC is in turn assisted by function-specific Risk Management Sub-Committees, which are responsible for overseeing the risk management activities of the function, including proactively identifying emerging risks that may impact the company.
At operational level, the respective Divisional Heads and functional managers are responsible for identifying and assessing risks within their area of responsibility; implementing agreed actions to treat such risks; and for reporting any event or circumstance that may result in new risks, or changes in existing risk profile.

H. BROAD PRINCIPLES FOR RISK MANAGEMENT

The RMC has to review the business plan at regular intervals and develop the Risk Management Strategy which shall encompass laying down guiding principles on proactive planning for identifying, analyzing and mitigating all the material risks, both external and internal viz. Environmental, Business, Operational, Financial and others. Communication of Risk Management Strategy to various levels of management for effective implementation is essential.

Risk Identification is obligatory on all vertical and functional heads with the inputs from their team members are required to report the material risks to RMC along with their considered views and recommendations for risk mitigation.

Analysis of all the risks thus identified shall be carried out through participation of the vertical/functional heads and a preliminary report thus finalized shall be placed before the RMC.

1. KEY RISK MANAGEMENT PROCESSES (KRMP)

The key risk management processes include those relating to risk identification, risk quantification, risk response development, and risk response control. The major inputs, tools & techniques and outputs for each of the KRMP are listed in a tabulated below:

SN	KRMP	INPUTS	TOOLS & TECHNIQUES	OUTPUTS
1	Risk Identification	Services description, Planning inputs, outputs, Historical information, Risk Register and Surveys.	Checklists, Flow Charts and Interviewing.	Source of risk, potential risk events, risk symptoms and input to other processes.
2	Risk Quantification	Sources of risks, potential risk events, stakeholder risk tolerances, cost & time estimates.	Expected monetary value, statistical sums, simulation, decision trees and expert judgment.	Opportunities to pursue, threats to respond to, and opportunities to ignore, threats to accept.
3	Risk Response Development	Opportunities to pursue, threats to respond to, opportunities to ignore and threats to accept.	Procurement, contingency planning, alternative strategies and insurance.	Actual risk events, additional risks events, Risk Management Plan, Contingency Plans and Contractual Agreements,
4	Risk Response Control	Actual risk events, additional risks events, Risk Management Plan	Workarounds, alternate strategies, additional risk response development.	Corrective Plan, Preventive Plans, updates to Risk Management Plan.

2. RISK MITIGATION STRATEGIES

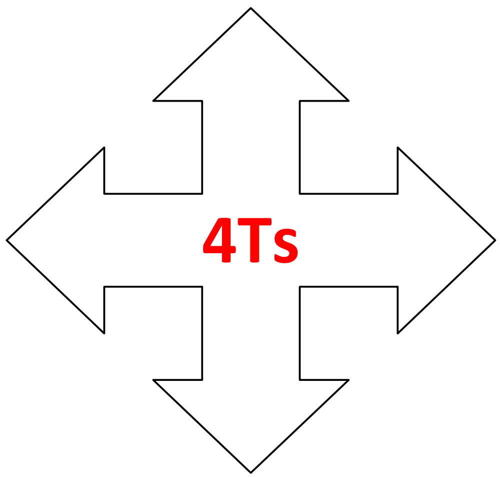
Depending upon the occurrence, severity and prevailing situation the Company will adopt any of the **4T (Treat, Transfer, Tolerate and Terminate)** strategies to mitigate the risks.

Treat

This strategy seeks to reduce the risk probability or its impact by taking early action to reduce the occurrence of the risk to an acceptable limit. Risk mitigation may take the form of implementing new processes, undertaking more preliminary work or selecting more stable suppliers. Risk mitigation can also include changing conditions so that the probability of the risk is reduced, by adding resources or time to the program.

Terminate

Risk termination or avoidance is changing the business plan to eliminate the risk or to protect the business objectives from its impact. Although not all risks can be eliminated, some may be avoided by taking this pre-emptive action.



Transfer

Risk transfer is seeking to move the consequence of a risk to a third party together with ownership of the response. Transferring the risk does not eliminate it; it simply gives another party responsibility for its management. This is the most effective way of dealing with financial risk exposure and can be by a contract to another party or by payment of a premium in the case of insurance.

