

proud to save! – Training of Energy Managers



Deutsche Industrie- und Handelskammer für das südliche Afrika
Southern African-German Chamber of Commerce and Industry



EUREM – European EnergyManager

Build Your Capacity for Sustainable Energy Efficiency Solutions

What is EUREM?

The European Energy Manager – EUREM – is an extra-occupational, standardized extra-occupational training programme and international network for Energy Managers.

The EUREM training enhances the skills of technical practitioners in the field of energy management and energy efficiency improvement. The training covers nearly all energy-relevant issues which can arise in manufacturing industries and companies.

The EUREM initiative started in 1999 and is coordinated by the Nürnberg Chamber of Commerce, Germany. At present the EUREM is offered in 30 countries throughout the world and more than 4.500 Energy Managers have been trained.



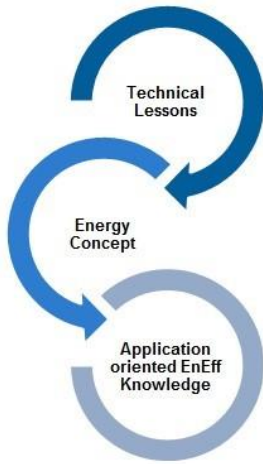
Today, the European private sector regards the EUREM as standard qualification programme for their energy managers.

EUREM Network

Linking international Energy Managers is an important feature of EUREM. Participants worldwide are able to interact and exchange experiences through a web based social platform – the EUREM Network. The participants' access is permanent and available throughout the duration of the course as well as afterwards. Via the EUREM Network participants have access to the latest developments in energy efficiency engineering and can download training documents and tools.

EUREM's Capacity Building Approach

The EUREM follows a **blended-learning approach**, combining transfer of knowledge and new technologies, exercises and interactive discussions with practical application of the newly attained knowledge. The training is usually held extra-occupational and consists of **classroom lessons** and a practical project work, the **company specific energy concept**.



Up to 160 teaching units (each 45 min) are held by experienced lectures and energy efficiency professionals. The EUREM training contents are standardised and therefore worldwide comparable. However the training material is modified to meet country-specific needs. The quality of training and training organisation is ensured by periodical quality examinations of external auditors.

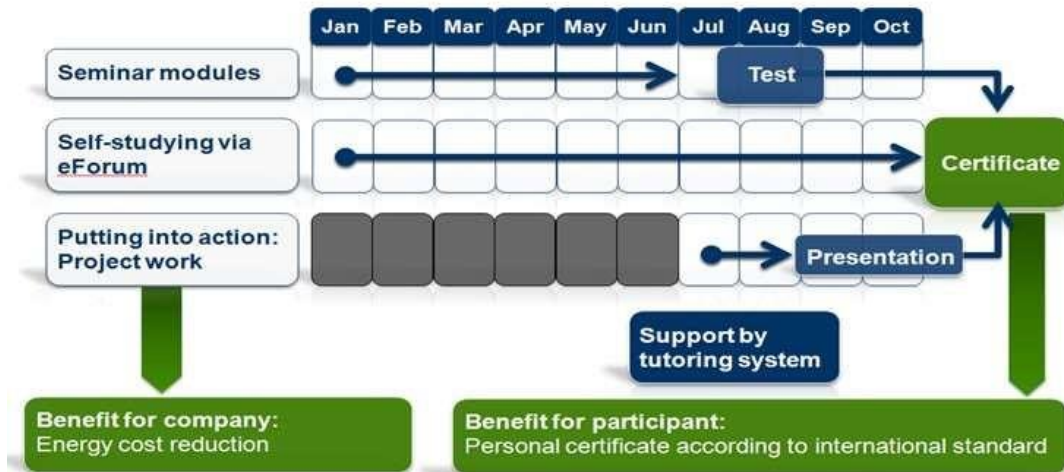
Besides classroom lessons, **the energy concept** is the key element of the practical EUREM training. Each participant develops a feasible energy efficiency project which tackles energetic weak points of the participant's company with a high chance of realisation. Thus the newly attained knowledge is directly applied in practice. This approach leads to **application-oriented energy efficiency capacity and tangible results** in the participating company.

The EUREM training material includes presentations, calculation tools, case studies and exercises, checklists and background material. All teaching material is prepared by technical experts and updated regularly. Participants have access to the updated material even after finishing the course.

The collage displays various training materials:

- Druckluft-Grundlagen:** A diagram showing the functional principle of a screw compressor, including components like the compressor, receiver, and distribution system.
- Druckluft-Effizienz:** A schematic diagram of a compressed air system with various components and flow directions.
- Optimierung der Einflussparameter:** A table with columns for 'Einflussparameter' and 'Tabelle 1', detailing optimization strategies for compressed air systems.
- Beispiele für Einsparbereiche von Druckluft:** A diagram showing different types of air tools and their corresponding energy consumption, such as pneumatic wrenches, sanders, and blowers.
- Technische Grundlagen:** A diagram illustrating the physical principles of compressed air, including the relationship between pressure, volume, and temperature.
- Druckluft-Effizienz (Table):** A detailed table with columns for 'Druckluftverbrauch', 'Druckluftdruck', 'Drucklufttemperatur', 'Druckluftverluste', and 'Druckluftkosten'. It includes a graph showing the relationship between pressure and volume.

