



# **Short Term Trading**

## **Opportunities & Challenges**

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# WHAT IS POWER TRADING??



Trading as per Electricity Act 2003 is defined as “Purchase of electricity for resale thereof”.

- Power system in India developed on regional basis. Eastern/ North Eastern /Northern /Southern/Western region
- Surplus Power in Eastern and North Eastern region almost through out the year. Southern region is surplus for some part of the year at least in off peak hours, Western Region is surplus during monsoon period only.
- Deficit in other regions
- Seasonal surpluses exist in almost all regions
- Due to demand diversity, possibility of short-term trading

# Historical Regulations



- **Indian Electricity Act, 1910**
  - Created the basic framework for the Electricity Industry
  - Provided for private licensees in distribution
- **Electricity (Supply) Act, 1948**
  - Mandated the creation of SEBs
- **Electricity Regulatory Commissions Act, 1998**
  - Created the quasi judicial bodies CERC and State ERCs for adjudicating on various problems impacting the sector
- **Electricity Act 2003**

# Strategic Intent of Electricity Act 2003



- No license required to install a generating plant.
- Generating company/CPPs could sell power to any person.
- Any person, specially the industrial consumers could buy power from any SEBs/ Trader / Generating Company / Captive Power Plants of other persons.
- CTU/STU/Distribution Companies are obliged to provide open access.

## Strategic Intent of Electricity Act 2003



- **Electricity trading as a distinct activity.**
- **Generating Companies / CPPs could trade their surplus power.**
- **Open Access by STU/Distribution Licensee is subject to surcharge**
- **Setting up an Appellate Tribunal for Electricity**

# Open Access

## [Electricity Act, 2003]



- **Section 2[47] : “Means the non-discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system by any licensee or consumer or a person engaged in generation in accordance with the regulations specified by the Appropriate Commission”.**

## Open Access for



- Surplus power of State Generating Companies.
- Surplus power of SEBs / Bulk Power Licensee of the State.
- Sale of unallocated / Surrendered Power of Central Sector Generating Companies.
- Un-requisitioned power of CSGS.
- Merchant Power Plants.
- Captive Power Plants for their own use and other customers.

# Open Access -Constraints



- Limited Transmission capacity.PTC lost approx.32% business due to corridor congestion in 2006-2007
- Slow implementation of Open Access provisions by State Regulators.
- Short Period (Maximum three months) of assured open access.
- Availability of power in Unscheduled interchange mechanism.

## POWER TRADING SCENARIO IN INDIA



- Volume of exchanges is very low (about 2.5% of energy generation).
- Approximately 17 billion units traded in 2006-07. Showing upward trend
- PTC is the market leader in short term trading . Had about 56% market share in 2006-07.

