Fist Annual Meeting of CAREC Members Electricity Regulators Forum (CMERF)

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by

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Meralco, Philippines

- Meralco Franchise
- Distribution Systems Losses
  - Historical Performance
  - Strategies
- Meter Reading
  - Process Objectives
  - Critical Parameters
- Billing
  - Process Objectives
  - Process Control/Rule
- Payments
  - Process Objectives
- Relevant Laws & Regulations

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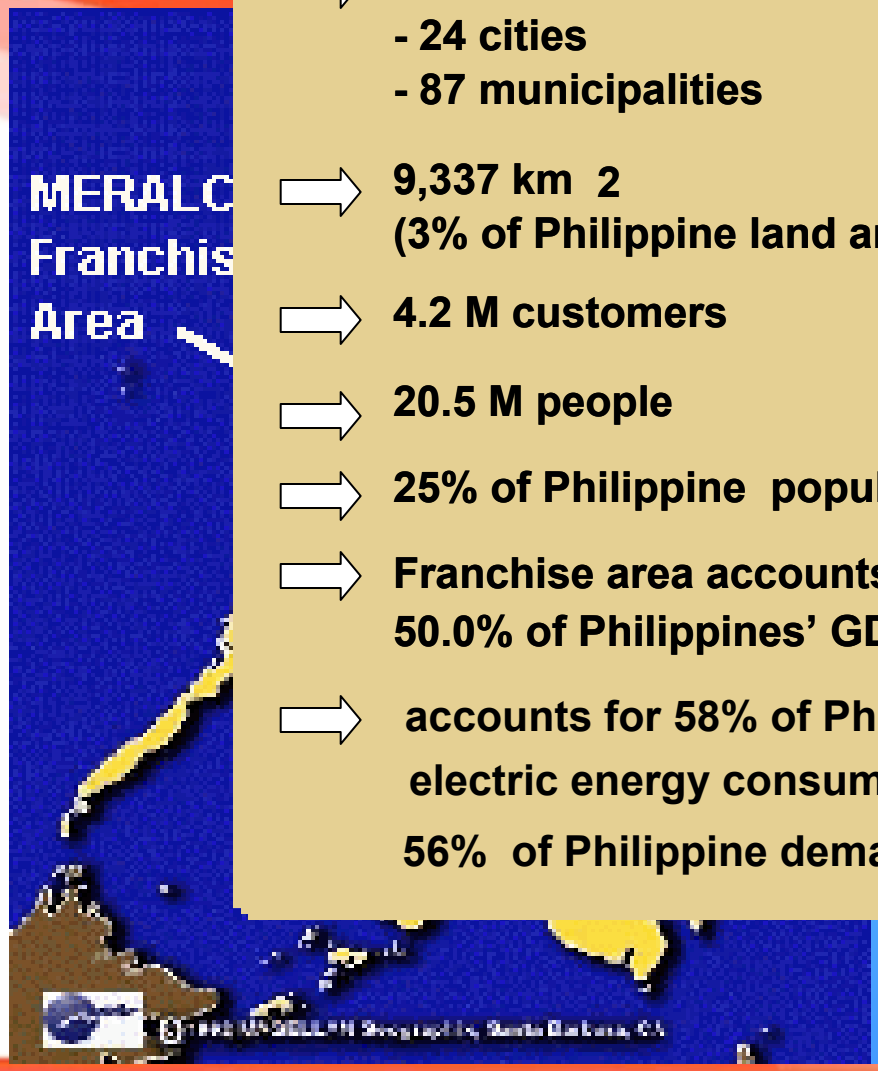
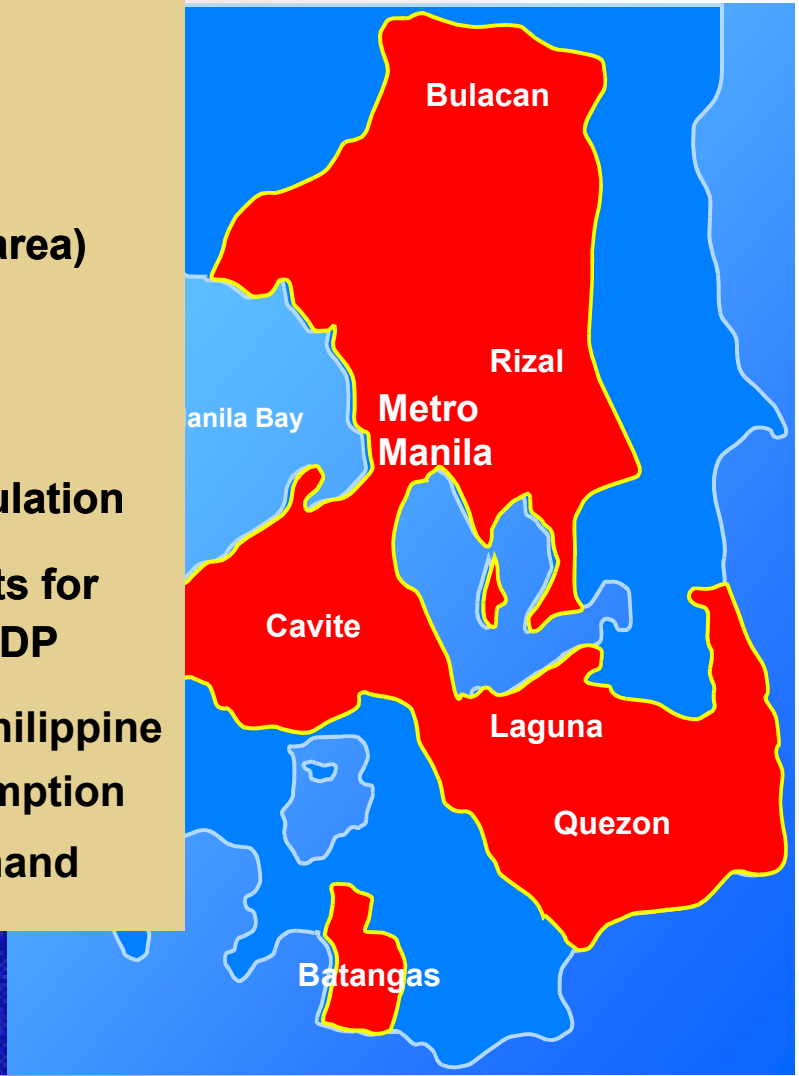
Meralco Franchise

