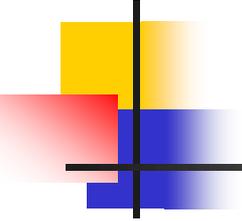


# Prepayment Metering System a boom for Utility & Consumer

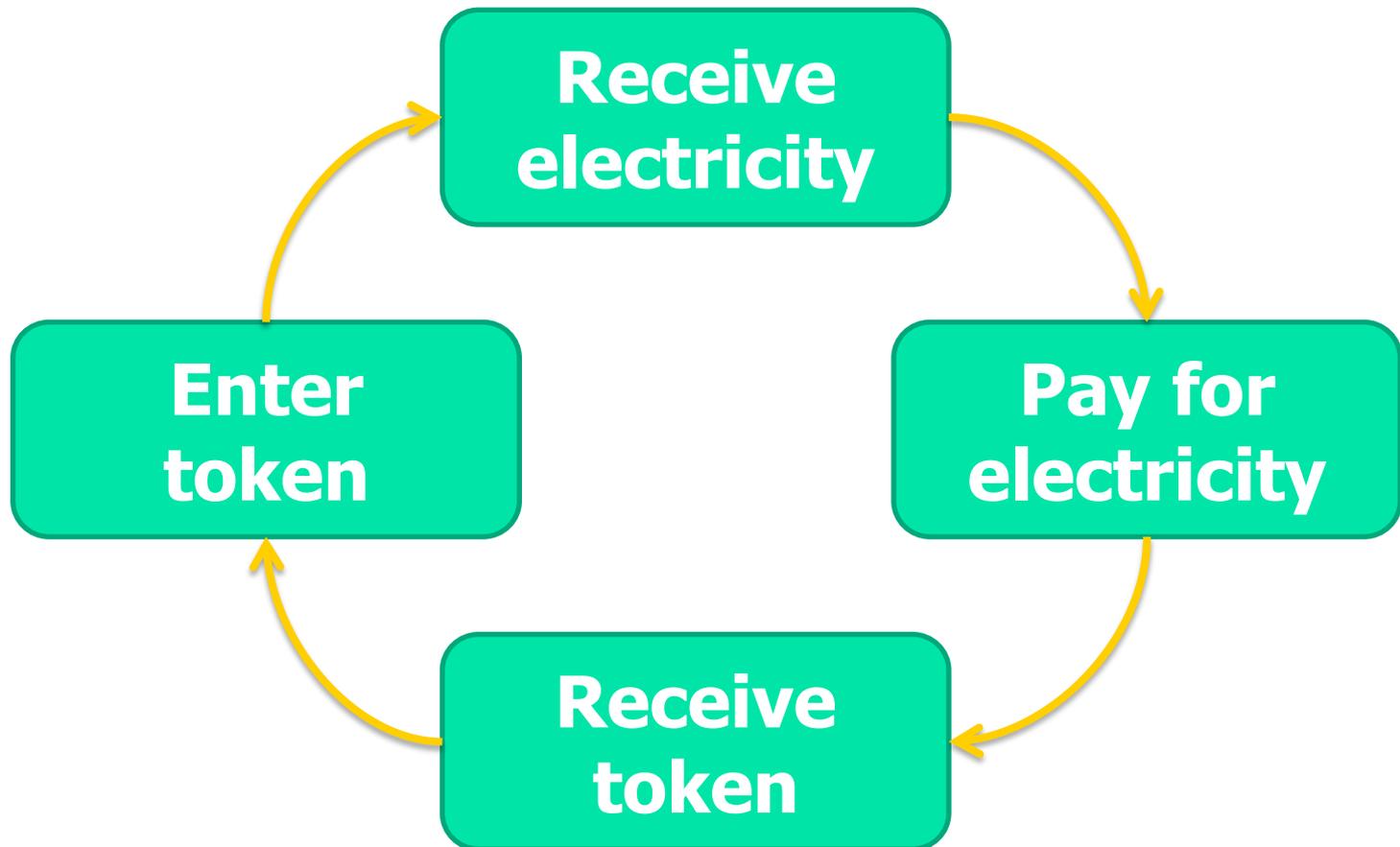
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**Subhash R Sethi**

**Former Member, Delhi Electricity  
Regulatory Commission (DERC)  
Advisor, University of Petroleum &  
Energy Studies**

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- 
- Cash Flow improves for Utility
  - Consumer has Control over his spending
  - No Defaults

