



Capacity Building and Institutional Strengthening in ASEAN

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Outline

About our company
The ASEAN Energy Manager Accreditation Scheme
The Energy Management Training Curriculum
The Energy Management Simulation Test
Feasibility Study for Biodiesel Production
Design of the ASEAN Carbon Equity Fund

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About BMC

History

- Formerly established as EEC Energetics in 1995
- Affiliated with the EEC Group
- Energy management
- Training for "PRE" (Person Responsible for Energy – Energy Managers)
- Special projects
- CDM consultancy

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About BMC

Energy Management Consulting 1/2

- **Implementation of Sustainable Energy Management System (SEMS) in industries:** in-house consulting
- **Advisory and consulting services for Thai government:**
 - Developed training curriculum for PRE (contracted by DEDE)
 - Developed training curriculum for PRE in health care and hospitality industry (contracted by DEDE)
 - Conducted certification training for PRE (contracted by DEDE): 1,300 PRE trained (among which 860 from factories)
 - CFC chiller replacement program (DIW)
 - Planning implementation project (EPPO – AUSAID)
 - Evaluation of Thailand ENCON measures (EPPO)
- **Training on energy management in Asia** (UNESCAP, AUSAID, World Bank, Hong-Kong government, etc.)

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About BMC

Energy Management Consulting 2/2

- **Advisory / consulting for international donors:**
 - Design of the ASEAN Energy Manager Accreditation Scheme (AEMAS) (European Commission)
 - Development of training curriculum for energy managers and training providers in ASEAN (European Commission)
 - Development of Energy Management Simulation Test (European Commission)
 - Design and development of the training curriculum for the Cleaner Technology (DIW-DANCED)
 - Development of a sustainable energy management framework for Myanmar (UNESCAP)

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About BMC

Technical Consulting

- **Energy audit; energy target & plan:**
 - Factories: 230
 - Buildings: 67
- **Technical consulting for Thai government or international donors:**
 - Detailed design of energy technologies display for Energy Demonstration Centre (DEDE)
 - Promotional media for DEDE's Energy Conservation building (DEDE)
 - Industrial energy auditing capability building for EGAT (World Bank)
 - Development of functional specifications for Thailand's Energy Demonstration Centre (DEDE-AUSAID)
 - Evaluation of EGAT DSM programs (World Bank)

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About BMC

CDM and Renewable Energy

Type	Country	Estimated CERs/year	CDM stage
Biogas in CPO mill	Thailand	15,000	PIN
	Malaysia	95,462	PDD
	Malaysia	41,839	PDD
	Malaysia	23,000	PIN
Biogas in tapioca starch factory	Thailand	40,000	PIN
Biomass for fuel switching	Thailand	23,321	PDD
Biomass for cogeneration using EFB	Thailand	30-50,000	PIN
	Malaysia	30-45,000	PIN
Biodiesel	Indonesia	140,000	PIN

(As of February 2007)

Advisory / consulting for international donors:

- National CDM Strategy Study for Thailand (World Bank)
- Feasibility study for 300,000 liter/day biodiesel production plant in Thailand (European Commission)
- Design of the ASEAN Carbon Equity Fund (European Commission)
- Impact of the EU Linking Directive for Thailand (European Commission)

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AEMAS

Project Identity



Leader Bright Management Consulting* Co. Ltd., Thailand

Partners Copper Development Centre South East Asia, Singapore
National Energy Foundation, UK
Centre for Knowledge Exchange, Ireland

Sponsor EC-ASEAN Energy Facility
Grant amount: 298,510 Euro (50% of project cost)
Contract No. 51-2003

Duration Starting date: 02 April 2004
Ending date (as per contract): 01 October 2005
Ending date (actual): End of June 2005

* Under former name of EEC Energetics

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AEMAS

Outcomes



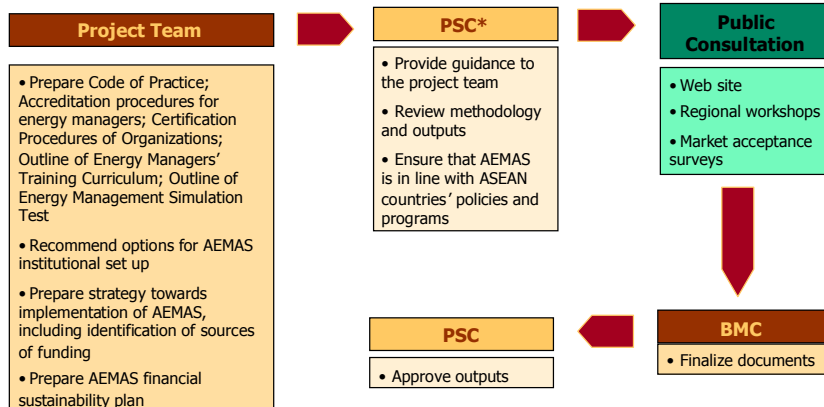
Main outputs:

- Complete design of the ASEAN Energy Manager Accreditation Scheme (AEMAS):
 - Code of Practice for Energy Managers
 - Accreditation Procedures for Energy Managers
 - Certification Procedures for Organizations
 - Training Course Outline
 - Outline of the Energy Management Simulation Test
 - Implementation Strategy towards the Establishment of AEMAS
 - 5-Year Budgetary Estimate for the Operation of AEMAS
- Outcome and recommendations of the project endorsed by EE&C SSN and approved by SOME (June 2005, Phnom Penh)
- ACE recommended as AEMAS Regional Body
- ACE currently working with ADB on the financing of the establishment of AEMAS



AEMAS

Methodology



* Project Steering Committee (PSC) composed of EE&C SSN Focal Points, 1 representative from the ASEAN, and chaired by EE&C SSN Coordinator



AEMAS

Multiplier Effect



After the end of the EAEF grant:

- Development of the full training curricula for energy managers and training providers (with EAEF grant)
- Development in full of the Energy Management Simulation Test (with EAEF grant)
- Technical assistance to Myanmar to design institutional set up to support the AEMAS (with UNESCAP funding)
- DEDE (Thailand) in the process of integrating elements that will support AEMAS into their new regulations
- BMC working with Malaysia and the Philippines to establish initial set up that will support the establishment of AEMAS (private initiative)

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Energy Management Training Curriculum (EMTC)

Project Identity



- Title** Development of the Theoretical Training Curricula for the Energy Managers and Training Providers in ASEAN
- Leader** Bright Management Consulting Co. Ltd., Thailand
- Partners** National Energy Foundation, UK
Centre for Knowledge Exchange, Ireland
- Sponsor** EC-ASEAN Energy Facility
Grant amount: 152,410 Euro (50% of project cost)
Contract No. 131-2005
- Duration** 28 Nov. 05 – 27 Nov. 06
- Remark** Developed in conjunction with the Energy Management Simulation Test (EMST – implemented by MultimediaAsia Co., Ltd.)

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Energy Management Training Curriculum (EMTC)

Project Outcomes



Main outputs:

Two training packages have been successfully developed:

- **Training package for energy manager**, including
 - Energy manager theoretical training course
 - Training workbook for energy manager
 - Theoretical test questions and answers (120 questions)
- **Training package for training providers**, including
 - Training program for training of trainers course
 - Trainers' manual
 - Training materials including PowerPoint presentations and classroom exercises

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Energy Management Training Curriculum (EMTC)

Project Outcomes



Main outputs:

- 15 trainers from the ASEAN region have been trained (from Thailand, Malaysia, Philippines, Vietnam, Indonesia, Cambodia and Laos)
- 25 energy managers from the ASEAN have been trained
- Complete training packages available for the AEMAS

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Energy Management Simulation Test (EMST)

Project Identity



- Title** Development of the Energy Management Simulation Test for the Practical Training of Energy Managers in ASEAN
- Leader** **MultimediaAsia** Co. Ltd., Thailand
- Partners** National Energy Foundation, UK
Centre for Knowledge Exchange, Ireland
- Sponsor** EC-ASEAN Energy Facility
Grant amount: 154,740 Euro (50% of project cost)
Contract No. 133-2005
- Duration** 9 Nov. 05 – 8 Nov. 06
- Remark** Developed in conjunction with the Energy Management Training Curricula (EMTC – implemented by Bright Management Consulting Co., Ltd.)

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Energy Management Simulation Test (EMST)