# Historical Background



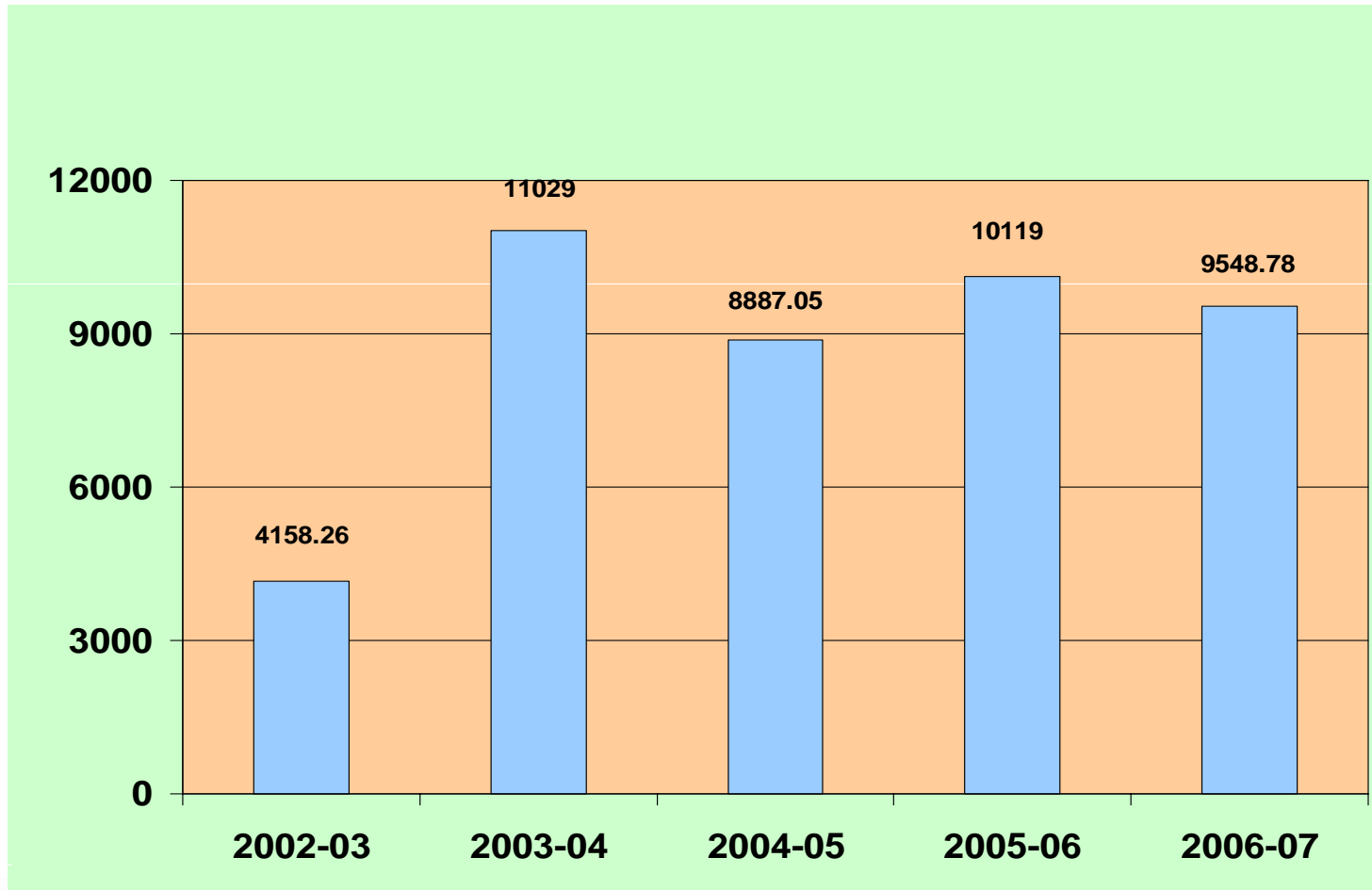
- Short term trading in India conceptualized by PTC and started in June 2001.
- PTC purchased power from WBSEB and sold to Delhi and Haryana.
- Malana HEP in Himachal to Delhi in July 2001.
- Also power purchased from Goa, CSEB and UPCL in 2001-2002

# Historical Background



- PTC Margin 5 Paisa/kWh
- Tariff of Power
  - West Bengal Tariff 180-190 Paisa /kWh
  - Goa Tariff 250 Paisa /kWhTariff determined through negotiations.
- PTC traded volume in the ever increasing competitive market
  - 1617 MUs in 2001-2002
  - 4178 MUs in 2002-2003
  - 11029 MUs in 2003-2004
  - 8887 MUs in 2004-2005
  - 10119 MUs in 2005-2006
  - 9548 MUs in 2006-2007

# PTC – Trading Volume



# CERC regulation for Grant of Trading License



- CERC issued regulation for Grant of trading license in Jan,04
- Requirement of being an Electricity trader
  - **Trader to prove technical qualification – broad standards specified.**
  - **Capital adequacy norm linked to exposure / level of operations.**
- Licensees categorized from category A to category F depending on expected volume between 100 million units to above 1000 million units with capital adequacy from Rs.1.5 crore to 20.0 crores

# Products of Short Term Trading



- Short Term transactions for load balancing
  - Duration of Transactions (1 day - 3 Months)
  - Hours of Supply
    - Round the Clock
    - Evening Peak / Morning Peak
    - Night Off Peak / After Noon Off Peak
    - Night Hours + Morning Supply
    - 18 Hrs. / 8 Hrs. / 6 Hrs. supply
  - “As and When Available” Power for balancing Scheduled Interchanges.
  - “Weekend / Holiday Power”
  - Power Banking

