



Mr. Lars Møller

NAME	Lars Møller
YEAR OF BIRTH	1951
NATIONALITY	Danish
EDUCATION	B.Sc. (Mech. Eng) (Specialized in thermal machines and plants, 1981, Technical University of Odense in Denmark). Marine Engineer (Esbjerg School of Marine Engineers 1977)
LANGUAGES	Scandinavian (Mother language), English (fluent), German (good), French, Spanish, Thai (poor)
OTHER TRAINING	<u>"Combustion Technologies"</u> 1983 <u>"Project Management"</u> 1982-1984

KEY QUALIFICATIONS

Educational background.

Mr. Møller has an educational background as marine engineer, supplemented with a bachelor degree in mechanical engineering specialised in thermal machines and plants. He has further developed his theoretical background by participation in courses and seminars on training in combustion technology, project management and others.

Specific professional working experience including adequate technical qualifications/skills

Mr. Møller is an expert, with 30 years of professional international experience in the field of energy. His experience is within the fields of assessment, project management, project planning, plant design, plant implementation, fuel logistics, commissioning, plant operation, service and maintenance, manufacturing of boilers and combustion equipment, manufacturing of diesel- and gas engines, manufacturing of wind turbines and wind diesel systems. He has been consultant on more biogas plant projects working with planning, design and implementation, working as consultant and as contractor on cogeneration, boiler and DH systems including development of computer and PLC process control systems (SCADA). His professional experience also includes such issues as Project financing, Energy Legislation, Energy conservation, Energy Auditing, Training, Institutional Building and HRD.

Through his international work with energy Mr. Møller has gained a comprehensive knowledge about the energy technologies being used in different parts of the world. He has more than 15 years of international experience with energy projects. His international

experience with energy projects is ranging from energy policy, resource and demand mapping, energy auditing, energy saving and conservation, project management, planning, design, implementation, commissioning and monitoring of projects.

Previous working experience from assignments and/or knowledge.

In the period 1997-2003, Mr. Møller performed a number of industrial energy audits and implemented energy conservation and energy saving projects in industries in Lithuania, Latvia, Russia and Thailand. The audited industries were ranging from textile industries, a furniture industry, food processing industries, a producer of synthetic yarn, production of enamel wire and production of palm oil. Beside the specific audits Mr. Moeller has performed a number of assessments on energy saving and energy conservation potential at different industries in Thailand, Germany, Slovenia, Estonia and Latvia.

Mr. Møller just finished working as resident Deputy Chief Technical Advisor, (with the CTA situated in DK), at the Department of Alternative Energy Development and Efficiency under the Ministry of Energy in Thailand; assisting the Ministry in preparation of an action plan for development of the RE market in Thailand. The work at the Thai Ministry of Energy is coming after 2½ years as long-term technical advisor for the Technical Service Cell on the Danida and EfE supported UNDP project "Biomass One-Stop Clearing House".

At the Biomass One-stop Clearing House Mr. Møller has trained the BOSCH staff in evaluation of international and locally produced/modified gas engines for a number of biogas plants on oil palm mills, fruit processing industries and on tapioca starch mills. He has made conceptual and detailed design for biogas plants for wastewater treatment projects adapted to local technology and conditions (wastewater from starch processing, from pig farms, waste from the Tara Thai fruit and vegetable market, leach from compressed municipal waste and from palm oil mill effluent. He has been supervising the preparation of TOR for a rice husk fired power plant in Surin, and assisted the project during the design phase. He prepared the report second opinion on biomass resource mapping for the Coco 3 power plant in Rayong.

At the Department of alternative Energy Development and Efficiency under the Ministry of Energy he is assisting the DEDE staff in assessment and evaluation of renewable energy technologies to be selected for promotion within biomass, biogas and wind. Preparation of a Renewable Energy Technology Catalogue, and a Catalogue of Barriers and Measures of intervention, this work includes an Excel Workbook for assessment of the impact of different incentives on the different RET's. The work is planned to end up with preparation of guidelines for implementation of RET (electrical power < 6 MW) in local communities; the political aim is 1,377 MW installed electrical RE capacity in communities before the end of 2011.

While being in Thailand Mr. Moeller has been assisting a Danish manufacturer of fire tube boilers and combustion equipment in transfer of Danish combustion equipment technology to Thailand.

He has been assigned by a Thai turnkey contractor to assist in preparation of conceptual design and QA of anaerobic wastewater treatment and biogas handling/utilization systems, and development of municipal waste to energy projects. During his stay in Thailand Mr. Moeller assisted GTZ in energy auditing at an oil palm mill and the oil palm plantations belonging to Asian Palm oil. Mr. Moeller is working as in-house consultant for the Thai Consulting Company EEC.

Mr. Møller has during his stay in Thailand also been assigned by the UNDP to assess the possibilities of biogas production from kitchen waste and other organic waste, and the possibilities for setting up/preparation of wind/solar/diesel hybrid energy systems on the Maldives.

Multidisciplinary and international teamwork experience in similar capacities

Mr. Moeller's international experience and know-how comes in from the assessment, design, procurement, production, establishment, commissioning, operation, service and maintenance of conventional and renewable energy systems, cogeneration, district heating/cooling, energy saving and energy conservation in industrial companies and buildings. He has gained administrative and organizational experience as technical manager for a turnkey contractor dealing with cogeneration plants and district heating networks in Denmark. He established and trained a group of engineers for design, procurement, construction and commissioning of cogeneration plants and DH networks. He has been involved in implementation of more than 20 grid connected cogeneration plants in Denmark and abroad, with fuel ranging from coal, rice straw, rice husk, biogas, sewage gas and natural gas. Beside the cogeneration projects he has been involved in boiler projects with fuel like wood waste, wood chips, wood pellets, wood briquettes, straw, rice husk, rice shells and POME (Palm Oil Mill Effluent) from palm oil production. He has also been involved in developing of stand-alone wind turbines and wind diesel systems with production of shell ice and desalination of seawater.

Experience as an advisor working with and training people at all levels

Mr. Møller has trained technicians from the Peoples Republic of China and Egypt in the erection, installation, operation and maintenance of wind turbines. He has arranged training and study tours for policymakers, energy planners, financial experts, technical experts, cogeneration and power plant managers from Mauritius, from the Baltic Sea states, from India and from Thailand. He has made on the job training and assessment of the training level of power plant and DH plant staff. He has planned and implemented a number of courses for training of boiler house and cogeneration staff in administration, operation economy and operation of the plants.

Working experience with the World Bank

During 1997-1998 Mr. Moeller made an assessment of the possibilities for new and renewable energy in Guyana for the Inter American Development Bank. He was responsible for resource and demand mapping and feasibility analyses in the areas: Sawmills, Rice mills, Sugar mills and Windmills, he also assisted in the feasibility analysis on mini, micro and Pico Hydropower.

Through his international work Mr. Møller has achieved a very good cultural understanding, and his inter personal skills has helped him create an international network to experts, producers and end users of different energy technologies.