

**GREATER MEKONG SUBREGION  
27<sup>th</sup> MEETING OF THE REGIONAL POWER TRADE COORDINATION COMMITTEE  
(RPTCC-27)**

**15 October 2020  
Via Web-based Conferencing  
SUMMARY OF PROCEEDINGS**

**I. Introduction**

1. The 27<sup>th</sup> Meeting of the Regional Power Trade Coordination Committee (RPTCC-26) was held on 15 October 2020 via web-based conferencing. The meetings discussed (i) the work done by the Working Group for Planning and Operation (WGPO) and the Working Group on Regulatory Issues (WGRI), (ii) updated country power sector development information, and (iii) updates on various initiatives in the Greater Mekong Subregion (GMS), and (iv) future activities to support cross-border power trade in the GMS. Agenda is in **Attachment 1**.

2. National Energy Administration, People's Republic of China (PRC) in cooperation with the Asian Development Bank (ADB) organized the RPTCC-27 virtual meeting. Members of RPTCC, WGPO, and WGRI from the GMS countries, and representatives of ADB attended the meeting. **Attachment 2** provides the list of participants.

**II. Opening Session**

3. Ms. Wei Xiaowei, Deputy Director General, Department of International Cooperation, National Energy Administration, PRC, chaired RPTCC-27. Ms. Wei welcomed RPTCC colleagues and extended appreciation to ADB for the arrangements. Ms. Wei emphasized the potential for RPTCC to become one of the most important regional platforms for regional power trade. She reiterated RPTCC's commitment in promoting regional power trade and provide platform to exchange information on policies, business, and technologies. Further, she noted that RPTCC facilitates regional power generation and access to electricity and promotes low carbon and renewable energy utilization.

4. Mr. Toru Kubo, Officer-in-Charge, Energy Division, Southeast Asia Department, Co-Chaired the meeting. Mr. Kubo thanked the countries for the strong commitment to RPTCC and for joining the meeting given the difficult time. He stressed the importance of power supply in keeping communication working and congratulated policy makers, regulators, and stakeholders in keeping the lights on to enable information flow, operation of essential health services, ensuring education and businesses to continue and work remotely. He reminded RPTCC's hard work need to continue and support ADB's focus on vaccination which will require power supply to maintain a reliable cold storage chain to deliver vaccine to cities and remote areas.

**III. Plenary Meeting**

**A. GMS Regional Master Plan Study- (WGPO work)**

5. Mr. Bathiya Jayasekara and Mr Dharshana Muthumuni, Manitoba Hydro International (MHI) of Canada, ADB Consultants, updated the RPTCC on the results of the GMS Regional

Master Plan study. The study covers optimal regional generation planning scenarios from 2022 to 2035 to determine the most economically and technically feasible cross-border transmission expansion plans from 2022 to 2030, and corresponding regional generation development scenarios. The study was performed by using information, such as load forecast and regional generation development scenarios, information obtained from GMS members. MHI team presented beneficial transmission upgrades, generation planning recommendations, and expected cost saving. 33 study scenarios have been considered and, in the presentation, the consultant showed their study results on cost benefit for all main 33 scenarios.

6. Ms. Aruna Wanniachchi, Senior Energy Specialist, ADB highlighted the study coverage which include all possible scenarios for GMS countries with sufficient depth of system studies using state of art system study software applications. Key challenge was gathering data. The results are adequate for decision making and to move forward for aggressive interconnections. You must have seen that development cost of transmission development cost is very minimal compared to the generation expansion. Even HVDC transmission is beneficial. Other than the cost benefits there are other intangible benefits such as: Opportunity for integrating more VRE for smaller systems; Increased energy security; Increased rural electrification and knowledge transfer. She requested the consultants to produce the final draft of the study by December 2020 and conclude the work assuming there would not be any new information from member countries. She also requested the consultants to include members' comments as an appendix to the report.

7. Comments and Discussions on GMS master plan study are as follows:

- Lao PDR inquired from the consultants on how to address the issue of reliability of power supply. Mr. Jayasekara suggested the improvement of frequency and government control, institutions, including IPP, need for area generation control to help Lao PDR in improving reliability and performance for other countries to for synchronous operation. Lao PDR also clarified if Viet Nam will be pursuing import from Lao PDR through the proposed interconnection. Viet Nam mentioned it provided inputs during the discussions and the concerns on the grid performance. It was emphasized that if the transmission line is pursued now, savings will be substantive for both countries.
- On Thailand's clarification on cost/savings if connected using HVAC and HVDC connection, Mr. Jayasekara shared the pros and cons for both connections and shared that if synchronization will take a long time, HVDC at the beginning will be faster to connect and realize the benefits.
- Viet Nam mentioned that there are no plans now for connection with Thailand; requested to update report on the directions of Viet Nam-Lao PDR and refer to the MOU. Viet Nam will send further comments after careful review of the final report.

