

Summary of Discussions
Special Meeting of the Regional Power Trade Coordination Committee (RPTCC-9A)
Bangkok, Thailand, 14-15 December 2010

Objectives

1. The Special RPTCC meeting (RPTCC-9A) was held to: (i) undertake further discussions on the establishment of a proposed Regional Coordination Center (RCC) to oversee GMS power trade development (initiated at the RPTCC-9 meeting in Shenzhen on 26 October 2010); (ii) endorse the final results and recommendations of RETA 6440, such as priority interconnections identified in the master plan update, and other activities in relation to the milestones to fully achieve stage 1 of power trading; and (iii) take up Subregional Energy Forum (SEF) matters, such as the appointment of SEF Chair for two years and agreement on future topics for the knowledge sharing sessions.
2. The RPTCC-9A meeting was held in Bangkok, Thailand on 14-15 December 2010 and co-organized by the Energy Policy and Planning Office (EPPO) of Thailand and the Asian Development Bank (ADB). It was attended by RPTCC nominees of the six GMS member countries, as well as by representatives of ADB, Agence Francaise de Developpement (AFD), Environment Operations Center (EOC), Swedish International Development Cooperation Agency (Sida). Attached is the agenda and program of the meeting (Annex 1) and the list of PTCC-9A participants (Annex 2).
3. The RPTCC-9A meeting was co-chaired by Mr. Chavalit Pichalai, Deputy Director-General, Energy System Analysis Bureau, EPPO Thailand, and Mr. Anthony Jude, Director, Energy and Water Division (SEEW), Southeast Asia Department (SERD), ADB.

Opening Session

4. Mr. Chavalit Pichalai, DDG, EPPO, warmly welcomed the RPTCC members to the meeting that will continue discussions on the establishment of the Regional Coordination Center (RCC) and its requirements, which were started at the RPTCC-9 meeting in Shenzhen, PRC. He noted the various concerns expressed on the RCC such as its financing and consideration of other GMS-suitable elements. He added that the meeting would take up the final results of RETA 6440 such as the priority interconnections and other activities in relation to the power trade milestones, and also discuss next steps for the SEF. He expressed confidence that the unified efforts of GMS delegates, ADB and other development partners would be lead to realization of the full development potentials of the subregion. He expressed heartfelt thanks to the delegates for their efforts to address the challenges in stepping up GMS power cooperation. He wished everyone an enjoyable time in Thailand.
5. Mr. Anthony Jude, Director, SEEW, ADB, welcomed the GMS participants and thanked EPPO for the excellent meeting arrangements. He recalled that the Shenzhen RPTCC meeting last October came up with interesting insights on the requirements for the RCC. He noted the need to properly manage step-wise progression of power trade arrangements by reviewing carefully the (i) priority interconnections in the update master plan, (ii) other activities to achieve milestones in the power trade road map, and (iii) the need for improving capacity for strategic environmental assessment (SEA) and other environmental management tools in GMS power planning. He said the bulk of the meeting would be devoted to discussion of the RCC and its requirements such as the MOU (legal mandate of RCC), governance structure, staffing, funding

and other concerns and noted that technical assistance is forthcoming (2011 and 2012) to support the RCC's establishment and its initial operations. He hoped the meeting would move forward the preparation and consultations on the draft MOU for the RCC, as well as take up key SEF matters such as the appointment of the SEF Chair, and future topics for the SEF knowledge sharing sessions.

6. Mr. Jude introduced Mr. Jong-Inn Kim, Lead Professional (Energy), SEEW, ADB who will return to GMS energy sector work that he earlier handled as ADB project officer. Mr. Kim expressed the hope that RCC discussions would lead to a marked increase in ownership of GMS power trade activities by GMS members.

RETA 6440: Key Results, Conclusions and Recommendations: Review

7. **Priority Interconnections in the Updated Power Development Master Plan, and RETA 6440 Results** (Annex 3): Mr. Duy-Thanh Bui, Senior Energy Economist, SEEW, ADB, gave a recap of the RETA 6440's results and conclusions. Regarding the regional interconnection master plan, he noted the various interconnection projects identified as priority and the need to launch feasibility studies on these transmission lines. He noted that RETA 6440 came out with a report on benefits sharing methodology guidelines and asked the countries' views on the report's usefulness. He added that RETA 6440 also came up with the conceptual design of the GMS market (which defined the hierarchical levels of GMS coordination required) and the overview of the market implementation process. He discussed the other RETA 6440 recommendations such as advancing regulatory development in the GMS and database development. He compared what has been achieved under RETA 6440 as against the milestones identified in MOU-2, and the timelines to prepare for stage 2, such as the study on the grid code (operational procedures).

8. Mr. Bui reviewed RETA 6440 component 2 activities and the main technical reports and outputs such as on Strategic Environmental Assessment (SEA), Environmental Impact Assessment-Environmental Management Plan (EIA/ EMP) and various training courses. He stressed that this component has helped improve sustainable development of energy resources in the GMS through capacity building on SEA, EIA and EMP.