# *Concept*

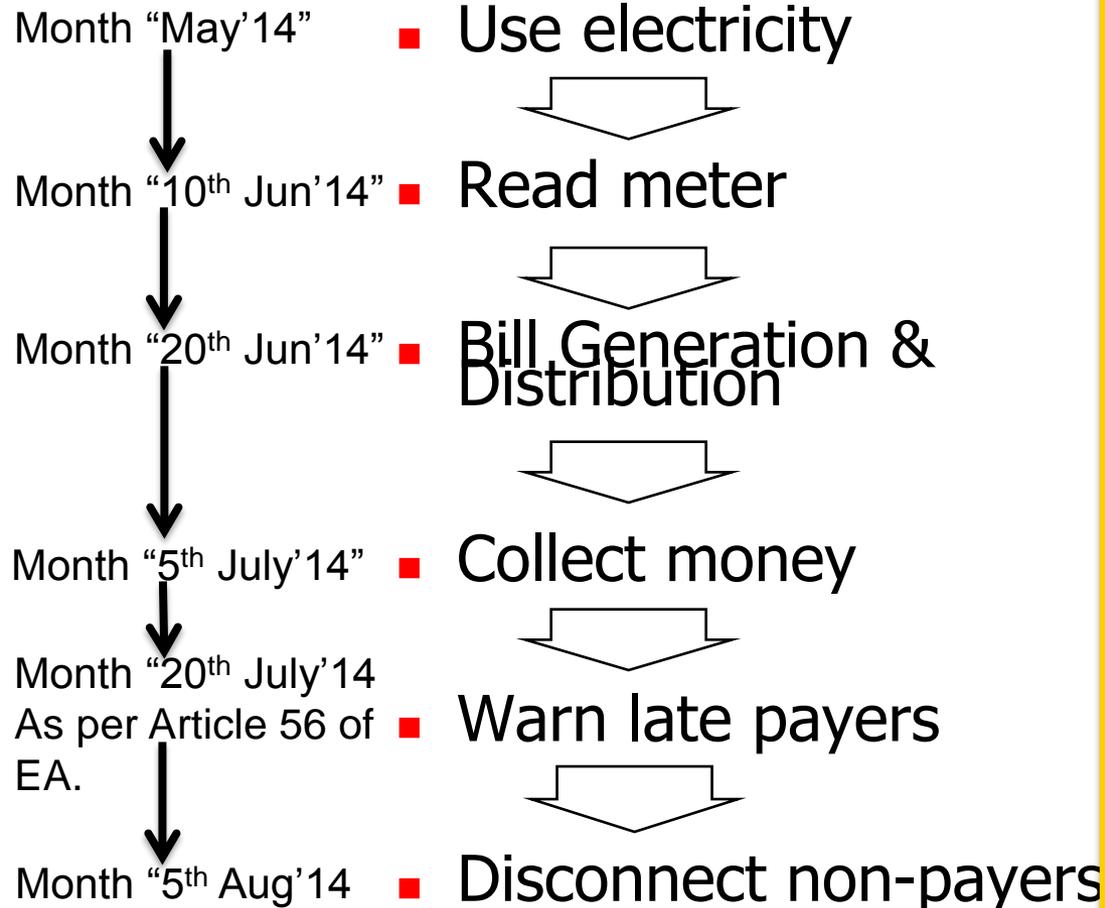


# Traditional Billing V/s Pre-payment Concept

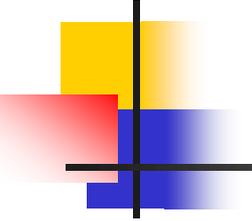
## Example

## ■ Traditional Metering

## ● Pre-Payment Metering



- Collect money (in advance)
- Transfer credit to meter
- Use electricity



# Benefits to Discoms

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- Reduction in high AT&C losses, by
  - Improvement in Cash Cycle
  - Improvement in Billing & Collection efficiency
  - Reduction in Theft & Payment Defaulters
- Improved Cash Flow
- Timely Collection from Government establishments
  - As paying authority is different from the user of meter and they are mostly located at different place, LPSC is charged due to delayed payment and becomes a point of objection by the auditors.
- Cost of billing will significantly improved
- Reduced Consumer Grievance

**In view of the above benefits , Delhi State Government made Prepayment Mandatory for their Government connections.**

220 9984

**GOVERNMENT OF NCT OF DELHI  
(DEPARTMENT OF POWER)**

8<sup>TH</sup> Level, B-Wing, Delhi Secretariat, New Delhi-110 002.  
Telephone : 011-23392047, 23231748 & 23215198

No.11(168)/2005/Power/PF/ 14/ 0

Dated:11.06.2007.