- **Comprised of :**
  - **24 cities**
  - **87 municipalities**
- **9,337 km 2**
  (3% of Philippine land area)
- **4.2 M customers**
- **20.5 M people**
- **25% of Philippine population**
- **Franchise area accounts for 50.0% of Philippines' GDP**
- **accounts for 58% of Philippine electric energy consumption**
- **56% of Philippine demand**





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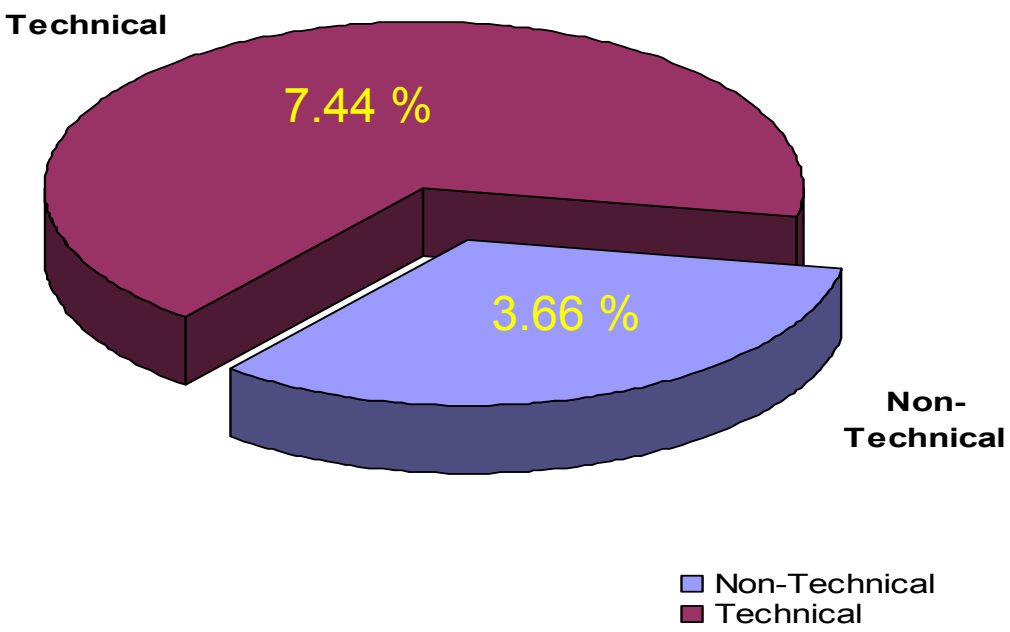
Distribution System Loss