9. Mr. Jude noted that some of the studies for the identified priority transmission lines did not push through (Ban Son-Pleiku) due to the lack of sufficient hydropower projects that would utilize these lines. However the development of hydro projects in southern Lao PDR could spur development of the Ban Hatsan-Kon Tum transmission line (formerly Ban Sok-Pleiku). He stressed the need for the RCC to meet the highest standards of social and environmental safeguards in the future. He noted the British Broadcasting Corporation (BBC) feature on Nam Theun 2 hydropower, which revealed the affected Nakai plateau villagers' general satisfaction with the project's livelihood program, resettled site/new homes, and health and education facilities that had all gone into the planning of the project. Hence it is important to ensure social/ environmental mitigation programs are in place before the hydropower projects are developed.

10. **Discussions.** The GMS countries raised the following issues/ points on the presented results/ recommendations of RETA 6440:

- a. Cambodia noted the various hydropower projects eyed to supply power to Thailand and Viet Nam, and which would require development of transmission interconnections among the three countries. It was noted that the ASEAN power grid study identified a transmission link between western Cambodia and Thailand (which

- was not reflected as a priority link under RETA 6440). The latter was based on construction of a 300 MW coal fired power in north-western part of Cambodia for export into Surin province. Cambodia noted that this may be difficult as there are no coal resources in that area to support the project.
- b. Mr. Jude noted the rapid changes in the priorities for interconnection within the subregion. Most of these have emerged as a result of plans to develop the main stream-Mekong hydropower projects in Laos, while others have been as a result of hydropower project in the tributaries of Mekong in Laos. He also noted the extensive planned interconnections between Myanmar and Yunnan. He requested the RPTCC members to regularly update ADB on these planned power interconnections.
 - c. Lao PDR apprised ADB of the planned hydropower projects being developed in southern Lao PDR that will be served by the Lao-Viet Nam interconnection [Ban Hatsan-Kon Tum]. Laos stressed the need to develop wheeling charges that EdL can charge the hydropower project developers who will connect at the 500 kV collector substation at Ban Hatsan in supplying the power to Viet Nam. Lao also indicated it needed capacity building in such activities as well as how to mitigate insurance coverage costs in the event of non-supply of electricity to Viet Nam. Lao PDR appreciated the assistance ADB is providing to determine the wheeling charges in this regard in connection with the Na Bong substation. Lao PDR also requested similar assistance be provided for the collector substation at Ban Sok. Mr. Jude indicated that this is now being studied by the ongoing TA by EDF.
 - d. Viet Nam noted that EVN would be single buyer of the output from the southern Lao PDR hydropower projects. It apprised of the 500 kV line being planned to connect PRC with northern Viet Nam (not included as a priority link under RETA 6440 but is an important project for Viet Nam) that is being facilitated with WB assistance. Viet Nam also informed the meeting that a third 500 kV transmission line will be constructed from Kon Tum to Tay Ninh in the coming years. It suggested that RETA 6440 recommendations in terms of priority projects should also link with the results of the ASEAN Interconnection Master Plan study (AIMS).
 - e. Mr. Jude stressed that GMS countries need to provide updated information to the consultants so that they could then bring the linkage between the GMS and the ASEAN power grid. Hence better information sharing would minimize the disparities in the results of RETA 6440 and the AIMS. He agreed to get in touch with HAPUA in this regard.
 - f. PRC stressed that China Southern Power Grid (CSG) has been properly sharing information with the other GMS members and consultants. It emphasized the efforts being undertaken by CSG and EVN in the context of the Yunnan-Northern Viet Nam Power Interconnection Project, whereby a confidentiality agreement is being signed to facilitate the sharing of data so that the work could be completed in a timely manner. It informed the meeting of its the current cooperation with Myanmar in determining the feasibility of the PRC-Myanmar interconnection. PRC delegate also informed the meeting that the PRC will import as much as 27,000 MW from Myanmar after 2015. PRC also informed the meeting of its MOU with the Government of Lao PDR to assist Laos with the development of its transmission networks.
 - g. Myanmar updated on the progress of various hydro projects to supply power to PRC and Thailand. ADB clarified that the price gap issue concerns the differences in generation cost between the exporting and importing country.
 - h. Thailand explained the reasons for failing to attend the RPTCC-9 meeting in Shenzhen and expressed appreciation to ADB for convening the RPTCC-9A meeting

to further discussions on the RCC and RETA 6440 results. It provided the HAPUA¹ contact details for additional information on the results of the AIMS II.

11. The meeting agreed that the list of priority regional interconnections as recommended by the results of RETA 6440 in general reflect the priorities among the GMS countries. Specifically the meeting identified the following 500 kV interconnections as high priority for further study in the immediate future:

- a. Lao PDR- Thailand: Na Bong- Udon Thanj; Pakse- Ubon 3;
- b. Lao PDR- Viet Nam: Ban Hatsan- Kon Tum;
- c. Lao PDR- Cambodia- Viet Nam: Ban Hat- Stung Treng- Tay Ninh;
- d. PRC- Viet Nam: Southern China- Northern Viet Nam.