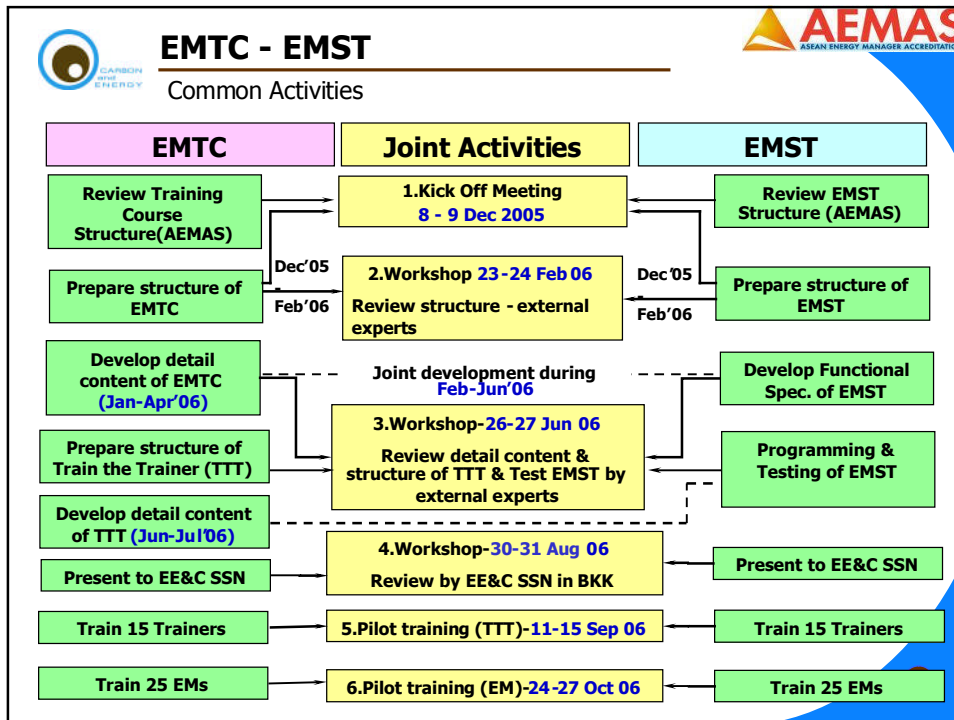
Project Outcomes



Main outputs:

- Energy Management Simulation Test (EMST) package has been successfully developed including the simulation test software, trainer guidebook and user manual
- 15 trainers from the ASEAN region have been trained (from Thailand, Malaysia, Philippines, Vietnam, Indonesia, Cambodia and Laos)
- 25 energy managers from the ASEAN have been trained
- The EMST is to be used together with the EMTC as a means to provide both theoretical and practical training for energy managers

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Status of AEMAS

- Scheme designed in full (*EAEF/AEMAS project*)
- Training curriculum for energy managers and training providers developed and tested (*EAEF/EMTC project*)
- Energy Management Simulation Test for the practical training of energy managers and training providers developed and tested (*EAEF/EMST project*)
- ACE and ADB to finalize TA agreement
- BMC currently working with Thailand, Malaysia and the Philippines for establishment of AEMAS first country chapters

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Biodiesel

Project Identity

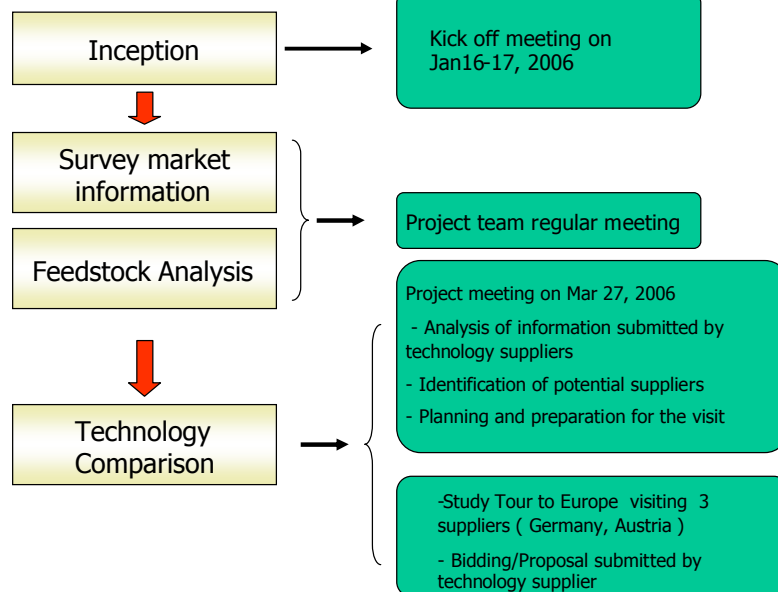
- Title** Feasibility study for the establishment of a biodiesel production plant in Thailand
- Leader** Bright Management Consulting Co. Ltd., Thailand
- Partners** Foundation Joint Implementation Network, Netherlands
PlanEnergi, Denmark
Potential Thai investor
- Sponsor** EC-ASEAN Energy Facility
Grant amount: 244,4671 Euro (50% of project cost)
Contract No. 144-2005
- Duration** 1 year (Dec 06 – Nov 07)
- Objective** Enable the establishment of a 300,000 l/day biodiesel production plant in Thailand