Tolerate

This strategy indicates that the company has decided not to change the business plan and to deal with a risk, or is unable to identify any other suitable strategy to adopt. Risk acceptance may also occur when the cost of dealing with it would not be cost effective. In this event the development of a contingency plan to execute should the identified risk occur is a natural step. Active risk tolerance may include developing a contingency plan to execute should a risk occur. Passive tolerance requires no action leaving the business team to deal with the risks as they occur.

3. MAJOR RISKS IN EACH CATEGORY

In today's challenging and competitive environment, strategies for mitigating inherent risks in accomplishing the growth plans of the Company are imperative. The RMC has identified following major risks specific to MSETCL that have impact on the business & profitability:

1. OPERATIONAL RISKS:

Risks inherent to business operations including those relating to incorrect practices in O &M, Projects, incorrect estimation, unfavourable and ambiguous contract terms, project related delays, delay in collections, deficiency in design & drawings, time extensions, labour unrest, disputes and technology obsolescence, etc.

2. **FINANCIAL RISKS**:

   One of the major risk experienced by the Company is DISCOM's defaults in release of funds and irregular payments .This has created an undue pressure on cash management and has resulted in excessive borrowings at higher interest rates. The frequent occurrence of such defaults has lead to the financial solvency and liquidity risks (which will eventually compound in to Credit Risks).

3. **REVENUE RISKS:**
   The Company has witnessed risks emanating from Private players in transmission sector and created market competition in the recent past.

4. **RESOURCES RISKS:**
   Risks arising from inappropriate sourcing or sub-optimal utilization of key organizational resources such as talent, capital and infrastructure, erosion of talent/skills and ineffective HR Policies will have significant bearing on the bottom line of our business. The Company has adopted following mitigation measures to minimize the effects of these risks.

5. **PURCHASE AND INVENTORY RISKS:**
   The Company is dependent upon vendors and suppliers for procurement of specialized equipment, materials, consumables and services like fabrication, erection and civil works. The selection, quality, efficiency and effectiveness of these agencies and the prices will have direct bearing on the quality and successful execution of O &M and the profitability of the business. In addition, unplanned procurement and building up of excessive inventory will block the funds and lead to strained finance management and expose the company to financial risk.

6. **REGULATORY & COMPLIANCE RISKS:**
   The complexity of the business and regulatory landscape is increasing dramatically. The Company is exposed to risks arising from inadequate compliance to regulations, sudden burst of new regulations, contractual obligations and intellectual property violations leading to litigation and loss of reputation, Change in Law, etc .The critical compliance and regulatory issues include:
   - Protecting reputation and value;
   - Meeting the demands and expectations of investors, regulators, legislators, DISCOMs, employees and other key stakeholders;
   - Driving value and managing performance expectations for governance, ethics, risk management and compliance
   - Managing crisis and remediation while defending the Company and its executives / board members against legal enforcement and the rising impact of fines, penalties and business disruption.

7. **BUSINESS RISKS:**
   Risks arise out of excessive dependency on selected portfolio (Transmission Utility & other avenues), change in political and economic environments, loss of trust in the market (Fidelity), fluctuations in foreign exchange rates, competition and litigations. The Company is mainly operating in Electricity Transmission Network Set Up and its Operation & Maintenance.

   Fluctuations in foreign currency exchange rates, particularly the weakening of the foreign currencies against INR would materially affect our financial results.

8. **COUNTERPARTY RISKS:**

   Risks arising from our association with entities for conducting business will have impact on the performance of the Company and will affect Company's reputation as well as profitability. These include clients, vendors, transporters, alliance partners and their respective industries.

   Delay in achieving Financial Closure, Suspension of works, Variations, delay in delivery, non-performance of suppliers & contractors, etc are some of the major risks associated with our customers and vendors/suppliers.

9. **REPORTING RISKS:**
   Risks arising out of wrong information provided in tender documents, improper valuation of inventory, over certification of contractor bills, improper planning and progress reports, etc are some of the risks specific to our Business.

I. RISK REGISTERS

Risk Registers shall be maintained showing the risks identified, treatment prescribed, persons responsible for applying treatment, status after the treatment etc. Risk Managers and Risk Officers to be identified for proper maintenance of the Risk Registers which will facilitate reporting of the effectiveness of the risk treatment to the Board.

Enterprise Risk Planning (ERP package) shall play a key role in timely availability of all data/reports required for the Committee to develop the Action Plan as stated above.

The Board shall have the discretion to deal with certain risks (may be called Key or Highly Sensitive Risks) in the manner it may deem fit. Mitigation of such Highly Sensitive/Key risks and effectiveness of their mitigation measures and review of the strategy may be directly discussed by the Board members.