**B. TA 9003-REG: Update on Integrated Resource Planning with SEA and Extended Scope for Clean Energy Development in the GMS**

8. Ms. Hyunjung Lee, Senior Energy Economist, ADB presented the progress and additional scope of TA 9003 which is designed to support GMS countries to materialize energy efficiency (EE) and renewable energy (RE) investments. For energy efficiency, the TA is working with Cambodia, Lao PDR, and Myanmar on EE market assessment and policy recommendations. In

Thailand and Vietnam, support is in the areas of utility EE and demand response potential assessment and business model development. On RE, the TA is supporting wind power roadmap study in Myanmar. Ms. Lee presented details on the updates of these activities. She emphasized that ADB country programming will consider the inclusion of EE and RE pipeline projects for ADB's potential investment with other development partners including Green Climate Fund. Refer to **Attachment 3** for the presentation.

### **C. Regional Investment Framework (RIF) 2022 and GMS Economic Cooperation Program Strategic Framework 2030 (GMS-2030)**

9. Ms. Pinsuda Alexander, Economist (Regional Cooperation), ADB, briefed the meeting on the Third Progress Report and Update of RIF 2022, highlighting energy sector RIF 2022 projects summary and future changes in the RIF process. The RIF third and final update for endorsement by GMS Ministers in the 24<sup>th</sup> Ministerial Conference (MC-24) in November 2020, focused on completing project progress updates, which involve dropping of non-moving projects. Moving forward, the GMS 2030 requires enhanced programming and monitoring systems. Towards this end, the RIF criteria for project inclusion will be reviewed and revised to improve quality and usefulness and prepare a GMS-2030 results monitoring framework to monitor progress and will require the contribution and support of RPTCC. The details are in **Attachment 4**.

10. Ms. Alexander also discussed the draft GMS-2030, specifically, the rationale, key elements and its vision for a “more integrated, prosperous, sustainable, and inclusive subregion”; its mission statement that builds on the 3Cs of connectivity, competitiveness, and community while embracing environmental sustainability and resilience, internal and external integration, and inclusivity; innovative cross-cutting approaches; strategic pillars, institutional arrangements, and planning and monitoring process. Based on the Ministers’ guidance, the proposed strategy would be finalized and after clearance by the GMS Ministers’ at MC-24 on 4 November, will be presented as a key deliverable for adoption of the GMS Leaders at their 7<sup>th</sup> Summit in 2021.

#### **Discussion**

- Mr. Duy Thanh Bui, ADB emphasized on RPTCC’s role in GMS cooperation and noted that GMS-2030 include key directions on power trade, including increased role of renewable energy and energy efficiency. He called on RPTCC members to note these directions and reflect their work when they participate in their respective country discussions at higher level and make sure that Senior officials and Ministers are aware of the work of RPTCC as this new direction will guide the future work of RPTCC.
- On the proposed operationalization of Regional Power Coordination Center (RPCC), Viet Nam suggested to check on other ‘models’ or options to make RPCC operational.
- The GMS Secretariat will continue to work with RPTCC on the energy sector as GMS 2030 is adopted and implemented.

### **D. Country Presentation**

11. GMS countries provided updates of their power system development, on-going efforts in power grid interconnection, power trade with neighboring countries, initiatives on renewal energy, and future development of power sector. Some of the country presentation noted the impact of

COVID-19, particularly in the reduction in power demand and energy consumption during the government lockdown in March to April 2020, in the case of Lao PDR. Myanmar sees some positive impact of Covid-19 in terms of balancing of demand and supply of power in view of reduction of power demand during the pandemic. Other negative impacts are reduction of revenue, delay in project implementation, among others. The details of the country presentations are in **Attachment 5**.

