

CRM Initiatives – India

The customer relationship management practices of electricity sector in India





Agenda



- Power Sector Reforms – An Overview of the Distribution Sector
- CRM in Electricity Distribution – National Support
- Regulator – Utility Interface for CRM
- CRM Initiatives
- ICT Opportunities in brief
- Research Issues





Power Sector Reforms in the context of Distribution Utilities



- ❑ Unbundling in most states so that distribution companies can focus on core business
- ❑ Unbundled discoms are corporatized – both state owned and private
- ❑ Although the Electricity Act 2003 allows for second distribution licensee, in actual fact, only Mumbai has the system of parallel distribution licensees
- ❑ Most discoms are state owned – exceptions are
 - ❑ Pre reforms – old private discoms in Ahmadabad, Mumbai, Kolkata
 - ❑ Post reforms – Delhi, Orissa privatised as joint ventures
 - ❑ Franchisee system being experimented in Maharashtra, and UP
- ❑ Discoms are, by and large, local area monopolies – there is NO customer choice





Power Sector Reforms in the context of Distribution Utilities



Gujarat:
4 govt owned Discoms, 2 Pvt urban discoms

Mumbai:
2 pvt cos & 1 municipal undertaking

Maharashtra:
1 lstate-wide govt owned discom; Initiated Franchisees

Karnataka:
\$ govt owned Discoms

Delhi: 3 privatised Discoms

West Bengal : 1 discom for the state; pvt co for Kolkata

Orissa: 3 privatised discoms as JVs; one under administration

Andhra Pradesh
4 govt owned Discoms

Tamil Nadu:
Integrated Genco & Discom





Discom reforms

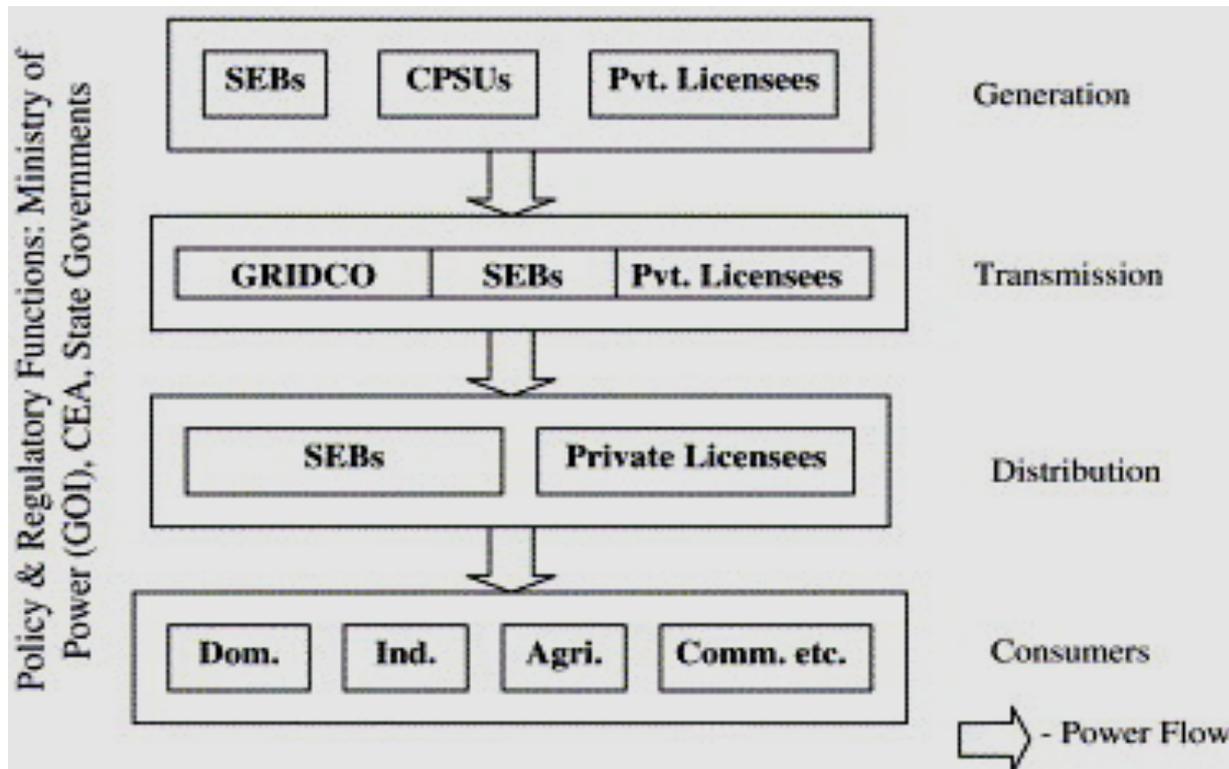


- ❑ Reforms have focused largely on technical upgrades
- ❑ Change management is yet to occur especially in state owned discoms
- ❑ The state where customers will dictate the challenge to the sector – is yet to come
- ❑ Hence the Customer Relationship Management (CRM) will be essential



