

# **PLN Research and Development : Roles and Activities of a Utility Based Research Institution**

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## **Abstract**

This paper introduces the newly established PLN-RD, a research organization within the Indonesian state electricity utility PLN, and highlights some of the challenges in managing a research body within a public utility in a developing country. Although established in 2004, PLN-RD's origin is dated back to the early sixties, when the government of Indonesia established a hydro power laboratory in conjunction with the development of a large hydro power station. Since then the laboratory has been steadily developed and augmented to become comprehensive electrical, mechanical, chemistry and structural laboratories.

However, during the mid nineties, the institution was restructured into a profit center business unit of PLN, called PLN Electrotechnical Service. Since then, this organization no longer carried out non money making activities. Its activities were concentrated on anything that directly make money, such as products testing, calibration, technical consultation, technical inspection/commissioning, setting-up quality management, product certification, installation certification, and so forth. Activities like research, standardization undertaking, maintaining library and other 'loss making' activities had been disbanded. The situation was worsen following the Asian crisis in 1998 when PLN was virtually paralyzed and forced to cut cost in every corner.

Then in 2004, PLN decided to re-establish a research entity, PLN-RD. With this establishment, PLN now owns a definite research entity that would house all research activities within the whole company. The main role of PLN-RD is to conduct research on generation, transmission and distribution areas, with emphasize on efficiency improvement and reliability enhancement of power delivery. Being a cost centre entity, PLN-RD has been re-oriented itself not to seek instant revenues or profits from its activities, but to create added value to the company by providing research services to the PLN's group. PLN-RD divides its activities into four main categories : research, testing and calibration, quality management services, and technical consultation. The research on electrical and mechanical engineering is mostly short term in nature, designed and carried out to provide solution to real business problems in generation, transmission and distribution. The research program is dedicated to assist the business units and subsidiaries under PLN holding in the forms of studies, assessment, investigation, utilization, and technical viability.

After functioning this role for a year, PLN-RD realizes two imminent challenges. The first one is the integration of research into core business operations of PLN, so that business colleagues in power generation, transmission and distribution understand and support it. The second challenge is to make sure that the necessary research is made. PLN-RD believes that its managers must work together with business managers in selecting and utilizing research, and the business managers should be the parties who direct the research programs.