

Terms of Reference for

Performance of Generating Plant Committee (PGP)

Introduction

This well-established and internationally recognized Committee will continue its work on improving power plant performance. Market structures, technologies, environmental standards, and other factors are changing the way the electricity sector operates and are posing new challenges for power plant operators around the world. New strategies, greater collaboration within the industry, and new tools are required to make it possible to collect, analyse, and leverage plant performance initiatives.

Objectives

The Committee's main objective is to promote international data exchange and best practices for generating plant performance and to achieve the most effective use of generation assets and energy resources worldwide. This objective will be accomplished by enhanced international data exchange and communications, benchmarking workshops and presentations. The new generating plant performance indicators database will be at the centre of the process with continuous power plant reliability statistics collection and direct entry of data into the database by participating companies and organisations.

Scope of Work

The following activities are included in the Committee work programme:

Work Group 1 (WG1): International Data Exchange, Workshops and Communications. WG1's primary focus is to analyse the best ways to measure, evaluate, and apply power plant performance and availability data to promote plant performance improvements worldwide. Various communication strategies would be implemented to enhance the visibility of this mission and seek cooperation opportunities, including workshops, joint technical conference sessions, etc.

Work Group 2 (WG2): Power Plant Availability Statistics. WG2 main task is to collect and input power plant performance data (unit-by-unit and aggregated data) into the WEC PGP database. The statistics will be collected for steam, nuclear, gas turbine & combined cycle, hydro & pump storage plant. WG2 will also oversee the availability statistics database, including the contents, the required software, security issues and other important information.

Work Group 3 (WG3): Renewables and Environment. WG3 will introduce availability data collection for renewable generating plant (wind, geothermal, solar and biomass) using the performance indicators developed by the Committee. It will also promote a wider use of these indicators around the world and continue the facts-based dialogue on the contribution of renewable energy to the environment and energy supply.

Work Group 4 (WG4): Technology Transfer. WG4 will focus on a major global challenge of technology transfer in the power generating sector. It will survey the progress achieved so far and identify the necessary success factors which should be in place to facilitate and accelerate technology transfer. Since technologies are proprietary and require major investments in the R&D, a number of conditions should be met to entice companies transfer their technologies. Working with the leading companies. WG4 will examine strategies used by market players around the world today and develop recommendations for a wider deployment of successful strategies.

Methodology and Timeline

The methodology will rely on an ongoing collection of power plant availability statistics using the WEC Member Committees network and other experts. WEC and other relevant meetings, workshops and conferences will be an integral part of the process for information exchange, dissemination of best practices and benchmarking activities.

The project will run for three years from 2008 to 2010.

Deliverables

Five power plant performance benchmarking workshops (one in each WEC region) will be organised every year.

Fact sheets will be produced for each of the leading technologies. In addition to the statistics collection, publication of case studies and workshops, the main deliverable will be a comprehensive report summarising the findings of the Committee work which will be published for presentation at the 21st World Energy Congress.