GrIPP-Net News

A quarterly Newsletter of the EC-ASEAN Green Independent Power Producers Network

Vol. 3, No. 1 (January 2005)

Editorial

Welcome to the new edition of the GrIPP-Net News. This new Net News is being supported by the project **Institutionalization of Green IPP Network in the ASEAN Region** funded by the EC-ASEAN Energy Facility for the period 2004-2005. The Green IPP Network has seen a number of changes in recent months. We are happy to welcome its new member and project coordinator, the Pusat Tenaga Malaysia (PTM) or Malaysia Energy Centre under the leadership of Dr. Anuar Abdul Rahman.

Being the host of the EC-ASEAN Energy Facility, the ASEAN Center for Energy (ACE) has ceased to become an official member of the network though it continues to be one of the prime movers in promoting green IPP in the region. The Informatics Management Associates (IMA) has also joined the network. The rest of the team, the Institute for Industrial Production, University of Karlsruhe (Germany), University of the Philippines Solar Laboratory (Philippines), Energy Research Centre of the Netherlands (Netherlands), and the Risoe National Laboratory (Denmark) remain strongly committed to the development of sustainable energies in the region. The network met in the beautiful city of Kuala Lumpur in Malaysia last September 2004 to plan out activities of the project.

This issue focuses on the Clean Development Mechanism (CDM), one of the flexible mechanisms of the Kyoto Protocol. CDM is one of the main drivers of the recent surge of renewable energy investments in the ASEAN. Majority of the projects being developed under CDM are Green IPP projects. CDM was featured in this newsletter several times in the past but there are compelling reasons why this theme is again selected for this issue.

Continued on page 2

INSIDE

COP 10 Outcomes

Last December, some 5000 people from the field of business, NGOs, research and, of course, politics gathered in Buenos Aires to attend the most significant annual platform in international climate policy. The 10th Conference of the Parties (COP) to the Kyoto Protocol started just after a significant moment in international climate policy: Russian ratification of the same protocol, paving the way for its entry into force on February 16, 2005. However, saying that we're in a stage of great advancement in negotiations would be rather optimistic. At the CoP, differences and gaps between parties and groups of parties were as strong as ever.

The main issues discussed were finance for adaptation and, likely the trickiest, a start of the design of climate policy after 2012. In addition, a set of decisions and conclusions were adopted on issues not finished in earlier COPs. These include procedures for afforestation and reforestation activities under the Clean Development Mechanism (CDM), technology transfer, non-Annex I National Communications, capacity building and education and public awareness.

Adaptation

The meeting was also unofficially dubbed the "Adaptation COP", referring to the question of how to help developing countries adapt to the adverse effect of climate change. Southern countries, notably small island states, repeatedly highlighted impacts on sea level, weather and food production can already be felt. Their calls are supported by a recent in-depth report Arctic Climate Impact Assessment. However, mobilizing special adaptation funds to developing countries turns out to be subject to several complexities and till date funding canals have been rather limited. In Buenos Aires, advancement was particularly frustrated by the demand from Saudi Arabia and other OPEC countries, supported by the US, to link adaptation to climate impacts to 'adaptation to response measures', i.e. compensation for loss of oil revenues due to climate policy. As the OPEC countries are in the same negotiation group as many developing countries (G77 + China), a common point of view seemed unattainable.

Continued on page 2

Editorial ... *Continued from page 1*

The beginning of this year marks the most exciting period of the Kyoto Protocol. With Russia's ratification in November 2004, the Protocol will enter into force in 16 February 2005 paving the way for binding commitments from Annex 1 countries to stabilize global greenhouse gas emissions. Moreover, the Supreme Body of the United Nations Framework Convention for Climate Change (UNFCCC), the Conference of Parties (COP) held its 10th annual meeting in Buenos Aires, Argentina last December 2004 to agree on outstanding issues related to the implementation of the Kyoto Protocol as well as to discuss post-Kyoto climate policy.

