PGT-06-10 Risk Evaluation and Prioritization (REAP) for Maintenance and Renovation and Modernization (R&M) of Power Plants

Project

In any power plant, various pieces of equipment work together to generate power. Failure of a single link can lead to a loss in generation. The frequency of these failures varies, and depends on equipment, location, operational parameters, constructional features, etc. The cost of the equipment or part thereof also varies. Hence, it will be our endeavor to prioritize the replacement of the equipment based on cost, down time cost, frequency of occurrence of such failures, etc., to improve plant availability, reduce forced outages, and facilitate implementation of renovation and modernization of power plants.

Participation

Management: This project is proposed by India in association with utilities of the United States, and the Department of Industries, Tourism and Resources of Australia.

Participants: Participants from India will be design engineers and specialists from the utilities.

Objectives

To study the best practices of REAP in such utilities and acquire the know how of implementation of REAP with a view to implementing the same in power utilities in India.

Performance Indicators:

- Improvement in availability.
- Reduction in maintenance cost.
- Increase in maintenance interval for a particular plant.

Milestones

Visit to Utilities in the United States and Australia to study:

- Diagnostic tools for evaluating, classifying and prioritizing the risks.
- Best practices in maintenance.
- Cost benefits due to implementation of REAP.

The major milestones are as below:

Year	2006				2007				2008				2009			
Activities	**Q 1**	**Q 2**	**Q 3**	**Q 4**	**Q 1**	**Q 2**	**Q 3**	**Q 4**	**Q 1**	**Q 2**	**Q 3**	**Q 4**	**Q 1**	**Q 2**	**Q 3**	**Q 4**
Finalization of Project Itinerary																
Visit to Plants in the United States & Australia and Discussions (5 days each)																
Preparation of Study Report & Technical Specifications																
Implementation in Pilot Project & Validation																

Location

Activity Location: The activity will include visits to power plants in the United States and Australia and discussions with experts.

Project Location: Based on the study, REAP will be implemented in one of the Indian power plants as a pilot project. The information learned from this project will be put together in a handbook for use in the power sector.

Resources

For the on-site study visits and discussions, the visitors will bear the travel expenses and hosts will cover the on-site costs.

The implementation cost including equipment and technology upgrades if any, will be borne by the beneficiary participant utility implementing the project.