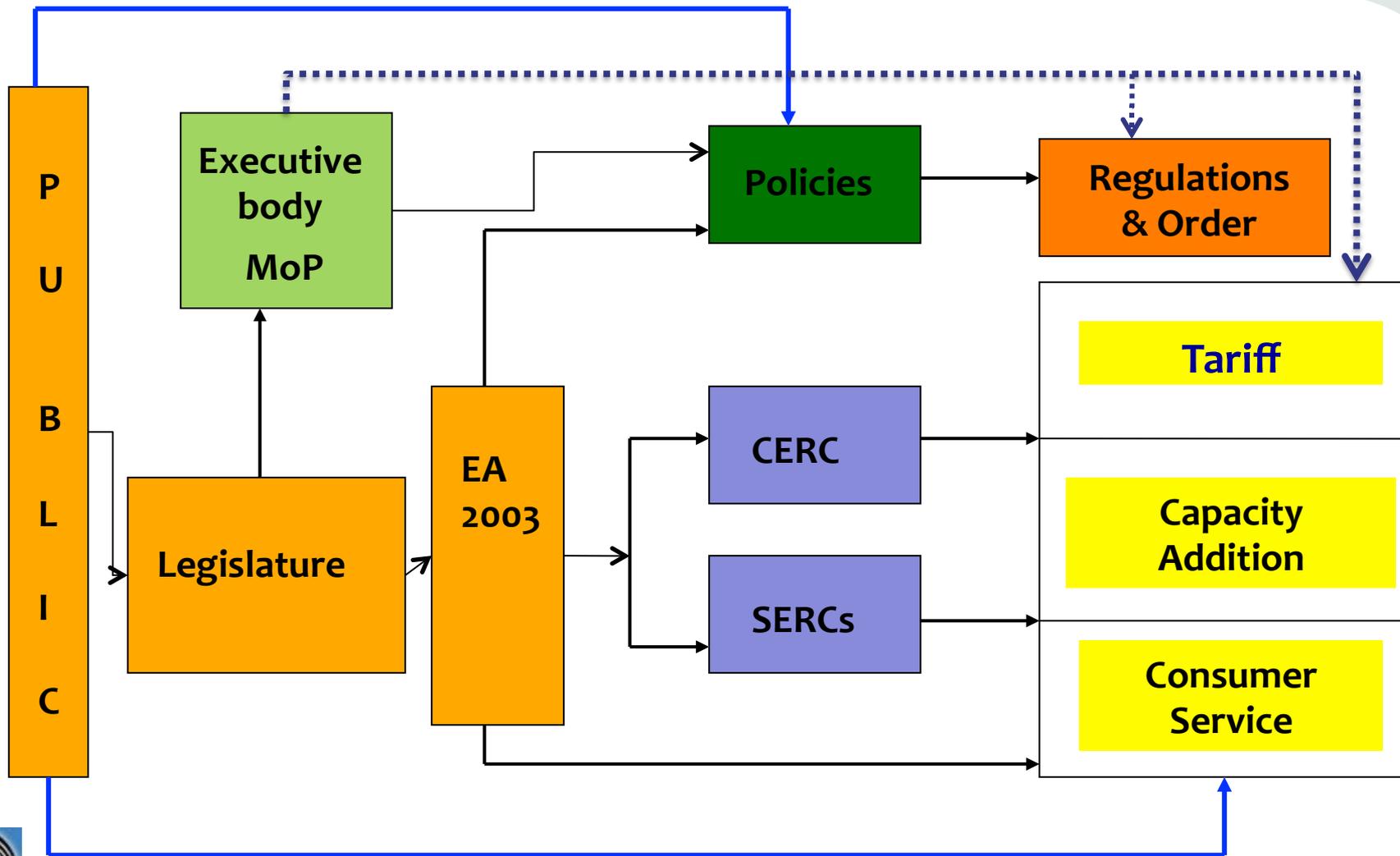


Power Sector – Power Flow



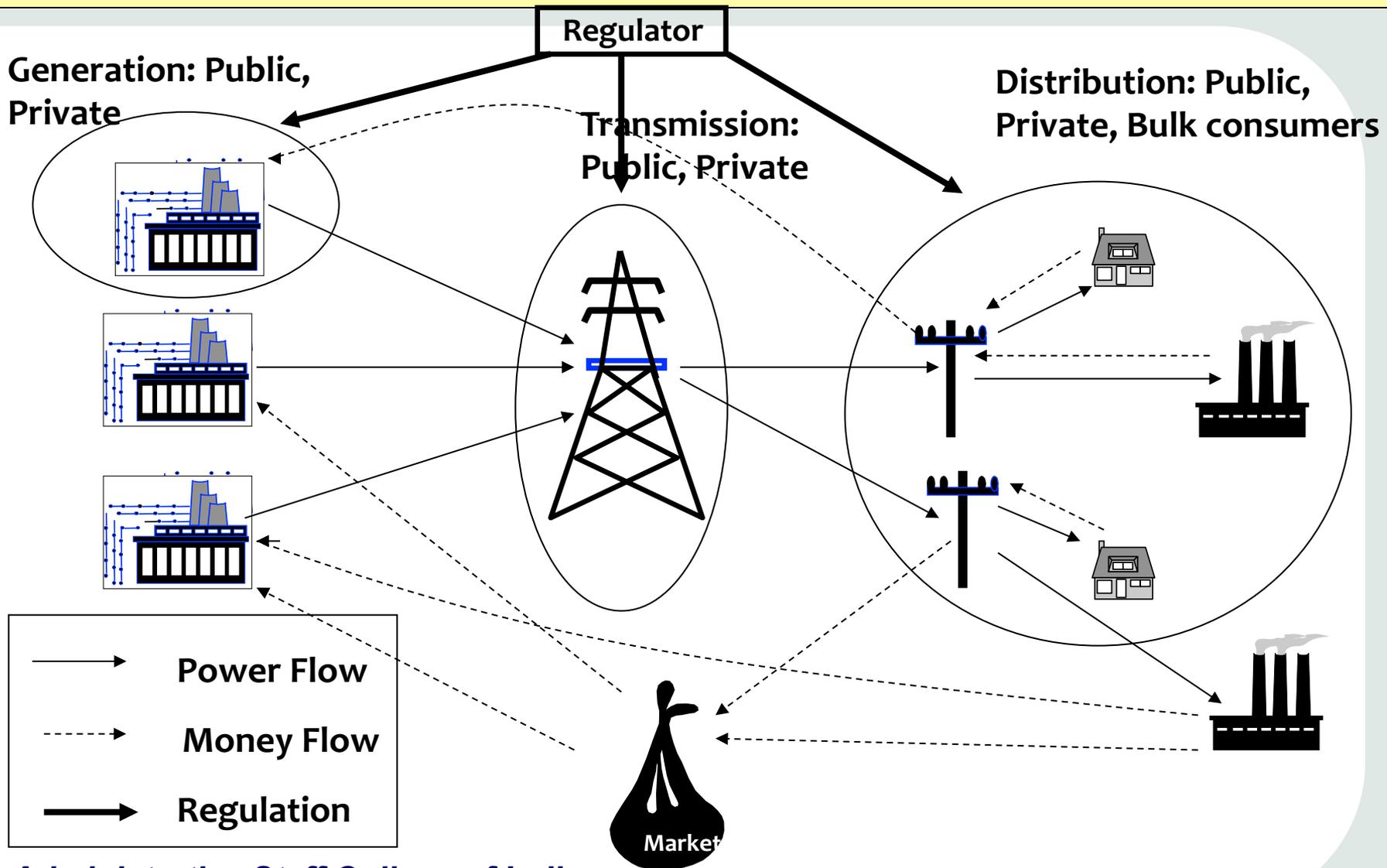


Institutional and Policy Structure



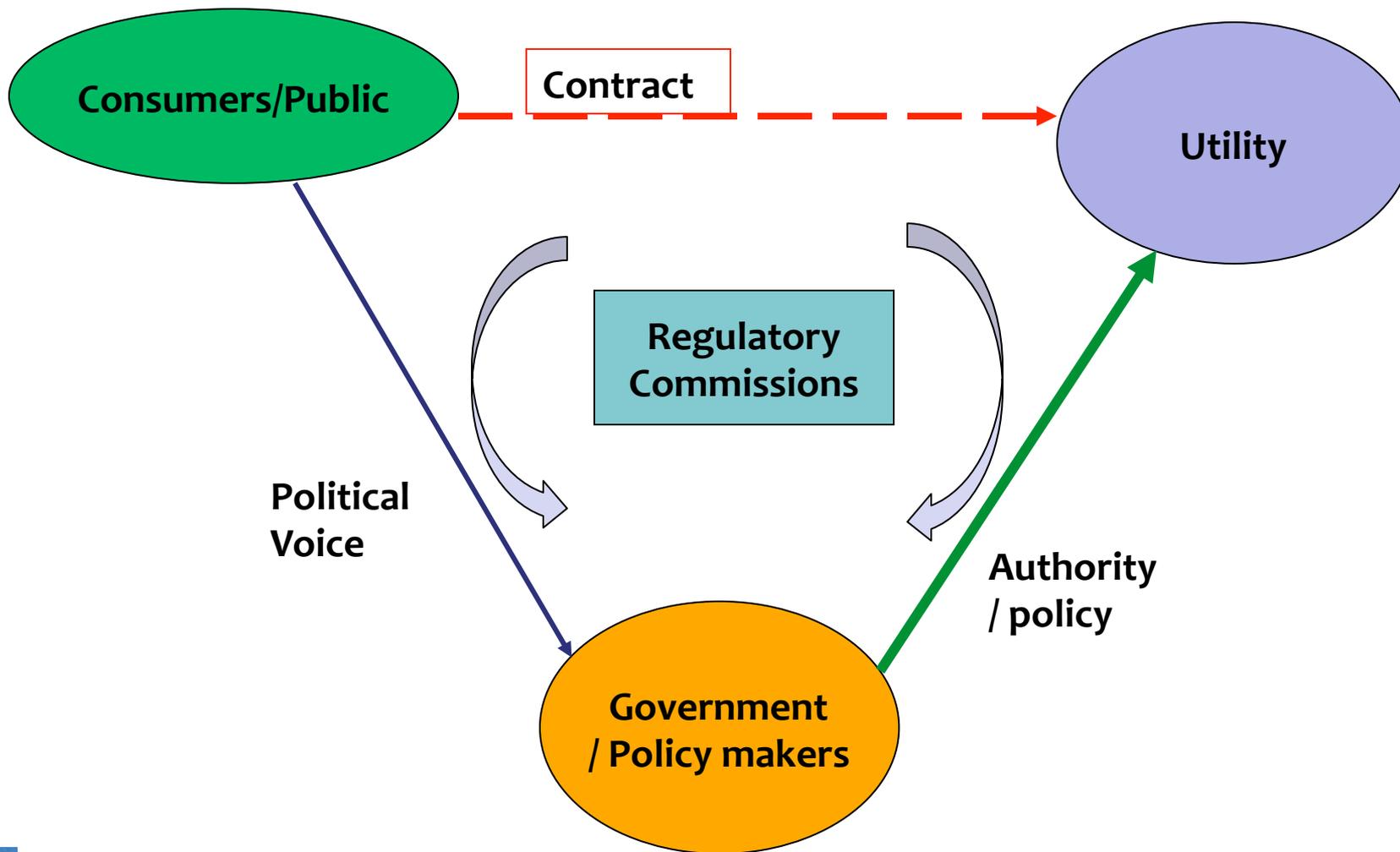


Institutional Framework





Players and Interactions





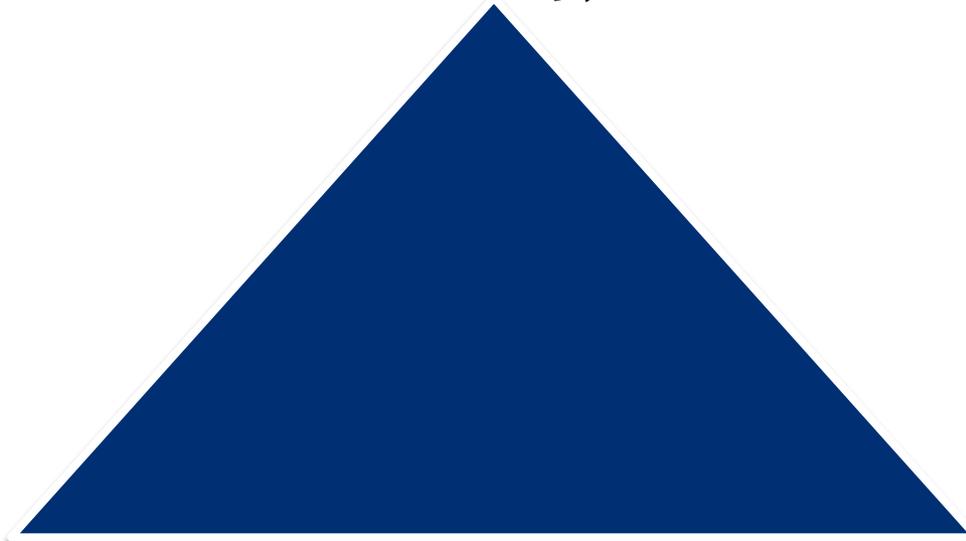
Consumer Expectations and agitations



**Reliable Power
(Adequate and Timely
Delivery)**

**Reasonable
Tariff**

**Good Service
Quality**





Consumer Rights



- Right to Safety
- Right to be Informed
- Right to Choose
- Right to be Heard
- Right to Seek Redressal
- Right to Consumer Education
- Right to Basic Needs
- Right to healthy environment





Consumer Responsibilities



Consumer must exercise his rights.
Cautious consumer
Filing complaint for the redressal of
genuine grievances
Consumer must be quality conscious
Insist on cash memo





Service and Supply Related Issues



Poor service quality:

- Billing errors, metering related issues, un-timely fault resolution, etc
- Un-planned load Shedding, poor quality of supply, etc
- Lack of information/clarity about procedures such as getting new connection, change in name or connection type and so on

Lack of access:

- Half the households do not get electricity which is a high quality, cost effective form of energy

→ Poor and small consumers most effected





National Electricity Policy



Consumers

- Access to electricity for all households by 2010
- Per capita availability of electricity to be increased to over 1000 units by 2012
- Minimum lifeline consumption of 1 unit/household/day as a merit good by year 2012
- Cross subsidies to be reduced gradually
- Provision of support to lifeline consumers (households below poverty line having consumption of 30 units per month) with tariff being at least 50% of average cost of supply.
- Grievance Forum and Ombudsman to be set up
- Government and RCs to facilitate capacity building of consumer groups.





National Support



➤ National Electricity Policy

➤ 5.13 - PROTECTION OF CONSUMER INTERESTS AND QUALITY STANDARDS

- 5.13.1 Appropriate Commission should regulate utilities based on pre-determined indices on quality of power supply. Parameters should include, amongst others, frequency and duration of interruption, voltage parameters, harmonics, transformer failure rates, waiting time for restoration of supply, percentage defective meters and waiting list of new connections. The Appropriate Commissions would specify expected standards of performance.