Another interesting development is the launching of the EU Emissions Trading Scheme (EU ETS) in January 1, 2005. The EU ETS is independent from the Kyoto Protocol but its linking Directive, which entered into force in November 2004, allows CER conversion into EU allowances. This could increase the global demand for CERs and could potentially lift the CER prices.

This issue reviews the COP 10 outcomes, the carbon credit demand in the EU, the EU Emissions Trading Scheme, profile of global CDM projects, and institutional developments in the ASEAN.

– Romeo Pacudan, RNL

COP 10 Outcomes … *Continued from page 1*

As well, the OPEC demand was unacceptable by the EU. In the end, the adaptation issue was taken a small step further by agreeing to further implement measures for adaptation to adverse impacts, and some activities on modeling and economic diversification regarding impacts of response measures.

Post 2012 climate policy

As provided by the Kyoto Protocol, discussion on the design of climate policy after 2012 should begin in 2005 and COP10 was supposed to initiate a process that should lead thereto. This expectation appeared to be highly optimistic. In the US' view, considerations about the future of the climate regime were 'premature'. Instead, its strategy is to focus on bilateral agreements and development of technology, notably CO_2 capture and storage and hydrogen. Differently motivated, developing countries also oppose to start up a post-2012 process. They are concerned that a new debate would impose new commitments to reduce emissions on them, even before industrialised countries are implementing theirs. Breaking the stalemate seems an impossible task. After an intransparent process of negotiating, the conference closed with an agreement to hold a seminar for country delegates in May 2005. This seminar, however, focuses on exchanging information on past and existing policies and measures and not opening up a post-2012 policy design. As well, no reporting back to COP11 about the outcomes will be required, even though the proceedings will be available to Parties. "Talks about talks about talks", the Dutch lead negotiator was quoted as saying, expressing EU frustration on this issue.

Some hope

However, the meeting was also marked by some more heartening developments. With the coming into force of the Kyoto Protocol, Annex-I Parties to this Protocol are now legally committed to reduce their greenhouse gas emissions. This is a landmark in the history of the UNFCCC process. The EU, Canada, Japan, Norway, Switzerland and New Zealand are faced with the challenge to reach their Kyoto targets. This means a mix of reducing their emissions domestically and buying emission credits on the international carbon market. It is therefore widely expected that demand for Certified Emission Reduction generated by CDM projects will increase in the years to come.

At COP 10, the recent work of the CDM Executive Board was also fiercely debated. It has recently published a comprehensive tool to determine whether proposed CDM projects are truly 'additional', in other words reduce emissions below what would happen if the project would not be registered as a CDM project. This requirement has been critised by business, who are of the opinion that the strict procedures are a serious impediment for a fast development of the mechanism. In Buenos Aires, India was reported to share this opinion.

Shortly prior to the conference, both China and Brazil had submitted their National Communications, in which countries are required to report about their historical and future greenhouse gas emissions, as well as policies and measures. Together with India, who had submitted earlier last year, this indicates commitment to address climate change from the three largest developing countries.

Ahead?

COP10 has clearly shown that for two major issues - funding for adaptation and climate policy after 2012 - the world is deeply divided. As it has been since several years. On the other hand, there was also advancement on several issues and with the coming into force of the Kyoto Protocol, international climate alliance certainly has gained momentum. With the recent ratification of several OPEC states, notably Saudi Arabia, COP11 - or the first COP serving as the Meeting of the Parties - negotiations will continue to be challenging.

- Stefan Bakker, ECN

CDM Institutional Developments in ASEAN

Most of the ASEAN countries have recognized the potential role of CDM in their pursuit of sustainable development. To meet the CDM participation requirements set by the Kyoto Protocol, 7 ASEAN countries have ratified/acceded to the Kyoto Protocol. Cambodia was the first to do so in 2002 (Table 1). As a key requirement for CDM participation, these countries also established Designated National Authorites (DNAs), defined its responsibilities and elaborated sustainable development criteria for CDM projects.