12. Key points discussed in the country presentations are summarized below:

#### People's Republic of China

- On the impact of COVID-19, PRC further shared that CSG produced 834 billion kWh of electricity in August 2020, a good performance despite the Covid-19 and the electricity consumption forecast is 200 kWh above the electricity consumption.
- On Lao PDR's query on the selling price mechanism in the power market in PRC, CSG will refer the query to the responsible group.
- On the effect of Covid-19 in the timeline of project implementation as raised by Myanmar, PRC indicated that there is not much progress as these are still in the feasibility study stage.

#### Lao PDR

- On Lao PDR's projects with Myanmar, the clarification by Myanmar on project in Tachilek was noted to have been addressed by Lao PDR.
- On Thailand's comment on problems encountered in interconnections with various countries, Lao PDR shared on linking EGAT system with various countries like Cambodia, Viet Nam and emphasized the need to synchronize their systems. In terms of renewable energy aside from hydro, Lao further shared that they have various solar projects with feasibility studies under preparation and assures Thailand partners of any concerns on reliability of supply in these projects are under control.

#### Myanmar

- On the electrification rate, Myanmar confirmed that the 55.78% is for overall and for electrified village, the rate is 58.19% and 29.2 for grid; power loss rate of 14.8% covers transmission and distribution.
- On Lao PDR-Myanmar interconnection, under study by ADB, Lao PDR suggested for Viet Nam side, to construct 500 Kv structure but initially trade 250 kv but allow for future expansion; Lao PDR will consult Myanmar regarding future demand.
- On AFD's observation on the minimum generation plan; there are increase in solar and wind generation between 2020 and 2025; but none in 2025-2030. Myanmar clarified that some projects have yet to commence.

#### Thailand

- Thailand elaborated on the RE Forecast Center, done under the Smart Grid Master Plan given that solar and wind have an impact on the system because it is not stable and shared that EGAT is leading the study and completed the platform to forecast the power that come from solar and wind.
- Further on the Smart Grid Master Plan, Thailand explained that this is a 20 year plan; divided into four phases, with a the short-term period which will be for 5 years until

next year, mostly pilot projects, while in the medium-term period, will undertake research and development projects and fully promote the smart grid plan.

- On the power demand for Thailand during the Covid-19 pandemic, the demand for power for the first 7 months declined by 3.8%; the demand for residential sector increased while demand for business, industrial sector declined. While the demand has increased this month, it still below the level compared to last year.
- EGAT further explained the details of the Battery Energy Storage System (BESS) project which will be used for frequency regulation; for a total 27 MW capacity which will be further expanded.

#### Viet Nam

- In handling uncertainties and variations of wind and solar generation, the power plant prepares their own forecast of output and send to National Load Dispatch Center; they prepare forecast for daily requirements of renewables to ensure that they have enough reserve for wind and solar variation.
- On the status of Viet Nam's Roadmap for electricity market, the pilot for the wholesale market will be implemented next year in a small scope; in 2024, the full electricity market will be implemented.
- Viet Nam has nearly 20,000 MW of hydro, the hydro can substitute the solar and wind in real time. Coal and gas will operate, and every variation will be substituted by hydro. Viet Nam noted the problem caused by uncertainty of weather – for planning, the spinning reserve need is calculated and any commitment for next day, spinning reserve to substitute the loss of solar.

### **E. Pre-Feasibility Studies of Regional Projects: Myanmar – Lao PDR Interconnection – (WGPO Work)**

13. Philippe Lienhart of Electricity De France (EDF), ADB Consultant, presented the progress of his assignment for Lao PDR–Myanmar Power Interconnection Project which consisted of 3 tasks. Task 1 is the feasibility of Tachileik-Kengtung transmission line and substation, and Tachileik-Kenglatt transmission line (Lao-Myanmar Interconnection line). For this task, one of the activities to conduct techno-economic studies for Tachileik-Kengtung transmission line development project, including proposal for initial line route using GIS mapping and preliminary engineering design. The various options and confirm technical viability of the project were also taken into consideration. This first task has been completed including an economic study and system study.

14. The second task was to conduct system study of high voltage power transmission system in Myanmar and Lao PDR (including future 500 kV) with the objective to interconnect two power systems. In order to complete this task, the consultant needed to assess the government's power development plans including long-term generation and transmission system development plans, and to validate the project in terms of import and export volume in specified time frame. The consultant mentioned that the main difficulties for this task were: Myanmar still had to clarified line and transformer impedance, line routing, load center, etc; and due to insufficient data on zero sequence impedance for line and transformer from both Myanmar and Lao PDR. The conclusion on Task 2 are:(i) there are similarities of two power systems in terms of generation costs, load patterns; (ii) the main differences are Lao PDR has lower demand compared to Myanmar demand; (iii) there are no major issues for interconnecting the 2 countries from grid capacity

perspective and 300 MW power trading is feasible; (iv) the cost of interconnection assets will slightly affect Lao PDR importation in Myanmar that will remain cost-effective; and (v) system-to-system operation cannot be confirmed until specific dynamic studies. The presentation is in **Attachment 6**.

