



# UPDATES ON ASEAN PLAN OF ACTION FOR ENERGY COOPERATION 2004 - 2009

ASEAN Regional Perspectives

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## The ASEAN

### Geography

"Ten Nations, One Community"



## Introduction

- **ASEAN**, one of the most dynamic economic regions of the world.
- A *heterogeneous mix* of economies with greatly varying **energy resource endowment** and **energy development situation**.
- In spite of these differences, the ten (10) ASEAN countries have common aspirations in achieving the Goals of **Sustainable Energy Development** and particularly, **Utilization**.

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## Economic Profile

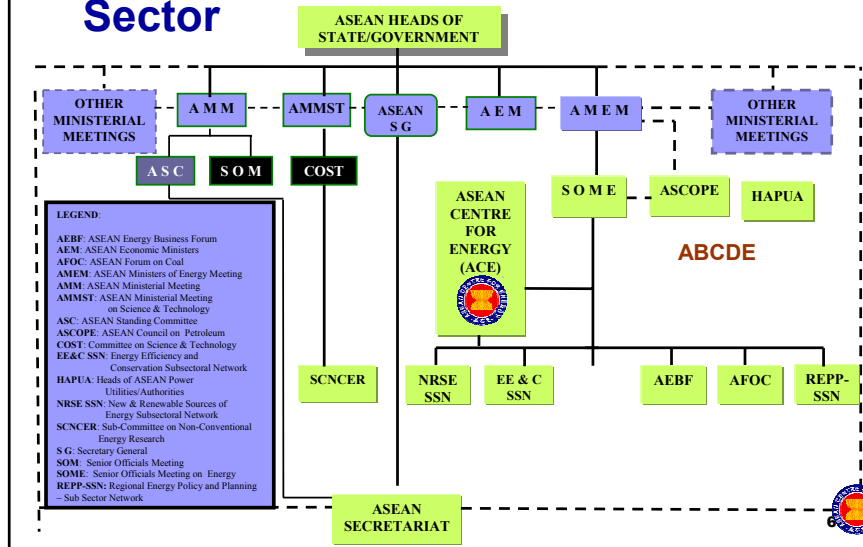
- ASEAN grew 6.2 per cent GDP in 2004 and **5.7 per cent in 2006**
- While 6.6 per cent GDP growth for Asia in 2006
- Due to **export growth** and **FDI expansion**, including continued growth of **China** and **India**.

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# ABOUT ACE

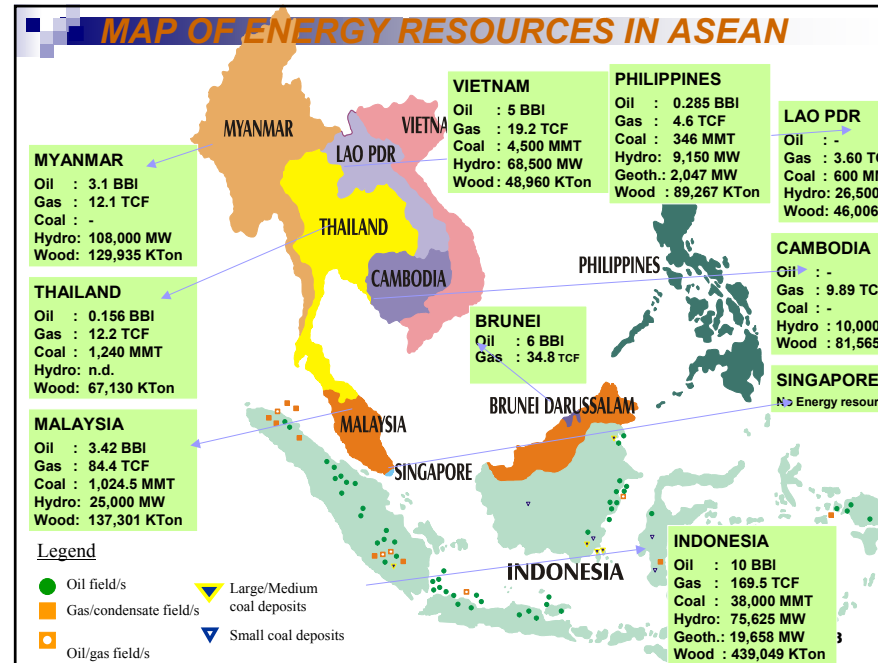
- Established on January 1, 1999 as an **Inter-Governmental** Organization, guided by a **Governing Council** composed of **Senior Officials on Energy** (SOE Leaders) of the ASEAN countries.
- Core funding - Energy Endowment Fund** from equal contributions of ten (10) Member Countries, managed by **fund manager of ASEAN Secretariat**
- ACE as a **catalyst** for economic growth and development of ASEAN by **initiating, coordinating, facilitating and disseminating** all energy activities to the region and the rest of the world.

# Organizations in the ASEAN Energy Sector



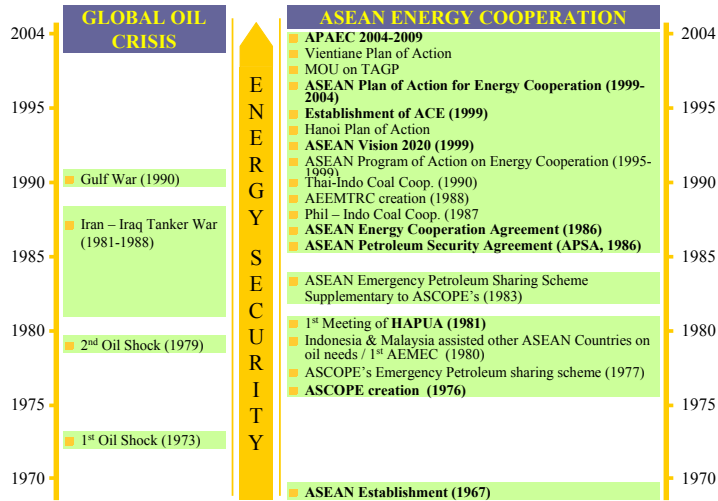
## ASEAN Vision 2020

..."establish **Interconnecting Arrangements** in the field of energy utilities for Electricity, Natural Gas and water within ASEAN through the **ASEAN Power Grid and Trans-ASEAN Gas Pipeline**, and promote cooperation in **Coal Trade, Energy Efficiency and Conservation**, as well as the development of **New and Renewable Energy resources.**"



