

**Summary of Discussions**  
**Seventh Meeting of the Focal Group (FG-7) and Seventh Meeting of the Regional Power Trade Coordination Committee (RPTCC-7)**  
**Ho Chi Minh City, Viet Nam, 21 November 2008**

1. **Objectives.** The FG-7 meeting will take up the power sector updates in each country, and will also review the overall results of RETA 6304 in order to determine the way forward with respect to: (i) data collection and addressing key issues in performance standards and transmission regulation; (ii) topics for subsequent training courses; (iii) enhancing database/website use and administration; and (iv) applying the master plan model (in relation to the energy strategy and country power programs).

2. The RPTCC-7 meeting will affirm the matrix of results of RETA 6304: Regional Power Trade Coordination and Development, and the proposed next steps under RETA 6440: Facilitating Regional Power Trading and Environmentally Sustainable Development of Electricity Infrastructure in the GMS, to be clarified in relation to the milestones prescribed in the MOU on the Road Map for GMS Cross-Border Power Trading.

3. The FG-7/ RPTCC-7 meetings were held in Ho Chi Minh City, Viet Nam on 21 November 2008 and co-organized by the Electricity Regulatory Authority of Viet Nam (ERAV)-Ministry of Industry and Trade (MOIT) and the Asian Development Bank (ADB). It was attended by RPTCC members of the six GMS member countries, as well as by representatives of ADB, Agence Francaise de Developpement (AFD), Australian Agency for International Development (AusAid), Japan International Cooperation Agency (JICA), Mekong River Commission (MRC), RTE International, Swedish International Development Cooperation Agency (Sida), Soluziona, and World Bank (WB). Attached is the agenda and program of the meeting (Annex 1) and the list of FG-7/ RPTCC-7 participants (Annex 2).

4. The FG-7 meeting was co-chaired by Mr. Daovong Phonekeo, Deputy Director General of the Department of Electricity, Ministry of Energy and Mines, Lao PDR, and Mr. Yongping Zhai, Principal Energy Specialist, Infrastructure Division, Southeast Asia Department (SEID), ADB.

### **Opening Session**

5. Mr. Yongping Zhai, Principal Energy Specialist, Infrastructure Division, Southeast Asia Department (SEID), ADB, welcomed the participants and explained that the FG-7 meeting will first share updates on the progress of power generation and interconnection programs of each GMS member. The meeting will then undertake a recap of the outputs of the current RETA 6304, and deliberate on the PWG's recommendations as to the proposed next steps for priority RPTCC activities. These efforts should help to find a good fit between these proposed next steps and the other key activities being planned under the new RETA 6440, to realize the milestones in the GMS Road Map for power trading.

6. Mr. Daovong informed of the agenda of the meeting, which will commence with the country reports on the status of power development programs.

### **Updates on Progress of Power Development Plans and Transmission Interconnection Projects (Country Presentations, Annex 3)**

7. **Cambodia.** Mr. Heng Kunleang of the Energy Development Department, Ministry of Industry, Mines and Energy (MIME) gave an overview of Cambodia's power sector (capacity, consumption), energy policy, institutional structure, electricity sector status, and the power sector strategy. He presented the updates on the country's generation and transmission development plans, detailing the projects, their location and financing sources. He noted the projects with power trade and provincial/ rural electrification components and targets.

8. **Discussion.** Sida observed high targets for rural electrification and asked whether these would be met by on-grid or off-grid projects. Cambodia clarified that the rural electrification would mostly be by on-grid and off-grid, but some would tap backbone lines for power export. Sida asked about the social and environmental requirements for private power investors. Cambodia clarified that at present only environmental impact assessment (EIA) is being used. Thailand asked about the tariff setting for IPPs. Cambodia replied that the Electricity Authority of Cambodia is responsible for this.

9. **PRC.** Mr. Zhou Anshi of the Planning Department, CSG, provided the status of CSG in 2007, showing provincial coverage, generation mix and capacity, consumption, transmission capacity, provincial west-to-east power transfer, and power exchange between regions. He explained the basis of power grid planning (e.g. demand forecast, power capacity, provincial transfers) and detailed the various international cooperation projects with neighboring countries (Viet Nam, Lao PDR, Cambodia, Thailand, and Myanmar).