- 5.13.2 Reliability Index (RI) of supply of power to consumers should be indicated by the distribution licensee. A road map for declaration of RI for all cities and towns up to the District Headquarter towns as also for rural areas, should be drawn by up SERCs. The data of RI should be compiled and published by CEA.
- 5.13.3 It is advised that all State Commissions should formulate the guidelines regarding setting up of grievance redressal forum by the licensees as also the regulations regarding the Ombudsman and also appoint/designate the Ombudsman within six months.
- 5.13.4 The Central Government, the State Governments and Electricity Regulatory Commissions should facilitate capacity building of consumer groups and their effective representation before the Regulatory Commissions. This will enhance the efficacy of regulatory process.





National Support



➤ Electricity Act 2003

Suspension of distribution licence and sale of utility

24. (1) If at any time the Appropriate Commission is of the opinion that a distribution licensee –

(a) has persistently failed to maintain uninterrupted supply of electricity conforming to standards regarding quality of electricity to the consumers; or





National Support



Electricity Act 2003...

42. (5) Every distribution licensee shall, within six months from the appointed date or date of grant of licence, whichever is earlier, establish a forum for redressal of grievances of the consumers in accordance with the guidelines as may be specified by the State Commission.
- (6) Any consumer, who is aggrieved by non-redressal of his grievances under sub-section (5), may make a representation for the redressal of his grievance to an authority to be known as Ombudsman to be appointed or designated by the State Commission.
- (7) The Ombudsman shall settle the grievance of the consumer within such time and in such manner as may be specified by the State Commission.
- (8) The provisions of sub-sections (5),(6) and (7) shall be without prejudice to right which the consumer may have apart from the rights conferred upon him by those sub-sections.