## ENERGY POLICY ISSUES

### Energy Security



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ASCOPE: ASEAN Council on Petroleum ; AEEMTRC: ASEAN-EU Energy Management Training and Research Centre; TAGP: Trans-ASEAN Gas Pipeline; AMEM: ASEAN Ministers on Energy

## ENERGY PROFILE

### ASEAN ENERGY MIX 1990-2010 (%)

Fuel Type	1990	1995	2000	2005	2010
Natural Gas	18.8	22.3	26.5	30.9	32.0
Coal	9.2	9.9	11.2	12.4	14.5
Oil	65.5	60.6	54.1	48.9	44.4
Hydro	5.6	6.1	7.0	6.9	8.3
Others	1.0	1.1	1.2	1.0	0.8
Total	100.0	100.0	100.0	100.0	100.0



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## ASEAN Plan of Actions for Energy Cooperation (APAEC) 2004-2009

directed to the following approaches:

- Strengthen coordination/participation in all programme areas to **narrow development gap** among ASEAN member countries;
- Encourage a conducive environment for **greater private sector involvement and participation**, including securing foreign direct investment;
- Enhance human resources and **capacity building** skills;
- Develop and expand the **energy mix and supply source** through utilization of full energy potential of the region to include frontier exploration and development and extensive research on oil, natural gas, coal, hydropower, geothermal, EE & C and NRSE;
- Develop **transparent legal, regulatory and technical frameworks** in various energy projects, in particular on the **cross border interconnection** projects *e.g. APG and TAGP*.

## Multilateral Cooperation for APAEC 2004-2009

- ASEAN + US; ASEAN + Canada
- ASEAN + EU Cooperation
- ASEAN + China Cooperation
- ASEAN + Japan Cooperation
- ASEAN + 3 Cooperation
- ASEAN + Australia Cooperation
- ASEAN + Energy Charter Secretariat Initiative for ASEAN Integration (IAI)
- ASEAN + India Cooperation
- East Asian Dialogue

## ASEAN Plan of Action for Energy Cooperation 2004 - 2009

### Six (6) PROGRAMME AREAS

1. ASEAN Power Grid
2. Trans-ASEAN Gas Pipeline
3. Coal & Coal Trade
4. Energy Efficiency and Conservation
5. Renewable Energy
6. Regional Energy Policy and Planning

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## 1. ASEAN Power Grid

### Strategies

### Programmes/Projects

<p>1. Develop the <b>ASEAN Power Grid Interconnection</b></p>	<ul style="list-style-type: none"> <li>❖ Vietnam – Cambodia (2005-2007)</li> <li>❖ Thailand – Cambodia (2007)</li> <li>❖ Peninsular Malaysia – Sumatra (2009)</li> <li>❖ Sarawak - West Kalimantan (2009)</li> <li>❖ Thailand - Lao PDR (2009)</li> <li>❖ Sarawak – Peninsular Malaysia (bey 2009)</li> <li>❖ Batam - Bintan - Singapore – Johor (bey 2009)</li> <li>❖ Philippines – Sabah (bey. 2009)</li> <li>❖ Sarawak - Sabah - Brunei D. (bey. 2009)</li> <li>❖ Lao PDR – Vietnam (bey. 2009)</li> <li>❖ Thailand – Myanmar (bey. 2009)</li> <li>❖ Lao PDR – Cambodia (bey. 2009)</li> </ul>
<p>2. Optimization of the <b>generation sector vis-à-vis indigenous resources</b></p>	<ul style="list-style-type: none"> <li>❖ Further optimize the <b>AIMS</b> result</li> </ul>

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# ASEAN Power Grid

## Strategies

## Programmes/Projects

<p>3. Invite <b>Private Sector Participation</b> to develop the generation identified in the AIMS</p>	<p>❖ Conduct F/S on identified inter-connections</p>
<p>4. Address <b>Barriers</b> to interconnection</p>	<p>❖ Conduct studies on <b>Policy, Regulatory, Legal, Financial and Commercial</b> framework</p>

# 14 Interconnection projects

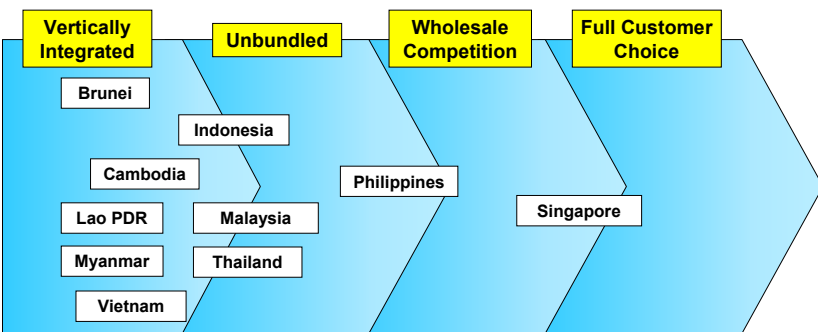


1. Peninsular Malaysia – Singapore
2. Thailand – Peninsular Malaysia
3. Sarawak – Peninsular Malaysia
4. Sumatra – Peninsular Malaysia
5. Batam – Bintan – Singapore
6. Sarawak – West Kalimantan
7. Philippines – Sabah
8. Sarawak – Sabah – Brunei
9. Thailand – Lao PDR
10. Lao PDR – Cambodia
11. Thailand – Myanmar
12. Vietnam – Cambodia
13. Lao PDR – Vietnam
14. Thailand – Cambodia

2 in operations, 2 to complete in 2005, 9 at various stages of planning & implementation



# Moving Towards Consumer Economy



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## 2. Trans-ASEAN Gas Pipeline