15. The third task is to assess the technical gaps and recommend options in synchronizing Myanmar power system with Lao PDR and Thailand power systems. ABD consultant Philippe Russe is assessing the technical gaps in established GMS harmonized performance standards. EDF shall preform the dynamic studies to understand the system capability in synchronoeus operation through the proposed project. Mr Philippe explains the main difficulties for this task due to the non-availability of dynamic data from Myanmar, and the lack of assumptions that were necessary for missing units from Lao PDR.

16. Ms. Aruna Wanniachchi, ADB expressed appreciation to EDF's work so far and look forward to the completion of remaining tasks for both Task 2 and 3. She commented following aspects need to be included to complete the task 2 and task 3; (i) Transmission capabilities of Myanmar, Lao systems; (ii) Dynamic performance of individual power systems and needed dynamic performance improvements since the differences in dynamic performance will be the main challenge in synchronization; (iii) Frequency fluctuations in each country and recommendations on needed frequency upgrades; (iv) Quality in each system; (v) Reliability in each system; (vi) Reserve margins; and (vii) Gaps in demand forecasting and system planning. She requested the cooperation of the 2 countries in providing the needed data to complete the work. She also mentioned that the pilot interconnection study with Thailand had been pending due to COVID-19 situation which had been preventing EGAT and the consultant from face-to-face meeting for data collection. As a result, the consultant had not received necessary data from EGAT yet. Therefore, a contract variation to exclude the task will be considered.

17. Comments/Discussions.

- To move forward secure interconnection between the two countries, there should be a clear vision, corporation, and agreements between the countries. In addition, there is a need for a clear vision of the generation plan, protection of the grid and the unit itself, the generator to ensure safe interconnection between two countries.
- For synchronous operation, gaps in the existing systems need to be addressed as well as the description of the generation unit that will be able to regulate the frequency in both countries, which is yet to be achieved.
- On the Lao PDR side, EDL will be in charge but not yet identified for Myanmar, thus stressing the need for the contractual commitments between the two countries, especially between the market experts of Lao PDR and Myanmar as they go into operation.
- There is a need to enter details of technical parameters and will give time to Myanmar and Lao PDR to review the report and give further comments.
- While Mr Philippe Russe is working on the technical gaps' assessment EDF was requested to undertake the dynamic study.

#### **F. GMS Grid Code - Knowledge Product – (WGPO Work)**

18. First draft of the GMS Grid Code Knowledge Report has been shared with WGPO for comments. Mr. John Irving, ADB Consultant discussed the steps in preparing the grid code

knowledge product. The presentation covered the following: (i) rationale for the preparation of the ADB Regional Grid Code (RGC) knowledge product, (ii) characteristics of future GMS RGC, (iii) interconnection technologies for GMS, (iv) RPTCC acceptance of RGC, and (v) tailoring the RGC to suit TSO Priorities. See **Attachment 7** for the presentation.

19. Ms. Aruna Wanniachchi, ADB mentioned the importance of the RPTCC comments to produce a useful knowledge product on the evolvement of the GMS harmonized Grid code prepared through the ADB technical assistance to make it more useful for other regions..

#### **G. GMS Grid Codes, Gaps Assessment - (WGPO Work)**

20. Mr. Philippe Russe, ADB Consultant is working on identifying the gaps of national Grid Codes to harmonize with GMS Grid Code. He summarized the WGPO tasks which includes 6 additional tasks adopted in December 2018. WGPO Tasks 5 to 10 are related to gap assessment, regional synchronous operation, GMS grid code activities, ITC system for power exchange, and regional transmission portfolio. The objectives of the GMS Grid Code implementation are (i) harmonization of the National Grid Codes and the Operational Practices for the synchronous operation of GMS areas, and (ii) the development of the regional power exchanges through synchronized operation. Mr Russe proposed methodology for gaps assessment that included the assessment of the requirements in the electricity sector of each GMS country, the proposed actions on the National Grid Codes and operations in order to meet GMS Grid Code requirements, and the roadmap for the implementation of the actions for reaching the full compliance with the GMS Grid Code requirements, for each country. consultant presented the work plan to work for the next 3-6 months, and proposed to work with Cambodia, Lao PDR, and Myanmar WGPO delegation and to start with one technical aspect. Most important technical parameter is the frequency control. Mr. Russe discussed the proposed approach and detailed work plan for the activities. **Attachment 8** provides the presentation.