## Current Scenario - Pricing

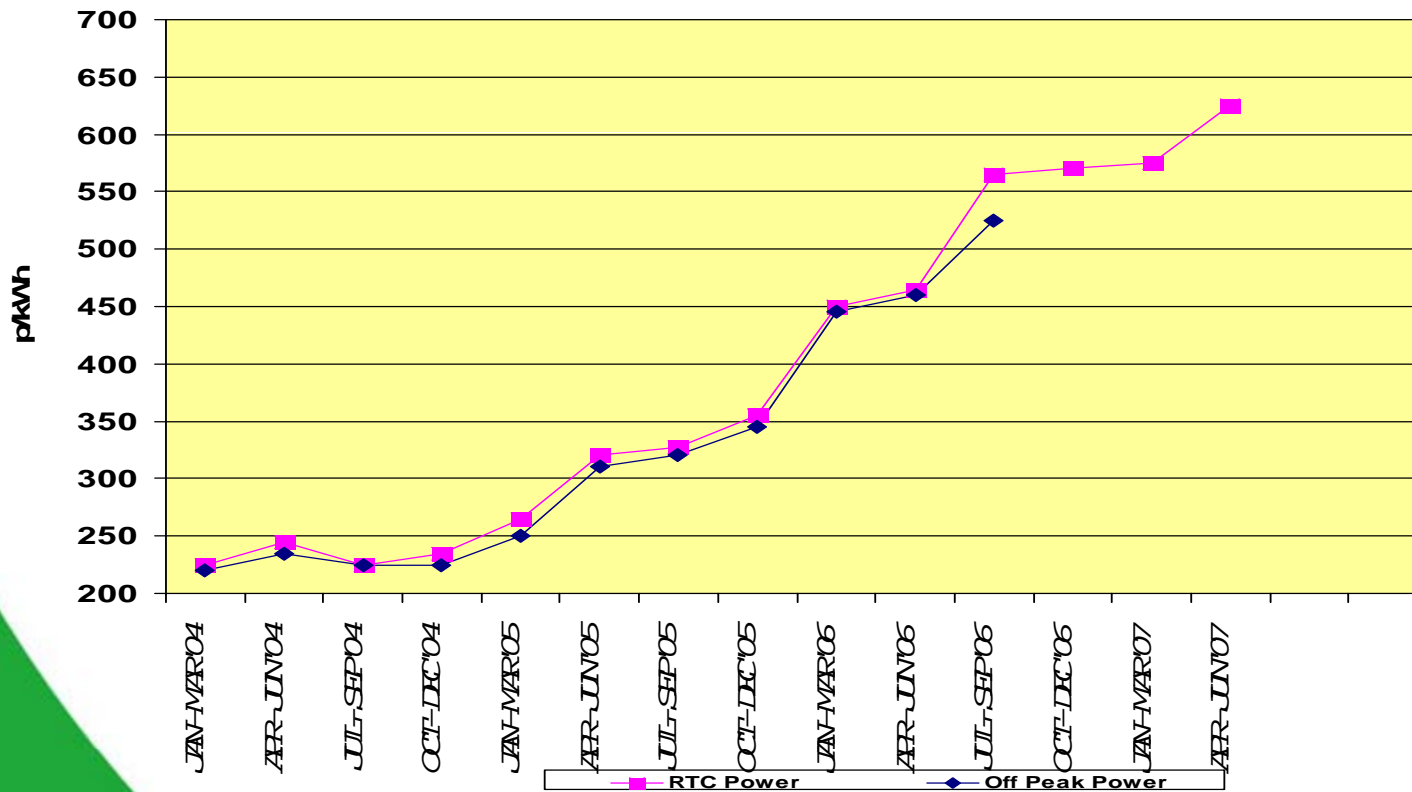


- The prices of power are generally decided by sellers through bidding process. Power is sold to the highest bidder.
- Some bilateral agreements also exist with price discovered based on the market trend.
- Price has been steadily rising for the last couple of years . However recently, some downward trend has been noticed. (Less power and More demand)