STRATEGIES	PROGRAMMES/PROJECTS
1. Implement the <b>Memorandum of Understanding (MOU)</b> on the TAGP	<ul style="list-style-type: none"> <li>❖ Operationalisation of the <b>MOU on TAGP</b></li> <li>❖ Formal establishment of the <b>AGCC</b></li> </ul>
2. PERTAMINA and PSC partners to undertake detailed <b>feasibility study</b> for East Natuna gas field development	<ul style="list-style-type: none"> <li>❖ Commission of Feasibility Study Initiative</li> </ul>
3. Implement the <b>Trans-ASEAN Gas Pipeline Infrastructure</b> per the approved roadmap on the TAGP	<p><b>Eight (8) gas interconnection projects:</b></p> <ul style="list-style-type: none"> <li>❖ 1. South Sumatera, Indonesia – P. Malaysia</li> <li>❖ 2. W. Natuna, Indonesia – Duyong, Malaysia</li> <li>❖ 3. E. Natuna, Indonesia – JDA – Erawan, Thailand</li> <li>❖ 4a+4b E. Natuna – W. Natuna, Indonesia – Kerteh, Malaysia</li> <li>❖ 4a+4b E. Natuna – W. Natuna, Indonesia – Singapore</li> <li>❖ 5. E. Natuna, Indonesia – Brunei Darrusalam – Sabah, Malaysia – Palawan-Luzon, Philippines</li> <li>❖ 6. Malaysia – Thailand JDA – Block B Vietnam</li> <li>❖ 7. Pauh, Malaysia – Arun, Sumatra, Indonesia</li> <li>❖ 8. East Kalimantan – Sabah – Philippines</li> </ul>

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# Trans-ASEAN Gas Pipeline

STRATEGIES	PROGRAMMES/PROJECTS
<p>4. <b>ASCOPE Gas Centre (AGC) to implement the approved 5-year Work Programme</b></p>	<p><b>AGC Work Programme are as follows:</b></p> <ul style="list-style-type: none"> <li>❖ To support and encourage the production, utilization, distribution, marketing, and sale of natural gas.</li> <li>❖ To standardise technical specification for the Pipelines, such as design and construction standards, operation and maintenance guidelines, safety, environment and measurement standards which are internationally recognized by the oil and gas industry.</li> <li>❖ To facilitate effective and stable contractual arrangements for the supply, distribution and transportation of natural gas including adherence to the open access principle as well as management of the pipelines in accordance with such internationally accepted standards in the petroleum industry.</li> <li>❖ To recommend appropriate measure to ensure security and safety of the Pipelines and the uninterrupted flow of contracted natural gas for transmission through the Pipelines.</li> <li>❖ To recommend measures to mitigate the risk and impact on the environment which the construction, operation, and maintenance of the Pipelines may pose to the community, property and environment.</li> <li>❖ To explore possible cooperation and coordination measures concerning further economic potential use of pipelines to be abandoned</li> <li>❖ Other initiatives may include R&amp;D on CO2 sequestration, harmonization of standards &amp; specifications, etc. <b>19</b></li> <li>❖ Study alternative options on <b>Marine CNG Transport mode</b></li> </ul>

## Key Issues and Challenges for Realizing the TAGP Infrastructure

### TECHNICAL

- Harmonisation and standardisation of technical matters/ specifications
- Gas quality and specification
- Geo-sequestration of CO<sub>2</sub>
- Health, Safety & Environment guidelines – regulations and standards.
- Operatorship;

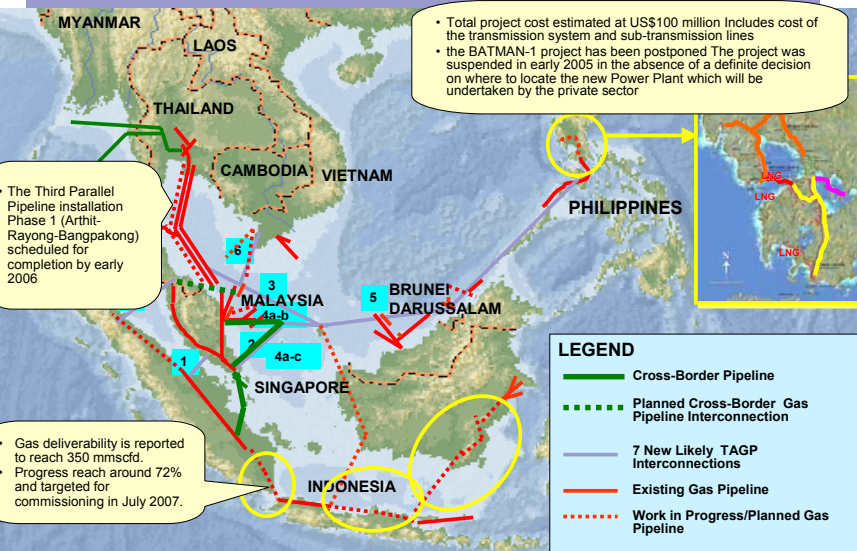
### INSTITUTIONAL & REGULATORY FRAMEWORK/

- Governing law, rules and regulation for cross-border gas flow/trade
- Title and ownership of pipelines.
- Harmonization of taxes, tariffication of transport;
- Dispute resolution mechanism.

### COMMERCIAL

- Market mechanism - "Gas Price Signals"
- Long term gas demand and share of natural gas in the "based load consumer"
- Commerciality/ Project Financing
- Transit rights/transit via third countries;
- Third party access for common gas carrier;
- Tax incentives

## The Trans-ASEAN Gas Pipeline



## 3. Coal

STRATEGIES	PROGRAMMES/PROJECTS
1. <b>Strengthen Institutional and Policy Framework</b>	<ul style="list-style-type: none"> <li>❖ Provide assistance in Policy Reviews</li> </ul>
2. <b>Promote Clean Coal Technology (CCT)</b>	<ul style="list-style-type: none"> <li>❖ Organize seminars on CCT</li> <li>❖ Organize technical visits on CCT</li> <li>❖ Facilitate feasibility studies on CCT for Rural Electrification</li> <li>❖ Facilitate/organize technical training on CCT including Coal Bed Methane (CBM)</li> </ul>
3. <b>Promote Private Sector Investments</b>	<ul style="list-style-type: none"> <li>❖ Organize investment seminars</li> <li>❖ Facilitate feasibility studies on coal infrastructure projects and low rank coal projects</li> </ul>