Table 1: Kyoto Protocol Ratification and Designated National Autorities in the ASEAN

Country	Ratification/Accession Designated National Autority
Cambodia	22/08/02 (Ac) Ministry of Environment (MoE)
Indonesia	12/12/04 (R) to be established
Lao PDR	06/02/03 (Ac) Science Technology and Environment Agency
Malaysia	04/09/02 (R) Ministry of Natural Resources and the Environment
Philippines	21/11/03 (R) Department of Environment and Natural Resources
Thailand	28/08/02 (R) Office of Natural Resource and Environment Policy and Planning
Vietnam	25/09/02 (R) International Cooperation Department Ministry of Natural Resources and Environment

Note: Ac – Accession; R – Ratification

Various internationally supported capacity building efforts are undertaken in the region. Cambodia, the Philippines, and Vietnam undertake awareness building, project development and institutional strengthening under the project Capacity Development for CDM implemented by the UNEP Risoe Center. Indonesia participates in GTZ project on CDM Institution building and SouthSouthNorth Project. The UNDP also supports institutional strengthening in the Philippines. Thailand and Malaysia are recipients of the Danish Capacity Building project. Other programs, projects, organizations implementing capacity building activities in the region include the EC-ASEAN Energy facility, Japan IGES-MOE (Indonesia, Cambodia, Thailand, and Vietnam), and Asia ProEco Programme (Cambodia, Laos and Vietnam).

The Cambodian government appointed the Ministry of Environment (MoE) as interim DNA in July 2003. MoE's Climate Change Office is also acting as the DNA secretariat. Key categories of Cambodia's sustainable development criteria include environmental, social, economic and technology transfer. Projects being developed are the following: rubber plantation and micro-wind/hydro (Marubeni Corporation), methane capture from waste (Japan Waste Foundation), micro-hydro/solar hybrid (NEDO), Rice Husk Cogen (Angkor K.R. Co), mini-hydro (Celtic International), household biogas (CFSP) and wood waste rehabilitation (Mai Woodwaste).

Indonesia ratified the Kyoto Protocol in December 2004 and the government is yet to appoint an organization to act as the DNA. The National CDM Institutional Framework has been elaborated and the secretariat will be named in the short term. The sustainable development criteria and indicators in the draft CDM institutional framework are economic, environmental, social, and technological.

The Philippine Department of Environment and Natural Resources (DENR) was designated as the DNA through Executive Order 320 issued in 25 June 2004. The CDM institutional arrangement has been defined but organizations within the framework are yet to be identified. A number of projects are being developed for CDM and priority is given to projects consistent with the Philippine Energy Plan and Forestry Development. These include renewable energy projects using geothermal, hydro, wind, solar, biomass and ocean.

In Thailand, the government appointed the Ministry of Natural Resources and Environment (MONRE) to be the country's CDM DNA in July 1, 2003. The Office of Natural Resources and Environmental Policy and Planning (ONEP) was in turn appointed by MONRE to act as the National Focal Point. Under the ONEP structure is the CDM Cooperation Center, which also acts as the CDM Secretariat. Thailand's criteria for CDM project eligibility are the following: consistency with the National Development Strategy; contribution to capacity building, technology transfer and know-how, consistency with Thai legislations and regulations, should include environment and technical assessments and should involve public participation. CDM projects in the pipeline with CDM buyers (in parenthesis) are: Korat Waste to Energy Project (the Netherlands), Rubber Wood Residue Power Plant (Japan), Green Power for Pig Farm (Denmark), Thai Agro energy ethanol and biogas plant (Denmark), Natural Palm Oil electricity and biogas plant (Denmark), Siam Cement biomass gasifier (Denmark), and Ratchasima small power producer expansion project (Denmark).