21. Ms. Aruna Wanniachchi, ADB stated that there were challenges in the gaps assessment she really concerned about. She mentioned previous consultant (Mr Michael Caubet) had done preliminary gap assessment based on data collected from members and had checked for compliance. Now a thorough analysis is required to establish full compliance of GMS Grid Codes. She inquired RPTCC if there is any objection for the consultant's proposed approach to proceed with gap assessment of Lao PDR, Myanmar, and Cambodia as Thailand and Viet Nam systems have no big gaps. RPTCC agreed to the approach. Ms. Wanniachchi emphasized the active participation of the WGPO delegation and the WGPO delegation include 4 members from each country: a grid code specialist, regulatory expert and two transmission experts.

#### **H. Emerging Trends in GMS Power Sector Development: Private sector engagement and Integration of Renewable Energy**

22. The discussion in the WGRI meeting held earlier discussed two key topics: (i) private sector engagement in the power sector in the region and (ii) integration of renewable energy into the grid systems. Jonathan Hedgecock, ADB Consultant and Mr. Duy Thanh Bui, Principal Energy Economist, SEEN jointly discussed the two topics. The presentation highlights the (i) increasing role of private investors in power sector development; (ii) private sector participation in the power sector regional and international experience; (iii) increasing renewable energy (RE) penetration

in the GMS technical, commercial and regulatory issues; and (iv) regulation and planning for increased RE and interconnector trading. The details of the presentation are in **Attachment 9**.

#### Discussion

- PRC shared that there is a rapid increase in renewable energy in China, ranking first in the world in installed renewables in recent years and the government encourage the private sector in RE development. PRC will continue to work on renewable development and is committed to make the world cleaner.
- Viet Nam noted that these RE initiatives and private participation will be good for Viet Nam and all the GMS countries.

## IV. Summary of WGRI and WGPO Meeting

### A. Working Group on Regulatory Issues

23. Mr. Duy Thanh Bui, ADB presented WGRI accomplishments including the following: (i) conduct of regulatory review, (ii) analysis of open access, (iii) analysis of transmission charges, (iv) development of short-term trading rules, balancing mechanism for short-term trading, and (vi) analysis of regulatory aspect in setting up a Transmission Company, and (vii) sharing knowledge to countries, highlighting the completion of the document, [Harmonizing Power Systems in the Greater Mekong Subregion: Regulatory and Pricing Measures to Facilitate Trade](#), uploaded in the ADB website which summarizes the WGRI work done so far.

24. To apply the analytical work completed, WGRI will undertake a pilot study of grid to grid trading involving 3 countries which will involve (i) identification of the first 3 countries with appropriate settings to interconnect, (iii) apply appropriate methodology and tools, (iv) collect data, and (v) organize and conduct the pilot study. Prior to April 2020, a concept note on methodology was prepared and convened a virtual meeting and identified 3 countries for possible connection, that is from Lao PDR via Northern Thailand to Cambodia for the possible power export from Lao to Thailand and Cambodia. However, due to the Covid-19 situation, the work is pending for further development. See **Attachment 10**.

25. As discussed in part H, para. 18, Mr. Bui also shared on the broad aspect of GMS cooperation especially looking at the current trend of increase in renewable energy and the role of private sector for cross-border cooperation in clean energy. He further noted that RE development is to be linked with GMS cooperation and interconnection is an important conclusion which requires investigation and determine what exactly needs to be done in the near future. WGRI group should play an important role in reaching out and coordinate and eventually combine work with WGPO.

#### Discussion

- PRC provided suggestions on the on-going WGRI work such as (i) enhancing grid interconnections among the GMS countries and facilitating regional power trade which is also a concern in WGRI; (ii) need to balance the large hydropower with solar power development, mentioning that GMS hydropower development based on interconnections among GMS countries is one of the principles for the establishment of RPTCC and the two working groups;

(iii) develop a stronger power grid by interconnections, better market regulations and grid code for a strong GMS power system; and (iv) it is necessary for WGR1 to increase the engagement with WGPO regarding the grid code and interconnection stability.