J. RISK QUANTIFICATION (MEASUREMENT OF RISKS)

The risks are quantified based on their frequency of occurrence and the consequence. The degree of severity is assessed based on the type of the consequence that the risk will make, such as; Financial, Reputation, Strategic, Legal & Regulatory, Human Resources and Counterparts and the actions are taken based on the probability of occurrence and impact of risk.

The Company has adopted Analytical Analysis Method and also relies on Expert Judgment for assessment of risks and their impacts and devises strategy to tackle the risk at appropriate level. In both the cases, following matrix is followed in identifying and initiating actions:

Probability	Impact	Action
High	High	Immediate
High	Low	Consider the steps to take
Low	High	Consider the steps to take and produce a contingency plan.
Low	Low	Keep under review

The risks are prioritized for further quantitative analysis and planning risk responses based on their risk rating. The ratings are assigned to risks based on their assessed probability and impact. Evaluation of each risk's importance and priority for attention is conducted using a Probability-Impact Matrix. The Matrix specifies combinations of probability and impact that lead to rating the risks as low, moderate, or high priority. Numeric values are assigned for each combination to prioritize the action plan. Each risk is rated on its probability of occurrence and impact on the objectives of the Company (eg: cost, time, scope or quality) if it does occur. The RMC determines which combinations of probability and impact result in a classification of high risk, moderate risk, and low risk. On a colored matrix, these conditions are denoted using Red, Orange and Green colors .The Red color area (with the largest numbers) represents high risk: the Green color area (withthe smallest numbers) represents low risk, and the Orange colorarea (with in-between numbers) represents moderate risk.

Risk Probability – Impact Matrix:

Probability V	**Threats**					**Opportunities**				
0.90	0.05	0.09	0.18	0.36	0.72	0.72	0.36	0.18	0.09	0.05
0.70	0.04	0.07	0.14	0.28	0.56	0.56	0.28	0.14	0.07	0.04
0.50	0.03	0.05	0.10	0.20	0.40	0.40	0.20	0.10	0.05	0.03
0.30	0.02	0.03	0.06	0.12	0.24	0.24	0.12	0.06	0.03	0.02
0.10	0.01	0.01	0.02	0.04	0.08	0.08	0.04	0.02	0.01	0.01
Impact >	**0.05**	**0.10**	**0.20**	**0.40**	**0.80**	**0.80**	**0.40**	**0.20**	**0.10**	**0.05**

Impact (numerical scale) on an objective (e.g., cost, time, scope or quality)

Each risk is rated on its probability of occurring and impact on an objective if it does occur. The organization's thresholds for low, moderate or high risks are shown in the matrix and determine whether the risk is scoredas High, Moderate or Low for that objective.

HIGH	**MODERATE**	**LOW**

The highest rated threats and opportunities are respectively treated and pursued on priority and lowest rated threats and opportunities are continuously monitored to ignore and pursue.

K. RISK TREATMENT AND CONTROL

Apart from the selecting and adopting suitable mitigation measures, the Company is in the process of developing Risk Prevention Capabilities to deal with the Potential Risk Events that will affect the objectives of the Company.

The Company is periodically arranging awareness programs among all the employees cutting across all levels and helping the team to develop the prevention capabilities to limit the probability of occurrence of a risk event that will impact the objectives rather than focusing on limiting the nature and extent of effects that the risk event has on the achievement of objectives post its occurrence.

To make use of available resources most efficiently, the Company has adopted a combination of Preventive and Mitigation measures to treat the risks depending upon their nature and magnitude.

The criteria for the selection of an appropriate strategy to treat the risks areas shown below:

Likelihood		**Small**	**Large**
	High	Prevention Measures (Enhance Quality)	Prevention and Mitigation
	Low	Maintain and Monitor	Mitigation Measures (Preparedness)

Impact

The Company has designed and implemented effective Prevention Measures to uncover and address underlying root causes and has devised a **"5 Why"** methodology to explore the cause and effect relationship underlying a particular risk event.

The 5 Why Methodology used to address the Credit Risk being faced by the Company is illustrated below:

1st	Why?	Credit Risk would arise (or arises)
2nd	Why?	Cash flows from the projects under execution is not as expected and no new orders are bagged by the Company
3rd	Why?	Execution of projects are delayed – internal and external factors
4th	Why?	Selection of incapable & incompetent suppliers & subcontractors, inexperienced project team, non-sequential deliveries.
5th	Why?	Risk of inefficiency not factored in the estimates and QAP.