The International Cooperation Department of the Ministry of Natural Resources and Environment

(MONRE) was designated as Vietnam's DNA, and the National Office for Climate Change and Ozone Protection under the Ministry was designated as the CDM Secretariat. The sustainable development criteria for CDM projects are based on Vietnam's Agenda 21, adopted by the government in June 2004. The criteria for CDM projects are categorized into economy, society and environment. Among the projects being considered for CDM development are the following: approved - RangDong Oil Field gas recovery; endorsed - Thuong Ly Landfill, HoChiMinh City Landfill, HaNoi Landfill; under consideration - energy efficiency in a brewery, Thu Duc Power Plant fuel switching, and wind-diesel hybrid.

– Romeo Pacudan, RNL

European Demand for Carbon Credits

With the start of the European CO_2 Emission Trading Scheme (EU ETS) last January, interest in acquiring CERs is on the rise. In anticipation of the trading system, several countries have set up institutions and allocated funds to buy credits from CDM projects in 2004. Demand for CERs is on the rise and may be expected to sustain or increase, for several reasons:

- i) With the entry into force of the Kyoto Protocol, GHG reduction targets for EU member states become legally binding, and many countries will not be able to achieve the necessary reductions domestically;
- ii) As required by the EU Directive on the ETS, member states had to develop a National Allocation Plan in 2004, in which had to be indicated how the Kyoto targets were going to be met. In case carbon credits from CDM or JI were planned to be acquired, clear plans and funding had to be indicated, a requirement several countries forced to quickly develop this;
- iii) Under the ETS, some 12,000 industries and power plants in 25 countries have been allocated emission rights for the period 2005-07, which can be traded. In case the EU CO_2 price will be higher than the average CER price, it may be expected that companies exceeding their emission ceiling consider buying CDM credits instead of buying on the EU market. This option is allowed by the so-called Linking Directive. Even though the CO_2 allocation for the coming three years is generally considered to be rather generous and demand for credits low, it is expected that for the period 2008-2012, the carbon market will be more liquid. Buying of CERs by European companies may constitute a significant flow.

The following is a brief account of the activities of European countries on the international carbon market, notably CDM. Characteristics of programmes set up in order to contract carbon credits from greenhouse gas reduction projects will be discussed. Often, Annex-I countries first sign a Memorandum of Understanding (MoU) with a country from which they intend to buy CERs and those relevant to ASEAN are mentioned. In addition to governments, several companies in Europe (as well as Japan and Canada) are also involved in acquiring carbon credits - which they may use to compensate their own emissions or to sell on the international carbon market.

The Austrian CDM Small-scale Facility was recently set up and focuses on small projects in Latin America. It intents to buy 1.25 million CERs up to 2012, preferably from 'high value' projects. As well, two JI projects in Eastern Europe have been contracted so far. The Belgian government recently announced a tender for CDM/JI projects will be opened this year. It intends to purchase 12,3 Mton emission reduction units for the period 2008-2012.

The Danish government has contracted projects hosted by, among others, Malaysia and Thailand, with which it has signed MoUs. It is also focusing on Central Asia and Eastern Europe. In January 2005 Energi E2, Elsam and the Danish ministries of foreign affairs and environment established a carbon fund that will be administered by the World Bank. It aims to purchase 5-6 million carbon credits through JI and CDM projects by 2012. As the government has allocated under projected emissions of the Danish power sector, companies are expected to buy allowances on the international carbon market.

Finland has started a programme in 2002 and specifically focuses on small-scale JI and CDM projects. Till date, it has contracted projects in Vietnam, India and Honduras. Several French companies are involved in CDM projects, notable the Korean N_2O destruction project - the largest till date. France is also an investor in the PCF.

As Germany appears to be on track for its Kyoto targets, the government's activity in the carbon market has been limited to involvement in a small number of CDM projects, mainly in Latin America. However, the Hessian Ministry of Environment together with KfW Bankengruppe has set a carbon fund aimed at procuring carbon credit from small-scale projects under the CDM or JI. In addition, several German companies, are involved in contracting CERs. Under the ETS, several German companies are likely to be significant buyers.