# Coal

STRATEGIES	PROGRAMMES/PROJECTS
4. Promote <b>Intra-ASEAN Coal Trade</b>	<ul style="list-style-type: none"> <li>❖ Update directories of coal specifications of consumers and producers</li> <li>❖ Facilitate feasibility studies on establishing an ASEAN Coal Commodity Market</li> <li>❖ Organize coal market seminars</li> </ul>
5. Promote <b>Environmental Assessment</b> of coal projects	<ul style="list-style-type: none"> <li>❖ Provide assistance on Environmental Impact Assessment (EIA) of projects</li> <li>❖ Organize seminars on environmental impact</li> </ul>

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## Coal – Way Forward : AFOC



### Steps Taken & Way Forward: (by the **Phil. National Committee**)

- **Philippine AFOC National Committee** created working groups to coordinate and oversee the implementation of strategies of the Coal program under the APAEC 2004-2009.
- Draft resolution prepared for convening the respective AFOC National Committees to amend **AFOC Charter**.
- Draft amendment to the AFOC Charter prepared for approval of the the National Committees.
- Closely coordinate with other country members to carry out **needed activities** and other **cooperation plans** to advance all the identified strategies under Coal Sub Sector Network of APAEC 2004-2009.

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## 4. Energy Efficiency and Conservation

STRATEGIES	PROGRAMMES/PROJECTS
1. Continuation of Information Sharing and Networking	<p>Develop a compendium of the following for circulation to member countries and general public:</p> <ul style="list-style-type: none"> <li>❖ EE&amp;C Policies / Strategies / Programs</li> <li>❖ EE&amp;C Products and Technologies</li> <li>❖ EE&amp;C Pool of Experts and Institutions</li> <li>❖ EE&amp;C Best Practices / Researches</li> </ul>
2. Continuation of ASEAN Energy Standards and Labeling	<ul style="list-style-type: none"> <li>❖ Review country S&amp;L programs and testing capacity</li> <li>❖ Study international experiences through study tour and joint workshops</li> <li>❖ Formulation of Common Technical Bases</li> <li>❖ Development of Control Mechanisms and Implementation process</li> <li>❖ Dialogues with stakeholders and promotion</li> </ul>
3. Expansion of Private Sector Involvement	<ul style="list-style-type: none"> <li>❖ Enhance dialogues with private sector, other countries and organizations outside ASEAN</li> <li>❖ Conduct Seminars and Workshops jointly with EE&amp;C Industry and Businesses</li> <li>❖ Include EE&amp;C Discussion and Exhibitions in AEBF</li> <li>❖ Expand Energy Awards/Competitions for Industry Sector and Individual Achievements</li> </ul>

## Energy Efficiency & Conservation

STRATEGIES	PROGRAMMES/PROJECTS
4. Capacity Building	<ul style="list-style-type: none"> <li>❖ Establish energy audit procedures &amp; energy audit training</li> <li>❖ Implement / Disseminate recommended improvements</li> <li>❖ Develop system for energy database, benchmarking and guideline</li> <li>❖ Develop ASEAN Energy Management System/Network</li> <li>❖ Develop certification system for ASEAN energy manager including energy auditor</li> <li>❖ Develop ASEAN energy management training for trainers</li> <li>❖ Develop energy management guidelines</li> <li>❖ Technology Transfer and Demonstration</li> </ul>
5. Promotion of ESCO Business	<ul style="list-style-type: none"> <li>❖ Development of Measurement &amp; Verification (M&amp;V) Protocol</li> <li>❖ Development of Energy Performance Contracting Legal Framework and Standard Form of Contract</li> <li>❖ Development of Project Management and Institutional Guideline</li> <li>❖ Development of Energy Saving Potential Indexes (Benchmarking)</li> <li>❖ E-commerce development for energy services</li> </ul>
6. Promotion of Energy Efficiency in the Transport Sector	<ul style="list-style-type: none"> <li>❖ Information Sharing on EE Policy and Measures for Transportation Sector</li> <li>❖ Explore possible cooperation activities with ASEAN Transport sector (STOM)</li> </ul>

## Energy Efficiency Improvement

- China
  - Set targets for energy intensity Improvements
  - Outlined several measures to improve energy efficiency
  - Ratification of state standard on maximum vehicles fuel consumption
- Hong Kong, China
  - Issuance of labels for 2,580 appliances.
- Indonesia
  - Issuance of guidelines for energy savings in commercial buildings, government office buildings, household, industry and transportation sectors
- Japan
  - Amendment of Energy Conservation Law
- Korea
  - Continued implementation of various energy efficiency measures
  - Implementation of Average Fuel Economy (AFE) program for passenger cars
- Philippines
  - Promotion of energy efficiency and conservation measures through National Energy Efficiency and Conservation Program
- Thailand
  - Implementation of public awareness campaigns
  - Energy Conservation Law
- Viet Nam
  - Support by the World Bank for energy efficiency improvement program in electricity supply infrastructure.
  - DSM program being implemented by EVN
- Malaysia
  - Implementation of demonstration projects for energy efficiency improvement in industry and commercial sectors.
- Singapore
  - Energy Mgmt Accreditation
  - Advanced Energy Audit & Financial Mechanism

## Program under ASEAN EE & C

- **PROMECC (Industry / Building / Energy Management) 2006**
- **Multi Country Training in Japan 2006**
- **AEMAS 2005-2007**

