



The draft guidelines for regulating Indian power market, released recently by Hon'ble CERC, is a major step towards structuring the development of a competitive power market in India. The major portion of the draft enumerates development of power market principles; market design and surveillance mechanisms needed for developing a transparent and fair market place in India.

As per the guidelines Power Exchanges are expected to ensure fair, neutral, efficient and robust price discovery while arranging quick dissemination of information relating to the same. Power Exchanges are also expected to design standardized contracts and work towards increasing liquidity in such contracts. We are pleased to share with you that the business philosophy of PXIL comes very close to the expressed expectations of the Hon'ble Commission and PXIL eagerly looks forward to the ensuing clarity in market operation principles, that the regulations seek to create.

PXIL also remains committed to providing innovative and credible solutions for the Indian Power Market through a unique combination of local insights and global perspectives. This is also reflected in the recently launched longer tenure products, which enable buyers and sellers to trade in weekly contracts on a month-ahead basis. These contracts are shaped on existing practices in bilateral markets and thus enable buyers and sellers to trade conveniently in a manner similar to their off-Exchange trades. PXIL believes that by virtue of being based on local practices, the design of these products will enable them to blend smoothly into the current power portfolio management initiatives of utilities and thus assist them in managing their power portfolios appropriately.

As we go ahead into newer product areas, including renewable energy certificates et al, the product development philosophy adopted by PXIL would remain grounded in the needs of the power sector participants in India and products would be devised so as to be easily adopted and used by all participants.

I would like to take this opportunity to wish you all a very Happy Diwali, may our products help in brightening the country a bit further.

Warm Regards,

Rupa Devi Singh
MD & CEO

International Peace Day 21st September



World Habitat Day is organized by United Nations Human Settlements Program offering the innovative chance to focus the attention on significance of the shelter in the lives of people, the theme of this event is "A safe City is a Just City".

Trading data for the month of September - 2009

Total Buy Bids (MUs)	144.83
Total Sell Bids (MUs)	242.09
Total Market Cleared Volume (MUs)	55.60
Total Unconstrained Market Cleared Volume (MUs)	62.95
Max MCP (Rs/KWh)	8.00
Min MCP (Rs/KWh)	1.37
Avg. MCP (Rs/KWh)	4.23
Max Volume in a day (MUs)	3.38
Total Market Clearing Volume (MUs till 30 th Sep'09)	434.14

Within the pages...

1. **Top news:** India and International
2. **Synopsis:** PXs – Promoting Green Power
3. **Knowledge Center I:** Role of IT in PXs
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Top News: India

- ❖ **All-time high peak power demand of 99,027 MW met in the country - Last year during this period maximum peak demand was around 84,885MW** September 24, 2009
A record peak power demand of 99,027MW was met on 21st September during evening peak hours. Last year during this period maximum peak demand met in the country was around 84,885MW. Thus a growth of 16.7 per cent has been observed in meeting peak demand in the country...
(source: <http://www.dailypioneer.com/204530/Snapshots.html>)
- ❖ **Mismatch between demand and supply across the country is set to increase further: Power ministry and Central Electricity Authority** September 21, 2009
The power ministry and Central Electricity Authority (CEA) have indicated that the mismatch between demand and supply across the country is set to increase further. An early withdrawal of monsoon has increased demand from the agricultural sector for energizing pumps, while signs of economic revival have increased demand in the manufacturing and engineering sectors...
(source: <http://www.financialexpress.com/news/peaking-shortages-to-surge-further-hint-cea-powermin/519421/0>)
- ❖ **Experts call for liberal open access policy for captive power plants** September 17, 2009
Even though India has made substantial progress in the power sector from a meager 1350 MW at the time of independence to 1.05 lakh MW in the last six decades, the country is still facing power shortage of around 11% and peak shortage of about 12%. Almost 10,000-15000 MWs of surplus power could be injected into the grid as per an official...
(source: <http://economictimes.indiatimes.com/news/news-by-industry/energy/power/Experts-call-for-liberal-open-access-policy-for-captive-power-plants/articleshow/5019307.cms>)
- ❖ **Central Electricity Regulatory Commission draft norms push for development of power markets - Large, liquid and efficient spot market is essential** September 23, 2009
The Central Electricity Regulatory Commission (CERC) has said a large, liquid and efficient spot market is essential for the development of derivative markets. In a draft power market regulations circulated for seeking suggestions from stakeholders, the regulator has said for derivative...
(source: <http://www.financialexpress.com/news/cerc-draft-norms-push-for-development-of-power-mkts/520261/>)
- ❖ **CERC notifies tariff regulations for green power** September 17, 2009
Central Electricity Regulatory Commission, CERC has notified the tariff regulations for electricity generated from renewable energy sources. These regulations have been finalized keeping in view the statutory mandate to Electricity Regulatory Commissions for promoting co-generation and generation of electricity from renewable sources of energy...
(source: <http://www.thehindu.com/2009/09/18/stories/2009091856181600.htm>)
- ❖ **Delayed monsoon: Central Electricity Regulatory Commission decides to control the escalating price of power traded in the domestic market** September 12, 2009
In the wake of delayed monsoon, which has enhanced power shortages in the country, the Central Electricity Regulatory Commission (CERC) has decided to control the escalating price of power traded in the domestic market. In its latest order, the apex power regulator...
(source: <http://www.business-standard.com/india/news/delayed-monsoon-cerc-to-cap-pricetraded-power/369876/>)