12. The meeting also requested assistance in studying the operation and maintenance (O & M) arrangement of cross-border interconnections as well as other technical aspects such as choice of AC versus DC technology. Mr. Jude mentioned that ADB is assisting EdL with the construction of the 500 kV Na Bong substation and to refinance the 500 kV transmission for EdL to own and operate. Since Lao PDR has to build its capacity on O&M of high voltage transmission lines/substations, ADB will help finance the O&M contract with EGAT to assist EdL in the operation of this transmission line for at least 5-years.

13. Mr. Bui, ADB asked the GMS delegates' views on whether the findings of RETA 6440 conceptual design for a power market, could serve as a good starting point for developing the GMS power market. Cambodia noted there may be no need for separate command centers (GMS1 and GMS2) and to have a single center. Mr. Jude agreed that it was too early to discuss the blocks for the future power market and said it would be more useful to discuss the structure of the RCC.

14. Mr. Bui asked the GMS delegates' views on the development of the database. Mr. Jude said that the database developed earlier was underutilized and under-populated, and noted that if this persists, it may be better to discontinue the database and focus instead on the database that would be developed by the RCC in the course of its operations. Among the comments:

- a. Myanmar, Lao PDR and PRC all agreed that there have been difficulties getting the countries to supply the data.
- b. PRC stated the main problem was that persons nominated to perform database work were assigned on part-time basis.
- c. Thailand said the database was a good way to demonstrate GMS cooperation, and the request for database work may have to be coursed through the heads of agencies/ utilities to ensure compliance.
- d. Viet Nam said clear regulation for maintaining the database should be agreed by the countries.

15. The meeting agreed to revive the database. In this context, CSG will provide ADB with the list of nominees from each country who had been tasked to populate the database and their corresponding passwords. ADB will then correspond with the head of RPTCC in each country to request that this be done on a six-month basis. The database updating, maintenance and application will be undertaken by staff of RCC once the RCC is established.

¹ Heads of ASEAN Power Utilities Association

16. The meeting also agreed on the need to complete the study on the grid code and consider for adoption the findings of studies on performance standards, metering and communications. This will be implemented by the RCC.

Status of RETA: Ensuring Sustainability of GMS Regional Power Development- Application of Strategic Environmental Impact Assessment (SEA)(Annex 4)

17. **Implementation Aspects.** Ms. Isabelle Vincent, Project Manager, Environment and Infrastructure, AFD, provided a quick recap of AFD's development work with strong focus on change in energy (toward clean and sustainable) through renewable energy, demand side management, and energy efficiency. She stressed AFD's main concern was to achieve energy security and long term sustainability needs. She said the new AFD RETA would build on RETA 6440 findings on enhancing social/ environmental considerations in energy planning and would address problems arising from additional development issues covering "traditional" least cost planning, rising scarcity of domestic resources, strong emphasis on supply-side options and increased emissions of GHGs. She discussed the new RETA's main components covering SEA and energy security planning and its components of sensitivity analysis and capacity building. She informed of the funding of the RETA, its two-phase implementation and schedule. Phase I would involve SEA baseline scenario and scenario analysis, and Phase II would deal with capacity building at national scale and pilot national power development planning (PDP). Next steps would include securing no objection letters from the GMS countries, provision of inputs by country counterparts and discussion of Phase I results (which would input to Phase II).

18. **Discussions.** Cambodia and Thailand expressed their support for the RETA while the other GMS countries reiterated their acceptance of the RETA. Mr. Jude stressed the need for the GMS countries to seriously mainstream SEA in their power planning exercise, which would be enhanced by the RETA. Mr. Sanath Ranawana, ADB, briefed on the work of the Environment Operation Center (EOC) in support of SEA work of the energy sector at both regional and national levels, and the ongoing development of Phase II of the Core Environment Program (CEP).

Plenary Discussions on the RCC

Presentation: Draft Discussion Paper on Establishment of Regional Coordination Center (RCC) for Power Trade Development (Annex 5)

19. Mr. Jude raised the following issues regarding establishment of the RCC which need to be addressed by the countries:

- a. Choice of venue for headquarters: There would be a need to obtain proposals from prospective hosts of the RCC. The proposal should include details of the venue by a prospective host such as land/building; support staff to be provided by the host; and arrangements for office equipment (including computers), telecommunications, internet; etc. for RCC staff.
- b. Structure of the RCC: The subcommittees or subgroups that should be created to handle various power trade issues (including environmental aspects); types of skills to undertake the various tasks; tie-up with other institutions (such as with the EOC).
- c. Staffing: Specifying the technical background/ qualifications of the staff; contributions of GMS members to the staff complement.
- d. Drafting of MOU: Preparation and clearance of the draft MOU to be timed with major GMS meetings (Ministerial, Summit) where the MOU could be endorsed and signed.

There will be need for two MOUs, one an inter-utility agreement and the other an inter-governmental agreement.

20. Mr. Bui gave a recap of the contents of the discussion paper on the establishment of the RCC. He provided the key design features of the RCC such as the mandate/authority, functions and responsibilities, organization/representation, reporting/governance, office operation, budget/accounting and implementation. He showed the design and monitoring framework (DMF) in developing the RCC and highlighted the expected outputs for Phase I (complete design of RCC) and Phase II (physical set-up, two-year operation and evaluation/ assessment of RCC performance).