## 5. Renewable Energy

STRATEGIES	PROGRAMMES / PROJECTS
1. To develop a <b>Policy and Institutional Framework</b> for the development of RE	<ul style="list-style-type: none"> <li>❖ Recommend a <b>Regional Policy</b> on RE including setting a <b>Renewable Energy Target</b> in the Region</li> <li>❖ Conduct <b>institutional capacity building</b></li> <li>❖ Continue to conduct <b>dialogues</b> and consultation workshops among stakeholders</li> </ul>
2. To promote the development and contribution of RE in <b>Energy Supply Mix</b>	<ul style="list-style-type: none"> <li>❖ <b>Increase the share of RE in ASEAN to at least ten (10) percent of power generation</b></li> </ul>
3. To promote the utilization of <b>Biomass - based Cogeneration Technology</b>	<ul style="list-style-type: none"> <li>❖ To develop <b>promotional activities</b> i.e. workshops/ seminars to encourage uptake of cogeneration projects</li> <li>❖ Dissemination of information relating to cogeneration and <b>market developments</b></li> </ul>

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## Renewable Energy

STRATEGIES	PROGRAMMES / PROJECTS
4. To further strengthen <b>Information Networking in RE</b>	<ul style="list-style-type: none"> <li>❖ To continue the implementation of PRESSEA and ASEM GRIPP Network</li> </ul>
5. To promote intra-ASEAN cooperation on <b>ASEAN-made Products and Services</b>	<ul style="list-style-type: none"> <li>❖ Update compilation of existing <b>specification and standards</b> of member countries in the RE-SSN Infonet of ACE</li> <li>❖ Conduct <b>market study</b> on various RE technologies</li> <li>❖ Develop <b>/harmonize standards</b> for RE products</li> <li>❖ Strengthen <b>Local Manufacturing Capabilities</b> for RE products</li> <li>❖ To design and apply <b>innovative financing instruments</b> in support of RE projects</li> <li>❖ To compile potential projects that are planned for implementation up to 2009</li> <li>❖ To increase <b>international cooperation</b></li> </ul>
6. To promote the <b>Utilisation of Biofuels</b>	<ul style="list-style-type: none"> <li>❖ To develop <b>promotional activities</b> i.e. workshops/ seminars to encourage utilization of biofuels</li> <li>❖ Dissemination of information relating to biofuel technology and <b>market developments</b></li> <li>❖ Establish <b>linkage to the automotive</b> and related industries to pursue cooperation in <b>R&amp;D activities</b></li> </ul>

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## MAKING BIOFUELS A HIGH AGENDA

### Declare a *Bogor Initiative*

10 Member Countries at the Workshop have adopted *BOGOR Initiative* "Making Biofuels a High Agenda" on 7 March 2006, Bogor, Indonesia

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## *Bogor Initiative* ASEAN – NEDO Cooperation



**NEDO and ACE signed the contract for the Cooperation of Study on Policies and Outlook for Bio-Fuels Utilization in ASEAN Countries.**

- ACE and NEDO will organise **Workshop on Policies and Outlook for Bio-fuel Utilisation in ASEAN Countries** on 6 – 7 March 2006

#### **Objectives of the Workshop**

- To present **governmental policies, plans and programmes** on bio-fuel utilisation and development in ASEAN countries;
- To identify **policy gaps, issues and measures** to promote bio-fuels development and utilization in the ASEAN countries; and
- To propose **regional activities for bio-fuels promotion and development** that will be jointly undertaken by ACE, NEDO

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## ACE NEDO NRE Workshop in Bogor, Indonesia



ACE and NEDO organised **Workshop on Policies and Outlook for Bio-fuel Utilisation in ASEAN Countries** on 6 – 7 March 2006 in **BOGOR**, Indonesia

## 5 STRATEGIES FOR THE REGIONAL PLAN OF ACTION ON BIOFUELS *Bogor Initiative*

1. **To establish ASEAN Working Group on Biofuels**  
Members: bio-fuels experts, all 10 countries represented
2. **To establish Networking between and among Key Players on Biofuels** such as government agencies, biofuels producers, oil companies, car manufacturers, financing institutions, agro industries, academe, research institutes, non-profit organization, and civil society.
3. **To develop Human Resources on Biofuels and Technology Transfer** (capacity building)
4. **To enhance greater Private Sector Participation**
5. **To promote Intra-ASEAN Trade on Biofuels**

## RE - Way Forward:

### 1. ASEAN+3 RE & EE&C Forum

- Market Conditions and Prospect for Bio-fuel Development in ASEAN

### 2. ACE EAEF Co-financing Programme (ASEAN EU)

### 3. Biofuel Workshop with NEDO and its continuing phases

### 4. Clean Energy Financing Workshop with US DOS / USAID

### 5. Clean Energy & EE Initiative with ADB

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## 6. Regional Energy Policy & Planning

STRATEGIES	PROGRAMMES / PROJECTS
1. Energy Policy and Supply Security Information Sharing Network	<ul style="list-style-type: none"> <li>❖ Continue and update the member's country energy policy and plans / infonet of ACE</li> <li>❖ Continue and update the ASEAN energy database system of ACE</li> </ul>
2. Capacity Building in Energy Policy Planning, Supply Security Assessment and Database Development	<ul style="list-style-type: none"> <li>❖ Continue capacity building activities of member countries in energy policy analysis, database maintenance, supply security assessment through training, joint studies and technical exchanges between member countries</li> </ul>
3. Incorporation of Environmental and Sustainable Development concern in regional policy formulation	<ul style="list-style-type: none"> <li>❖ Continue the information networking on environmental data related to energy development</li> <li>❖ Conduct studies on environmental and energy policies for sustainable development</li> <li>❖ Undertake regional cooperation on energy and sustainable development</li> </ul>
4. Analysis and preparation of Regional Energy Policy and Outlook	<ul style="list-style-type: none"> <li>❖ Conduct analysis on regional energy policy and outlook using common methodologies / framework</li> <li>❖ Prepare regional energy policy and outlook</li> </ul>

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## Regional Energy Policy & Planning

