

The study tour and workshop on Power Pooling in Europe for the Greater Mekong Sub-region (GMS) /ASEAN Power interconnection programme



Supported by the ACE through the
EC – ASEAN Energy Facility



The EAEF is supporting a Study Tour and workshop to the Nordic Sub-Region Group of European Union Countries for electricity industry senior officials and managers from the Greater Mekong Sub-region (GMS). The Tour and workshop is organised by three partner organizations including:

- ❖ Electricité du Cambodge (Cambodia) - lead
- ❖ Innovation Energie Développement (France)
- ❖ Co-operation for Development (Europe) (United Kingdom).

This is an example of co-operation in support of GMS capacity building project, with the French partner being the lead agency in Europe. The Anglo-French initiative promotes the example of the excellent co-operation between Nordic countries within the European Union, where Denmark, Sweden and Finland have worked together, along with Norway (a non EU member), to develop advanced power pooling arrangements (Nord Pool Power market).

The Tour is led by Electricité du Cambodge and will include officials from Cambodia, Vietnam, Lao PDR., and Thailand, as well as ASEAN Regional bodies, including the ASEAN Centre for Energy.

The launching of this initiative took place with a press conference held in Phnom Penh on 22 October 2003 at EDC press conference centre. The press conference was chaired by H.E. Mr. Tan Kim Vinn, EDC Managing director, Dr. Tuan Nguyen, representative from IED and Dr. Terry Lacey, representative from Co-operation for Development. There were 20 journalists from major journals in Cambodia such as Koh Santeheap Daily,

Rasmei Kampuchea Daily, Chakraval Daily, Cambodia Daily (English language newspaper), Cambodia Sin Chew Daily (Chinese language newspaper), Cambodia Soir (French language newspaper), Pnom Penh Post (English language newspaper), Business News (English language newspaper), Cambodge Nouveau (French language newspaper); from press agencies such as Agence France Presse, Agence Khmère de Presse, Associated Press, Deutsch Press, Reuters; and from 4 major national TV programmes. Also a representative from French embassy (attaché commerciale) in Phnom Penh was present.



The study tour and workshop will take place in late November this year and will cover members of Nord Pool in Sweden, Denmark and Finland and will look at the organization of power pooling in Nord Pool, especially :

- ❖ Transmission Systems and Grid ownership
- ❖ Arrangements for power exchange in the Nord Pool Grid
- ❖ Financial settlement and contracts, bidding and pricing

The study tour and workshop on Power Pooling in Europe for the Greater Mekong Sub-region (GMS) /ASEAN Power interconnection programme



Supported by the ACE through the
EC – ASEAN Energy Facility

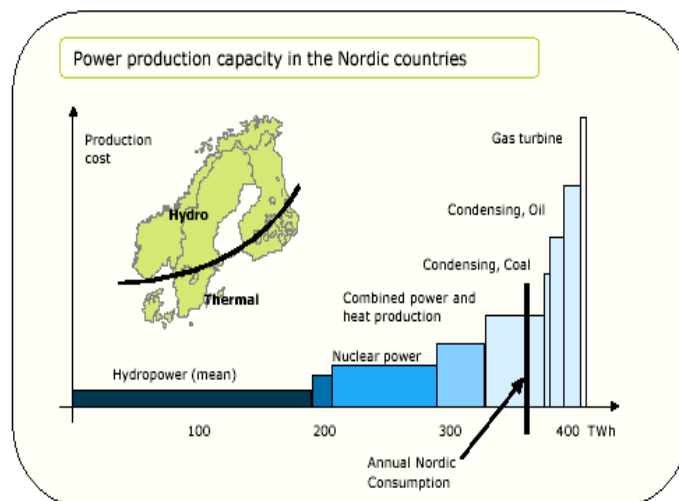


The programme in Europe will include both a visit and a workshop component. The workshop will be assured by professional staff from Nord Pool, IED and all participants from GMS countries. The presentations will focus on three major topics :

- ❖ regulatory framework in power sector – experience from Nordic countries;
- ❖ power market : spot market, cross border trades, real time market, financial and clearing services;
- ❖ GMS power interconnection perspectives.