Recently, the Italian Carbon Fund was established. In order to achieve its Kyoto target, the Italian government plans to buy 36 Mt carbon credits. The Fund however, focuses on regions other than East Asia, such as Latin America, Balkan and China. 14 projects have been contracted. Some Italian companies are also active in the CER market, with one having contracted to buy credits from an Indian CDM project.

The Netherlands has been an active player in the CDM for over 5 years. It has contracted a range of CDM projects through the CERUPT programme, mainly in Latin America, but also in Asia. It has a MoU with Indonesia (which has recently ratified the Kyoto Protocol). It is not likely that new CERUPT rounds are coming, as the Kyoto target is within reach with the contracted projects (new JI project tenders are still active). However, the Dutch government is still funding CDM programmes such as Prototype Carbon Fund (World Bank), Netherlands Clean Development Facility (NCDF) and INCaF. Also, the Dutch Rabobank was requested by the government to buy 10 million CERs (up to 2012). Some Dutch companies intend to buy credits as well.

Norway is involved in the heavily disputed tree plantation project in Uganda. The country is to set up a national emissions trading programme in 2005, where it will be possible to utilize CERs for compliance.

In the process of developing an allocation plan for the ETS, the Spanish government has started exploring meeting its Kyoto commitments with help of the flexible mechanisms and has indicated to buy 100 Mt, mostly through CDM. Part of this will be managed by the World Bank. It has not contracted projects yet, but plans have revealed that the focus will be on Latin America. It has signed MoU with several countries in this region.

The Swedish government has a programme in place and projects in, among others, in India have been contracted by the Swedish Energy Agency. A study regarding potential of CDM in Africa - which continent till date hosts a very small share of the projects - has been commissioned. Swedish companies are already involved in several CDM projects, and industries are expected to be net buyers of emission right under the ETS.

The so-called new member states of the EU are all well on track to meet their Kyoto targets, due to economic downturn in the 1990s. As well, most companies have been allocated enough allowances to cover projected emissions in the coming three years.

The World Bank and the European Investment Bank have signed an MoU to set up the Pan-European Carbon Fund. This should be in place by mid-2005 and its budget for contracting JI and CDM projects may be up to 100 million €.

European demand for carbon credits appears to be picking up. Most EU-15 governments and companies are quite active in the carbon market. Many programmes are in place and new policies are set up in anticipation of the EU ETS and the coming into force of the Kyoto Protocol.

- Stefan Bakker, ECN

CER Price Trends

The CER market is one of the fragmented carbon markets. The global carbon market consists of diverse greenhouse gas reduction transactions and can be broadly classified into i) project-based or baseline and credit system such as CDM and JI, ii) allowance market or cap and trade system such as the EU Emissions Trading Scheme and the Emissions Trading of the Kyoto Protocol.

The fragmented nature of the global carbon market generates differentiated prices for emissions reductions. Allowance markets generate high emission reduction prices since the delivery risks are perceived to be minimal. Though JI and CDM are both project-based, the Prototype Carbon Fund (PCF) for example, pays higher prices for ERUs since JI projects are supported by Host Country Agreements and Assigned Amount Units which reduces PCFs exposure to risks.

There is no single price for CER. It is differentiated according to risks, technology type and social development components. For example, among the CDM projects contracted by PCF in Colombia, a price premium was paid to the Jepirachi Wind Farm sponsors for the delivery of activities to improve the social conditions of the local indigenous population that hosts the project.

In C-ERUPT programme, prices are also differentiated according to technology type. CER from renewable energy projects form the reference price (maximum price of €5.5 per CER). CERs from sustainable grown biomass projects as well as from energy efficiency projects are priced 20% lower (maximum price of €4.5) while those from fuel switching and methane recovery projects are 40% cheaper (maximum price of €3.3).

The CER price differentiation could possibly evolve into the following categories: i) CERs from projects that fulfil the WWF Gold Standard, ii) CERs from projects with community development features, iii) CERs from standard projects, and iv) long-term and temporary CERs from forestry projects (Michaelowa, A., CDM Monitor, March 11, 2004).