STRATEGIES	PROGRAMMES / PROJECTS
5. Strengthen collaboration/cooperation among <b>National and Regional Institutions</b> in Energy Policy and Planning	<ul style="list-style-type: none"> <li>❖ Expand <b>energy nodal network</b> for the region</li> <li>❖ Conduct seminar/workshop and regional training in <b>energy policy planning</b> and <b>supply security assessment</b></li> <li>❖ Exploration/utilization of all kind of <b>indigenous</b> energy resources</li> </ul>
6. Address energy issues pertaining to <b>ASEAN Dialogue Partners</b> / other relationships	<ul style="list-style-type: none"> <li>❖ Continue/pursue dialogue with the following:</li> <li>❖ ASEAN-Japan / ASEAN-China</li> <li>❖ ASEAN+3</li> <li>❖ ASEAN-EU</li> <li>❖ ASEAN-Australia</li> <li>❖ ASEAN-Germany</li> <li>❖ ASEAN-Multi Lateral Agencies</li> </ul>
7. Pursue studies on evolving <b>Regional Energy Policy Reform</b> / issues	<ul style="list-style-type: none"> <li>❖ Identify <b>priority areas</b> for regional studies</li> </ul>
8. <b>Monitoring and evaluation</b> on the progress of the <b>ASEAN Plan of Action for Energy Cooperation</b>	<ul style="list-style-type: none"> <li>❖ Conduct <b>periodic monitoring and evaluation</b> of the APAEC 2004-2009</li> <li>❖ <b>Formulate</b> an evaluation and monitoring (E&amp;M) system for the APAEC 2004-2009</li> </ul>

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## Initiative for ASEAN Integration (IAI)

- ASEAN Leaders approved the Initiative for ASEAN Integration (IAI) Work Plan designed to **reduce the development gap** between the new and old ASEAN members.
- The IAI Work Plan is comprised of 54 projects in the following areas: infrastructure, human resource development, information and communications technology, and regional economic integration.

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## *Initiative for ASEAN Integration (IAI)*

- Of the ten (10) energy projects in the IAI Work Plan, seven (7) have secured funding as of February 2004.
- Four (4) projects funded by the European Commission ASEAN Energy Facility (EAEF) are currently under implementation.

## *Initiative for ASEAN Integration (IAI)*

These projects which have a combined budget of US\$1.24 million are:

- ENE/02/002 – Power Industry Capacity Building Program with focus on CLMV
- ENE/02/003 – Capacity Building Program for Power Transmission System Personnel of Electricite du Cambodge
- ENE/01/012 – Study Tour and Workshop on Power Pooling in Europe for Greater Mekong Sub-Region / ASEAN Power Interconnection Programme
- ENE/02/013 – Rural Electrification Decentralized Energy Options

## ***Initiative for ASEAN Integration (IAI)***

The other three projects, with total funding of US\$825,487, are in the planning stage. These projects are:

- ENE/02/004 – Training on Small-Scale Product Processing Unit (SPPU) Utilizing Environmentally-Friendly Renewable Energy and Local Resources
- ENE/02/005 – Institutional Strengthening and Capacity Building in the Energy Sector (Oil & Gas) in CLMV Countries
- ENE/02/006 – Training Program on Coal Briquetting Technology and the Use of Briquettes for Households and Small Industries for CLMV Countries

## **ACE ACTIVITIES IN ENERGY COOPERATION IN ASEAN**

- 2005 - 2006

## ACE & Energy Cooperation: Workshops & Seminars (2005 – 2006)

- Metering, Billing & CRM/CIS Asia Pacific 2005 Conference & Exhibition
- APERC Annual Conference and Advisory Board Meeting
- Asia Power 2005
- National and Regional Frameworks for Electricity and Gas Regulation Conference
- Regional Forum On Sustainable Energy
- World Renewable Energy Reg. Congress
- Development of energy service in some developing countries
- Harmonised Policy Instruments for the Promotion of Renewable Energy and Energy Efficiency in the ASEAN Member Countries
- Renewable Energy ASEAN 2005 Exhibition and Conference
- China Asia Power Executive Summit 2005
- Conference on the Asian Infrastructure Initiative
- Oil and Gas 2005 Conference
- Transforming Industrial Eff. Markets in the South East Asian Region
- Thailand Power Industry Reforms
- WS on Capacity Development for Clean Development Mechanism (CD4CDM)



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## ASEAN – EU Cooperation:

### Proposal to Establish the SOME-EU

### Regional Consultation Meeting on Energy

- The ASEAN-EU cooperation in the energy sector has been impressive
- The ASEAN-EC dates back in 1988 with the establishment of the 10-year long
- The EC set up 2 facilities worth more than Euro 45 million and encompassing more than 100 projects: a) EAEF and b) Cogen Programme

In view of the considerable work already accomplished and mindful that energy is a key sector for sustainable development, our discussions with the EC Delegation in Jakarta has indicated that the EC is willing to pursue dialogue on energy with ASEAN within the context of the READI instrument.



APRIS II could provide support for outcomes of the REDI Dialogues such as short TA in order to identify who should participate in future EU-ASEAN Energy SOME and what should be arrangements for such Meetings.

The topics for a dialogue must be discussed and agreed for the said dialogue. The Delegation is willing to facilitate meetings between ASEAN and EC Officials.

The Council has approved

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## ASEAN – EU Cooperation: European-ASEAN Energy Facility (EAEF)

4th Call for Proposals made from 28 March 2005 to 27 June 2005 with 50 proposals received. As of February 2006, the final contracted



- The total EAEF projects, concluded or ongoing, stand at 67 with the EC contribution valued at **EUR 16.5 million**. The total number of received project proposals was 180. The total number of companies involved in EU and ASEAN is more than 500.
- The EAEF included COGEN activities in 2005 to monitor, follow-up and disseminate the results of eight projects implemented under Cogen 3 Programme.
- Under Institutional Strengthening: Two (2) projects are on-going; 3 projects close to tendering<sup>49</sup> and

## ASEAN - EU COGEN 3 Program



**ACE met with EC Evaluation Team (COGEN 3) on May 11, 2006 at ACE Head Office -Jakarta, Indonesia. The development of sustainable energy systems for the future Cogeneration Projects across the region has been**

## ASEAN – Energy Charter Secretariat Cooperation



- ACE Met with **Secretary General of the Energy Charter Secretariat** at its head quarter in **Brussels** in **Apr 2006**.
- The discussion was fruitful with a full support to conduct ASEAN ECT Project and workshop in the ASEAN.