The Senior Management is constantly reviewing the project progress, cash flows, profitability and turnover of the Company and employing suitable strategy to address and prevent the occurrence of risk events.

L. GUIDELINES TO DEAL WITH THE RISKS

Business Plan including Capital Expenditure and Fund Flow Statement for each segment together with SWOT analysis, data on Production Planning, Materials Management, Sales and Distribution, Delivery Schedules, Assets, Accounts Receivables and Payables as well as Regulatory Regime applicable shall be reviewed in the light of the material risks identified. Through deliberations of the Committee a comprehensive plan of action to deal with the risks shall be developed and guidelines flowing from such plan shall be communicated to the employees concerned for mitigation of the risks.

M. INTEGRATION OF RISK MANAGEMENT STRATEGY

MSETCL's risk management strategy is to be integrated with the overall business strategies of the organization and its mission statement to ensure that its risk management capabilities aide in establishing competitive advantage and allow management to develop reasonable assurance regarding the achievement of the Company's objectives.

N. REVIEW

This policy shall evolve by review by the Board from time to time as may be necessary. This Policy will be communicated to all vertical/functional heads and other concerned persons of the Company.

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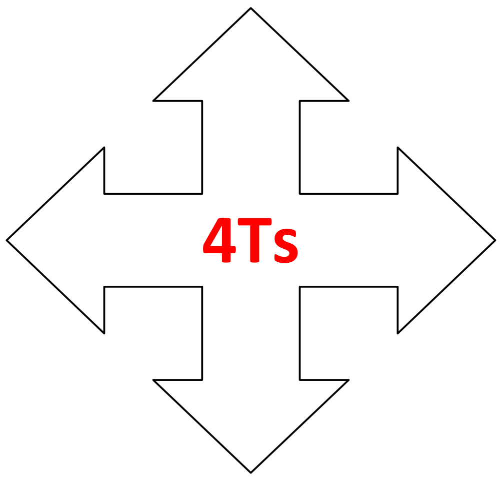
Depending upon the occurrence, severity and prevailing situation the Company will adopt any of the **4T (Treat, Transfer, Tolerate and Terminate)** strategies to mitigate the risks.

Treat

This strategy seeks to reduce the risk probability or its impact by taking early action to reduce the occurrence of the risk to an acceptable limit. Risk mitigation may take the form of implementing new processes, undertaking more preliminary work or selecting more stable suppliers. Risk mitigation can also include changing conditions so that the probability of the risk is reduced, by adding resources or time to the program.

Terminate

Risk termination or avoidance is changing the business plan to eliminate the risk or to protect the business objectives from its impact. Although not all risks can be eliminated, some may be avoided by taking this pre-emptive action.



Transfer

Risk transfer is seeking to move the consequence of a risk to a third party together with ownership of the response. Transferring the risk does not eliminate it; it simply gives another party responsibility for its management. This is the most effective way of dealing with financial risk exposure and can be by a contract to another party or by payment of a premium in the case of insurance.

Tolerate

This strategy indicates that the company has decided not to change the business plan and to deal with a risk, or is unable to identify any other suitable strategy to adopt. Risk acceptance may also occur when the cost of dealing with it would not be cost effective. In this event the development of a contingency plan to execute should the identified risk occur is a natural step. Active risk tolerance may include developing a contingency plan to execute should a risk occur. Passive tolerance requires no action leaving the business team to deal with the risks as they occur.

3. MAJOR RISKS IN EACH CATEGORY

In today's challenging and competitive environment, strategies for mitigating inherent risks in accomplishing the growth plans of the Company are imperative. The RMC has identified following major risks specific to MSETCL that have impact on the business & profitability:

1. OPERATIONAL RISKS:

Risks inherent to business operations including those relating to incorrect practices in O &M, Projects, incorrect estimation, unfavourable and ambiguous contract terms, project related delays, delay in collections, deficiency in design & drawings, time extensions, labour unrest, disputes and technology obsolescence, etc.

2. **FINANCIAL RISKS**:

   One of the major risk experienced by the Company is DISCOM's defaults in release of funds and irregular payments .This has created an undue pressure on cash management and has resulted in excessive borrowings at higher interest rates. The frequent occurrence of such defaults has lead to the financial solvency and liquidity risks (which will eventually compound in to Credit Risks).

3. **REVENUE RISKS:**
   The Company has witnessed risks emanating from Private players in transmission sector and created market competition in the recent past.

