

Seminar on Energy Efficiency for Process Industry

Challenges & Opportunities in Process Optimisation

Background & Objectives

- Process industries such as the power generation, refining, petrochemical and chemical, consume substantial amount of energy. It is crucial that these industries initiate and sustain actions to reduce energy consumption, which in turn reduces operating costs and maximize profits.
- A panel of experts including Mr Robert Williams, Chief of Energy Efficiency & Climate Change Unit, UNIDO; Dr G G Rajan, author of several books on process optimisation; and other renowned speakers will share on the tools, approaches and practical applications in effective energy management.
- You can learn from leading industry players like Shell Global Solutions, KBC Advanced Technology, PETRONAS and many others. Besides that, you can learn about Clean Development Mechanism (CDM) opportunities in the process industry.
- Learn about Clean Development Mechanism (CDM) opportunities in the process industry

Who should attend:

Middle to top management in process industries, namely the power generation, refining, petrochemical, chemical and pharmaceutical (Engineering Directors, Production VPs, Facility Managers, Energy Services Companies, Environmental Consultants and EHS Managers)

7 Professional Development Units (PDUs) awarded by Professional Engineers Board, Singapore.



Organised by



Supported by



An Energy Efficiency Singapore Programme

Date: 29 Feb 2008, Friday

Time: 8:30am – 5:45pm

Venue: Hilton Hotel, 581 Orchard Road, Ballroom 1, Level 3

Registration Fee: S\$400

SEAS Members: S\$320

Supporting Organisations: S\$360

(inclusive of lunch, course materials and GST)

Name -----

Designation -----

Company -----

Address -----

Tel ----- Fax -----

Email -----

Cross Cheques to be made payable to Sustainable Energy Association of Singapore and mailed to 2 Bukit Merah Central, 18-02, Singapore. The organisers reserve the right to change topics/speaker in the best interest of the programme. No cancellation upon registration. Substitutes are allowed. A confirmation will be sent to you nearer to the event. Please inform us if you don't receive it. For more information pl contact Ms Joann Ng at Tel: 63388578 E-mail: Joann@seas.org.sg

Time	Session	Speaker
0830-0900	Registration	
0900-0905	Welcome Address	Mr Edwin Khew, Chairman Sustainable Energy Association of Singapore
0905-0910	Welcome Address	Mr Lee Yuen Hee, CEO National Environment Agency, Singapore
0910-0920	Opening Address by Guest of Honour	Dr Amy Khor, Senior Parliamentary Secretary Ministry of Environment and Water Resources, Singapore
0920-1000	Leadership and Management Practices Efficiency in Industrial Energy	Mr Robert Williams, Chief, Energy Efficiency and Climate Change Unit United Nations Industrial Development Organization
1000-1015	Morning Refreshments	
1015-1045	Optimizing Energy Efficiency in Industry	Dr G G Rajan, CEO, Techno Software International
1045-1115	Overview of Energy Auditing in Process Industry – The Indian Experience	Dr G C Datta Roy, Chief Executive DSCL Energy Services Company Ltd (DSCL ESCO)
1115-1200	Case Study of Energy Reduction Program in an Oil Refinery	Mr Doug Hutton, Senior Staff Consultant KBC Energy Services
1200-1230	Exploiting Information Systems to Achieve Operational Excellence	Mr Mohaiyuddin B Abdul Hamid, Energy & Loss Manager Petroliam Nasional Berhad (PETRONAS)
1230-1330	Lunch	
1330-1400	Case Study of the Implementation of Performance Contracting in a Paper Mill	Dr G C Datta Roy, Chief Executive DSCL Energy Services Company Ltd (DSCL ESCO)
1400-1430	Condition Monitoring for Predictive Maintenance to Maximize Plant Energy Efficiency	Mr Norman Lee, Managing Director ACTSYS Process Management Consultants Pte Ltd
1430-1445	Case Study of Energy Auditing in a Power Plant	Mr Tan Kok Poh, Production and Performance Manager Utilities Group, Power Seraya Ltd
1445-1530	Energy Improvement Programs for the Process Industry - Case Study in Shell Bukom	Dr Oscar Piepers, AP Regional Discipline Manager, Carbon and Energy Management, Shell Global Solutions (Malaysia) Sdn Bhd
1530-1600	Afternoon Refreshments	
1600-1630	Industrial Motor and Steam Systems Optimization	Mr Robert Williams, Chief Energy Efficiency and Climate Change Unit, United Nations Industrial Development Organization
1630-1700	Government Initiatives in Energy Efficiency	Mr Ng Tiong Wei Energy Conservation Unit, Resource Conservation Department, National Environment Agency, Singapore
1700-1730	CDM Opportunities for Cogeneration Projects	Mr Padmanabhan Krishnamurthy, Director, Asia Pacific KYOTOenergy Pte Ltd
1730-1745	Case Study of Trigeneration Project in Pfizer	Mr Lee Chin Hoo, Engineering Service Director Pfizer Asia Pacific Pte Ltd