21. Thailand inquired whether there was an earlier presentation on the RCC. ADB clarified that both ADB and WB provided a general presentation on the elements of regional institutions to develop power trade, based upon lessons obtained in various parts of the world (South Africa, West Africa, etc.). However the discussion paper on the creation of the RCC specific to the GMS region was circulated prior to this special meeting for the first time.

22. Karin Isaksson, Senior Program Officer, Sida, briefed on Sida's new regional strategy for Asia which would focus on environment, sustainable development and climate change, with emphasis on added value from regional cooperation such as harmonization of approaches and policies. She noted that Sida encouraged linkages with other regional programs such as the Core Environment Program (CEP) and Mekong River Commission (MRC) to realize greater synergies from their work. She stressed that for the RCC, it would be useful to learn from other regional cooperation experiences in the choice of venue, staffing, recruitment, professional competence required, harnessing comparative advantages, etc. She hoped the RCC and CEP could work closely in addressing social and environmental issues of infrastructure investments. She conceded that it takes time to build a consensus on the RCC, and that it was imperative for the GMS countries especially the RPTCC to be consulted on the RCC design, but Sida would closely monitor the progress of developing the RCC.

23. **Discussions on RCC:** The countries' comments included the following:

- a. Cambodia asked about what would become of the RPTCC and its working groups once the RCC is established. It recommended that the countries review the needed changes if any, in their internal structures to enable creation of the RCC.
- b. PRC, Lao PDR and Myanmar requested clarification on the specific tasks of the RCC, which would include largely technical functions to address technical issues.
- c. PRC asked about ADB's role once the RCC is established. PRC strongly urged ADB to continue its lead coordinating role in GMS power trade cooperation, even when the RCC is already operational.
- d. Thailand stressed that it needs to get information on the RCC concept and functions of the proposed RCC, after which it would obtain senior Thai officials' views on the RCC. It suggested that ADB undertake a consultation mission to each GMS country once the concept paper has been drafted. This will help facilitate the discussions/clarification within governments that would enable further internal approval of the RCC concept.
- e. Viet Nam suggested that chairmanship of RCC be on rotation basis (2-3 years). It noted that FG and PWG functions could be taken over by the RCC, and thus the RCC would need to have contact information of the RPTCC.

- f. Myanmar noted the practices in the hosting of the ASEAN Center for Energy (ACE) and suggested that ADB look into these practices as model for the RCC. It noted the need to draft the RCC concept paper in order to move forward with the plan.

24. ADB agreed that a concept paper outlining the design of the RCC should first be prepared, which will then be circulated to GMS countries for their review. A series of consultations with GMS members would be undertaken to further refine the RCC design. ADB indicated that even with the RCC established, the RPTCC would remain as a policy making body. This would ensure continuity although day to day issues would be handled by the RCC. Mr. Bui added that the FG and PWG members could be nominated as staff of the RCC, to perform technical RCC functions. A full-time Sida secondee (proposed by ADB, and subject to an agreement with Sida) would allow effective communication between RCC and its Sida sponsor. ADB would then play a supportive role to the RCC operations, and would like to see the countries to gradually take leadership of the power trade work.

25. Mr. J.I. Kim, ADB, stressed that to demonstrate ownership and ensure sustainability of operations, the GMS members should finance part of the RCC's operational costs although ADB and its development partners will provide the initial funding for operation of the RCC for the first 4-5 years. Within this period, a financial plan will need to be in place to sustain the RCC's operations. Some of the revenue earning options that could be considered is that the RCC could undertake some of regional power studies that would contribute to its operational budget. Some of these conceptual ideas will be fleshed out in greater detail in the concept paper as well as a work program, the investment plan, staffing needs and the annual operational costs. He suggested agreeing on time-bound targets such as the selection of venue, agreeing on principles of cost sharing among countries, etc.

26. Since the RCC concept paper would define the tasks of the RCC as distinguished from those of the RPTCC; this may thus result in amending the functions of the RPTCC.

27. Cambodia asked about sample MOUs which could be used as reference by each country's energy officials. ADB would include the PDF files of sample MOUs in the CDs to be distributed to the participants. These CDs would contain all the meeting presentations.

28. **Recap of Recommendations.** Mr. Jude stressed that the concept paper for the RCC would be circulated for the countries' comments by 21 March'11. Consultation missions would then be undertaken in the week of 4 April 2011 to further refine the RCC concept. The meeting agreed that ADB, in consultation with Sida, would engage international experts by mid-January 2011 to prepare the detailed design for the establishment of the RCC. This detailed design would include: (i) draft RCC concept paper; (ii) draft inter-governmental MOU and inter-utility MOU; and (iii) the selection criteria for the headquarters. The detailed revised design for RCC would then be circulated to the GMS countries by mid-May 2011 and presented and discussed at the next RPTCC meeting tentatively on 25-27 May 2011. At this meeting, ADB will also request that representatives from the Ministry of Foreign Affairs and Government legal experts to also be present when the MOU is discussed in greater detail.