Regulatory Interface



- ✓ Defining norms and standards for service quality that utility must comply with
- ✓ Establishing grievance redressal mechanism that is simple, easy to access, quick in response and economical for consumers
- ✓ Establish monitoring mechanisms to ensure compliance of standards and regulations and effective grievance redressal





Regulatory Role in protecting Consumer Interest

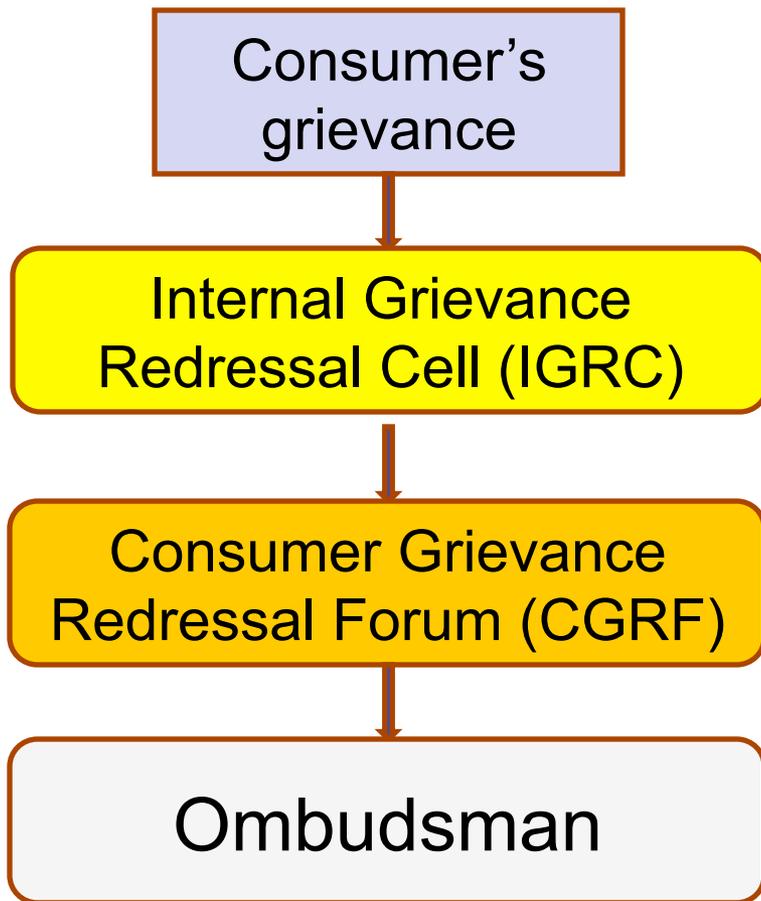


- Setting reasonable and affordable tariff that reflects supply and service quality
- Ensuring adequate power availability
- Monitoring of supply and service quality
- Ensuring compliance of utility with various legal provisions and regulations
- Conducting due public processes for all the above functions
- Increase awareness and transparency encourage public participation





Three Tier Grievance Redressal Structure



Each licensee to establish IGRC & CGRF
CGRF

- Consists of Independent Chairperson, utility's representative, and consumer representative
- Should decide the matter within 45 days

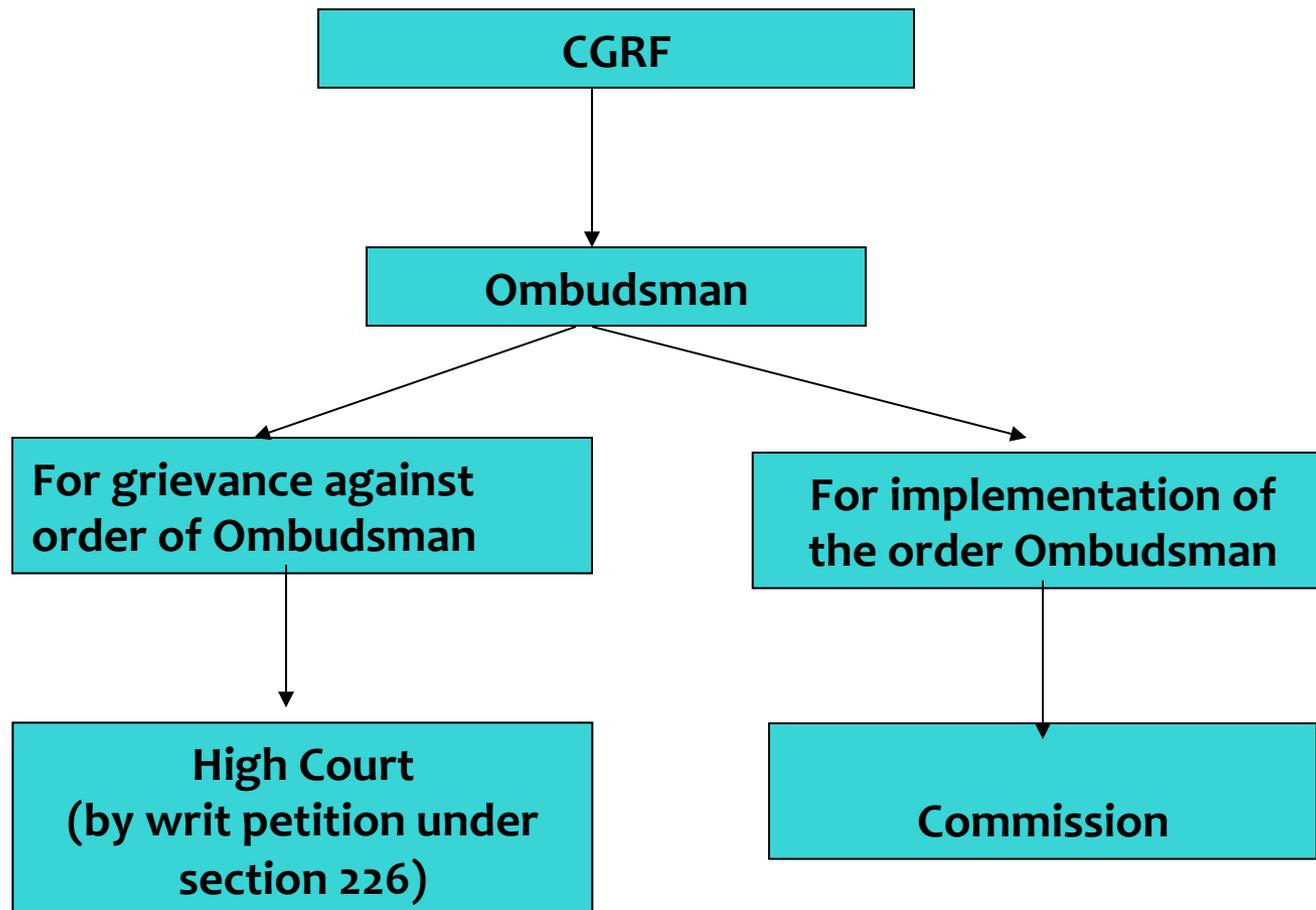
Ombudsman

- Appointed by commission
- Only consumer can appeal against the decision of CGRF to Ombudsman
- Orders available on website



