

Pumping Systems Optimization

Become more Energy Efficient - Cut energy Costs - Reduce your Carbon Emissions Improve operational reliability and control

The Philippine Department of Energy (DOE) in cooperation with the Department of Trade & Industry (DTI), with technical assistance from the United Nations Industrial Development Organization (UNIDO) and financial support from the Global Environment Facility (GEF) is undertaking a five-year program entitled Philippine Industrial Energy Efficiency Project (PIEEP) aimed at introducing an ISO 50001-based Energy Management System. The Project is targeting to train 40 National Experts and over 400 factory personnel on energy management, as well as 40 National Experts and over 400 factory personnel on Systems Optimization.

The Project is targeted at the large industrial sectors of the economy namely, Food and Beverage, Chemical, Pulp and Paper, and Metal and Steel. The industrial sector accounts for 25% of the country's energy requirement and represent a significant opportunity for energy efficiency interventions. Interested candidates from other industrial sectors could also apply.

The Project will aim to build energy management skills and equip participating companies to initiate and execute highly cost-effective systems optimization opportunities. A major component of the initiative will focus on improving the energy efficiency of pumping systems.

How will your company benefit?

Training at Expert level for Energy Managers and Engineers.

UNIDO's team, comprising both international and local experts will offer multiple week intensive training over a 12 month period. The delegates will receive both classroom training and onsite interactive training involving participating industrial facilities. They will be trained "on-the-job" in the use of measuring instrumentation, data collection and analysis and the preparation of investment proposals for pumping systems improvements which are subsequently submitted to management of the plants hosting the training.

Training covers system configuration and retrofit, operation and installation, measurement of fluid flows, pressures, energy consumption, and application of analytical software.

This multiple week training is free of charge.

Demonstration and showcase projects

The Project aims to showcase its impacts in pumping systems in at least 10 companies and by hosting one of these demonstrations you can showcase your company's efforts in Energy Efficiency. Through the training provided, your company could implement an Energy Management System in compliance with ISO 50001, while at the same time improving the efficiency and performance of your pumping systems.

Companies hosting demonstration projects will receive:

- A free pump system assessment led by the international team of experts who, together with a group of local trainees, will assess the system in detail, taking measurements and producing a report with detailed recommendations on how to improve the overall system efficiency.
- This assessment would identify areas with potential for energy savings through optimizing the pumping system.
- Free training for your nominated delegates on the 2day user level courses presented by UNIDO.

What is your commitment?

Commit to supporting the work of the international/national experts and trainees of the Expert training in your plant in order to achieve the system assessment, training and project goals within the agreed time period.

Assign plant staff to work with the experts to facilitate access to the plant for the national experts at agreed times and dates in order to fulfill the assessment requirements and implementation goals

Collect and provide provide basic energy and plant information, as required by the expert team.

Commit to implement the recommendations from the system assessment where feasible.

Showcase energy savings realised through pumping systems optimisation by allowing the publication of the successes and learnings of the demonstration project, subject to an agreement on the content of such a publication.

Commit to the principles of an Energy Management System by sending appropriate staff on the 2 day user-level Energy management course presented by UNIDO.

The Pumping Systems Experts

GUNNAR HOVSTADIUS, PhD

Gunnar Hovstadius has more than 30 years of experience in Engineering and Technology management, mostly within ITT Fluid Technology Corporation where he served as Director of Technology. In 2004 he started his own consulting company. He is one of U.S. Department of Energy's approved specialists for undertaking Energy Saving Assessments and presenting seminars on their behalf.

During his career at ITT, Dr. Hovstadius was deeply involved in cooperative efforts with governments, NGOs and trade organizations. He has served on the steering committee of the U.S. DOE's Motor Challenge/Best Practices Program since 1995. Selected by U.S. DOE as a leading "international expert," he continues to work closely with that agency promoting energy efficiency issues both nationally and internationally.

HARRY ROSEN Bsc Mech Eng, Pr.Eng.

Harry has in excess of 20 years experience in the pumping industry, and his company TAS (Technical Application Software) is an international market leader in engineering software for the pump industry. Through the development and roll out of its TAS PumpMonitor product, his company's products and expertise are well known and accepted by major pump users such as Anglo American, Gold Fields and Harmony Gold. Harry has carried out system assessments at bulk water plants, industrial facilities, mining process plants, and underground mining operations.

As a past chairman of the SA Institution of Mechanical Engineering, Central Branch. Harry was instrumental in setting up the first International Pump User Conference (IPUC) which was held in Johannesburg in 2005. Every 2 years since then IPUC has brought together the world's experts in energy efficient pumping systems, regularly attracting over 180 delegates and 20 world class speakers.

Since 1997, Harry has presented a 2 day workshop on improving the efficiency of pumping systems. This has been endorsed by Eskom and the National Energy Efficiency Agency as a valuable tool in helping industry to achieve the targeted 10% saving in electricity consumption.