Steps to attain international EUREM Certificate



Why participate in EUREM – your benefits

The EUREM leads to tangible results in the participating companies. About 75% of all Energy concepts developed during the worldwide EUREM trainings have been implemented. This has led to average annual cost savings of ≥ 30.000 EUR and energy savings of 750 MWh for each participating companies. Amongst others your benefits of EUREM include:

- Exposure to latest, state-of-the-art EnEff technology and processes
- Development of corporate and individual energy efficiency skills – higher value of human capital, motivation and support to employees
- Capacity to cut power costs and optimise your energy consumption – increase your competitiveness
- Energy concept: tailor-made energy saving measure for your company developed by your employee, almost ready for implementation – company's immediate ROI
- Expertise to ensure continuous EnEff improvement – ideal preparation for introduction and further development of Energy Management (ISO 50001)
- Contacts to technology and service providers and capacity to engage with them
- Globally recognised personal certificate
- Contribution to climate protection and reduction of carbon footprint

EUREM Cape Town 2018

EUREM in South Africa is implemented in the framework of the South African-German Energy Partnership. The Competence Centre Sustainable Energy of the Southern African German Chamber of Commerce and Industry (SAGCC) in cooperation with the South African Renewable Energy Technology Centre (SARETEC) is responsible for the introduction of EUREM in South Africa.

Target Audience – who should participate

The target group for the EUREM training are companies' technical staff and executives as well as energy service providers:

- Process Engineers and Operation Technicians
- Plant and Production Managers
- Designated, appointed Energy Managers
- Facility and Maintenance Managers

Locations and timeframe

EUREM 2018 training courses will be offered at SARETEC in Belville, Cape Town from May to November 2018. Classroom lessons are held on Thursday and Friday 09:00 to 16:00. Exam is on the 30th November 2018 and the presentation of the energy concepts is on the 11th January 2019. This leads to an effective time load of about two to three days per month concerning the classroom lesson.

The maximum number of participants is 15 to allow group interaction and ensure that participant's individual interests and questions can be addressed adequately.

Learning Targets and Course Content and Structure

EUREM participants will attain the necessary skills to optimise the energy consumption in their company, including...

- how to analyse the energy situation in the company
- technical know-how to identify energy efficiency opportunities
- how to sell the project to top management
- project planning, implementation and coordination
- how to evaluate and guarantee the targeted savings
- how to ensure continuous energy improvements

The EUREM South Africa consists of 140 teaching units (105 clock hours) in 8 technical and management modules. In addition each participant has to development its energy concept (input approx. 80 teaching units) supported by the trainer team.

I. Energy Fundamentals		1.1 Basic Power Engineering (3h) Fr 18.05
		1.2 Control & Measuring Technologies (3h) Fr 18.05
II. Energy Economics	2.1 Energy Market (3h) Th 24.05	2.2 Energy Efficiency Economics (6h) Fr 25.05
III. Energy Management	3.1 Energy Management Systems (6h) Fr 15.06	3.2 Energy Data Management (3h) Th 21.06
		3.3 Load Management (3h) Fr 22.06
		3.4 Change and Project Management (3h) Fr 22.06
IV. Efficient Buildings	4. Energy Efficiency in Buildings and Lighting (7h) Th 19.07	4. Energy Efficiency in Buildings and Lighting (7h) Fr 20.07
V. HVAC and Cooling	5. Heating, Ventilation, AC and Cooling (7h) Th 16.08	5. Heating, Ventilation, AC and Cooling (7h) Fr 17.08
VI. Electrical Applications	6.3 Green ICT (3h) Th 13.09	6.1 Electric Drives and Motor Efficiency (6h) Fr 14.09
		6.2 Efficiency of Compressed Air Systems (6h) Fr 21.09
VII. Energy and Heat Technology	7.1 Cogeneration (6h) Th 18.10	7.2 Process Heat (6h) Fr 19.10
		7.3 Bioenergy: Biomass and Biogas (6h) Fr 12.10
VIII. Solar Energy Technologies		8.1 Photovoltaic and Solar Hybrid Systems (6h) Th 08.11
		8.2 Solar Heating, Cooling and Process Heat (6h) Fr 09.11

EUREM Trainer Team

The EUREM South Africa trainer team consist of technology companies and individuals with industrial background having...

- Profound expertise in latest technological developments
- Applied knowledge in energy efficiency project design and implementation
- Experience in adult education and capacitybuilding
- Contacts to relevant suppliers, service providers and consultants

Participation fee

As a South African-German Energy Partnership project the EUREM is implemented on a not-for-profit basis. However, a Participation Fee applies in order to facilitate the high-level training.

The Participation Fee for EUREM 2018 is R39.875 (excl. VAT), payable upon registration.

Participant and participating company receive...

- 140 teaching units of technical and management lessons – R285 per unit
- Company specific energy saving project
- Permanent access to international EUREM community – including regularly updated training material, information on developments in industrial energy efficiency
- Practical, comprehensive calculation tools for energy efficiency measures
- International certification by IHK Nürnberg + certificate by SARETEC
- CPD credits (~15)

Further information and registration

For further information on the EUREM and/or registration for the 2018 training, please visit www.energymanager.eu/en/ or contact:

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Competence Centre Sustainable Energy

Southern African – German Chamber of Commerce & Industry