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Biodiesel

Project Activities

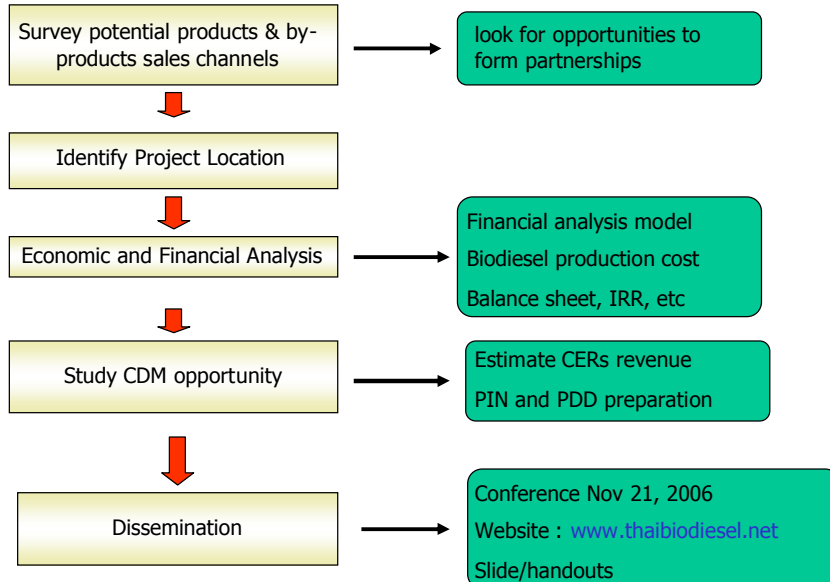


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Biodiesel

Project Activities



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Biodiesel

Key Issues

Critical areas that will drive the success or failure of a commercial biodiesel project:

- The ability to balance feedstock supplies, process technology and market penetration in an integrated system
- The ability to form stable strategic alliances with feedstock suppliers, distributors, end users and other stakeholders
- The ability to anticipate and deal effectively with competitive pressures
- The ability to generate a business plan that will allow a project to attract financing and maintain its financial health.
- The ability to secure contractual arrangements with suppliers and customers.

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ASEAN Carbon Equity Fund

Project Identity

- Title** Adapting Institutional Frameworks in ASEAN for the Establishment of the ASEAN Carbon Equity Fund
- Leader** Bright Management Consulting Co. Ltd., Thailand
- Partners** Foundation Joint Implementation Network, Netherlands
EcoSecurities Ltd., UK
- Sponsor** EC-ASEAN Energy Facility
Grant amount: 199,401 Euro (50% of project cost)
Contract No. 145-2005
- Duration** 1 year (Dec 06 – Nov 07)
- Objective** Design and facilitate the establishment of the ASEAN Carbon Equity Fund

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ASEAN Carbon Equity Fund

ACEF design

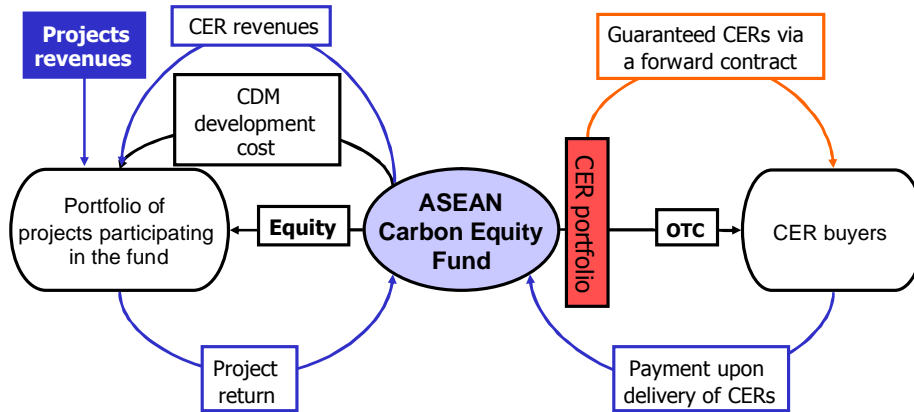
- NOT a carbon fund (does not purchase CERs)
- Provides EQUITY to projects
- ACEF will be a project partner (co-investor)
- As project partner, ACEF will sell CERs on behalf of project and generate revenues (IRR, ROE)
- CERs selling: mix of ERPAs with GUARANTEED supply + brokerage = CER price higher than with current ERPAs

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ASEAN Carbon Equity Fund

ACEF design



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ASEAN Carbon Equity Fund

Challenges – Sustainability – Multiplier effects

- ACEF is a unique carbon financing model
- Received very positive feedback from project developers, DNAs in ASEAN, and investors
- ACEF directly competes with “conventional” carbon buyers
- A proposal to the EC GEEREF will be submitted for the establishment of the fund
- Several big group companies met adopted the ACEF model for their CDM corporate strategy

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Thank you

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