

Information for the Commercialisation of Renewables in ASEAN (ICRA)



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Newsletter N°2

Editorial

Welcome to the second newsletter of the ICRA project. This newsletter is supported by the project “Information for the Commercialisation of Renewables in ASEAN” co-funded by the EC-ASEAN Energy Facility for the period 2004-2005. ICRA is a collaborative effort between PTM, IED, RISOE and the focal points of the ASEAN Renewable Energy Sub-Sector Network (RE-SSN). The project has seen a number of development activities since the first newsletter distributed on October 2004.

As consortium leader, The **Pusat Tenaga Malaysia (PTM)** or Malaysia Energy Institute has played an active role in data collection, workshop organization, and networking with the RE-SSN focal points in the region. **Innovation Energie Développement (IED)**, a French Engineering Consulting company acting as one of two partners to PTM in the project implementation, has provided valuable expertise in the development of regional thematic and policy paper on biomass for electricity generation and regional harmonization of PV standards, the new website structure and database, and general support to PTM in organizing of working meetings and technical visits in France, Thailand and Laos. **RISOE**, a renowned Danish public research

laboratory, as the second partner of the consortium, is involved in the elaboration and analysis of RE policies and CDM development in the region.

A consortium meeting was held last time in IED headquarter in Lyon city during 9th and 10th March 2005 to review the project's activities and to plan out next steps of the project up to end of May 2005.

The RE action plan will be finalized and put forward to the NRSE-SSN on the 20th May 2005 in Hanoi, Vietnam and if approved to the Senior Officials Meet on Energy of the ASEAN region in July, 2005.

This second newsletter focuses on four themes that have dynamically evolved since last time in the framework of ICRA project :

- i) *ASEAN renewable energy database and its website;*
- ii) *ASEAN renewable energy policy and CDM;*
- iii) *ASEAN biomass for electricity production and EU experiences;*
- iv) *PV standards harmonization.*

Tuan Nguyen – IED

Renewable Energy Database and ICRA website

ASEAN renewable energy resources and their utilization are wide spread in the ASEAN region but its information was scattered in different institutions and organizations and was not updated frequently. Base on a previous experience with the PRESSEA project and its renewable database, a new ICRA database structure and presentation was elaborated and discussed actively among RE-SSN focal points and team members.

Among nine countries in the region that ICRA project want to establish an inventory on its renewable energy database from PRESSEA (production, consumption, technology and policy incentives...), there are three countries which are Laos, Cambodia and Singapore that were not represented in the PRESSEA database, and five other countries need to update their RE database. Brunei could not participate in the project this time.

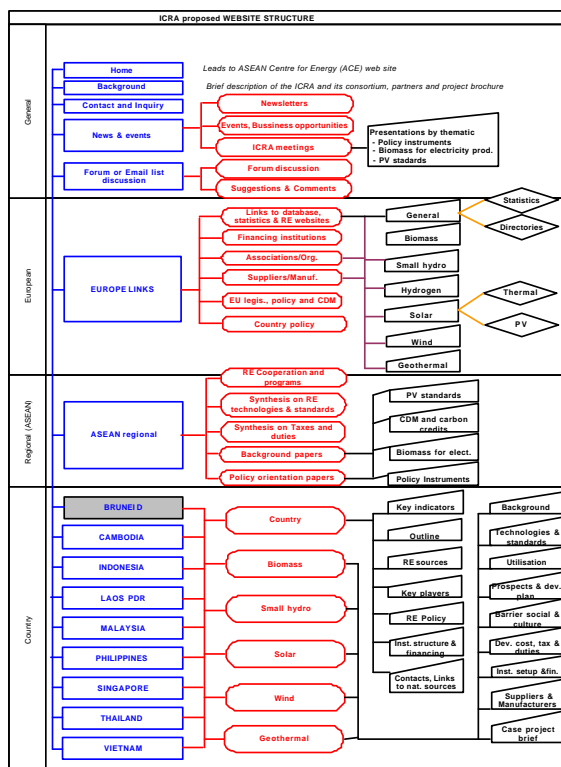
In the ICRA newly designed database structure, it has been decided to represent six general categories such as Country profile, Biomass, Minihydro, Solar, Wind and Geothermal. Under each category, the database develop further into several sub-categories such as key indicators, resources, key players, prospects, case studies... (see the figure). This structure representation provides comprehensives and detailed picture of renewable energy situation in each countries. The website provides also contacts and links to national database and focal points, as well a forum discussion place which will facilitate information enquiry and exchanges.

During the intermediate workshop in Bangkok 9-11 March 2005, the new concept of ICRA database and website gateways service has been presented and adopted by all RE-SSN focal points and participants, taking into account the advanced European and international experiences in web-base information and services.

The ICRA team and workshop participants has noted that this new ICRA website with its database, once established, will serve a very important gateway for renewable information exchange and it presents an evolution from old information database to *new concept of website information gateway*.