**OFFICE MEMORANDUM**

1. With the restructuring of the power sector three private Distribution Companies started functioning w.e.f. July, 2002. One of the important issues to be resolved is the payment of energy charges on the electricity consumed by Government Departments to the Distribution Companies. The system prevailing hitherto has been found to be unsatisfactory and the DERC has stated that non-payment/delayed payment of electricity bills directly impacts on the distribution business and has tariff implication for consumers. Therefore, such dues need to be settled in a time-bound manner. It is often not possible for the Distribution Companies to deprive Government Departments of electricity because of vital functions performed by many Government Departments. It is with this in view that a new payment mechanism / system is now proposed.

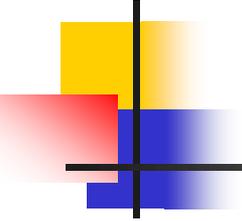
2. The Cabinet vide its decision No.116 dated 21.09.2006 has emphasized the timely settlement of power dues of Government Departments to Distribution Companies. A number of meetings have been held by the Chief Secretary and after discussions with various Departments and the Distribution Companies; it is felt that advanced technological solutions need to be introduced instead of the conventional system of billing and settlement of dues. It has therefore been decided that the following changes would be made in the payment system for settlement of power dues in future:-

A. All Government Departments and autonomous bodies under the Government having single-phase and three-phase electricity load below 45 kW would need to switchover to the Pre-paid Metering System. The pre-paid meters at the different locations would be identified and installed by the Distribution Companies.

B. For all Government Departments / autonomous bodies having load above 45 kW including High Tension loads, DISCOMs would switchover to Automatic Meter Reading System and settlement of pending dues could be done on the basis of advance drawal of contingent bills.

A. (a) Pre-paid Metering System: The Distribution Companies would identify the locations where pre-paid metering systems would be installed. These would be ISI approved pre-paid meters, duly tested for their certification.

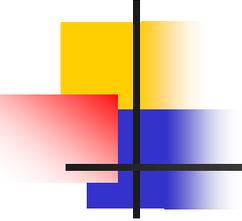
(c) Rebate of 2% shall be allowed as the payment is being given in advance (in line with the guidelines of CERC on the subject) as approved by DERC.



## Benefits to Discoms contd..

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- If utilities pay the dues within the stipulated time to NTPC they get 1 % rebate. Hence, advance collection through prepayment can help in getting the rebate.

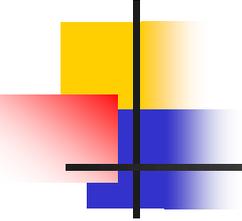


# Initiatives Taken by the Government

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- As per **National Electricity Policy** “Prepaid Meters” should be encouraged.
- “No security deposit for prepaid consumer” is mentioned in **Electricity ACT**.
- Under the **Financial Restructure Package (FRP)** for all the Government utility, one of the major criteria is to install prepaid meters for Government Consumers.
- CERC had appointed Deloitte as consultant and according to their report, FOR has recommended that “All state utilities should try prepaid meters for target consumers viz Government/PSU establishments, temporary connections, tenancy metering, etc.”

# Cont..

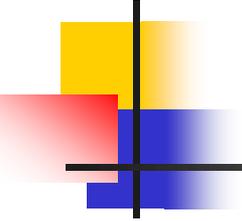


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## **Government Domain Consumers**

- Schools
- Police Stations
- Water Pumping
- Street Lightning
- Primary Health Centres
- Field offices of PWD, MCD

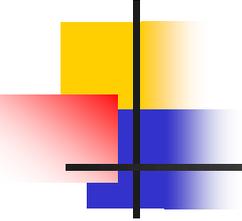
# Cont....



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## **Government Colonies**

- staff is transferred over a period of 3-5 years
- Disconnection and re-installation of new meters could be avoided
- Areas of Payment be no longer an issue
- NOC will not impact handing over of the accommodation

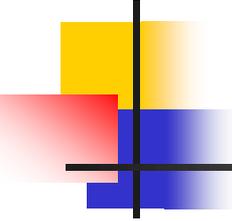


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## **Private Consumers**

- Shops in weekly Bazars
- Construction of Houses
- Connection for Marriages
- other functions

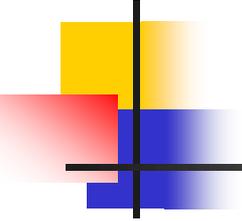
# Tariff Issues to be Looked at by Regulators



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- Simplified and Separate Tariff for Prepaid consumers
  - No retrospective tariffs: In post paid system ,billing happens after consumption while in prepaid billing happens on real time basis in meter itself. Hence retrospective calculation will create doubt in the mind of consumers .
  - Tariff Fixation Is the exercise of assumption which is trued up after one year hence tariff like Fuel Surcharge Adjustment should be accounted at the year end at the time of next recharge based on the energy purchased in the previous year.
- Various regulators such as WBREC, DERC, HPSEB, etc. have simplified tariffs

# Other Issues to be Looked at by Regulators



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- All Group housing society connections / multistory buildings should mandatorily have single point connection with prepayment meters on each occupant's premise.
- Those who have already taken the possession in CGHS/ Multistorey and are on post paid there meter should be replaced with prepayment.
- Tariff Rebate should be given to the consumers on prepaid meter.