10. **Discussion.** Viet Nam inquired whether new high voltage (800 kV) lines in the CSG system would affect the interconnection program with GMS neighbors. CSG informed of cross-border interconnections with Viet Nam and Lao PDR for power trade purposes, in addition to the connections between provinces within the CSG grid.

11. **Lao PDR.** Mr. Vilaysone Sourigna, of the Department of Energy Promotion and Development-MEM presented a background on power cooperation projects with GMS neighbors, discussing the status of hydropower projects for export to Thailand and Viet Nam. He showed the proposed interconnections with Thailand and Viet Nam for transfer of power from the generation projects. He showed the updated power demand forecast (2007) and target household service penetration.

12. **Discussion.** PRC inquired about the tariff setting for IPP projects. Lao PDR responded that tariffs are affected by a number of factors- project cost, financial models, government policy, financing and routing of transmission. Viet Nam inquired about the changes in the hydropower export program and Lao PDR informed of the possibility of the outputs from some projects being sold to Thailand given its higher price offer. Sida asked about the plans for unbundling power generation and transmission functions. Lao PDR said the current network is very limited (at 115 kV) and the high voltage (500 kV) lines are dedicated for power exports. ADB briefed on the status of two projects receiving ADB financing, the Bansok-Pleiku 500kV Interconnection F/S project and the Nabong-Udon Thani transmission project.

13. **Myanmar.** U Maung Maung Kyaw, of Myanmar Electric Power Enterprise (MEPE), Ministry of Electric Power No. 2 (MOEP 2), explained the developments in the institutional/ policy framework for the power sector, detailing the functions assigned to MOEP 1 and MOEP 2 and the regulatory framework. He discussed the status of electricity demand and supply, and the progress in the power development program, detailing the hydropower projects and transmission lines under construction and planned for the future. He then discussed developments in power cooperation with GMS neighbors.

14. **Discussion.** Thailand asked about transmission system construction, and Myanmar clarified that this is undertaken by MEPE and local companies. The WB asked whether there is a system dispatcher and Myanmar replied that there is one for the 230 kV system that interconnects the country, and there are plans for 500 kV links from Mandalay to Yangon. Sida asked about the domestic tariff for power from hydropower projects exporting to Yunnan, PRC. Myanmar informed that 15% of output is provided free to the government, and the rest of the power used locally is charged 2.6 US cents per kWh, the same price for power sold to Yunnan.

15. **Thailand.** Mr. Varavoot of the Electricity Generating Authority of Thailand (EGAT) provided the progress of the country's power generation (including fuel mix in 2007) and an update of the forecast energy demand, reflecting slower growth forecast for 2008-09. He showed the preliminary adjusted power development plan for 2009-2016, and the status of discussions with IPPs for coal and gas power plants, and for hydropower purchased from neighboring GMS countries.

16. **Discussion.** PRC asked about the rationale for development of coal power plants and Thailand replied that this is in support of the government policy of fuel diversification. The WB asked about preferential policies for renewable energy and Thailand informed that the Ministry of Energy pays premium, on top of the base tariff, for energy purchase from small producers using biomass, wind and solar sources. There were additional discussions on the issues of: (i) power purchase from Myanmar (Tasang) and Lao PDR (Xayaburi), and (ii) sale of power to Thailand (from Koh Kong coal, Cambodia).

17. **Viet Nam.** Mr. Nguyen Anh Tuan of Electricity of Viet Nam (EVN) provided the progress of Viet Nam's power generation and transmission development plan. He discussed the trend in demand from 2001-2007 in relation to growth in transmission capacity. He explained the status of the power system, e.g., installed capacity, transmission grid composition, rural electrification rates, and power consumption (by industry). He showed the expected schedule of hydropower projects for export from Lao PDR and Cambodia to Viet Nam, and discussed the proposed interconnection plans for these projects, which includes the proposed Lao-Cambodia-Viet Nam interconnection line.