29. It was noted that the original time frame for adoption of the detailed design and signing of relevant agreements (September-October 2011) would realistically be moved to 2012, since internal consultations on the RCC are expected to take some time. However, there is sufficient traction within the country on the draft, then ADB would consider seeking GMS Minister's endorsement of the RCC at the next GMS Ministerial Meeting.

Subregional Energy Forum Matters: Review and Next Steps

30. **Appointment of Chair of SEF (Two-year Term).** Mr. Jude expressed the need for a fixed SEF Chair (rotating for say two-years) to push forward a two-year work program for the SEF, particularly in terms of the knowledge products to be disseminated. After discussions the meeting named Cambodia as Chair of SEF for 2011-2012. The meeting also agreed that Cambodia would host the next RPTCC/SEF meeting in Siem Reap (tentative: 25-27 May 2011) subject to clearance of Cambodian authorities. Cambodia would provide confirmation of hosting by end of December 2010. It was agreed that an alternate venue would be Viet Nam (Hoi An), if Cambodia is not able to host the meeting.

31. Mr. Jude asked the countries to submit the name of their SEF focal person and their no objection letter for the RETA on promoting renewable energy, clean fuels and energy efficiency by 31 December 2010. For the AFD-RETA on ensuring sustainability of GMS power development, ADB would send out the formal letter requesting for the no-objection letter by Friday, 17 December 2010. The GMS countries were requested to submit their no-objection letter to this RETA by 31 December 2010.

Closing Session

32. **Synthesis of Discussions.** ADB (Mr. Jude) gave a recap of the timeline and milestones for setting up the RCC. He noted that a consultant would be fielded to draft the RCC concept paper starting in January 2011. The draft paper would be circulated to the GMS countries by end of March 2011. After a round of consultations with GMS officials, a revised paper would be prepared by end of April 2011. This paper would be discussed at the RPTCC-10 meeting on 25-27 May 2011 in Cambodia. He said the ADB would prepare the selection criteria for hosting the RCC headquarters by January 2011, and proposals for hosting by the countries should be received by ADB by end of March 2011. The meeting agreed to include as an agenda item for RPTCC-10, the results of the HAPUA study on priority ASEAN interconnections (AIMS).

33. **Consideration and Adoption of Proceedings.** Mr. Jude announced the distribution of the draft summary of proceedings for review by the participants. After the RPTCC members have reviewed the draft summary of proceedings, and after incorporation of suggested changes, the body therefore approved the minutes of the RPTCC-9A meeting *ad referendum*.

34. **Closing Remarks.** Mr. Jude thanked the participants and appreciated the support for the RCC by the GMS participants. He looked forward to hearing from Cambodia on hosting the next RPTCC/ SEF meeting and noted that ADB would assist the countries in identifying suitable topics for the knowledge sharing sessions. He wished everyone a happy holiday season.



**Greater Mekong Subregion
Special Meeting of the
Regional Power Trade Coordination Committee (RPTCC-9-A)
Courtyard by Marriot Hotel, Bangkok, Thailand
14-15 December 2010**

Agenda and Program

<u>13 Dec (Mon)</u>	Arrival of Delegates
<u>14 Dec (Tue)</u>	Day 1
08:45am-09:00am	Registration
09:00am-09:15am	Opening Session
	Welcome Address by Mr. Chavalit Pichalai, Deputy Director General, Energy Policy and Planning Office (EPPO), Thailand
	Welcome Address by Mr. Anthony Jude, Director, Energy and Water Division, Southeast Asia Department (SEEW), ADB
09:15am-10:45am	RETA 6440 Key Results, Conclusions and Recommendations: Review <ul style="list-style-type: none">• ADB and Meeting Participants • Priority Interconnections Under the Master Plan Update• Other Activities in Relation to the Milestones to Fully Achieve Stage 1 of Power Trading• Endorsement of Recommendations,• Moving Forward
10:45am-11:00am	Coffee Break
11:00am-12:00nn	Status of RETA: Ensuring Sustainability of GMS Regional Power Development – application of Strategic Environmental Impact Assessment (SEA) <ul style="list-style-type: none">• ADB, AFD • Implementation Aspects
12:00nn-01:30pm	Lunch Break
01:30pm-02:15pm	Review: Lessons from Experiences on Regional Institutional Arrangements to Develop GMS Power Trade <ul style="list-style-type: none">• ADB, WB
2:15pm-03:00pm	Presentation: Draft Discussion Paper on Establishment of Regional Coordination Center (RCC) for Power Trade Development <ul style="list-style-type: none">• ADB, Sida, WB
03:00pm-03:15pm	Coffee Break

- 03:15pm-05:00pm Plenary Discussion on the RCC
- ADB and Meeting Participants
 - MOU to Establish RCC: Drafting of MOU (Based on Sample MOUs), Timeframe
 - GMS Institutional Arrangements for Power Trade: Model, Role and Responsibilities, Organization/ Governance Structure, Participation of National and Regulators, Agreement to Establish RCC, Staffing/ Funding, Selection of Base/ Headquarters
 - Recap of Recommendations
- 06:00pm-08:00pm Dinner (Hosted by EPPO and EGAT)
Venue: Erawan IV-V, M Floor, Courtyard by Marriot