This new concept is well developed in Europe and North America, but not yet in developing countries has main advantages such as : i) Information and services open 24h/24h; ii) Accessible and usable from anywhere and by anybody who has access to internet; iii) Save search and research time consuming process; iv) Form links to specialised global network; v) Publication and expert exchange platform.

During the workshop, it has been stressed the importance of the website as a means of



tools to attract potential investment. The website should provide commercial information such as the latest technology available and its application, RE resources and potential, financing support information, database on RE suppliers & consultants, country policies and regulatory framework which eventually will lead to investments and ventures opportunities for ASEAN as well as European investors. Therefore all ASEAN countries should provide the utmost support to the effort. In resume, the main services that ICRA website database provides are :

- Regional information centre and knowledge gateway for Renewable Energy Sources
- In-depth thematic analysis and helping policy formulation and regional harmonization
- Helping to promote the ASEAN common strategy to develop renewable energy sources.

Tuan Nguyen – IED

ASEAN Renewable Energy Policy and CDM

Two background papers on renewable energy policies in ASEAN and the Clean Development Mechanism (CDM), and a policy orientation paper are currently being prepared under this theme. In the course of the preparation, another workshop was organized in Bangkok last March 8, 2005 to i) discuss the draft synthesis report on renewable energy policies in ASEAN and CDM, ii) review the European policies to mainstream renewable energies, and iii) update new policy developments and discuss policy directions in the ASEAN.

The ASEAN countries have either developed national frameworks for renewable energy development or integrated renewable energy concerns in a broader energy and developmental frameworks. Only few countries however have adopted effective policy instruments to accelerate the market deployment of renewables. Thailand has aggressively promoting the development of renewable energies with its renewable portfolio standards (RPS), Small Power Producers (SPP) Programme; Very Small Power Producers (VSPP) Programme, production subsidies to SPPs (with funding from the Energy Conservation Fund), and other fiscal and non-fiscal incentives. Other countries that have generated private investments of renewables include Malaysia, the Philippines and Indonesia. Key policy measures in Malaysia include the Small Renewable Energy Power (SREP) Programme, fiscal incentives for renewable energy generation, and the funding support from the MESITA Fund. In the Philippines, policy measures comprise fiscal and non-fiscal incentives to geothermal, mini-hydro and Ocean, Solar and Wind (OSW) energies. Indonesia's Small-scale Distributed Power Generation Using Renewable Energy has also attracted interests from the private sector.



Field visit during the workshop in Bangkok

Most countries in the region have recognized the role of the Clean Development

Mechanism in promoting investments on renewable energy. Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand and Vietnam have ratified/acceded to the Kyoto Protocol and have established the institutional requirements in CDM participation. The energy sector is represented in the process and most energy agencies take the lead in industry and energy technical evaluation committees. Such representation has supported renewable energy projects under CDM. Malaysia for example has prioritized projects being developed under the Small Renewable Energy Power (SREP) Programme for CDM. In other countries, it is also clear that the energy sector priorities, particularly on renewable energies are being supported by the CDM national authorities.

The ASEAN as a region has rich experience in developing national frameworks and formulating policy and measures to promote the development of renewable energies. Most countries however need to further adopt new policy measures that are consistent with their resource endowments, economic structure and energy market development objectives. On the other hand, carbon finance can also increase investments on renewable energies in the region. The ASEAN must also look for the opportunities in the EU Emissions Trading Scheme (EU-ETS). The EU ETS Linking Directive allows conversion of the certified emission reductions (CERs) from CDM projects to be converted into EU allowances. This will maximize the benefits to be generated from the current institutional frameworks being developed for CDM.

Romeo Pacudan – RISOE

Biomass for Electricity Production

Biomass focal points of the RE-SSN converged for a working meeting in Bangkok to discuss the developments of the background paper “Biomass for power generation” and help with the shaping of the policy recommendations for a regional action plan.

There is growing recognition of the role that renewables and in particular modern biomass technologies can play in helping, as part of an integrated strategy, to overcome the long-term problem of ensuring a local, clean and reliable energy supply. In 2004, the RE-SSN set a regional target of an additional installed 2 GW from renewable energy technologies by 2010, biomass energy is seen as holding considerable potential towards meeting this objective.



Field visit to Biovale (Municipal Solid Waste-landfill gas power plant) in France, 10-2-2005.

The ASEAN region represents the global leader in palm oil, sugar, coconut, rubber, rice, starch, timber production and chicken and pig livestock. These agro-industrial processes alone give way to abundant wastes which are unequivocally under-utilised, discarded and/or inefficiently utilised. These include:

- Empty fruit bunches from Palm Oil

- Industry
 - Wastewater from the Palm Oil Industry
 - Bagasse from the sugar industry
 - Rice husks from the rice processing industry
 - Coconut Husk, Shell and Fronds from Coconut processing
 - Rubber wood wastes from rubber production
 - Wastewater from Tapioca Production
 - Dung from Intensive Pig and Chicken Farms

Without much technical effort and a supportive political environment and institutional framework enticing private developers, these biomass resources could contribute alone to the majority of the RE regional set target. With the implementation of biogas systems to tap methane released from waste water treatments, landfill sites and sewage treatment works and with automated harvesting machinery to collect cane trash, rice straw, coconut fronds this target can be easily exceeded from biomass alone.