18. **Discussion.** Myanmar inquired about the factors behind the high rural electrification rate (97%) achieved by Viet Nam and EVN attributed this to strong government policy and support and effective partnerships with ADB and the World Bank. Sida asked Thailand and Viet Nam on how they ensure environment-friendly ways of power purchase from private investors in Lao PDR and Cambodia. Viet Nam noted that the law of the exporting country is being followed. Thailand said its power purchase follows social and environmental guidelines of the exporting country as well as the laws of Thailand.

### **Presentation of Agence Francais de Developpement (AFD): Views on Program Achievements and Potential Future Cooperation**

19. AFD (Mr. Alexis Bonnel) presented on the contributions of AFD to regional coordination in the power sector. He gave a background of the AFD group, its present portfolio and range of financing tools, and its clean energy strategy (which includes demand side issues and energy service approaches). He discussed AFD's assistance to the GMS energy sector and focused on possible support for RPTCC, beyond the funding of RETA 6304. He shared AFD's views on the substantial program's achievements, such as the Indicative Master Plan and enhanced coordination between GMS countries and development partners on regional integration of the power systems. He expressed the opinion that RPTCC could build on studies and work

undertaken so far to enter into more concrete decisions and commitments. He also highlighted the importance of the adoption by GMS countries of a Regional Master Plan, as it represents a key tool to address the enormous energy challenges of the region, and would at the same time consolidate long term visibility and economic confidence among stakeholders, including financial partners. He discussed a number of ideas which could shape possible AFD's follow-up assistance to the RPTCC, such as: (i) improving resilience of regional power system to risks/ external shocks (development of a complete Strategic Environmental Assessment (SEA) of the Master Plan in coordination with the GMS Core Environment Program/ Environment Operations Center (EOC), inclusion of demand side management and energy efficiency strategies in RPTCC activities, carbon footprint assessment and climate change vulnerability analysis of strategies and priority projects, development of methodologies to access carbon finance that could be applicable to RPTCC programs); (ii) developing cross-capitalization, training and best practice dissemination in the areas of design and implementation of policies on energy efficiency, renewable energy and energy conservation. He outlined the different financing tools that could be mobilized from AFD, including country based study funds, an AFD funded GMS project preparation facility managed by ADB, and advisory and technical assistance in support of the RPTCC work plan. The presentation is attached as Annex 4.

### **Sida**

20. Sida (Mrs. Karin Andersson) highlighted the importance of the RPTCC activities and noted that Sida's contribution emphasizes component 2 which deals with sustainability of regional power trade development. She hoped that energy efficiency and climate change issues would be addressed by the RPTCC despite their exclusion from the scope of RETA 6440. She said the presence of the MRC and EOC is a sign of seriousness in dealing with sustainability issues in energy development. She noted that ownership of the program would be key to ensuring results from the assistance provided by development partners and encouraged transparency to enhance stakeholders' involvement in the program.

### **World Bank**

21. WB (Mr. Jie Tang) provided an update on the World Bank's projects in support of power trade in Cambodia and Lao PDR, including the project (in cooperation with ADB) for promoting rural electrification through the transmission project from Phnom Penh to Viet Nam border. He informed of the WB's support for carbon emission reduction initiatives in partnership with the United Nations and other international organizations.

### **JICA**

22. JICA (Mr. Kazuya Maruo) informed that after its reorganization, JICA can now provide ODA loans, technical cooperation and grants. He informed that JICA's ongoing support, which includes assistance for preparation of the master plan in Cambodia and Viet Nam, transmission link in Cambodia and Lao PDR and third country training on rural electrification in Lao PDR can also contribute to the development of GMS power trade indirectly. He briefed on JICA's activities to help realize a low carbon society based on the "co-benefit" approach under the Cool Earth Partnership.

### **EOC**

23. The EOC (Mr. Pavit Ramachandran) briefed on the Core Environment Program (CEP), which is a multi-donor program with funding from the Governments of Sweden, The

Netherlands, and Finland. He highlighted the importance of the energy sector in addressing key environmental issues, notably in mitigating climate change effects through reduced carbon emissions from the energy sector. He looked forward to further advancing the dialogue between the energy and environment sectors and other GMS sector working groups.

