

Industrial energy-efficiency initiative introduced in SA

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It has been demonstrated, time and time again, that energy-efficiency saves industrial firms money, increases the reliability of operations and has a positive effect on productivity and competitiveness. The Department of Trade and Industry (the dti), the Department of Energy (DoE), the Department of Environmental Affairs, and Business Unity South Africa (BUSA), in collaboration with the United Nations Industrial Development Organisation (UNIDO) and the Swiss State Secretariat for Economic Affairs, have initiated a project to improve the capacity of the South African industry to use available energy resources more efficiently and productively. The project is housed by the National Cleaner Production Centre of South Africa (NCPC-SA) at its offices in Pretoria and Cape Town.

Started in 2010, the goal of the Industrial Energy Efficiency (IEE) project is to contribute to South Africa's industrial energy-efficiency, reduce carbon-dioxide emissions and demonstrate the effectiveness of in-plant energy management as a means of increasing profitability. "During the second half of last year, we introduced various training courses to industry. In 2011, we will continue training energy experts, consultants, plant personnel and practitioners and running projects to demonstrate the impact of energy-efficiency practices on local industries," says national project manager Gerswynn McKuur.

"At present, industry is one of the market segments that consume the most energy, so this is where the biggest opportunities lie. UNIDO research has indicated that component optimisation typically has a savings potential of 5%-10%, compared to possibly 40%-50% in the case of systems optimisation. Many people look towards a specific technology to reduce electricity consumption in industrial applications, but our courses focus on implementing entire energy management strategies – how to get the policies implemented in accordance with standards, documenting the processes and ensuring that the company sees a return on investment. Industrial energy management requires a holistic management approach," explains McKuur.

Training courses will be held at various locations every month and will be presented at three levels - introductory level, technical courses for users, and in-depth expert-level courses for company representatives and consultants. The focus will be on energy management systems and energy systems optimisation, inter alia including compressed air, pumping and steam systems. According to Bo Wallander, chief technical advisor for UNIDO, consultants will also be trained to become future trainers of the IEE courses. "This year the training will be presented by international experts from UNIDO. From 2012, however, we want to use local trainers for the project since we are very focused on skills transfer," says Wallander.

Energy-efficiency practice will be guided by the revised National Energy Efficiency Strategy of the DoE, which is expected to be published during the first quarter of 2011. "This will be followed by the new Energy Management Standard, ISO 50001, which will be published by mid-2011 and adopted as a national standard soon thereafter. The SABS has also published SATS 50010, the technical specification for

the measurement and verification of energy savings. This will enable companies to provide proof of energy savings in order to qualify for government energy efficiency tax incentives,” says Wallander.

“In the efforts of South African industrial energy-users to contend with energy security and pricing challenges, while also developing a meaningful and achievable response to climate change, energy-efficiency remains the best starting point,” says Valerie Geen, a director at the National Business Initiative (NBI).

“During the NBI’s work with big energy-users through the Energy Efficiency Accord, the organisation identified the need for skills development within the industry to progress in meeting its energy-efficiency targets, actions and outcomes. The NBI therefore supports the National Energy Efficiency project, which is delivered through UNIDO in partnership with the South African government and donor agencies. The project focuses on skills development at both company and train-the-trainer levels, and also addresses system optimisation. This includes an audit and systemic approach to energy-efficiency and leads to better prospects of measurement and verification of energy savings, using best practice experience and expertise. The NBI encourages more companies to take up this programme and – for those who are willing – to become demonstration sites for other companies to learn from,” concludes Geen.

For more information on the project or training courses, contact the NCPC-SA.

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