Continued on page 8

The EU Emissions Trading Scheme

Another exciting development for CDM this year is the launching of the EU-Emissions Trading Scheme (EU ETS) in January 2005. The EU ETS is a mandatory greenhouse gas trading scheme in the European Union sanctioned by the European Commission. This regional allowance market is independent from the Kyoto Protocol, though its linking Directive allows conversion of CDM and JI emissions reductions into EU emissions allowances (EUAs).

The EU ETS entered into force in summer of 2003. The first compliance phase starts from 1 January 2005 to 31 December 2007 and the second phase coincides with the Kyoto Protocol compliance period, 2008 to 2012. The scheme applies to 25 EU countries (including the 10 accession countries who joined the EU last year).

Trading Scheme

The EU ETS is a cap and trade system covering CO_2 emissions during the first phase and all greenhouse gases in the second phase. The sectors concerned are power and heat generation; crude oil refineries and coke ovens; production and processing of ferrous metals including metal ore, pig iron and steel; production of cement clinker, glass, tiles, bricks and porcelain, and; production of pulp and paper. These consist of 12,000 installations covering around 46% of EU CO_2 emissions.

Each EU member sets the cap and designs a national allocation plan (NAP). Each country NAP must be approved by the European Commission to ensure they are consistent with the trading Directive. As of mid January 2005, 21 NAPs have been approved. The missing 4 are from Czech Republic, Greece, Italy and Poland. The 21 NAPs have an aggregate cut of 17.4 million tones per year (Mt/yr) for the period 2005-2007. 13 of these NAPs are from the EU-15 countries and the cuts amount only to 6.6 Mt/yr while the remaining 8 are from new Member States with an aggregate reduction of 10.8 Mt/yr.

The fine for non-compliance is set at €40 per tonne during the first period and €100 per tonne in the second phase. In addition, non-complying companies must purchase the allowances in the market. Companies can meet their cap by i) actually reducing CO_2 emissions at their installations, ii) purchasing EU allowances from other companies in the scheme, and iii) purchase credits from CDM and Joint Implementation (JI) and convert these into EU allowances (this is discussed further below).

Linking Directive

The European Commission recognized the fungibility of carbon credits (CERs from CDM and ERUs from JI) and EU allowances (EUA), and proposed the linkage between the EU ETS and project-based emissions reductions. The European Parliament adopted the linking Directive in April 2004 and was entered into force in November 2004. The Directive allows CER conversion into EUA from 2005 and ERU conversion from 2008.

Limitations of projects eligible in EU ETS are also specified in the Directive. Nuclear and sinks are not allowed though there is a possibility that sinks may be allowed after 2008. Large hydro projects will only be allowed if it satisfies the rules set by the World Commission on Dams.

There is no cap set on imported CERs and ERUs but it is expected that each Member State will source 50% of the reductions from domestic actions rather than imported emissions.

Implications on CER Markets and Prices

The linking Directive is seen as a boon to CDM. The possibility of the conversion could translate into increased demand for CERs hence more project-based investments in developing countries. Point Carbon observes that after the start-up of EU ETS in January, EU companies' interest on CERs have built-up. It also guessed that 50% of issued CERs will go to the EU ETS in 2005-2007. Not all CERs however can be converted to EU allowances since some projects such as sink projects are not eligible in EU-ETS. This may create a two-tier CERs: for imports and not for imports in the EU ETS.

The forward price for EUAs at the beginning of 2004 was around €12 per tonne of CO_2 equivalent. It has fallen to below €7 per tonne at the end of the year due to generous NAPs being filed by some EU member states. The mid-February 2005 forward price of EU allowance hovers around €7 per tonne while the forward price of CER were in the price range of €5.0 – 5.5 per tonne. This reflects the risks associated in the issuance of CER such as registration risk, political and country risk, and project risk. Several CER buyers in fact prefer the price difference due to perceived risks between EUA and CER to be more than €1 per tonne.

