

# Understanding the Global Carbon Market and Implementing Carbon Based Energy Efficiency Projects in Singapore & South East Asia

New

PDUs to be awarded by Professional Engineers Board, Singapore

**Date** : 10 September 2009

**Time** : 9.00 am to 5.00 pm

**Venue** : SPRING Singapore  
2 Bukit Merah Central  
Singapore 159835

Today climate change dominates the agenda of governments and businesses across the globe. In the recent meeting of the G8+G5 states, in Italy, the leaders have agreed to work towards an emission reduction target of 80% by 2050. The commitment towards containing climate change is strongly reflected in the growth of the carbon markets that were valued at USD 125 billion at the end of 2008, almost double their value over 2007.

Singapore formally acceded to the Kyoto Protocol in 2006 enabling both the government and the private sector to participate in its market based-mechanisms. The Clean Development Mechanism (CDM) under the Kyoto Protocol provides both host countries and its partner(s) with opportunities for significant greenhouse gas emission reductions as well as sustainable development.

On 1st Dec 2009, delegates from 170 countries will gather in Copenhagen for the last, before the climate agreement needs to be renewed. In the midst of the uncertainties and trend change within the carbon market, several other project opportunities and initiatives have emerged on a competitive level of sustainable development as compared to the approved UN projects. The voluntary market has been a major highlight where it has reached a value of \$ 700 million for the year 2008. It has created a different perspective in terms of technology transfer, value of the carbon credits & standardization. As for Singapore, energy efficiency type projects, in Buildings, Transportation and Manufacturing space - have been attracting much attention and headlines.

This training course will enable you to understand the working of global carbon market and implement energy efficiency projects with carbon benefits in Singapore & South East Asia.

Organised by:



Supported by:



Lead Business Partner:



## Objectives

At the end of the workshop, participants will:

- Understand opportunities and challenges in the Global Carbon Market Development
- Be able to identify, strategize and add values on the Green initiatives in Singapore
- Be able to move forward systematically and responsibly and gain from Energy Efficiency initiatives
- Be able to plan and implement Green Buildings project as a valuable carbon based project
- Understand opportunities and challenges of the Programmatic CDM implementation and Sectoral Approach of Energy Efficiency projects

## Target Audience

Business Development Managers, Corporate Social Responsibility Managers, Engineers, Decision makers, Entrepreneurs, Strategic Planning Managers etc. related to:

- Building owners
- Construction
- Government Authorities
- Manufacturing
- Oil & Gas
- Petrochemical and chemical industry
- Project development
- Transport & Logistics
- Utilities (power, natural gas, water, waste water, waste, etc.)

## Programme Outline

### Emergence of the Carbon Markets

- Reviewing the UNFCCC & the Kyoto Protocol
- Regional Agreements and their linkage with the Kyoto Protocol
- Recent developments around in Asia and other parts of the World
- The Future of Global Carbon Market

### Kyoto Protocol and Generation of Carbon Credits

- The Kyoto Flexibility Mechanisms
- The Clean Development Mechanism
- Implementing a CDM Project
- Demand & Supply of CERs
- Challenges in Implementing CDM Projects
- Project Examples

### Potential of Energy Efficiency in developing Green Buildings

- Current Condition
- What is a typical building energy consumption which has 15-20 year-old chillers?
- What is a general energy consumption of 15-20 year-old building located in South East Asia (Malaysia and Singapore)?
- Opportunities
- How this consumption can be minimized?
- What are the typical energy consuming technologies involved?
- Which equipment contributes the most significant energy consumption?
- How much saving is translated into cost saving?
- Why building owners are not taking the steps?
- Engineering? or Devices?
- Typical Engineering Improvements
- Typical Device functions
- How the Project Monitoring works on the purpose of carbon emission reductions?
- Energy consumption in semi-conductor sector
- Presentation of case studies
- Telco
- Semiconductor

### Programmatic CDM or Sectoral Approach for Energy Efficiency Projects

- Why Programmatic CDM for energy efficiency?
- POA modalities and procedures: Difference of POA compared to normal CDM projects
- Sectoral Approach: Benchmarking
- What a country/region should have for benchmark approach: preparation towards approach CDM in energy efficiency
- Challenges in POA and Sectoral Approach
- What are other additional options besides Compliance Market?

Sustainable Energy Association of Singapore (SEAS)

2 Bukit Merah Central #18-02 SPRING Building Singapore 159835 Tel: (65) 63388578 Fax: (65) 62764257 www.seas.org.sg

## About SEAS

Since 2001 the predecessor of SEAS, Industry Committee for Energy Efficiency (ICEE) a part of Singapore Association for Environmental, Occupational Health and Safety Companies (SAFEco) has been conducting seminars, workshops and conferences in the area of energy efficiency and management. ICEE/SAFEco was the first organization to launch the Specialist Diploma in Energy Efficiency in conjunction with Singapore Polytechnic.