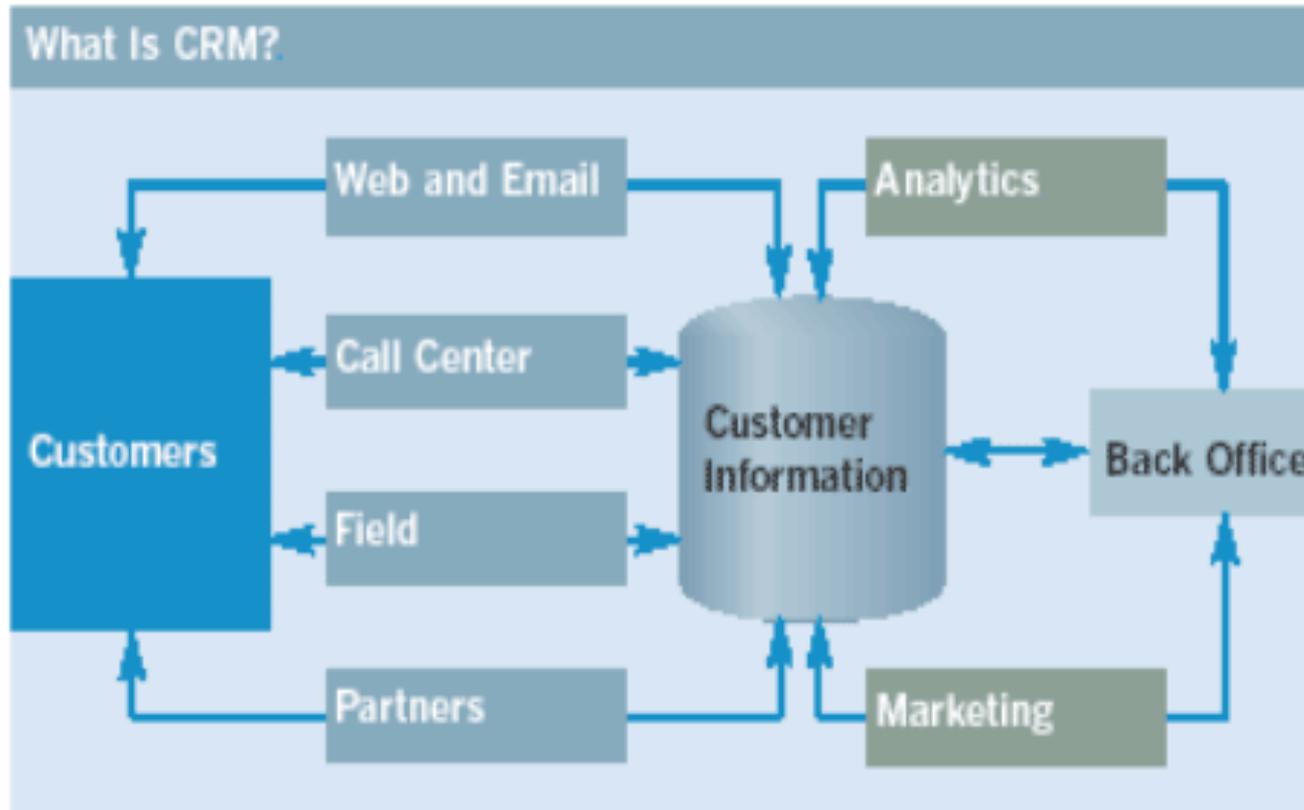


Complaint Redressal Mechanism under EA 2003 and sample Regulations





CRM Defined



Source: CRM processes Across Power Distribution Sector in India, [Sidhartha Das, Officer \(Project Finance\), North Delhi Power Limited, 5.31.05](http://www.energypulse.net/centers/article/article_display.cfm?a_id=1017), http://www.energypulse.net/centers/article/article_display.cfm?a_id=1017

Administrative Staff College of India





CRM Initiatives

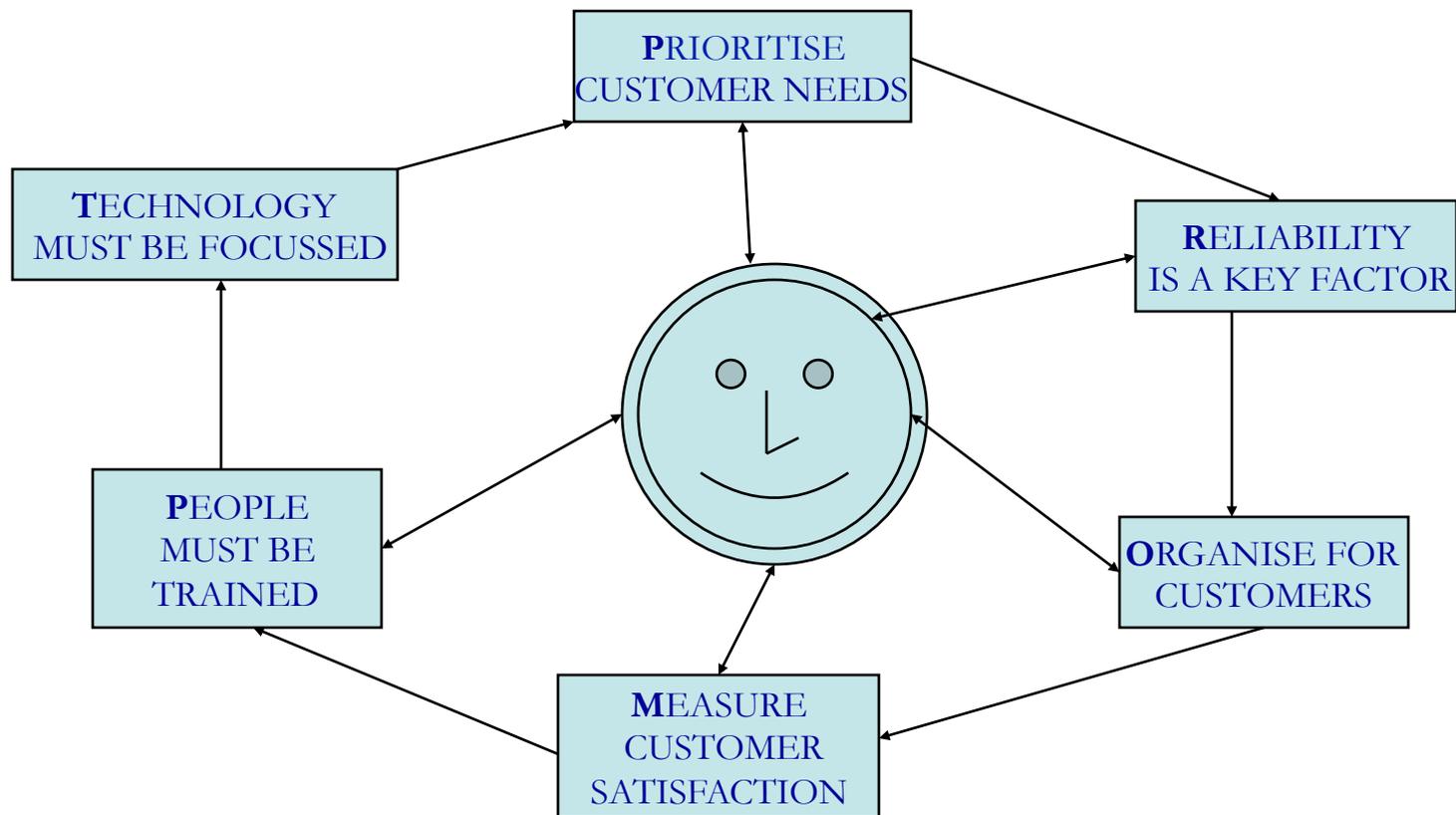


- Consumer approach**
- Profit Centre**
- Modern Customer Care Centres**
- Customer Facilitation Centres/Call Centres**
- SCADA/ EMS, DMS**
- OMS & MWFM (Mobile Work Force Mgmt)**
- Near Real-time Information, analysis and actions**
- Data Handling, GIS, NW Apps**
- Integrated Process applications etc**