CERs however have better advantage than EUAs since they can be banked to the second phase period of the EU-ETS while EUAs during the first period (2005 – 2007) cannot be banked to the second period (2008-2012). A secured CER (through various instruments such as performance bond, insurance, letter of credits or another hedging instrument) therefore can fetch a price similar or even higher than that of EUA.

– ***Romeo Pacudan, RNL***

CDM Development in Malaysia

Institutional Framework

Malaysia signed and ratified the United Nations Framework Convention on Climate Change (UNFCCC) on 9 June 1993 and 17 July 1994 respectively. The Ministry of Science, Technology and the Environment (MOSTE)[1] was made the focal point of the UNFCCC, and subsequently, the Government established a National Steering Committee on Climate Change (NSCCC) comprising MOSTE as Chair, and representatives from relevant sectors as members to the Committee. Malaysia ratified the Kyoto Protocol on 4 September 2002.

On 31 May 2002, the NSCCC chaired by the Secretary General of MOSTE agreed on the establishment of a two-tiered organization for CDM implementation in Malaysia. This comprises of: i) the National Committee on CDM (NCCDM); and ii) Two Technical Committees - Energy Technical Committee and Forestry Technical Committee. Pusat Tenaga Malaysia (PTM) was appointed as the Secretariat to the Energy Technical Committee while the Forest Research Institution of Malaysia (FRIM) was appointed as the Secretariat to the Technical Committee on Forestry.

In May 2003, the Conservation and Environmental Management Division at the Ministry of Natural Resources and Environment was registered with the UNFCCC secretariat as the Designated National Authority (DNA).

Policy Development

With the prompt start of the CDM and the rules and modalities for the CDM laid out after COP 7, implementation of the local CDM process has been taking shape. Projects in the energy sector particularly small-scale projects such as renewable energy (RE) and energy efficiency (EE) projects have been given priority for CDM implementation. Besides contributing to GHG reductions, these projects are in line with the sustainable development strategies in the energy sector.

In August 2003 the national criteria on CDM and the national CDM criteria for small-scale energy projects were endorsed by NCCDM to fast-track the implementation of RE and EE CDM projects in Malaysia.

The national criteria for CDM projects approved by the National Committee on CDM (MOSTE, 2003) are as follows: i) projects must be in accordance with the sustainable development policies of the government; ii) projects must fulfill all conditions underlined by the CDM Executive Board; iii) Implementation of CDM projects must involve participation between Malaysia and Annex 1 Party; iv) projects must provide technology transfer benefits and/or improvement in technology; and v) projects must bring direct benefits towards achieving sustainable development.

In addition small-scale CDM energy projects must comply with the following criteria: i) The project shall be in accordance with one or more of sustainable development strategies of the energy sector, ii) the project shall conform to the environmental regulations Malaysia, iii) the project proponent should justify that the project utilises the best available technologies, including local technologies, iv) the project proponents must justify their ability to implement the proposed project.

Projects

To date, three small-scale renewable energy projects have received conditional approval from the DNA. The DNA will issue the final letter of approval once the Designated Operational Entity has validated the Project Design Document. The three energy projects, which received conditional approval from the DNA are projects below 15 MW utilising palm oil residues for heat and power generation. Two of these projects are grid-connected and have received approval under the Small Renewable Energy Power Programme (SREP).

Projects that received conditional approval from DNA are the following: i) grid-connected 14 MW CHP Plant, ii) off-grid 7 MW CHP Plant, and iii) grid-connected 6 MW biomass power plant. Projects presented to the technical committee on energy and NCCDM are the following: i) grid connected 9 MW biomass power plant, ii) grid-connected 2 MW gas power plant and methane recovery, and iii) methane abatement through composting.

Conclusion

The CDM is a tool that could be used to improve the financial and economic viability of a renewable energy projects in Malaysia. A quick estimation shows that the estimated potential CER revenue is RM 80 million (based on 7-year crediting period), after taking into consideration the transaction costs for small-scale projects. In addition, CDM projects could encourage foreign direct investments, the application of environmentally friendly technologies and in some cases bring positive impact on employment.