## **MRC**

24. MRC (Mr. Do Manh Hung discussed the MRC's programs which are directly linked to the energy sector, such as the Water Utilization Program, the Basin Development Program, the Environment Program and the Hydropower Program. He expressed the hope for closer cooperation between MRC and the GMS Program in energy, such as in sharing of technical inputs and assessments and in addressing hydropower development issues in relation to Mekong river flows.

## **RPTCC-7 Meeting**

25. The RPTCC-7 meeting was co-chaired by Mr. Thein Tun, Director General, Department of Electric Power, Ministry of Electric Power No. 2, Myanmar, and Mr. Yongping Zhai, Principal Energy Specialist, Infrastructure Division, Southeast Asia Department (SEID), ADB.

## **Opening Session**

26. Mr. Yongping Zhai, Principal Energy Specialist, Infrastructure Division, Southeast Asia Department (SEID), ADB, welcomed the participants and explained that the RPTCC-7 meeting will review and act on the recommendations of the FG, particularly on the needed next steps corresponding to the outputs of RETA 6304. The meeting should be able to deliberate on the merits and needed improvements in the work plan for RETA 6440 in the light of the milestones in the power trade road map. He noted the key messages that have arisen from the PWG/FG meetings- (i) the need to operationalize the studies we have done; and (ii) the critical role of country ownership of the studies, to ensure these are adopted for implementation. As these messages imply, there is a need to review the earlier agreement- the MOU-2 on the power trade road map- and see how we can proceed in accordance with the milestones set in the MOU-2.

27. On the energy database and website, Mr. Zhai noted that a consensus was reached to organize training of country administrators to populate and institutionalize the website and database. Soluziona was asked to propose a training program that could help make the database more useful. He suggested that future RPTCC meeting notices will be made on this website.

## **Review of Road Map and Milestones in MOU-2**

28. **Complete the Indicative Master Plan.** Thailand opined that the updating of "the indicative master plan" is beyond the activities timeline indicated in the MOU-2. Thailand also expressed concern about updating master plan studies that may take another 18 months. He stressed that establishing links between countries should be given precedence over the need to determine generation projects for export. Viet Nam suggested completing the performance standards (PS) study first, which should be applied to developing specific projects that should be PS-compliant. The WB noted that despite the lengthy process in agreeing on the master plan, what matters is for at least two countries to agree on projects to jointly work on. ADB's view is for the consultant to revise the proposal which will operationalize the master plan study to make it useful (and not update or complete it). A useful master plan is one in which priority

projects are identified for further action, such as the conduct of feasibility studies. Lao PDR agreed on the proposal for the consultant of RETA 6440 to help in making the master plan operational. Thailand expressed that instead of spending time to update the master plan, the countries should proceed to determine the feasibility of identified cross-border lines, and proceed with the ones found viable or look for alternatives to those found not viable. ADB (Mr. Bui) drew the meeting attention to the question of whether the GMS countries are satisfied with the master plan prepared by Soluziona Mercados. Mr. Bui argued that there is a need to complete the work done by Soluziona in order to complete the regional master plan. He stressed that the discussion during the PWG meeting showed that there is a need for improvement of the work done recently.

29. **Complete the Study on Performance Standards (PS).** On whether the report prepared under RETA 6304 could be considered complete in form, Sida noted that it may be difficult to answer this question, given the differences in country situations. Thailand noted that the consultant has proposed some indicative figures as standards, but the countries have not yet agreed on these. Soluziona explained that standards have been proposed for the countries to consider and adopt. PRC said however that while the report on the PS is comprehensive, it does not provide specific figures that should be adopted for an interconnected system. For PS and transmission regulation, PRC noted that the consultant can compare the 500 kV systems used by PRC, Thailand and Viet Nam, and look into their common features and differences for a clearer overall picture, and incorporate the most appropriate 500 kV standards for the GMS. ADB (Mr. Humbert) informed of package 3 of RETA 6440 which would support feasibility study for interconnection between Cambodia, Lao PDR and Viet Nam. This study would also look at the compatibility of the systems of these three countries with Thailand's, with the view to a later interconnection with Thailand. Thailand suggested that the timeline for adopting the performance standard is also 2010, so each country still has time to prepare a plan to install equipment to reinforce the system to meet the standards. Viet Nam stated that PS should first be applied to cross-border interconnection projects and this would be the basis for the gradual adoption of the PS throughout the national grid. There is a need to determine at this point how far the countries are from meeting the standards. ADB (Mr. Zhai) proposed to RTE France to assess the PS situation and give recommendations to achieve the objective of preparing a plan to adopt the PS by 2010. RTE France agreed to submit the assessment within six weeks (by 6 January 2009).