CRM Process





CRM Initiatives – BSES Rajadhani



Improved Customer Satisfaction - Prompt Service from all customer touchpoints like

- Modern Customer Care Centres – Queue Management System
- Website – Availability of Duplicate Bill / Complaint Registration etc through www.bsesdelhi.com
- State of the Art Call Centre – 24* 7 with easy to remember # 39999707
- Easy Payment Options like Credit Cards / Online / Payment Kiosks etc.
- Providing escalation matrix on web for due escalation of unresolved issues.

Securing Interest of Consumers - Pre Emptive measures to ensure Customers' safety

- Installation of ELCB
- Sharing of Safety Tips through website
- Caution snippets in the media during rains
- Load Enhancement / Service Line Cable change
- Imparting training to RWA nominated electricians to avoid Earth Leakages (EL) related issues.

Source: Best Practices in Power Distribution, submitted To : DP&DD, Central Electricity Authority, by BSES Rajadhani, 2012





CRM Initiatives – BSES Rajadhani



Consumer Education - Generating Awareness on relevant points

- Energy Conservation Surveys
- Media Releases
- Energy calculator
- Earth Hour
- SYNERGY News letter for regularly sharing important information with all consumers

Source: Best Practices in Power Distribution, submitted To : DP&DD, Central Electricity Authority, by BSES Rajadhani, 2012





CRM Initiatives – Tata Power



Fully networked consumer care centers launched



Source : Tata Power





CRM Initiatives – Tata Power : SUGAM Experience



50 years since independence...

No power Distribution Utility thought about 100% transparency

2003...

NDPL became the First Power Utility in the country to provide On-line Information on Consumption, Billing & Payment to 100% consumers