– ***Noor Maya Abdul Wahab, Jasmin Idris and Radin Diana R. Ahmad, PTM***

[1] Ministry of Natural Resources and the Environment (NRE) (the newly formed Ministry) has now taken over the role of focal point for UNFCCC replacing the Ministry of Science, Technology and the Environment which has been restructured.

CER Price Trends … *Continued from page 5*

In 2004, the CER forward prices ranged between US$3.0 and US$6.5 per tonne of CO_2 equivalent.

– Romeo Pacudan, RNL

Small-Scale CDM

The complicated project cycle and the associated transaction cost of CDM projects are generally considered a significant barrier to development of projects. Considerable time and money has to be put in to develop a Project Design Document with a baseline to which the achieved reductions are measured. This PDD needs to be validated and the baseline methodology approved by the CDM Executive Board (EB). In particular for smaller projects, which generate smaller amounts of CERs, the transaction cost appear to be a large barrier to implementation.

To cater for improved feasibility of smaller projects, the EB has adopted simplified modalities and baseline procedures to so-called small-scale CDM projects, of which three types are defined:

i. Renewable energy projects with a maximum output capacity of 15 MW

ii. Energy efficiency improvement projects up to 15 GWh/yr

iii. Other projects that directly emit up to 15 kton CO_2-eq/yr

These small-scale projects have a large potential to contribute to sustainable development, as they often generate local employment, improve air quality, introduce new technologies and, of course, mitigate greenhouse gas emissions.

However, till date the number of small-scale CDM projects developed is rather limited: approximately 20, generating over 6 million tonnes of CO_2 reductions up to 2025 (of the total market, this is 10% and 1.5% respectively). Most of these employ renewable electricity technologies such as small/micro hydro or biomass, or some energy efficiency technologies. Strikingly, the main part of the projects is in Latin America, while several are in South and East Asian countries such as India, Malaysia and Vietnam.

An option - not yet applied - to make very small projects more viable, is the so-called bundling. In this case, several projects of similar context are put together to form one CDM project, for which one baseline needs to be developed. For example, five micro-hydropower plants of 3 MW capacity each may be put together in one project. This could generate approximately 70,000 CERs/yr, which is translated into 350,000 $/yr at 5 $/t$CO_2$-eq. This amount is large enough to limit the transaction cost to a small percentage (5-10%) of CER revenues. In this fashion, bundling facilitates development of small projects under the CDM.

The potential in terms of sustainable development as well as climate change mitigation for renewable electricity projects under the small-scale CDM appears to be large. However, the success of this will depend, among others, on the possibilities of bundling, institutional capacity in host countries, CDM finance possibilities and of course, the price of CO_2 credits.

- Stefan Bakker, ECN

The *GrIPP Net Newsletter*, the official publication of the Green IPP Network, is published quarterly to communicate network activities and to support the dissemination of relevant information and network results. It is provided free to network members and interested stakeholders, and can be downloaded from this site: www.EC-ASEAN-GreenIPPnetwork.net.
This *Newsletter* has been produced with the financial assistance of the European Community – ASEAN Energy Facility. The views expressed herein are those of the authors and can therefore in no way be taken to reflect the official opinion of the European Commission.

Calendar of Events

June 2005

EC-ASEAN Green IPP Network First National Workshop
"Current development of Green IPPs: Experiences, challenges, and strategies"

21 June 2005, Kuala Lumpur, Malaysia

June 2005

EC-ASEAN Green IPP Network Second National Workshop
"Current development of Green IPPs: Experiences, challenges, and strategies"

Tentative dates: June 2005, Manila, Philippines

August 2005

EC-ASEAN Green IPP Network Third National Workshop
"Update on the development of Green IPPs in Thailand: Challenges, strategies, and case studies"

10 August 2005, Bangkok, Thailand

September 2005

EC-ASEAN Green IPP Network Regional Workshop
"Current development of Green IPPs: Experiences, challenges, and strategies"

15 September 2005, Karlsruhe, Germany