### **Scope of work under the RETA 6440**

30. The meeting discussed the scope of work of the RETA 6440. Thailand expressed the view that there were substantial differences between the TOR earlier submitted to the Government and the TOR that would guide the work of the consultant for the RETA. A concern was that the consultant would be asked to deliver more than what was necessary. Thailand view is that the scope of the TA as presented by the consultant is beyond the MOU-2. ADB (Mr. Bui) again explained that the scope of work under the TA is as submitted to countries for no-objection. He repeated his explanation about the revision and elaboration of the TOR, which took place from when the TA was approved, up to contract negotiation. Mr. Bui stressed that this elaboration and revision was done in the belief that it is good for achieving the RETA goals. There was no attempt to change the RETA. The other GMS members however expressed that there were no substantial differences in the TORs submitted to the Governments and the TOR provided to the RETA consultant. PRC also noted that the TOR of the consultant provides a step in the right direction for GMS power cooperation. The milestones in the road map for GMS power trading specified in MOU-2 could provide further guidance in adjusting as necessary, the

TOR of the RETA consultant to ensure attainment of the objectives for power trade under the MOU-2.

31. ADB (Mr. Zhai) requested the RETA consultant, RTE International, to revise its work plan taking into account the milestones in the MOU-2, especially the three studies (the study on GMS performance standard; completion of the study on transmission regulations and completion study on metering arrangement.) The consultant after discussing internally assured that it will accommodate the requirements of the RPTCC meeting. Sida expressed concern however that the task of refining the TOR under RETA 6440 was handed to the consultant rather than being decided by the RPTCC based on the outcome under RETA 6304.

32. ADB explained that the process of consultations undertaken to finalize the TOR was adequate, and the inclusion of the TOR in the agenda of the PWG/FG/RPTCC meetings constitutes a part of such consultations. However, the meeting recognized the need for closer coordination between ADB and the executing agencies in the GMS countries, especially on the matter of finalizing the TOR and scope of work of technical assistance projects.

33. **Attendance to RPTCC Meetings.** The meeting agreed that in principle, no representative outside of the GMS region, except for development partners actively involved in regional power trade development, may participate in GMS RPTCC/FG/PWG meetings. In cases where interested stakeholders from within or outside the GMS would like to attend meetings, prior consultation with the GMS countries would be obtained.

#### **Next RPTCC Meeting**

34. The meeting agreed that next year's RPTCC/FG/PWG meeting would be held in Lao PDR, subject to confirmation by the Government of Lao PDR. If there is a need to organize a separate meeting of the PWG/FG, the countries will be consulted on the hosting arrangements.

#### **Session VI: Closing Session**

35. **Synthesis of Discussions/ Agreements.** Mr. Zhai emphasized the need for the consultant to carefully assess the status of the outputs of RETA 6403 and the requirements of the MOU-2, and refine its work plan under RETA 6440 as necessary to accomplish the milestones in MOU-2. In response to Thailand's request for feedback on this assessment, Mr. Zhai informed the meeting that the consultant will be asked to report back on this assessment after 15 days. A small group may be convened as necessary to discuss this assessment.

36. **Consideration and Adoption of Proceedings.** Mr. Zhai announced the distribution of the draft summary of proceedings for review by the body. After the FG/ RPTCC members reviewed the draft summary of proceedings, and after incorporation of suggested changes, the body therefore approved the minutes of the FG-7/RPTCC-7 meeting *ad referendum*.

37. **Closing Remarks.** Mr. Zhai encouraged frank and open discussions in future meetings to realize substantive outcomes and maximize inputs from the technical knowledge and expertise of the meeting participants.