Now through Website 100%

Consumers can:•

- View Bill
- View Consumption Graph
- Print Duplicate Bill
- Make payment





Some Bills - APCPDCL

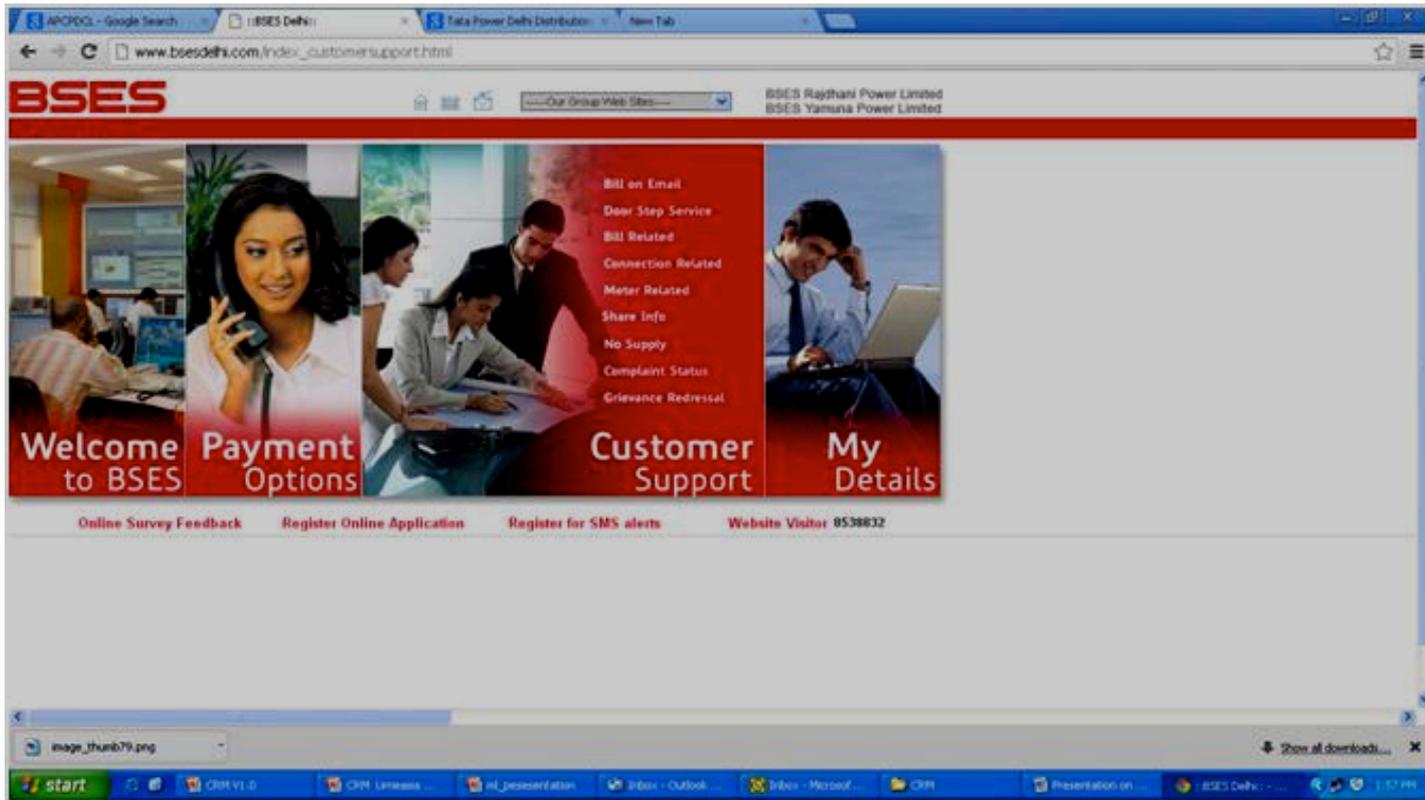


 APCPDCL ELECTRICITY BILL CUM NOTICE														
Electricity Revenue Office	BILL NO:002 DT:11-08-10 TIME:12:15	Bill Date												
Service Number	ERO NO: 009 NAME: A C GUARDS SEC NAME: A C GUARDS GRP:M													
Unique Service Number (USCNO)	SC NO: 00101 5456 USCNO: 100123458 AREA:100202	Area code												
Present Reading	NAME: D.V.V.SUBRAMANYAM KRISHNA ADDR: M/S. SHALINI ESTATES H.NO. 7-6-568/5/N/6/ , KRISHNA NAGAR, HYD CAT: 2 SC: 0 PH: 3 LOAD: 150.75 MF: 1000													
Previous Reading	<table border="1"> <thead> <tr> <th>READING</th> <th>MONTH</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td>PRES: 553240</td> <td>08/2010</td> <td>01</td> </tr> <tr> <td>PREV: 543210</td> <td>07/2010</td> <td>01</td> </tr> <tr> <td>UNITS: 10030</td> <td>AVG: 5631</td> <td></td> </tr> </tbody> </table>	READING	MONTH	STATUS	PRES: 553240	08/2010	01	PREV: 543210	07/2010	01	UNITS: 10030	AVG: 5631		
READING	MONTH	STATUS												
PRES: 553240	08/2010	01												
PREV: 543210	07/2010	01												
UNITS: 10030	AVG: 5631													
Electricity Duty	ENERGY CHARGES : 56321.00													
Electricity Duty Interest	CUST. CHARGES : 20.00													
Additional Charges	ED : 34.00													
Interest on ACD	ED INTEREST : 21.25													
	ADDL. CHARGES : 530.30													
	INT. ON ACD : 6.00													
Adjustment Amount	BILL AMOUNT : 56962.55													
	ADJ. AMOUNT : 0.00													
	LOSS / GAIN : 0.45													
	NET AMOUNT : 56963.00													
	ARREARS UPTO 31-03-10 : 452.00													
	ARREARS FROM 01-04-10 : 1000.00													
Additional Consumption	TOTAL AMOUNT : 58415.00													
Deposit	ACD DUE : 2000.00													
	AGL SERVICES DUES													
	1. 1004 56321 : 256.00													
	2. 1006 56333 : 152.00													
	3. 1005 53520 : 95.45													
Total Bill Amount	TOTAL AMOUNT DUE: 60918.45													
	DUE FOR PAYMENT : 26-08-2010													
	DUE FOR DISCONNECTION: 03-09-2010													
	LAST PAID DATE : 29-08-2010													
	AAO CELL NO : 9440813696													
	ADE CELL NO : 9440813696													
	STRUCTURE CODE : 1506090832													
	NOTE : PAYMENT AFTER DUE DATE ATTRACTS SURCHARGE & DISCONNECTION E&OE AAO/ERO													





BSES -Delhi





Tata Power Delhi Distribution Company Limited



NDPL - Google Search | APCDCL | Tata Power Delhi Distribution | Consumer Services | New Tab

www.ndpl.com/Display-Content.aspx?RefTypes=1&RefIds=641&page=Consumer%20Services

Consumer Services

- Consumer Services
 - Regulations
 - Energy Conservation
 - Sustainability
 - Careers
 - Contact Us
 - Media Room
 - Training and Development
 - Vendors / Tenders
 - Geographic Information System
 - Report Safety Hazards
 - Report Unethical Incident

Calculate Your Carbon Footprint
Click Here

DEMAND SIDE MANAGEMENT

Duplicate Bill Demand Note Bill Payment

Connection Related Services

- New Connection → apply → status
- Load/Category/Name Change → apply
- Click here for your Queries

Value Added Services

- SMS & Email Alerts
- Print Duplicate Bill
- Power on Finger Tips

Download Forms & Formats

- New Connection
- Attribute Change(Name/Load/Category)
- Indemnity bond- Name change
- Installation Test Notice
- Meter testing Report
- ECS Registration
- Advance Payment

Complaint

- Complaint Registration & Complaint Status
- Grievance Escalation

Knowledge Sharing

- Frequently Asked Questions (FAQ's) (Download File Type : .pdf, Size:1 MB)
- Tips for No Supply Situations
- Tariff Details
- Know Your Meter
- Know Your Bill
- Internal Wiring
- Calculate your Energy Consumption
- Safety
- Energy Conversation Technique
- Climate
- Ethics

What's New

- Shortage Surplus Power available with TPDDL

more →

Awards & Recognitions

Helpline Numbers

Register Your Mobile / E-mail

Associated Sites

Scheduled Outages

www.tatapower-ddl.com/UploadedDocuments/Attribute Change Form 052010.pdf

image_thumb79.png

Show all downloads...

start | CRM V1.0 | CRM Linnea... | ml_presentation | Inbox - Outlook... | Inbox - Microsof... | CRM | Presentation on... | Consumer Servi... | 2:00 PM





APCPDCL



The screenshot shows a web browser window with the following details:

- Browser Tabs:** NDPL - Google Search, APCPDCL - Billing Information, Tata Power Delhi Distribution, Consumer Services, New Tab.
- Address Bar:** www.apcentralpower.com/Billinginfo/Billinginfo.jsp
- Website Header:** Central Power Distribution Company of AP Limited. Navigation links: Home | About Us | Site Map | Contact.
- Menu:** Tariffs & Regulations, Tenders, Services, News Gallery, Careers, Company Information, Downloads, About Us, Contact Us.
- News:** 2. Prajavani Programme is Conducted on First Monday of Everymonth at Contd...
- Left Sidebar:** Home, Announcements, Suppliers Payment Status, Online Services, Status On CSC Registration, Circulars, Downloads, Power Projects in AP, Photo Gallery, Related Links.
- Main Content:** Billing Information
 - Online Bill Enquiry
 - Bill Description
 - Pay Your Bill
 - Bill and Payment History
 - HT Bill Enquiry
- Taskbar:** Windows Start button, various application icons (CRM, Outlook, etc.), and system clock showing 2:01 PM.





ICT Opportunities



1. Basic groundwork has already been done
2. Government support through EA 2003 and various regulations
3. Need enhancements in
 - I. CRM – Interfaces with
 - i. GIS
 - ii. AMR/SPOT Billing
 - iii. Website
 - iv. Payment gateways
 - v. Prepaid servers
 - vi. IVRS
 - vii. OMS etc





ICT Opportunities



4. Major Process improvements in electricity distribution management (MIS, SAP etc)
5. Robust Customer Portal Development (Interactive)
 - i. Customer Queries and Notifications (New Conn., Load/Category/ Name Change, Reading, Billing & payment Queries)
 - ii. Change Billing address, Phone nos., email
 - iii. Activate/Deactivate Paper Bill, Email, SMS Alerts
 - iv. Check reading, Billing and Payment history
 - v. Duplicate Bill & Demand Note
 - vi. Bill Payment





ICT Opportunities



6. Customer Information System

Customer Factsheet (Reading, Billing, Payment, Notification, Disconnection, Enforcement & legal Details)

Customer Search (Account no, ID proof, DOB, Phone, email, name, address)

Notification Creation and follow up

Outbound calling (resolution, follow up and recovery calls)

Spot Resolution (Bill of email, On demand Bill, due date revision, reading correction)





ICT Opportunities



7. SMS Gateway

Notification creation intimation

Customer visit Intimation

Customer Feedback

Resolution/Cancellation Intimation

Bill and payment Intimation

Planned and Unplanned outage Intimation

SMS based Escalations





Research Issues



1. Questionnaire
 1. Categorisation of issues – pertinent to (a) utility (b) customer (c) both
 2. Ease of (a) understanding the question (b) response
 3. Language used
2. Methodology
 1. Definition of sample – how to define BoP and micro entrepreneurs in the context of electricity consumers
 2. Corresponding billing to sample
 3. Sample size
 4. Need to cover a consumers over a cross section of private and government owned utilities



Thank You

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Road-map: 12th Five Year Plan (2012-17)





Road-map: 12th Five Year Plan (2012-17)