# Policy Push: Regulators

Regulator	Rebates on unit price & meter rent	Simplified Tariffs	Remarks
WBERC	-	Yes, separate tariff for prepaid consumer	Separate & simplified tariff for all category of consumers.
DERC	2% on bill	Yes	Mandatory for State Government offices by state government.
HPERC	Zero fixed charge	Yes, separate tariff for prepaid consumer	
JERC (Manipur )	2% on bill	Yes	Decided to install meter at all consumer
KERC	In Progress	In Progress	Mandatory for Temporary Connection
JERC	In Progress	Yes, separate tariff for prepaid consumer	Mandatory for up to 20kW
Forum of Regulators		Recommended (vide study carried by M/s Deloitte)	

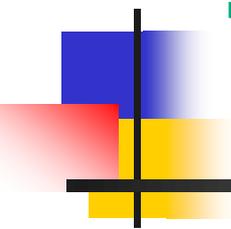
# Policy Push: Regulators

**WBERC**

- Separate & Simplified tariffs for Prepaid Consumers
- TOD / TOU implementation in various consumer category
- A remarkable stand & support by regulator on implementation & applicability of new tariffs for prepaid consumers ***“Consumer can use electricity at the old tariff for the remaining credit in the meter at the time of release of new tariff order”.***

## LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme					Optional Tariff Scheme										
		Consumer category	Name of the Tariff Scheme	Quarterly consumption in KWH	Energy Charge P/kWh	Fixed Charge / Demand Charge * In Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Optional Tariff Scheme - I		Fixed Charge / Demand Charge * In Rs/KVA/mon	Consumer category	Optional Tariff Scheme - II		Fixed Charge / Demand Charge * In Rs/KVA/mon		
								Quarterly consumption in KWH	Energy Charge P/kWh			Quarterly consumption in KWH	Energy Charge P/kWh				
6.	Public utility/ Specified Institution Public Bodies	Rate A(CM-PU) (MUN)	Normal	On all Units	599	12	Rate A(CM-PU) (MUN) PP	Prepaid	On all Units	587	12	Rate A(Cm-PU) (Mun) ppt	Prepaid - TOD	06.00 hrs. – 17.00 hrs. & 20.00 hrs - 23.00 hrs.	On all units	582	12
	17.00 hrs. to 20.00 hrs.													On all units	640		
In Municipal Area	23.00 hrs to 06.00 hrs	On all units	541														
7.	Public utility/ Specified Institution Public Bodies	Rate A(CM-PU) (NON-MUN)	Normal	On all Units	599	12	Rate A(CM-PU) (NON-MUN) PP	Prepaid	On all Units	587	12	Rate A(Cm-PU) (Non-Mun) ppt	Prepaid - TOD	06.00 hrs. – 17.00 hrs. & 20.00 hrs - 23.00 hrs.	On all units	582	12
	17.00 hrs. to 20.00 hrs.													On all units	640		
In Non Municipal Area	23.00 hrs to 06.00 hrs	On all units	541														
8.	Cottage Industry / Artisan / Weavers / Small production oriented establishment not run by electricity as motive power	Rate A(CM-II)	Normal	First	300	519	Rate A(CM-II) PPT	Prepaid - TOD	06.00 hrs to 17.00 hrs	All units	622	12		NOT APPLICABLE			
				Next	300	662			17.00 hrs to 23.00 hrs.	All units	684						
				above	600	696			23.00 hrs to 06.00 hrs.	All units	578						
9.	Poultry, Duckery, Horticulture, Tissue culture, Floriculture, Herbal – Medicinal – Bio-diesel Plant Farming, Food Processing Unit	Rate A(CM-III)	Normal	First	900	623	Rate A(CM-III) PPT	Prepaid - TOD	06.00 hrs to 17.00 hrs	All units	611	12		NOT APPLICABLE			
				Above	900	728			17.00 hrs to 23.00 hrs.	All units	672						
									23.00 hrs to 06.00 hrs.	All units	568						



**Thank you**

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