4. **RESOURCES RISKS:**
   Risks arising from inappropriate sourcing or sub-optimal utilization of key organizational resources such as talent, capital and infrastructure, erosion of talent/skills and ineffective HR Policies will have significant bearing on the bottom line of our business. The Company has adopted following mitigation measures to minimize the effects of these risks.

5. **PURCHASE AND INVENTORY RISKS:**
   The Company is dependent upon vendors and suppliers for procurement of specialized equipment, materials, consumables and services like fabrication, erection and civil works. The selection, quality, efficiency and effectiveness of these agencies and the prices will have direct bearing on the quality and successful execution of O &M and the profitability of the business. In addition, unplanned procurement and building up of excessive inventory will block the funds and lead to strained finance management and expose the company to financial risk.

6. **REGULATORY & COMPLIANCE RISKS:**
   The complexity of the business and regulatory landscape is increasing dramatically. The Company is exposed to risks arising from inadequate compliance to regulations, sudden burst of new regulations, contractual obligations and intellectual property violations leading to litigation and loss of reputation, Change in Law, etc .The critical compliance and regulatory issues include:
   - Protecting reputation and value;
   - Meeting the demands and expectations of investors, regulators, legislators, DISCOMs, employees and other key stakeholders;
   - Driving value and managing performance expectations for governance, ethics, risk management and compliance
   - Managing crisis and remediation while defending the Company and its executives / board members against legal enforcement and the rising impact of fines, penalties and business disruption.

7. **BUSINESS RISKS:**
   Risks arise out of excessive dependency on selected portfolio (Transmission Utility & other avenues), change in political and economic environments, loss of trust in the market (Fidelity), fluctuations in foreign exchange rates, competition and litigations. The Company is mainly operating in Electricity Transmission Network Set Up and its Operation & Maintenance.

   Fluctuations in foreign currency exchange rates, particularly the weakening of the foreign currencies against INR would materially affect our financial results.

8. **COUNTERPARTY RISKS:**

   Risks arising from our association with entities for conducting business will have impact on the performance of the Company and will affect Company's reputation as well as profitability. These include clients, vendors, transporters, alliance partners and their respective industries.

   Delay in achieving Financial Closure, Suspension of works, Variations, delay in delivery, non-performance of suppliers & contractors, etc are some of the major risks associated with our customers and vendors/suppliers.

9. **REPORTING RISKS:**
   Risks arising out of wrong information provided in tender documents, improper valuation of inventory, over certification of contractor bills, improper planning and progress reports, etc are some of the risks specific to our Business.

I. RISK REGISTERS

Risk Registers shall be maintained showing the risks identified, treatment prescribed, persons responsible for applying treatment, status after the treatment etc. Risk Managers and Risk Officers to be identified for proper maintenance of the Risk Registers which will facilitate reporting of the effectiveness of the risk treatment to the Board.

Enterprise Risk Planning (ERP package) shall play a key role in timely availability of all data/reports required for the Committee to develop the Action Plan as stated above.

The Board shall have the discretion to deal with certain risks (may be called Key or Highly Sensitive Risks) in the manner it may deem fit. Mitigation of such Highly Sensitive/Key risks and effectiveness of their mitigation measures and review of the strategy may be directly discussed by the Board members.

J. RISK QUANTIFICATION (MEASUREMENT OF RISKS)

The risks are quantified based on their frequency of occurrence and the consequence. The degree of severity is assessed based on the type of the consequence that the risk will make, such as; Financial, Reputation, Strategic, Legal & Regulatory, Human Resources and Counterparts and the actions are taken based on the probability of occurrence and impact of risk.

The Company has adopted Analytical Analysis Method and also relies on Expert Judgment for assessment of risks and their impacts and devises strategy to tackle the risk at appropriate level. In both the cases, following matrix is followed in identifying and initiating actions:

Probability	Impact	Action
High	High	Immediate
High	Low	Consider the steps to take
Low	High	Consider the steps to take and produce a contingency plan.
Low	Low	Keep under review

The risks are prioritized for further quantitative analysis and planning risk responses based on their risk rating. The ratings are assigned to risks based on their assessed probability and impact. Evaluation of each risk's importance and priority for attention is conducted using a Probability-Impact Matrix. The Matrix specifies combinations of probability and impact that lead to rating the risks as low, moderate, or high priority. Numeric values are assigned for each combination to prioritize the action plan. Each risk is rated on its probability of occurrence and impact on the objectives of the Company (eg: cost, time, scope or quality) if it does occur. The RMC determines which combinations of probability and impact result in a classification of high risk, moderate risk, and low risk. On a colored matrix, these conditions are denoted using Red, Orange and Green colors .The Red color area (with the largest numbers) represents high risk: the Green color area (withthe smallest numbers) represents low risk, and the Orange colorarea (with in-between numbers) represents moderate risk.