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## ASEAN – German Cooperation: ASEAN- German Mini Hydro Project (AGMP)

- On 15 November 2005, ACE received a Note Verbale from the Ambassador of the Federal Republic of Germany requesting ACE to support their proposed arrangements for the project. A copy of the Note Verbale is included in the folder for your reference.
- ACE was not able to proceed further to sign the said Note Verbale due to contradiction from what was previously agreed. In the MOU signed by A and BMZ on 2 June 2004, a grant agreement was signed by ACE and GTZ with an amount of **1.6 million Euro to be managed by ACE**. In the Note Verbale no reference was made on this, instead GTZ was charged to manage the entire project fund.
- ACE met with officials from GTZ and German Embassy in Jakarta and sought clarification on the issue. ACE communicated to the Government of Germany to consider the original agreement. ACE is waiting reply from Germany.



ACE ED and Ms. Monika Allramseder of FRG Embassy during their initial talks on the



ACE ED and HE Dr. Ursula Schafar from BMZ, Germany



## ASEAN - Australia COOPERATION

### Regional Competency Standards for Training in Renewable Energy under AADCP – RPS: ACE-GSES-ACIL

1. Developed Eleven (11) regional competency standards
2. Auditors Training was held in January 2006 at the ACE

3. Additional funding was obtained to conduct follow-up workshops in the 10 ASEAN countries in March and April 2006

4. Currently GSES has the ISP license for the region. GSES will work closely with ACE to prepare the Centre to administer the accreditation of RE training institutions and the certification of RE instructors in the ASEAN region. <sup>49</sup>



## ACE - US COOPERATION

### ACE will co-organize the US-proposed ASEAN Regional Clean Energy Financing Workshop in September 2006 in Bangkok

#### Objectives

- To bring together policy makers and practitioners to discuss progress and challenges to more effectively implement clean energy financing projects;
- To enhance cooperation between ASEAN countries regarding access to clean energy;
- To better inform the private sector that the energy sector is profitable, including through sharing and dissemination of working business models.

#### Participants

- The workshop is expected to attract 100-150 clean energy financing practitioners from ASEAN countries, representatives from the donor community as well as project developers, energy companies, commercial financial institutions and civil society who currently invest in – or are interested in investing in the region.

#### Format and Program

- The workshop will be held over a two day period will involve:
  - a) taking stock of past and ongoing clean energy financing program experiences;

## ACE Initiatives (2006)

### Set up **ASEAN Energy Policy Study Unit (AEPSU)** at **ACE HQ in Jakarta**

- Maintain the current ASEAN Energy Database System including the oil price database and the EPSAP regional database
- Develop and maintain any database developed to support the future policy studies
- Conduct studies and joint research to assess regional energy policy issues
- Enhance the use of different modeling

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## ACE Initiatives (2006)

### **ASEAN Business Council for the Development of Sustainable Energy and Environment (ABCDE) Project**

The overall **objective** is to develop a master plan and road map for the creation, implementation and operation of the ASEAN Business Council for the Development of Sustainable Energy and Environment.

This is an output of the EAEP project on ASEAN EU Networking

**funded** under the **EAEP Institutional Strengthening Component.**

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## ACE Initiatives (2006)

### Formulation of Legal Framework for RE in Cambodia, Lao PDR and Vietnam Project

This is one of the 4 projects that are **funded** under the **EAEF Institutional Strengthening Component**

Targeted completion: **December 2006**

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## ACE Initiatives (2006 - 07)

ACE has proposed project on “**Assessing options for ASEAN to increase the share of renewable energy in power generation to 10 per cent**” under RPS-AADCP

### Objective

- To enhance the capacity of ASEAN to assess the options available for achieving a 10 per cent renewable energy target.

### Outputs

- Project Steering Group & Project Plan
- Research report on current renewables policy and infrastructure in ASEAN
- Report on broad policy options, including costs and benefits
- Research report on country case studies of renewable policy options
- Research report on the experiences of developed countries in achieving renewable energy targets and other policies designed to improve the relative standing of renewables
- Report with recommendations
- Symposium or seminar to present and discuss outcomes and

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## ACE Initiatives (2006 - 07)

### ACE – UNEP: Promotion of Local Manufacturing of RE Equipment in ASEAN

Proposal being revised by UNEP and ACE  
To be funded by GEF UNEP

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## ACE EC Cooperation:

Linking Southeast Asian Small Power Projects Up to 10 MW to Credit



Trade Missions in Spain, Czech Republic and Brussels on 8 – 21 March 2006 with 15 proposals from 10 SPPs in Indonesia

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## SOME+3 Energy Policy Governing Group (EPGG)

2<sup>nd</sup> ASEAN New and Renewable Energy and Energy Efficiency and Conservation Forum was held in January 2006



## ACE – RE SSN & BOJ COOPERATION

Assistance to Renewable Energy Sub-Sector Network (RE-SSN) to organize Meetings and Workshops



## ACE - ASEAN+3 Cooperation

- ◆ The 2nd ASEAN+3 Natural Gas Business Dialogue, organised on 18 January 2006 and the 3rd ASEAN + 3 Natural Gas Forum on 19 January 2006 in Kuala Lumpur.
- ◆ 3rd ASEAN+3 Energy Security Forum and the 5th SOME+3 EPGG Meeting were organised in Singapore in February 2006.



- ◆ 3rd ASEAN+3 Oil Market Forum and 4<sup>th</sup> Oil Stockpiling Forum ....

Forum were organized in Bangkok, Thailand March 2006.

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## ACE – ASCOPE Cooperation

### ASCOPE



ACE Visited ASCOPE Office at Petronas Twin Towers

- Involvement in 60th ASCOPE National Committees Meeting and Associated Meetings, Pattaya, Thailand



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## ACE AGCC COOPERATION



### TAGP

- Participation in 11<sup>th</sup> ASCOPE Joint Committee Meeting, Manila, Philippines
- Participation in 3rd AGCC Meeting, Manila, Philippines

## ACE – AGC Cooperation



AGC visited ACE at ACE-HQ in Jakarta on Apr 7, 2006. A very fruitful meeting regarding to the **Cooperation on TAGP** in the future.

