WGRI Meeting – 18th June 2018

New Findings

The meeting of the WGRI focused on a discussion of the Extended Scope of Work to be supported by ADB TA8830 over the next six months. The primary objective of this is to develop practical examples of wheeling charge calculations to assist the GMS member countries in applying the methodology for wheeling charges agreed in the work that concluded at RPTCC-23.

In order to focus the discussion, the Consultant presented a summary of the key issues involved in implementing a MW-km flow based approach to transmission charges as an alternative to the postage stamp charging methods in use in some of the countries. In addition, the Consultant explained how transmission charges are applied in a number of international examples, including Great Britain, Ireland, Australia, the Southern African Power Pool and Continental Europe.

To develop examples of wheeling charges, three areas of activity were discussed:

1. Data collection: involving focused requests for network data, information about existing transmission tariffs and extracts from transmission system models;
2. System modelling: the development of a method for calculating specific charges and the application of these to specific case studies to be defined in conjunction with the WGRI representatives from Myanmar, Thailand and Lao PDR;
3. Knowledge sharing: particularly focusing on circulating the results of national charge calculations amongst the WGRI members and discussing the implications of the learning gained from this phase of the project for the implementation of transmission charges in the future.

An initial set of proposals based on the extended Terms of Reference issued by the ADB was discussed, based on the outcomes of RPTCC-23. These were refined in discussion by the RPTCC members, in order to agree a set of activities that would reflect more closely the requirements of the GMS countries.

The discussion was informed by presentations from each of the WGRI member countries, summarising the current approach to transmission charging that is adopted in each country. In summary, the status of transmission charging in each country was described as follows:

- **Cambodia:** EDC performs charge calculations and these are approved by government. Further information on the methodology used would be made available for the later research under this project;
- **PRC:** Intra-Regional and Inter-Regional transmission charges calculated using a mixture of Contract path and Flow-based Methods;
- **Lao PDR:** Specific transmission charge calculations are being considered for domestic IPPs, the Nabong 500kV system, the LTM project, Lao-Vietnam interconnectors and BOT transmission projects involving the development of dedicated Transmission Companies;
- **Myanmar:** Transmission charges required for the use of new 500kV assets by Combined Cycle LNG projects to be located near Bago, which would serve as useful examples for discussion in the next phase of the project;
- **Thailand:** Currently using a Postage Stamp methodology for transmission charges which is relevant to the Enhanced Single Buyer model**.** EGAT is interested in developing this to provide more cost-reflective pricing taking account of seasonal and time of day issues. The trial of multi-wheeling charges being demonstrated in the different elements of the LTM project was presented as a relevant reference.
- **Vietnam:** Postage Stamp transmission charging methodology is well established. Currently considering possible refinements to this, focusing on transmission pricing period, possible capacity charges and improvements in cost signalling.

Next Steps

Detailed next steps were proposed in relation the three focal countries for the next stage of work, as follows.

- **Lao PDR**
  - Review the key requirements for creating of a national Transco, focusing on the following questions;
    - What are the regulatory requirements, licensing needs and commercial agreements required?
    - How would the Transco be funded?
    - Which assets would be transferred, and how would their costs be recovered?
  - It was noted that it would be important not to duplicate any work being undertaken on this by other projects.
- **Myanmar:**
  - Develop an approach for the treatment of 500kV transmission lines that would be developed as part of an IPP project and transferred to the Department of Power Transmission and System Control (DPTSC) subsequently
    - How would charges for using the line be calculated and applied?
    - What sort of modelling would be needed?
    - What level of costs need to be recovered?
    - Would a flow-based methodology that allocates costs to users be appropriate?
- **Thailand:**
  - A review of other international single buyer markets, looking at the scope for introducing flow-based charging for national transmission prices
  - Working with the postage stamp method, investigate the possibility of making this more cost reflective:
    - Considering the development of peak and off-peak charges (including the "critical peak" period, recognising that Thailand currently has three peaks during the day). What about seasonal variations in the charges?
    - Also considering the differentiation of capacity vs. energy costs.
    - Investigating the possible application of charges to generation as well as demand.
  - Draw on Thailand's wheeling charge work under the LTM project to inform other discussions in the WGRI (but noting confidentiality constraints)

Priority immediate actions would consist of the following steps:

1. Reviewing the scope of work definitions set out above and sharing the results of this review with the Lao, Myanmar and Thailand delegations in the WGRI.

2. Assessing the data requirements for carrying out specific studies/investigations, sending specific requirements to the country delegations and conducting clarification meetings as necessary.

3. Developing the analytical work, sharing the results with the WGRI and reporting at RPTCC-25.

The WGRI meeting draft outcomes were presented, as per the summary above. A number of points were raised by the RPTCC members in the subsequent discussion, which were taken into consideration in developing a revised set of next steps.

The key points raised in discussion were as follows:

- The importance of developing a road map for how transmission charging will be applied in the region, building on the earlier work from RPTCC-23 but also stressing the integration of national and regional charges.
- The need for a detailed work programme to be developed by the Consultant for the next phase of the work.
- The importance of clearly defining the modelling methodology and the data requirements.
- As part of the "lessons learned" from the work, aiming to identify how to develop transmission charges developed on a bilateral basis into rules that are more widely applicable for the GMS region.

It was agreed that these points would be considered by the Consultant and incorporated into the next steps for the project.

RPTCC-24 - 19th June 2018: Summary of Main Discussion Points and Next Steps, WGRI

The main points discussed by the WGRI and a consolidated set of next steps were presented, as follows:

1. A Road Map for implementation of Regional Wheeling Charges and integration with national charges will be developed;
2. The Scope of Work of the country-specific studies will be confirmed, based on the following:
    - **Myanmar:** investigation of 500kV transmission charges for new generation, and process for recovering for these when assets are transferred to DPTSC;
    - **Thailand:** investigate international experience of transmission pricing in Single Buyer market models, and develop refinements to the Postage Stamp method to reflect seasonal and time of day issues;
    - **Lao PDR:** focus on possible BOT development of transmission assets and the regulatory, technical and commercial issues associated with setting up a Transmission Company;
    - Possible incentives to be considered that would accelerate the transmission infrastructure development particularly in Lao PDR, Myanmar, and Cambodia.
3. Work with the GMS countries to propose data requirement guidelines and obtain specific data needed to support the above analysis;
4. Develop methodologies and carry out example calculations to address the scope of work for the country-specific studies;
5. Identify 2 or 3 existing international interconnectors which have surplus capacity and propose practical steps for short-term trading and imbalance settlement;
6. Study of national electricity subsidies and taxation regimes in power imports/exports.

The proposed timeline for the completion of the next phase of work was presented. It was explained that this extends to the end of 2018, and would include the finalisation of the ADB Knowledge Product that was reported on in RPTCC-23. The timescale proposed is as follows:

Deliverables	Estimated Submission Date
Report 3: Knowledge Product for publication by ADB	Draft submitted May 2018 Editorial iterations ongoing
Confirm scope of work, request specific data	June – July 2018
Road map for Wheeling Charge implementation	July 2018
Analysis and modelling	August – October 2018
Preliminary findings, refine recommendations	October – November 2018
Final report to WGRI	December 2018