Risk Probability – Impact Matrix:

Probability V	**Threats**					**Opportunities**				
0.90	0.05	0.09	0.18	0.36	0.72	0.72	0.36	0.18	0.09	0.05
0.70	0.04	0.07	0.14	0.28	0.56	0.56	0.28	0.14	0.07	0.04
0.50	0.03	0.05	0.10	0.20	0.40	0.40	0.20	0.10	0.05	0.03
0.30	0.02	0.03	0.06	0.12	0.24	0.24	0.12	0.06	0.03	0.02
0.10	0.01	0.01	0.02	0.04	0.08	0.08	0.04	0.02	0.01	0.01
Impact >	**0.05**	**0.10**	**0.20**	**0.40**	**0.80**	**0.80**	**0.40**	**0.20**	**0.10**	**0.05**

Impact (numerical scale) on an objective (e.g., cost, time, scope or quality)

Each risk is rated on its probability of occurring and impact on an objective if it does occur. The organization's thresholds for low, moderate or high risks are shown in the matrix and determine whether the risk is scoredas High, Moderate or Low for that objective.

HIGH	**MODERATE**	**LOW**

The highest rated threats and opportunities are respectively treated and pursued on priority and lowest rated threats and opportunities are continuously monitored to ignore and pursue.

K. RISK TREATMENT AND CONTROL

Apart from the selecting and adopting suitable mitigation measures, the Company is in the process of developing Risk Prevention Capabilities to deal with the Potential Risk Events that will affect the objectives of the Company.

The Company is periodically arranging awareness programs among all the employees cutting across all levels and helping the team to develop the prevention capabilities to limit the probability of occurrence of a risk event that will impact the objectives rather than focusing on limiting the nature and extent of effects that the risk event has on the achievement of objectives post its occurrence.

To make use of available resources most efficiently, the Company has adopted a combination of Preventive and Mitigation measures to treat the risks depending upon their nature and magnitude.

The criteria for the selection of an appropriate strategy to treat the risks areas shown below:

Likelihood			
	High	Prevention Measures (Enhance Quality)	Prevention and Mitigation
	Low	Maintain and Monitor	Mitigation Measures (Preparedness)
		Small	**Large**
		Impact	

The Company has designed and implemented effective Prevention Measures to uncover and address underlying root causes and has devised a **"5 Why"** methodology to explore the cause and effect relationship underlying a particular risk event.

The 5 Why Methodology used to address the Credit Risk being faced by the Company is illustrated below:

1st	Why?	Credit Risk would arise (or arises)
2nd	Why?	Cash flows from the projects under execution is not as expected and no new orders are bagged by the Company
3rd	Why?	Execution of projects are delayed – internal and external factors
4th	Why?	Selection of incapable & incompetent suppliers & subcontractors, inexperienced project team, non-sequential deliveries.
5th	Why?	Risk of inefficiency not factored in the estimates and QAP.

The Senior Management is constantly reviewing the project progress, cash flows, profitability and turnover of the Company and employing suitable strategy to address and prevent the occurrence of risk events.

L. GUIDELINES TO DEAL WITH THE RISKS

Business Plan including Capital Expenditure and Fund Flow Statement for each segment together with SWOT analysis, data on Production Planning, Materials Management, Sales and Distribution, Delivery Schedules, Assets, Accounts Receivables and Payables as well as Regulatory Regime applicable shall be reviewed in the light of the material risks identified. Through deliberations of the Committee a comprehensive plan of action to deal with the risks shall be developed and guidelines flowing from such plan shall be communicated to the employees concerned for mitigation of the risks.

M. INTEGRATION OF RISK MANAGEMENT STRATEGY

MSETCL's risk management strategy is to be integrated with the overall business strategies of the organization and its mission statement to ensure that its risk management capabilities aide in establishing competitive advantage and allow management to develop reasonable assurance regarding the achievement of the Company's objectives.

N. REVIEW

This policy shall evolve by review by the Board from time to time as may be necessary. This Policy will be communicated to all vertical/functional heads and other concerned persons of the Company.