Well defined and clear institutional infrastructure frameworks and international actions like the Clean Development Mechanism of the Kyoto Protocol and the European Trading Scheme are making investments in modern biomass technologies today more of a reality.

Thailand with a biomass installed capacity in 2004 of 914 MW, of which 397 MW sold to the grid, and a target of an additional 710 MW and 3,700 ktoe of thermal by 2010, is progressively paving the way forward for the rest of the region who are keen to follow suit.

The background paper addresses the status of development, case studies, opportunities and challenges, policy and regulatory frameworks and the overall access to knowledge in the region. The lessons learned from the case of Thailand are in particular highlighted as a showcase.

Lara Bertarelli – IED

PV Standards Harmonisation

A technical workshop was held in Vientiane, 7th – 9th April 2005, on the PV theme “Harmonisation of PV standards in the ASEAN region”. The first draft document of the “Background Paper” has been prepared by IED and submitted to ICRA PV partners. The PV representatives from six ASEAN countries (Cambodia, Lao, Indonesia, Malaysia, Philippines, Thailand and Vietnam) have assisted to the workshop and have presented their comments on the draft. Special sessions for discussions and experience sharing on QA and Standards were organised by PTM and IED. One representative from GTZ based in China has also been invited to the final roundtable discussion on policy recommendations.

The main conclusions about the PV workshop are the following :

- Many different documents on Quality are existing (standards, specifications, guidelines, ...) making difficult the choice and the adaptation.
- Good additional inputs from each ASEAN countries on national PV status and quality issues to finalise the background paper.
- Strong interest and involvement of each country in stand-alone PV development.
- Great disparity and lack of awareness about Quality Assurance and

- Standard issues.
- Lack of training and education of all actors (from project implementers to end-users).
 - Cost impact of standards on equipments and administration.



Participants on PV standards workshop in Laos, 7-9 April 2005

The Background Paper draft (baseline study) and the round table discussions have shown that training, education and awareness are the most critical issues to really improve the quality of PV components, systems and services in ASEAN.

We have concluded the ICRA workshop with the idea that the implementation of a "harmonised PV training programme for key actors in ASEAN" could be the following step to strengthen the regional cooperation network between ASEAN PV experts that has been initiated during ICRA project.

The ICRA working meeting was followed by a collaborative ICRA – IEA PVSDC workshop on the 8th April 2005 to discuss the wider issues of PV programmes and namely non-technical issues on programme implementation, design and operation. Presentations made can be

downloaded at www.ieatask9.org
www.iea-pvps.org.

Taric de Villers – IED

Site Visits

A number of site visits have been organised as part of each working meeting.

In Malaysia, during ICRA's kick-off meeting, delegates visited a Palm Oil plant, using empty fruit bunches as a fuel to generate enough power and steam for own factory consumption and for export to the grid. The system is a cogeneration plant. Delegates were then brought to visit a municipal solid waste dump where gas is being collected and combusted to generate electricity which is then sold to the grid.

In France, the consortium members visited Elyo power plant Biovale – a MSW dump collecting the gas generated and producing 6,2 MW of electricity which is sold to the grid. Delegates were then brought to visit a PV manufacturing plant Photowat and a grid-connected PV system in Chambéry.

In Thailand, delegates visited a 41 MW bagasse and rice-husk cogeneration plant at Dan Chang bio-Energy in Suphanburi and a 9 MW rice husk cogeneration plant in Pathumthani.

In Laos, delegates visited a village where SHS have been installed as part of the countries rural electrification strategy. The system is managed by an ESCO and users pay a monthly fee. Users will become the owners of the system after 10 years of no defaults on payment.

Calendar of activities

25 – 27 August 2004

Kick-off meeting and workshop, Kuala Lumpur, Malaysia.

9 – 10 February 2005

ICRA Consortium progress meeting, Lyon, France.

9 – 11 March 2005

Intermediate workshop on “*Renewable energy in ASEAN, the way forward for ASEAN Countries*”, focusing on database, policy, CDM, and biomass for electrification issues, Bangkok, Thailand.

7 – 9 April 2005

Intermediate workshop on “*Renewable energy in ASEAN, the way forward*”, focusing on PV standards and harmonization issues, Vientiane, Laos.

8 April 2005

ICRA and Task 9 joint workshop “PV for Energy Services : Non-technical Aspects”, Vientiane, Lao PDR.

18 – 20 May 2005

Presentation of ICRA policy recommendations and updated website during the RE-SSN bi-annual meeting to be held in Hanoi, Vietnam.

- IED - Innovation Energie Développement at ied@ied-sa.fr ; or visit www.ied-sa.fr
- RISOE national laboratory at <http://www.risoe.dk/>

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Contacts

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