# Current Trends – Rising Prices



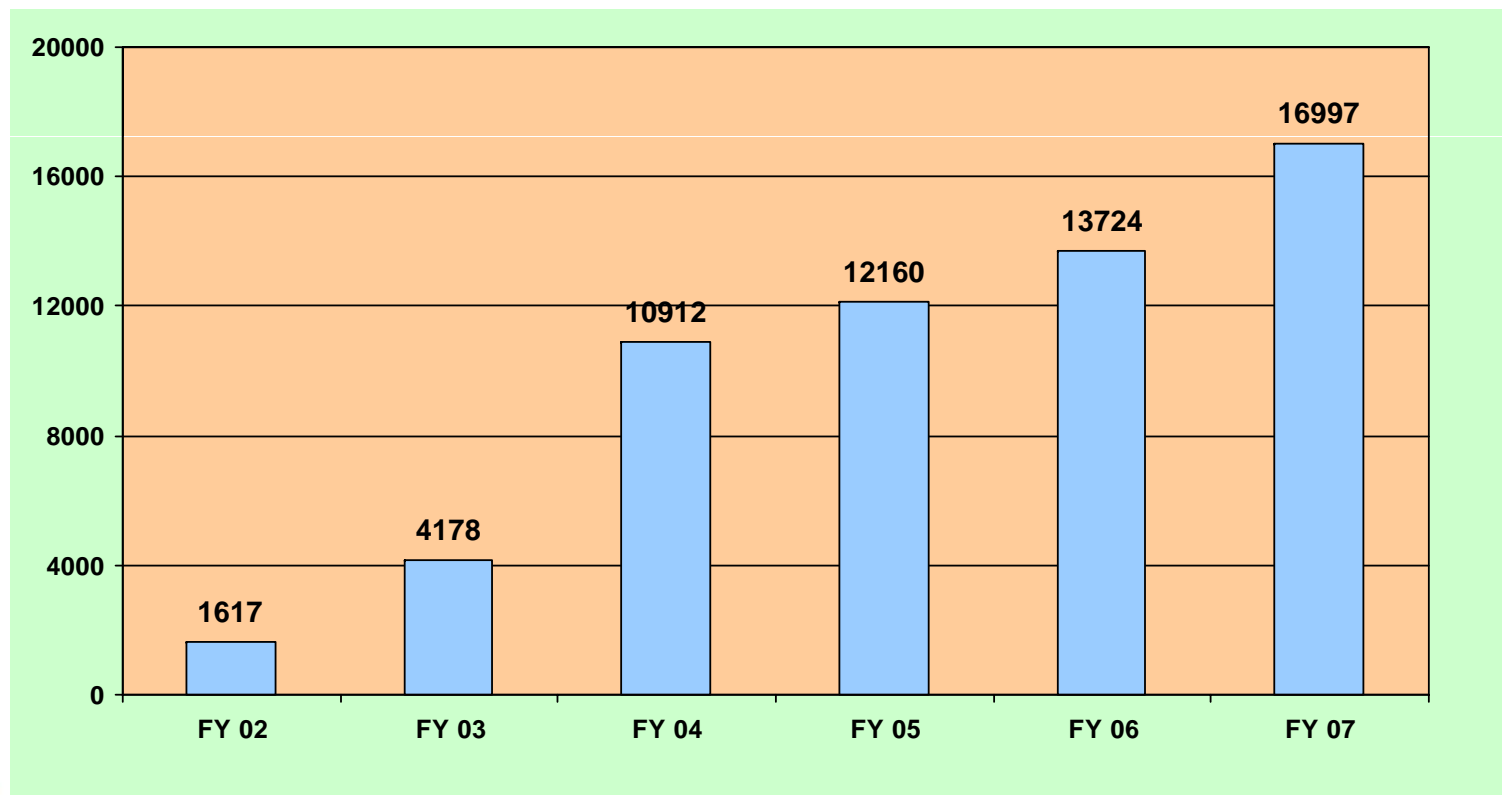
- Rising prices of power



# Current Trends – Volumes



- Increasing Volumes



## Current Scenario - Open Access



- Open Access for 3 Months
- Priority of Application received by 19<sup>th</sup> of a month
- Charges for full 6 Hours/12 Hours/24 Hours.
- Heavy Transmission congestion especially in ER-NR and WR-NR corridors. At times corridor granted is 45-50% of OA applied even 3 months before the start of flow.
- Clear signal for capacity addition in transmission & generation.

# Short Term Trading - Challenges



- Charges at least Hourly.
- CTU charges applicable even if Two states are connected directly.
- Reduction in time for grant of OA.
  - Open Access through e-application for traders.
  - All the process to be automated
- Capped Transaction Margin
- Power Exchange.
- Corridor priority (Power Exchange)



**Thank You**