Today, SEAS is specializing in running trainings, courses and conferences only in the area of sustainable energy i.e. energy efficiency and management, renewable energy, carbon trading as well as funding and financing of clean energy projects. SEAS aims to be the one stop, information and training provider, in the area of sustainable energy. Our trainers and lectures are not only highly qualified academic professionals but also industry specialists and professionals that are successful and sought after practitioners in the area of Sustainable Energy. Majority of Key Qualified Personnel and Accredited Energy Services Companies are members of SEAS. They have, as a group successfully executed a multitude of energy projects with varying complexities which demands both locally and regionally.

## About the Trainers

**Mr Kumarason Kandiah** has 10 years working experience in Energy Efficient Design and State of the Art Control Systems. He has wide experience in conducting professional energy audits, energy retrofit, design concepts that details potential saving with performance and feasibility studies. He was a Technical Expert for Pusat Tenaga Malaysia (PTM) and involved in the Industrial Energy Audit Guidelines for Malaysia which was published in 2008.

**Ms Architrandi Priambodo** has extensive experience in energy efficiency, greenhouse gas emissions issues and specialized in greenhouse gas reduction projects, particularly in energy sector. Her expertise in climate change and energy includes greenhouse gas (GHG) mitigation technologies, energy saving and pollution prevention measures in industrial processes, and development of carbon credits from GHG mitigation project, especially on Clean Development Mechanism. Her articles related to energy and environment subjects were published in several international journals.

**Ms Ruchika Saluja** has been spearheading the carbon management initiatives for her company that has its footprint in Singapore, China, Middle East & the UK. Her previous engagements, amongst others, include the British High Commission (India) & the United Nations Environment Programme (Bangkok). She has been actively involved in delivering CDM Workshops at various platforms. Her areas of expertise include identification of emission reduction opportunities in energy industries, CDM project development and carbon footprint assessment.

### Understanding the Global Carbon Market and Implementing Carbon Based Energy Efficiency Projects in Singapore & South East Asia

Date: 10 September 2009, Time: 9.00am – 5.00pm, SPRING Singapore

#### Registration Form

- Yes! I would like to register for this programme.  
 I am unable to attend but please put me on your mailing list.

	Early Bird (Registration with payment made on/before 11 August 09)	Normal Fee (Closing date: 27 August 09)	Group Fee (Closing date: 27 August 09)	No. of Delegates	Fees Payable
<input type="checkbox"/> SEAS/SBF Member	S\$250	S\$350	-		
<input type="checkbox"/> Non Member	S\$350	S\$500	S\$300		
			<b>Total</b>		

- \* Fees include refreshments, lunch and programme collateral.
- \* **Enjoy group discount for 4** or more delegates registered at the same time from the same organization and same billing source.
- \* Only one type of discount scheme is applicable at any one time.
- \* Please print and complete additional sheets where necessary.
- \* **Important:** Walk-in delegates will only be admitted on the basis of space availability and with full payment made on site.

#### Participant's Details

- 1 Name (\*Dr/Mr/Mrs/Ms): ..... Designation: .....  
 HP No: ..... Email: ..... PEB
- 2 Name (\*Dr/Mr/Mrs/Ms): ..... Designation: .....  
 HP No: ..... Email: ..... PEB
- 3 Name (\*Dr/Mr/Mrs/Ms): ..... Designation: .....  
 HP No: ..... Email: ..... PEB

\*Please delete accordingly

#### Organization's Details

Company Name: .....

Company Address: .....  
 ....., Postal: .....

Contact Person's Name : (\*Dr/Mr/Mrs/Ms) .....

Tel: ..... Fax: .....

Email: .....

#### Administrative Information

##### Registration and Payment

Please complete the enclosed registration form and forward it together with your cheque at least 7 days before the commencement of the programme to

**Sustainable Energy Association of Singapore**  
**2 Bukit Merah Central**  
**#18-02, Spring Building Singapore**  
**Singapore 159835**

Crossed cheque should be made payable to "Sustainable Energy Association of Singapore"  
 Applications will close on **27 August 2009**.

##### Cancellation

SEAS reserves the right to change programme venue, cancel or reschedule the programme if necessary or warranted by circumstances beyond our control.

There will be no refund of fees for withdrawal. However, if the registration participant is unable to attend, a representative may be allowed to attend at no extra cost. Please inform us of the changes by fax or via email 3 days before the commencement of the programme.

##### Confirmation of Registration

Confirmation of registration will be given 5 working days before the commencement date via email. Registration is confirmed only upon receipt of payment.

If you do not hear from us  
**Please contact Ms Joann Ng at: 63388578**  
**Email: training@seas.org.sg**  
**Fax your registration form to 62764257**