## ACE – Russia Cooperation



ACE met with the representatives from Embassy of Russian Federation and **GAZPROM** at ACE – Head Office in Jakarta on 19 Apr 2006.



ACE met H.E. Ambassador of the Russian Federation at the Embassy of the Russian Federation in Jakarta. on 28 April 2006

## ACE – IEA Cooperation



- ACE and IEA agreed to cooperate on the project **Oil Supply Security – Emergency Responses from Non-IEA Countries**

### Activities:

- ◆ Workshops on “**Establishment and Maintenance of Strategic Oil Stocks and Development of Best Practices**” 2005-2007 IEA/ASEAN Workshop, Bangkok, 4Q 2006
- ◆ Training Courses on “**Energy Data & Statistics Management Training**” in Paris 2005-2006





## ACE Initiatives (2006 onwards)

- Establish **REPP Department** to monitor **APAEC**, develop **Statistics & Database** and build up **Communication System** (secondment from PTT)
  - Monitor & facilitate six (6) APAEC 2004-2009 Work Programs (HAPUA, TAGP, AFOC, EE&C-SSN, RE-SSN, and REPP-SSN)
  - SOME-METI Work Programme (**ESSPA**)
  - ACE as a **Secretariat** of **REPP-SSN**

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## ACE Initiatives (2006 onwards)

- Establish **Conventional Energy and Power Department (CEP)** to facilitate
  - Oil & Gas (ASCOPE)
  - Electricity (HAPUA)
  - Coal (AFOC) ACE as a **Secretariat**
  - **Need Secondment**

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## Establish RSEPP Department to monitor and Assist APAEC Monitoring and Evaluation (M&E)



-The 4<sup>th</sup> Annual Meeting of Regional Energy Policy Planning Sub-Sector Network (REPP-SSN) in Bangkok Thailand

- The 1<sup>st</sup> Meeting of Regional Energy Policy Planning – ASEAN Strategic Development (REPP-ASD) in Bangkok Thailand

supported by EAEF

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## ACE HAPUA COOPERATION



### HAPUA

- MOU between ACE and HAPUA Secretariat for the preparation of HAPUA Website hosted by ACE Website
- The 4th Meeting of Trans-Borneo Interconnection Coordination Committee
- Support through EAEF of Electricity Projects

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# ACE AFOC & RE SSN COOPERATION



Participated in Renewable Energy Sub-Sector Network (RE-SSN) Meetings and Workshops through EAEF and RE Project Competition



Participated in the AFOC Meeting hosted by the Department of Energy, Philippines in November 2005.

# ACE EE&C SSN COOPERATION



## EE&C-SSN

- Organized Annual Meeting of the Board of Judges for ASEAN EE&C-SSN Best Practices Competition and EE&C-SSN
- Supported activities of EE&C projects funded under PROMEEC and EAEF.

## Information System & ASEAN+3 communication system



Workshop on Energy Outlook in ASEAN held on 23 - 24 January 2006 in Singapore

ESSPA

Workshop on Supply Potential of Oil and Gas in ASEAN, held on 25 – 26 January 2006 in Singapore



ACE will facilitate a **Joint Study for Impact of High Oil Price on Economy of ASEAN+3 Countries**

with IEA and IMF funded by METI / Japan in 2006

- **THE CONSEQUENCES OF HIGH ENERGY PRICES**
- The **objective** of the work is to analyse quantitatively the consequences of high energy prices on energy markets and the wider macro-economy, historically and in the future

ACE is tasked by SOME+3/AMEM+3 to organize an **ASEAN Dialogue with Middle East** in Bangkok in 2006 to seek cooperation in Oil Price and Energy Security Issues



### RE&EE in Buildings

- Min. of Energy, Water and Communications new building in Putrajaya dubbed as a “**Low Energy Office Building (LEO)**” as an exemplary energy efficient building.
- Government ‘Lead by example’
- In operation **September 2004**.
- Design target 100 kWh/m<sup>2</sup>.yr (actual 110 kWh/m<sup>2</sup>.yr)



### RE&EE in Buildings

- The new PTM HQ is designed to be a “**Zero Emission Office Building**” (ZEO).
- Design target 50 kWh/m<sup>2</sup>.yr
- A full range of passive and active EE measures are implemented such that the building will need no more electricity than what can be produced via its own BIPV system.
- Target completion: **December 2006**

## ACE - ASEAN Secretariat Cooperation:

### ASEAN - Cooperation for Sustainable Development with G8 - in Renewables and Energy Efficiency & Conservation



ASEAN Secretariat and ACE discussed possibilities to **cooperate with G8 / Japan ODA**, which will include among others, undertaking joint studies with ACE and make recommendations on energy-related policies for ASEAN Member Countries while promoting ASEAN-Japan cooperation on energy.

## Energy Minister – CEO Dialogue : AEBF



**Assistance to ASEAN  
Energy Business Forum  
2005**

**The Next Minister – CEO**

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## The Way Forwards

- ASEAN will organize the 24<sup>th</sup> *ASEAN Ministers on Energy Meeting (AMEM)* in Vientiane, Lao PDR in July 2006
- to visualize a “pathway” towards *Sustainable Energy Development and its Security, Energy Efficiency and Alternative Energy* in the long run for ASEAN

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# ASEAN- ACE Website and Database!

## www.aseanenergy.org

**Publications**

- 2 Issues of the ASEAN Energy Bulletin
- ACE Annual Report
- ACE Mid-Week News

**Renewable Energy in ASEAN**  
welcome to the ASEAN renewable energy website

General | European | Regional | Countries

**Background**

ESSEA (Promotion of renewable Energy Sources in Southeast Asia) is a project between ASEAN and the EU. It was financed through EAEF and EUSF. Since the creation, its website served as focal point to collect and disseminate information that is of significant importance to the public and private sector involved in renewable energy in Southeast Asia and the European Union.

**ICRA Website**

**ASEAN Energy Database**

**ACE Website**

**ASEAN Energy Database**

# THANK YOU

**ASEAN CENTRE FOR ENERGY**  
**ACE**