About the Speakers

Mr Robert Williams is Chief of the Energy Efficiency and Climate Change Unit in UNIDO's Program Development and Technical Cooperation Division. He joined UNIDO in 1985 and held senior positions as Deputy to the Director of the Industrial Energy and Climate change Branch, Officer-in-Charge of Kyoto Protocol Branch and Officer-in-Charge of Environment Coordination Unit. His responsibilities currently extend to development of programs in industrial energy efficiency and, more generally, supporting industrial projects eligible for consideration under Joint Implementation and the Clean Development Mechanism. Most recently, he has been involved in projects, which promote improved efficiency in industrial energy systems and the application of energy management standards. He holds a PhD from the University of Wales.

Dr G G Rajan has 41 years of experience in the field of energy management in petroleum, petrochemical and fertilizer industries. He has collated a wide range of energy saving techniques that will enable professionals in the field to diagnose their own system/sub-system more easily for taking appropriate actions to reduce energy consumption and operating cost. By virtue of his expertise in process design, operation and maintenance, he has developed a number of process performance models of day-to-day use for process industries with specific applications. He has authored a number books, such as "Practical Energy Efficiency Optimisation", "Optimizing Energy Efficiencies in Industry", etc. He is currently the Chief Executive of Techno Software International in India. He is a consultant to many industries and he had won the first National Prize for his practical approach paper on "Cost Effectiveness in the Refining Sector", where he had applied techno economic models effectively to minimize plant operating cost and increase profitability of the enterprise. He has the credit of having brought down the specific feed and fuel consumption in a Reformer unit by 20% using his scientific models.

Dr G C Datta Roy is currently the Chief Executive of DSCL Energy Services Company Ltd (DSCL ESCO) in India. He has over 42 years of experience in various capacities, including as business heads for several energy intensive businesses like power, chemical, edible oil, sugar, etc. As CEO, he has built DSCL ESCO, currently recognised as the best Energy Services Company in India. Has been involved in strategic energy management studies & implementation of energy efficiency projects for large number of industries in India & globally and in the building sector in India. Has been deeply involved in developing technology for difficult to burn biomasses like straw, residues and setting up number of power plants on such fuel in the Northern India. He has made over 100 presentations and contributions in seminars/workshops/journals globally on energy efficiency and renewable energy related topics.

Mr Doug Hutton is the Senior Staff Consultant in KBC Energy Services, with over 15 years of experience in industry, including process integration studies, distillation and utility system modelling in the oil refining sector, petrochemicals and chemicals. During his career with Linnhoff March, now part of KBC, he has carried out a number of Total Site energy studies for refining, petrochemical and chemical companies in Europe, USA, India and Japan, focusing on reducing energy consumption across entire production sites. At a higher level, he has conducted corporate energy benchmarking studies in China and Malaysia, both leading to the development of an energy masterplan. Other work has included modelling and optimisation of utility systems, optimisation of refinery hydrogen systems and distillation design and debottlenecking studies. He holds a First Class Honours degree and a Ph.D. in Chemical Engineering from the University of Edinburgh in the UK.

