

## **CAIA – NCPC-SA INDUSTRIAL ENERGY EFFICIENCY PROJECT**

### **Introduction**

The Chemical and Allied Industries' Association (CAIA) and the National Cleaner Production Centre South Africa (NCPC-SA) would like to embark on an industrial energy efficiency (IEE) project. The NCPC-SA is a Department of Trade and Industry (**dti**) programme that assists with achieving energy efficiency in businesses and/or industry. The IEE project was established in 2010 with the ultimate goal to assist industry to save energy and demonstrate the positive impact of energy management on carbon dioxide emissions and how it can improve effectiveness and save money. The NCPC-SA's IEE project has assisted industry to achieve energy savings worth over R1.54 billion since 2010. The energy savings were achieved through the implementation of Energy Management Systems (EnMS) and Energy Systems Optimisation (ESO) in industrial companies.

### **IEE Project Focus**

The IEE project focuses on the following:

- Promotion of EnMS and standards to provide companies with a platform to sustain energy efficient practices;
- Promotion of ESO to unlock the energy savings potential of priority industrial sectors in SA;
- Training energy experts and practitioners to transfer skills to industry;
- Running projects to demonstrate the impact of energy efficiency practices on local industries; and
- Raising awareness around the importance and impact of IEE.

### **Company Management Support, Public Awareness and Certification**

The IEE project works well in companies where it is supported by management, therefore management commitment is essential. In addition, public awareness campaigns are important, as part of the savings are purely due to behavioural change which is attained

through awareness campaigns. ISO 50001 certification is also important; however, it is not compulsory. ISO 50001 requires companies to demonstrate continuous energy performance improvements, and as such, it acts as internal leverage for sustained energy management. Companies also need to consider implementation costs and the need for human resource investment.

### **Services and Outcomes**

During training and implementation of the IEE project, the IEE project team forms part of energy efficiency projects in participants' facilities from start to finish, assisting with funding options, providing technical support, training and project management guidance, and collecting savings data on completion. Since 2010, the IEE project has capacitated over 3500 professionals and trained over 160 experts in industrial energy efficiency.

### **EnMS and ESO Training Courses**

Training courses in EnMS and ESO programmes were developed in partnership with the United Nations Industrial Development Organisation (UNIDO) as part of the NCPC-SA IEE project. The EnMS programme presents a methodological, organised approach to managing energy usage, based on the SANS/ISO 50001 standard. It is aimed at individuals who are responsible for implementing energy management systems in their companies. On the other hand, the ESO programme combines theory and practical, and covers management processes, case studies, training on appropriate software toolkits and practical sessions. The training courses are highly subsidised; however, some fees apply. The training opportunities are aimed at energy managers, plant and facility engineers, maintenance staff, engineering consultants, service providers to industry and suitably qualified candidates who are interested in train-the-trainer opportunities.

Training is presented at two levels: a technical advanced level offered in a two-day workshop format, and an expert level training. The expert level training is completed over a period of 6-9 months and includes a theoretical and in-plant training, and an actual workplace implementation component. Industrial enterprises can participate and benefit from the IEE project by either becoming a host/candidate plant, or by becoming a demonstration plant. Enterprises become host/candidate plants by allowing expert level training at their plants where companies are enabled to identify energy saving opportunities.

In the case of ESO, participating companies receive a systems assessment report compiled by UNIDO/NCPC-SA experts and may enrol two delegates in training programmes. Companies that choose to implement some or all the recommendations from the assessment report may volunteer as demonstration plants. The IEE project will partner with the company to develop a case study on the implementation process and the energy savings resulting from it.

### **Workshop invitation**

CAIA will be hosting a workshop together with the NCPC-SA, wherein a representative from the NCPC-SA will unpack all their services on the IEE project. The NCPC-SA representative will also share some case studies of past IEE projects. CAIA members are requested to send representatives to the workshop, in particular, energy managers, plant and facility engineers, maintenance staff, engineering consultants, service providers to industry and suitably qualified candidates who are interested in train-the-trainer opportunities.

Yours sincerely



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