15 Dec (Wed)

Day 2

- 09:00am-10:00am Recap of Previous Day's Discussion/ Continuation of Discussions on RCC
- ADB, GMS Participants
- 10:00am-10:15am Coffee Break
- 10:15am-11:00am Subregional Energy Forum (SEF) Matters: Review and Next Steps
- ADB and Meeting Participants
 - Appointment of Chair for the Next Two Years, Discussions
 - Consideration of Future Topics for Knowledge Sharing Sessions
- 11:00am-11:30am Reactions/ Views of Development Partners on Next Steps for RETA 6440, RCC, and SEF Next Steps
- 11:30am-12:00nn Closing Session
- Synthesis of Discussions/ Agreements by RPTCC Chair
 - Consideration and Adoption of Proceedings
 - Closing Remarks
- 12:00nn Lunch
- 01:30pm Check-out
- Departure of Delegates

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**Special Meeting of RPTCC
on the Establishment of the Regional Coordination Center for Regional Power Trade
Bangkok, 14-15 December 2010**

DISCUSSION PAPER

This discussion paper intends to facilitate the discussion on the design of the Regional Coordination Center. The ideas presented here are neither exhausted nor conclusive. GMS delegates are requested to prepare their views as they see important and necessary and can cover issues not mentioned in this paper.

I. Background

1. The GMS regional power trade has been through a significant development since the signing on 3 November 2002 of the Intergovernmental Agreement (IGA) on regional power trade in the Greater Mekong Subregion (GMS). Subsequently the Memorandum of Understandings on the Guidelines for the Implementation of the regional power trade Stage 1 (hereafter referred to as MOU1) was signed on 5 July 2005. At the meeting in Vientiane on 31 March 2008 the GMS ministers signed the Memorandum of Understandings on the Roadmap for Implementing the GMS Cross Border Power Trading (MOU2).

2. The above Agreement and MOUs set out the ground rules and institutional arrangements as well as technical requirements for GMS power trade development in the long term. Pursuant to the Articles of the IGA and MOU1, RPTCC and its Working Groups have been created. Under RPTCC and with active participation by WGs, a large number of studies have been carried out, investigating various facets of the GMS power trading. The studies deal with aspects such as: regional master plan study (and recent Update of MP); methodology for assessing benefit and benefit sharing; performance standards; metering arrangements; transmission regulations and regulatory development study.

3. The MOUs allowed for the creation of RPTCC, FG and WGs. These currently are non-regular institutions supervising the studies for regional power trade. MOUs also specified activities and timeframe to advance regional power trade from its Stage 1 to Stage 2.

4. Despite significant works accomplished, there is a noticeable disconnect between methodological and technical development performed under RPTCC and real life cross border interconnections and power trading. Countries in the region are still develop insolated bilateral power trade at various voltage levels with the type of "supply source" via "transmission lines" to "demand/consumption" without making recognizable moving forward to multiparty, multidimensional power trading.

5. It is recognized that there is a pressing need for a dedicated regular regional institution to lead the future development of GMS regional power trade, including assessment of the numerous technical studies done and their validation and applications; making necessary decisions on transmission from Stage 1 to Stage 2 and future development of GMS power trade.

6. The regional institution (Regional Coordination Center) will lead efforts in developing a culture of trust, providing and sharing power system data required for regional planning and interconnector feasibility studies; developing feasible and effective action plans (regional and at each country level) to implement GMS power trade stages, achieving a level of standards and performance harmonization, and strengthen institutions.

7. At 9th meeting of RPTCC held on 26-27 October 2010 GMS countries expressed support for the establishment of the RCC. The meeting called for a detailed design of the RCC for concrete discussion among GMS countries for implementation later on.

II. Objective

8. Establishment of a Regional Coordination Center for GMS Regional Power Trading in 2013. The RCC will be fully quipped, staffed, will have clear mandate and authority, tasks and work plan and performance monitoring, reporting framework. The long term vision is that RCC becomes self sustained and contribute to regional power trade development.

III. Key Design Features of the Regional Coordination Center

III.1 Mandate and authority:

9. The RCC has a mandate to represent GMS countries in leading activities, making decision to advance GMS regional power trade. RCC will receive full support from GMS member countries. The RCC is responsible for implementing transition from Stage 1 to Stage 2; completion of Stage 2 and preparation for the next Stages.

II.2 Functions/Responsibilities:

10. In order to achieve completion of Stage 1 of regional power trade as stipulated in MOU, the RCC is responsible for:

- Conducting regular regional transmission planning to identify and facilitate new interconnections;
- Harmonizing operation and security performance standards and procedures;
- Coordinating cross-border transmission system operations

11. In order to achieve the transmission from Stage 1 to Stage 2 and completion of Stage 2, the RCC is responsible for:

- Preparing and adopting a regional grid code, and rules for open access / use of transmission and interconnectors;
- Preparing and adopting the tariff scheme for third party use of transmission systems and interconnectors;
- Preparing and adopting and administering effective dispute resolution;
- Establishing a standard and reliable metering and communication systems.

