

NEWSLETTER

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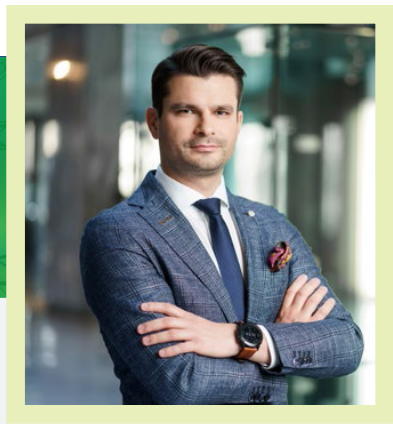
APEX Objective

To facilitate development and communication of ideas and practices in the operation of global competitive electricity markets. One of its primary intentions is to provide a platform for the sharing of information between its members.

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Piotr Listwoń

APEX Board Member
Vice-President, Operations,
Towarowa Gielda Energii S.A. (TGE)

It is my real pleasure to welcome you as a newly elected member of the APEX Board. It is a great honour to join such an esteemed group, so I would like to start by thanking you for the trust placed in me and the recognition of TGE that comes with my election.

I am pleased that a representative of the Polish commodity exchange has been appointed to the APEX board for the second time. This makes me very proud, as it confirms the TGE’s position on the international arena and the fact that the solutions we have been implementing are noticed and appreciated not only in Europe but also worldwide. TGE has been operating a trading platform for wholesale energy products for over 20 years, guaranteeing the safety of trading and transaction clearing. As the only licensed commodity exchange in Poland, we have the status of a Nominated Electricity Market Operator (NEMO). We are engaged in the creation of a common energy market in Europe through our participation in the Price Coupling of Regions (PCR) and the XBID projects. We currently enable cross-border trading within the SIDC and SDAC integrated markets.

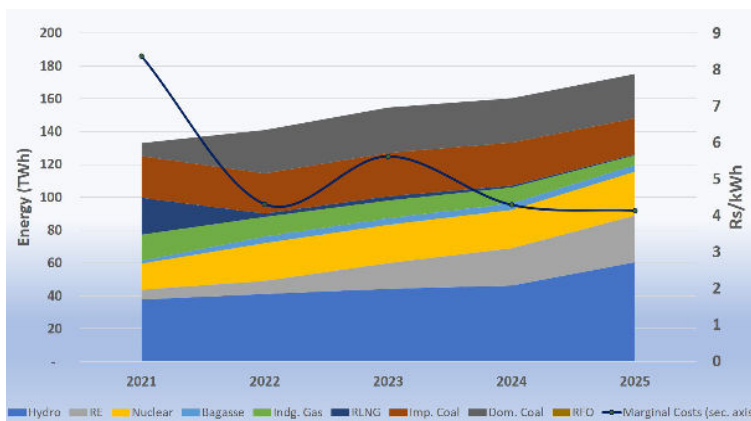
As the main mission of APEX is to create a platform for the exchange of information, experience and good practices between its members, I am convinced that the solutions we have developed as TGE will prove useful to other exchanges around the world. Representing not only Poland, but also Central and Eastern Europe, I am aware of my responsibility. This gives me even greater confidence that this kind of co-operation can guarantee the continued development of our businesses.

In the Spotlight

Competitive Wholesale Electricity Market to Commence in Pakistan by April 2022

The Pakistani Power Market today is based on Single Buyer Plus Model with an installed generation capacity of 40,000 MW that will cross 50,000 MW mark in next two years. Projections of dispatch mix and marginal prices from 2021 to 2025 are depicted in Figure 1. It is important to highlight that Power Sector was de-bundled from a VIU back in 1998, Generation, Transmission and Distribution segments were separated, and independent regulatory Authority (NEPRA) was created. Today, CPPA (the single buyer and market operator) has long terms PPAs with private and government owned power producers on behalf of ten distribution companies.

In 2015, Government of Pakistan decided to introduce wholesale competition in the electricity sector. According to this decision, CPPA prepared the design and plan of the Competitive Trading and Bilateral Contract Market (CTBCM). In November 2020, NEPRA approved the detailed design and 18-month implementation plan of CTBCM to make the competitive wholesale electricity market



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In the Spotlight

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operational in Pakistan by April 2022.

The market reforms plan entails nineteen group of actions ranging from institutional strengthening to augmenting legal and regulatory frameworks and cover people, processes, and technological aspects to deliver the market providing non-discriminatory open access to all market players.

When the CTBCM commences in April 2022, only Bulk Power Consumers (1MW and above) will freely choose their suppliers. These consumers are approx.2000 in number (out of 28 million consumers) and represent 16 % of the current power market in terms of sales. Eventually this threshold will be reduced in steps to open retail competition. Two products will be offered for trading at start of market: Firm Capacity and Energy. It will be a cost-based gross pool market from dispatch perspective, in which generators will be economically dispatched (security constrained economic dispatch) by the system operator and will have hourly balancing mechanism for energy and annual balancing mechanism for capacity. Marginal prices for energy will be discovered ex-post on hourly basis based on real time dispatch results, whereas, marginal prices for capacity will be determined annually by the intersection of demand supply curves. Market Operator business will be separated from CPPA in CTBCM who will perform net settlement based on these marginal prices.

In-order to ensure supply adequacy in long-run, capacity obligations will be imposed on all demand participants. In CTBCM, only firm capacity certificates will be traded to fulfill the capacity obligations of demand participants. This firm capacity concept is introduced primarily to cater for the intermittency factor of renewable generations, which enables renew-

ables to trade capacity. Currently, CPPA is working on different mechanisms to evaluate firm capacities of various generation technologies, like their contribution towards system peak in most loaded hours or stress hours in the system. Number of simulations and studies are being done to finalize such mechanisms before the start of CTBCM.

The legacy PPAs that are signed by CPPA on behalf of distribution companies will be commercially allocated to distribution companies; these legacy contracts will be honored and administered until their expiry. Whereas, with the start of competitive wholesale market DISCOs will be allowed sign bilateral contracts, these contracts can be generation following, load following, or fixed quantity supply contracts.

The governance of wholesale market after CTBCM will be tremendously improved through institutional reforms, automation of business processes and intense capacity building of professionals. It is highlighted here these institutional reforms includes creation of market departments in all distribution companies and creation of Independent System Operator (which includes Market Operator and System Operator functions under one company). Apart from several IT interventions including implementation of Market Management System (MMS), other most important development is creation Power Sector Center of Excellence (PSCE) institute with collaboration of one of the leading universities in Pakistan (LUMS) that will be operational by July 2021 and offer regular trainings and learning opportunities for power sector professionals. With start of CTBCM transparency of wholesale market operations will tremendously improve that will help in achieving the objectives of market reforms.



Webinar

APEX is excited to announce that multiple Webinars are being planned for the Fall of 2021.

If there is a topic you would like to hear, or would like to have your company featured **"In the Spotlight"** please send an email to: Linda.Spreeman@pjm.com.

Association of Power Exchanges

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