Mr Mohaiyuddin B Abdul Hamid is the Head of Energy and Loss Management under Group Technology Solutions, Research and Technology Division, in PETRONAS. He is responsible for ensuring that PETRONAS energy performance in its Upstream and Downstream operations are in the first quartile of the industry's standard. This covers developing the energy strategy for PETRONAS, providing technical support and solutions to upstream platforms and downstream plants to improve energy performance, and monitoring PETRONAS overall energy performance. He has over 20 years of experience in the chemical and petrochemical industries.

Mr Norman Lee graduated from Imperial College, London in 1980 with a 1st class (Hons) and MSc in chemical engineering. He is a Chartered Engineer member of the Institution of Chemical Engineers, UK. After a first job doing process simulation in BP International London, Norman joined Shell in 1983, in the Singapore Bukom refinery and subsequent cross postings to other major Shell refineries in UK and Holland, eventually holding senior management positions in Technology, Operations and Economics Scheduling & Supply. He was appointed Shell Global Solutions International Account Service Manager in 1998. His process experience spans performance monitoring and optimization of refinery processes and carrying out plant modification project. In Shell Global Solutions, he shaped appropriate technical services to help achieve refinery customers' management targets. Through this job he gained exposure to the relative effectiveness of different management practices. Norman started his process management consultancy company (ACTSYS) in 2001 to provide services for performance monitoring and energy optimization of refineries, power plants and petrochemical complexes. ACTSYS has now got 6 permanent staff. Major power plant customers include Tuas Power, Senoko Power, Power Seraya, Malakoff Sdn Bhd Malaysia, PJB Indonesia and EGAT Thailand. Major refinery and petrochemical customers include Petronas Malaysia and MTBE Malaysia.

Mr Tan Kok Poh is the Production and Performance Manager of the Utilities Group in Power Seraya Ltd. The major works handled include being the key project member for the construction of 2x370 MW combined cycle power plant (CCPP) in the areas of instrumentation and control systems; being the key player of performance monitoring team for the power plant; and building of the IT infrastructure and developing IT functions for the company. His current portfolio is to plan and execute daily production plan and track the plant performances, as well as to implement integrated information system for the power plant.

Dr Oscar Piepers is the AP Regional Discipline Manager (Carbon and Energy Management) in Shell Global Solutions (Malaysia) Sdn Bhd. His areas of expertise include carbon emissions and energy management, chemical engineering, reliability engineering and reliability based maintenance. He received the Van Oostrum Meijes Prize for contributions to the Dutch gas industry (Association of Gas Distributing Companies). He has also been the Chairman of a Benchmark Team (all major European gas companies) on reliability performance of process equipment and station designs in gas transmission grids, a Board member of the European Safety & Reliability and Data Association (EsReDA) and also a Board member of the Dutch Safety & Reliability Society.

Mr Padmanabhan Krishnamurthy or PK as he is fondly known, is the Director, Asia Pacific, Kyotoenergy Pte Ltd. PK has more than 27 years of work experience and has held various senior positions such as Head of Business Development, General Manager and Vice-President. During his tenure, PK has helped several companies, from a wide spectrum of industries, to undertake efficient waste management programs and energy efficiency programs that contribute towards reduction in the emissions of CO₂ and other GH Gases. In Kyotoenergy, PK is responsible for developing the CDM business in South-East Asia. He is familiar with different sectors of Industries in the region and has worked on various renewable energy, energy efficiency and biomass projects in the region.

Mr Lee Chin Hoo joined Pfizer Asia Pacific Pte Ltd as the Engineering Services Director/Team Leader involved in engineering services set up and utility and OSP plant start up activities. Prior to joining Pfizer, he was with Chevron Oronite, Singapore, a green field plant where he was the General Manager, Maintenance, Engineering and Purchasing Services for about 5 years. Mr Lee was also with Schering Plough Singapore, another greenfield plant as the Engineering Department Manager before he moved to Chevron. His early career was with Smithkline Beecham (now under GSK) as the Project & Maintenance Manager for 7 years and Project Engineer with Petrochemical Corporation of Singapore for 5 years.