12. The RCC will also develop strategic direction for additional studies as necessary and future development to achieve regional open and competitive power market. This includes a set of concrete steps to implement the 4-stage roadmap envisioned in RPTOA.

13. The RCC will build plan for itself to evolve along with the advancement of regional power trade from Stage 1 to Stage 4.

14. In this respect, the immediate tasks of RCC will be: (i) take stock of all studies that have been conducted under various RETAs and assess the applicability of their results and recommendations to the present situation; (ii) formulate the recommendations in form that can be accepted and adopted by GMS countries; (iii) institutionalize the adopted recommendations with regards to priority interconnection project, performance standards, transmission regulation;

(iv) make authoritative recommendations as to what further studies related to the above are needed and organize with ADB so as to fulfill this.

II.3 Organization/Representation:

15. The RCC will be the working arm of RPTCC. It is under RPTCC and will not infringe the functions of RPTCC. RCC will perform the current functions of FG and WGs. RCC will and should be able to evolve along with regional power trade development.

RCC will consist of representatives from each GMS country in equal number of staff. 2 staff from each GMS countries, representing power utilities and regulators. These staff can be present members of FG and WGs. The Head of RCC will be nominated by GMS countries on rotational basis (1-2 year term). It is possible that a Sida secondee can serve as Technical Advisor, whose term will overlap the terms of Head.

II.4 Reporting/ Governance:

16. RCC reports to RPTCC.

II.5 Office operation:

17. To be discussed by GMS delegates and worked out by consultants

II.6 Budget and accounting:

18. To be discussed by GMS delegates and worked out by consultants

II.7 Implementation:

19. Implementation is in two phases: Phase 1 – Design and Phase 2 – Pilot

20. During Phase 1, ADB will utilize the unused fund under RETA 6440 to hire international experts to prepare a detailed design for RCC. The detailed design will elaborate to the required level all the above mentioned key features of the RCC.

21. The discussion by GMS countries in this meeting is crucial that it provides important direction, preferences for the international experts to work out further details and bring them to GMS consensus.

22. All these key features are important and each requires elaboration to the extend that assembling together the design will constitute a charter and an operation manual of the RCC.

23. At the end of the Phase 1, a Policy Statement announcing the establishment of RCC will be prepared. It is expected that GMS countries will sign the Policy Statement. In addition to the Policy Statement, a set of concrete measure including the charter and the operation manual will be accepted. Logistic measures for physically setting up RCC in a chosen location with necessary equipment will be implemented. This is the end of Phase 1 and implementation of Phase 2 will commence.

24. Phase 2: Pilot running RCC. The RCC will start to take on its responsibilities as outlined in the Policy Statement and its Charter and Operation Manual.

DESIGN AND MONITORING FRAMEWORK
Developing of GMS Coordination Centre for Regional Power Trade

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact Accelerated development toward an open and competitive regional power market, contributing to a more resource efficient and environmentally more sustainable supply of electricity in GMS countries to meet the growing power demands.</p>	<ul style="list-style-type: none"> • Roadmap for moving beyond stage 2 prepared and adopted by 2015. • The cross-border grid connections constructed according to the GMS Master Plan • Power Trade between GMS countries increased by 500 MW per year up to 15% of the total GMS supply in 2025 (projected in the GMS Master Plan) 	<ul style="list-style-type: none"> • RPTCC proceedings • Power sector statistics and annual reports • Trading agreements between countries and utilities 	<p>Assumptions</p> <ul style="list-style-type: none"> • GMS governments implement the actions and measures recommended by RCC in accordance with its mandate and results of its works.
<p>Outcome Strong coordination of the regional power trade development in a unified, enhanced and regular manner by a GMS appointed regional body</p>	<ul style="list-style-type: none"> • Successful implementation of MOU2 by meeting all milestones in the MOU2. • Strategic Plan for RCC prepared and adopted by 2015. 	<ul style="list-style-type: none"> • RPTCC proceedings and RCC semi-annual reports. 	<p>Assumptions</p> <ul style="list-style-type: none"> • Full and strong political support by GMS government. • RCC appointed staff have adequate knowledge and experiences developing regional power trade and dedicated to their jobs. • The GMS CC Members agree on their respective human and financial contributions to RCC
<p>Outputs Phase 1 1. A complete design for RCC including charter, operation manual and logistic planning by September 2011.</p> <p>Phase 2 2.1 RCC physically set up by June 2013.</p>	<p>Phase 1</p> <ul style="list-style-type: none"> • The design for RCC which includes: charter, operation manual, business plan, human resource and budget requirements completed by September 2011. • MoU (and Policy Statement,) for setting up RCC with Strategic Plan and Business Plan signed in October 2011. <p>Phase 2</p> <ul style="list-style-type: none"> • Legal matters related to setting up RCC and related to foreign staff working in the host countries settled/obtained by June 2012. • Lease contract for an office in chosen location obtained by December 2012. 	<ul style="list-style-type: none"> • Official RPTCC meeting reports. • Consultant's reports. • RCC semi-annual reports. • Training and workshop reports, training guides and materials. • Independent review report. 	<p>Assumptions</p> <ul style="list-style-type: none"> • The international consultant with adequate skills is timely selected and appointed • Effective coordination among consultants, counterpart teams, RPTCC, and ADB management <p>Risks</p> <ul style="list-style-type: none"> • Time needed for GMS Governments to take decisions in adopting the design and signing agreements for setting up RCC. • Lack of adequate human and financial resources by GMS countries to contribute to the RCC's operations.