Top News: International

- ❖ **NEA seeks 100 MW more electricity from India** September 13, 2009
Nepal Electricity Authority (NEA) has asked Power Trading Corporation (PTC) of India to provide at least 100 MW of electricity to Nepal at a commercial rate from December, this year. NEA wrote to ...
(source: <http://www.nepalnews.com/main/index.php/news-archive/2-political/1491-nea-seeks-100-mw-more-electricity-from-india.html>)

Power Exchanges: promoting Green Energy

Power Exchanges in India

The Indian Electricity sector has traditionally been a strongly regulated sector where investors worked on a fixed returns basis. The Electricity Act of 2003 however focused on introducing competition in the sector. It was hoped that exposing the sector to the market economy, along with more light-handed government controls would attract much needed private sector investments into the sector that was required to meet the declared policy of “electricity for all” by 2012. It was in this backdrop that the Central Electricity Regulatory Commission issued the guidelines for scheduling transactions on Power Exchanges were issued in January and June 2008 respectively.

Renewables in India

India has always had policy support towards promoting renewable power, the noticeable developments in this field in India are:

- Indian is the only country in the world to have a ministry dedicated to this field
- India currently has a total installed wind power generating capacity of 10,464 MW (as on end July 2009) and is currently ranked fifth on the global platform
- India also has 773 MW of biomass power plants and 1155 MW of bagasse based cogeneration plants as of end July 2009.
- India has a vast potential for Solar power. However, currently only 2MW is grid connected.

Policy Support for Renewables

Legislative as well as policy initiatives over the last few years have been stressing upon the need to promote RE (Renewable Energy) this includes: the Electricity Act (2003), The National Electricity Policy (2005), and The New Tariff Policy (2006). Other major Financial & Fiscal Incentives include:

- Special preferential tariffs announced by various states for each of the major RE technologies
- Concessional import duty on certain components, Accelerated depreciation
- Tax holiday for power generation projects and availability of Subsidized debt through IREDA

Tariff Regulation for Green Power

Hon'ble CERC in its recently published tariff regulation for green power has ensured unwavering support to the renewable based generations by mentioning:

- capital cost norms and upfront fixing of tariff,
- that these projects would be given preferential tariff treatment during debt repayment period
- provisions for developers of evolving renewable technologies to approach commission for a project specific tariff
- Identification of responsibilities for developing the renewable energy market

Renewables on Power Exchanges

Currently, development of RE Power in India is largely dependent upon the policy support initiatives put in place by the Central and State governments. However, with the Power Exchanges operating in the country, another avenue has opened up, PXs can facilitate the RE market in two ways i.e. by

- Buying and Selling of power as generated by RE sources and
- Trading of RE Certificates

The finer details of operating mechanism of RE market are available in the detailed paper at <http://www.powerexindia.com/pages/usefularticle.html>

Role of IT in Power Exchanges

Information Technology (IT) is of prime importance for running power exchange operations. IT enables the members of exchange to get instantaneously connected to the bidding and trading system of the exchange. The bidders can plan and bid as per their projected requirements. While planning their bids, clues may be taken from the bidding patterns of various bidders by using the trading database which is available all the time for executed trades.

IT provides secure sessions and multiple authentication levels for users hence data transferred between the trading system and the end user remain intact & anonymous to other users. Anonymity of bids is retained by a system driven approach. At the Exchange end, core of the trading system is the electronic bid-matching engine that works out the provisional schedules for despatch and drawal of electricity and the market clearing prices. The trade matching as done by the exchange is sent for confirmation to NLDC (National Load Despatch Center), the apex body controlling grid operations in the country, NLDC suggests the final schedules on the basis of which reports are immediately made available to each bidder for volumes and prices as worked out by the electronic matching engine after receiving confirmation from NLDC.

The generation of accurate reports provides information pertaining to payment obligations and margin utilisation to each bidder. Risk management system, as in practice at exchange, does not allow any trade to be matured unless necessary and sufficient margins are available from the bidders. The Clearing and Settlement systems ensure efficient and accurate transactions in addition to transfer of funds between the buyers, sellers and the exchange. This would also include all the payments due by the exchange to the system operators. IT system of exchange also interfaces with the Banks for immediate transfer of money using RTGSs, NEFTs etc. from members to exchange and vice-versa. IT systems therefore play a key role in improving the efficiency of the Power Exchange.

Role of PXIL

PXIL believes that Indian Power Markets are different from other Global Markets and are still evolving. Hence, infrastructure model for any Power Exchange would continue to evolve with the market needs. Although the basic operating model for power exchanges across the world would remain same, PXIL believes that newer challenges would have to be handled by Power Exchanges and customizations to local requirements would be necessary. PXIL has therefore ensured scalability & robustness of its exchange infrastructure to cater to the evolving needs of the Indian power Sector.



Did you know?

1. As per a recently published climate related study, Denver happens to be world's most polluting city whereas Barcelona is the least polluting city.
2. India emits almost 1/18 times of CO₂ of that of USA and 1/3.5 times of China when compared on per capita basis.

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