International Experience in Developing Cross-Border Electricity Markets

Moderator: Eng. Yousuf Al-Janahi

Moderator’s Questions:

1. In the Panelists’ view and from their countries’ experiences (including both positive and negative ones), what are the key factors that make regional electricity markets work, and what factors can stall their development?

2. International experience suggests that a regional electricity market has to go through a sequence of stages – from bilateral trading between neighboring countries to the formation of a regional power pool complemented by an ancillary services market. Does this sequence seem appropriate for the PAEM to replicate?

3. Credit-worthiness of the utilities and other off-takers of electricity is always a concern (including for investors) but can be an even greater concern in a cross-border trading environment than in a single country. What approach to managing the off-taker credit risk can the panelists recommend based on their experience?

4. What are the merits of using the marginal cost concept in designing and operating a regional electricity market? Is publishing the marginal costs a critical element in operating the market? What are the merits of using locational marginal prices (LMP) in the market? When prices are based on marginal costs, how does the introduction of increasing amounts of renewable energy affect the market in an interconnected system? Do the countries’ renewable energy targets need to affect market design?

5. The US experience includes the establishment of a demand response market as an integral part of the formal wholesale market design. In the demand response market, energy users can bid demand reduction into the marketplace in direct competition with supply. Could the Arab market use this experience?
Takeaways

1. Institutional, legal, and price barriers, such as subsidies make the main priority for establishing the PAEM.

2. Bilateral, contracts and other form of trade can co-exist and marginal cost and locational marginal prices are advisable to be adopted by PAEM.

3. Creditworthiness of off-takers remains a main issue to be addressed in PAEM.