After the workshop, the technical visits will be arranged for the participant to see daily activities of Nord Pool at its major three centers : Stockholm, Helsinki and Copenhagen.

The Nord Pool sub-regional arrangements were felt to raise some parallel sub-regional issues that might be useful for the GMS as a sub region of the ASEAN Nations. Actually more than a dozen deregulated power markets are operating in different developed and developing countries. The reason to chose the Nord Pool is that it is the world most developed international power market which has been evolved from the old model of bilateral and multilateral exchange among the vertically integrated utilities in each Nordic country to competitive market. The differences in generation mix have made it economically attractive to trade power, allowing the countries to optimize production. The Nord Pool demonstrates the possibilities of an international power market, an attractive option in long term for GMS countries with small power systems and different generation mix.



Generation mix in GMS countries in 2001, GWh (sources : Utilities Annual reports).

	Camb.	Laos	Vietnam	Thailand
Hydro		1 578	18 207	6 310
Thermal	174			
- Coal		-	3 213	17 306
- Gas		-	4 406	34 871
- Oil		0.5	3 325	3 268
IPP & Purchase	241	-	1 449	41 409
Total	415	1 579	30 600	103 165

As ASEAN countries become increasingly interdependent, the ASEAN power grid is increasingly becoming a reality. Within the GMS countries, there is already growing international interconnection, mostly at high voltage (as from the Lao PDR to Thailand and Viet Nam to Cambodia in near future) but also local cross border medium voltage, as between Thailand – Cambodia and Viet Nam – Cambodia. The GMS arrangements also will include arrangements with Southern China.

In an increasingly interdependent world, GMS countries is entering the 21st century in terms of sophisticated power pooling arrangements to help increase security of supply and develop electricity market for the GMS and ultimately for the ASEAN.

The study tour and workshop on Power Pooling in Europe for the Greater Mekong Sub-region (GMS) /ASEAN Power interconnection programme



Supported by the ACE through the
EC – ASEAN Energy Facility



As the energy mix changes, production of oil will decline in ASEAN whilst electric power from gas, clean coal and New & Renewable sources of Energy (NRE) will increase. By the year 2015, the countries in the region will have great potential power exchange, as great hydro potential in Laos, Cambodia and Vietnam will be exploited. Most of addition thermal capacity will be constructed in Vietnam and in Thailand and hydro capacity will be added in Laos, Vietnam and in some extent in Cambodia. Together, this market would be represent 150 millions persons and more than 300 TWh of electricity consumption per year in 2015.

Although there is difference in timing, power sectors in the GMS will go under major restructuring in the period 2003 – 2010 with objective to introduce more competition in generation and distribution of electricity. A new competitive structure in power sector is a necessary condition to create a power market, but in order to be operational power market in future, a synchronisation in power structure and regulation framework need to be elaborated in advance. The experiences in other power markets show that restructure and deregulation are continuing learning-by-doing process and there is still much to be learned from other Power markets.

The critical success of the creation a competitive power market in GMS depends on many factors. However, given the willingness of cooperation and the first steps in border small-scale exchanges, GMS utilities are surely moving toward the power pool in an incremental capacity building and learning process. This workshop and study tour is well integrated into this perspective. The next step would be to have a Road Map of interconnection which shows concrete benchmarks for

harmonisation and synergy of the institutional, regulatory, economic and technical processes.

For more information, please contact:

EDC – sodavath@bigpond.com.kh

IED - Innovation Energie Développement.
ied@ied-sa.fr
<http://www.ied-sa.fr>

Anjali SHANKER – Project Director
Tuan NGUYEN

This document has been produced with the financial assistance of the European Community. The views expressed herein are those of IED and can therefore in no way be taken to reflect the official opinion of the European Community