Targets/Goals	Solutions/Projects	Cost (Rs Cr)	Remarks
1. Access to "Electricity for All"	<ul style="list-style-type: none"> Successful completion of RGGVY and ensuring its sustainability through innovative schemes 	-	RGGYY Estimate
	<ul style="list-style-type: none"> Micro grids – isolated and connected with main grids: 		
	Rural Micro-Grids (<100 kW): 1000 no		Under RGGVY
	Medium (500kW to 2 MW): 500 no		
	Large (>5 MW): 100 no		
2. Reduction of transmission losses (>66 kV) to below 3%	<ul style="list-style-type: none"> Reconductoring of old lines 		To be funded under Transmission Development Schemes
	<ul style="list-style-type: none"> Dynamic line ratings 		
	<ul style="list-style-type: none"> Wide area monitoring (PMU in all s/stns >110 kV): 3500 points including grid connected renewables 		





Road-map: 12th Five Year Plan (2012-17)



Targets/ Goals	Solutions/Projects	Cost (Rs Cr)	Remarks
3. Reduction of AT&C losses in all Distributio n Utilities to below 15%	Successful completion of R-ADPDRP (1401 towns); and its extension to smaller towns: Per 2011 Census there are 7935 towns of which 1401 have been covered under R-APDRP. Balance 6534 towns are to be covered under 12th and 13th Five Year Plans. 3250 have been proposed for 12th Plan		Rs xxxx Cr under Part-B for loss reduction
	Condition Monitoring and Energy Auditing & Accounting in real time - each consumption point mapped to a meter and a network asset and bulk supply point. This includes full DT Metering , IP Metering and pre-payment Smart meters for temporary connections. 1.5 million DTs (33% of total) proposed in 12 th Plan		Energy audit as well as condition monitoring of DTs
	Network Planning Tools: 63 Discoms		
	Integration of R-APDRP systems with ERP systems, in particular Finance and HR		
	DT condition based monitoring and control		
	Appropriate solution for Irrigation Pumpset (IP) metering and remote management		to discuss with MoP and Utilities
	National Power MIS Centre at MoP - Aggregation of Power System Data (operational & asset) at national level for better planning and monitoring		





Road-map: 12th Five Year Plan (2012-17)



Targets/Goals	Solutions/Projects	Cost (Rs Cr)	Remarks
4. Reduction in Power Cuts	Demand Response for peak load management in all Utilities - target: 5% of peak load		6000 MW - 3hrs/day x 300 days
	AMI for all customers with loads >20 kW (4 million consumers)		
	SCADA/DMS for additional Towns: 572		There are 642 Districts and 70 towns have been covered under R-APDRP; SCADA/DMS may be implemented in balance 572 district HQs
	Automatic re-closers		Rs xx Cr - to be covered under Part-B





Road-map: 12th Five Year Plan (2012-17)



Targets / Goals	Solutions/Projects	Cost (Rs Cr)	Remarks
5. Improvement in Power Quality and Reliability	Substation Automation and modernization: all 110/132 33 kV and above (GIS where ever feasible; new breakers, numerical relays, bay controllers and transformer monitors)	-	To be covered under Part B (approx: Rs. xxx Cr)
	Fiber connectivity for all substations 33kV and above – fiber network connecting 250K Panchayats to be leveraged		
	Improvement in HT:LT ratio, Volt-Var Compensation systems and other KPIs	-	Part B of RAPDRP
	Smart or Smart Ready Meters for all new connections	-	





Road-map: 12th Five Year Plan (2012-17)



Targets/Goals	Solutions/Projects	Cost
6. ToU Tariff	Appropriate regulation for implementation of ToU Tariff for all categories of consumers	-
7. Renewables Integration	Systems for load forecasting and generation forecasting	-
8. Energy Efficiency improvements	Mandatory BMS for commercial buildings and industrial units with loads >300 kW and its integration with DMS	-
	All consumers above 20 kW to evaluate Energy Efficiency	-
9. Standards for Smart Appliances – energy efficient and DR ready	Standards for Smart Appliances – DR ready	-





Road-map: 12th Five Year Plan (2012-17)



Targets/Goals	Solutions/Projects	Cost
10. Strengthening of EHV System	<ul style="list-style-type: none">•Stable backbone of 765 kV system in operation•Enhancement of inter-regional power transfer capacity•Expansion of HVDC system•FACTS, SVC etc	-
11. Efficient Power Exchanges	<ul style="list-style-type: none">•Remote Metering Systems for all feeders at transmission level enabling same-day settlement at power exchanges	-
12. Training and Capacity building in Utilities and in the Industry to build, operate and maintain SG systems and applications	<ul style="list-style-type: none">•Smart Grid focused courses in IITs/IIITs and other Engineering Colleges•Training and skill development programs at Utilities and Institutions in collaboration with CPRI, CBIP, NSDC and institutions from overseas	-





Road-map: 12th Five Year Plan (2012-17)



Targets/Goals	Solutions/Projects	Cost
13. Consumer Participation	Consultation and involvement of consumers in SG initiatives	-
14. Research & Development	Fundamental and Applied Research, Technology Absorption and Diffusion; and Tecchnopreneurship	-
15. Safety	Safety of workers, consumers, public., domestic animals and wild life	-
16. Sustainability Initiatives	End of life processing facilities for SF6 and CFLs	-
	Life-cycle analysis of electrical equipment	-
	Promotion of CHP projects	-





Road-map: 13th Five Year Plan (2017-22)



Targets/Goals	Solutions/Projects
<ol style="list-style-type: none">1. Reduction of T&D losses to below 12% in all Utilities2. Improvement in Power Quality3. End of Power Cuts4. Efficient forecasting and dispatching of Renewables5. Standards Development - standards for EVs and Smart Infrastructure (SEZ, Buildings, Roads/Bridges, Parking lots, Malls etc)6. UHV and EHV Strengthening7. Research & Developments8. Export of SG products, solutions and services to overseas9. Training & Capacity Building10. Consumer Participation11. Sustainability Initiatives12. Safety	<ol style="list-style-type: none">1. a) R-ADPDRP Solutions to be rolled out utility-wide, b) transmission losses below 2% in all state Transcos through upgradation and modernization of lines and substations2. a) Modernization of all substations 33 kV and above (GIS where ever feasible), b) improvements in HT:LT ratio, VVC and other KPIs, c) all power transformers (11 kV & above) and all DTs are monitored, d) SCADA/DMS for all towns with annual energy consumption > 50 MU (or >25 K population), e) Inter-connection of isolated micro-grids with National Grid where ever feasible3. a) DR mandatory for all loads >20 kW, b) Substation Automation, c) AMI for all customers with loads >10 kW, d) Outage Management Systems and Mobile Crew Management Systems , e) Smart Meters for all connections >3 kW, f) Utility wide SG Roll outs in select utilities – metros, state capitals and large urban areas4. Systems for load forecasting and generation forecasting integrated with weather forecasting5. a) Standards and Infra for EV charging stations and intelligent systems to manage EVs on the grid, b) smart buildings (loads >100 kW) integration with DMS, c) Mandatory standards for appliances (DR readiness), d) inter-operability & cyber security, e) Real-time price signals and choice of tariff plans for select categories of customers6. a) 1200kV systems in operation, b) Expansion of 765 kV and HVDC systems7. Efforts augmented, assets harvested, patents obtained8. Export targets to be fixed based on the progress made in 12th Plan9. Training & Capacity building efforts augmented10. Consumer participation efforts augmented11. Sustainability initiatives augmented12. Safety drives augmented