<p>2.2 Two year operation of RCC.</p> <p>2.3 A comprehensive evaluation and assessment of RCC performance 2013 - 2015. Recommendations for adjusting operation of RCC and long-term development plan for RCC by September 2015.</p>	<ul style="list-style-type: none"> • Procurement of office equipment finalized by December 2012. • Staff recruited by March 2013. • Inauguration of RCC I June 2013. • Detailed two year Business Plan including budget approved by GMS countries (RPTCC) in August 2013. • Technical, regulatory and policy deliverables as per Business Plan • Inputs to RPTCC and GMS regional power trade fora as necessary and per Business Plan. • Comprehensive independent evaluation report by April 2015. 		
<p>Activities with Milestones and Key Deliverables</p> <p>Phase 1:</p> <ul style="list-style-type: none"> i) Special Meeting of RPTCC to discuss the creation of RCC 14 – 15 December 2010, Bangkok, Thailand. GMS countries provide views and inputs based on this Discussion Paper. ii) ADB in consultation with Sida to recruit international experts, who will prepare the detailed design for the establishment of RCC by April 2011. iii) International experts in working with GMS countries to prepare and complete detailed design by August 2011. iv) GMS countries collaborate with ADB and international experts in making detailed design. v) Adoption of detained design and signing of relevant agreements in September – October 2011. <p>Phase 2:</p> <ul style="list-style-type: none"> i) Liaise with host country to obtain all necessary permits for opening the RCC office and for recruiting staff by June 2012. ii) Procurement of equipment and office lease by December 2012. iii) Appointment of staff, RCC head and technical advisor by March 2013. 			<p>Inputs</p> <p>ADB will contribute with 3 million grant Financed by the Swedish Government through Sida.</p> <p>GMS Governments will contribute in kind with human resources, office space and meeting facilities where applicable.</p>

iv)	Inauguration June 2013.	
v)	Developing a 2 year operational plan and business plan and training of the core staff in operations of the RCC, including experience exchange with other Power Pools ¹ (August 2013)	
vi)	Implementing the approved business plan according to the plan	
vii)	Training and capacity building of the RCC staff and the GMS Members	
viii)	Commission an independent review April 2015.	
ix)	Adoption of recommendations and independent review June 2015.	
x)	Prepare business and operation plan for the next 2 year June 2015.	

¹ Power Pools with relevant for the GMS may be situated in countries outside of the ADB's eligibility

OUTLINE TERMS OF REFERENCE

A. Objectives

The international experts (the Consultants) to be recruited will assist GMS countries in understanding the key design features and procedures for setting up the Regional Coordination Center for GMS power trade and facilitate the process of decision making so as to achieve the establishment of RCC in 2013.

B. Scope of Work

Prepare in close consultation with GMS countries a set of documents, which show clearly:

- i. what is needed to set up a Regional Coordination Center for GMS power trade;
- ii. what are the key design features of RCC;
- iii. how logically the requirements and key features will constitute to the establishment of RCC; and
- iv. steps to be implemented to set up RCC. In essence, the Consultants will have to prepare a draft MOU, agreements, statements for GMS countries to adopt and sign.

The deliverables and respective main activities from the consulting services include but are not limited to the following:

- i. Analyze and revisit RETA 6440 recommendations, study the inputs provided by GMS countries on this Discussion Paper and develop in close collaboration with GMS countries, especially under RPTCC guidance, a Concept Design for RCC including mandates, functions and responsibilities, governance, organizational structure for the RCC;
- ii. Consult with GMS countries and RPTCC to obtain consensus on the Concept Design;
- iii. Elaborate the Concept Design into full Design covering key features mentioned in this paper. Obtain consensus of GMS and RPTCC;
- iv. Prepare a human resource and staffing plan including budget for RCC 2-year operation
- v. Propose a set of relevant documents (e.g., MoUs, agreement) for implementing the above model and facilitate discussions and acceptance by RPTCC and GMS countries
- vi. Preparing a policy statement (MoU if necessary) on the establishment of the CC by the RPTCC and submission for its endorsement by the GMS Ministers responsible for energy
- vii. Facilitate the signing of the above agreements between the GMS CC Members
- viii. Facilitate the GMS countries in the nominations, recruitment of RCC staff and technical advisor

C. Consultants Resources

The Consultant should have skills and experiences in regional power trading policies, decision making, organizational structuring, governance and management of regional power trade.

The composition of international expert team is as follow:

Team Leader. 4 person-month full time. He/she should be an international expert on regional power trade operation and management. Overall responsibility.

A legal expert 3 person month full time. In charge of assisting team leader in all legal matters.

A human resource specialist 3 person month full time. In charge of assisting team leader in all organizational, governance, staffing and budgeting matters.