## **B. Working Group for Planning and Operation (WGPO)**

26. Ms. Aruna Wanniachchi, ADB summed up the completed tasks and deliverables under WGPO. Overall WGPO with the support of ADB consultants have achieved good results this year amid the travel restrictions due to COVID-19. There are three key deliverables in 2020: the GMS master plan, the pre-feasibility studies of Lao-Myanmar interconnection, and a knowledge product on GMS harmonized Grid Code with some recommendations on way forward. Refer to **Attachment 11**.

27. Under the GMS Master Plan, final draft of the regional master plan for the period from 2022 to 2035 will be completed by December 2020 addressing the RPTCC comments as well as the impact of Covid-19. Manitoba conducted system studies and assessed many scenarios and in each of the scenario confirms the cost benefits of the regional power trade. Aggressive power trade yields the highest benefits. A combination of HVAC and HVDC is recommended going forward. The master plan study results are adequate for decision making and to move forward for integrating GMS power systems. It shows obvious benefits in all scenarios. She emphasized that the most important thing is to act now to start the cross-border trading as soon as possible to realize the mutual benefits either through HVAC or HVDC.

28. On Lao PDR-Myanmar interconnection (300MW); the preliminary design was completed with basic technical specifications assessed. In addition, EDF is attempting to assess the two power systems to understand the barriers in system to system connection. ADB mentioned important actions by the two countries, such as commitments between the two countries, consideration of the GMS Grid Code in the ongoing and future projects including system upgrading, and selection of Generator characteristics for secure operation, while two task forces need to provide the available information by 15 November to EDF.

29. The work on Grid Code Gaps Assessment and Enforcement Measures will start with Lao, Myanmar and Cambodia, Task Force meetings will take place once in every 4 weeks, and RPTCC agreed to the proposed methodology.

30. The fourth task, GMS Grid Code – Knowledge Product summarizes the GMS Grid Code highlights, lessons and recommendation with the draft report shared and requested RPTCC comments and recommendations which are very important.

31. Next virtual WGPO meeting is planned for January 2021.

## **V. Final Session**

### **A. Other Business Matters**

32. Mr. Bui informed the participants that RPTCC and both Working groups will plan to organize meetings in person if allowed or virtually. To continue the tradition of hosting and chairing RPTCC meeting, it was agreed that the next chair will be Lao PDR. The timing of meeting will be

confirmed but for each of the group, the work is clear and requested the countries to continue to work with countries and ADB secretariat to finalize the respective tasks and move on to new activities.

## **B. Closing Remarks**

33. PRC, Chair of the meeting expressed appreciation to the countries for their participation, comments, and suggestion in moving the agenda forward and appreciated ADB's preparation of the meeting. He enjoined countries to address the pandemic crisis with solidarity; enhance cooperation of electric power and clean energy in GMS countries, optimizing energy resources, and achieve sustainable development for the region. He reiterated PRC's support and willingness to work with relevant parties to make use of the RPTCC platform and promote pragmatic cooperation including power connectivity which will contribute to green and low carbon development of the region.

34. ADB, Co-Chair closed the meeting which covered important issues and informative presentation and thanked all participants for a productive discussion.

## Attachments

1. Agenda
2. List of Participants
3. GMS Regional Master Plan Study: Draft Final Report
4. TA 9003-REG: Update on Integrated Resource Planning with SEA and extended scope for Clean Energy Development in the GMS
5. Regional Investment Framework (RIF) 2022
6. Country Presentation
  - 6.1 Lao PDR
  - 6.2 Myanmar
  - 6.3 People's Republic of China
  - 6.4 Thailand
  - 6.5 Viet Nam
7. Pre-Feasibility Studies of Regional Projects: Myanmar – Lao PDR Interconnection
8. GMS Grid Code - Knowledge Product
9. Working Group for Planning and Operation (WGPO): Work Plan for GMS Grid Codes, Gaps Assessment, and Operationalization of GMS Synchronous Areas
10. Emerging Trends in GMS Power Sector Development: Private sector engagement and Integration of Renewable Energy
11. Summary of WGRI and WGPO Meeting
  - 11.1 Working Group on Regulatory Issues
  - 11.2 Working Group for Planning and Operation