2004 System Loss = **11.10%**

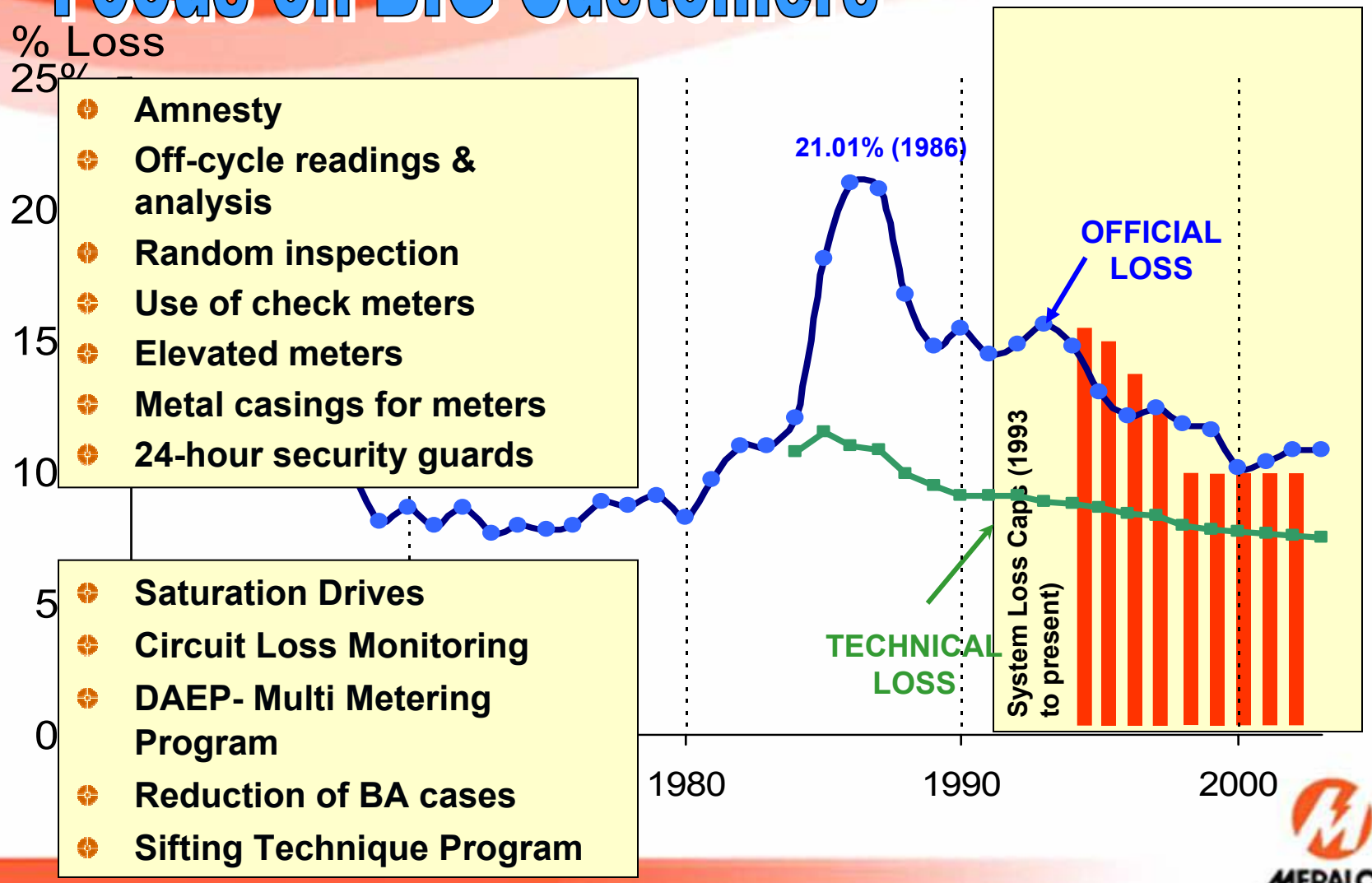


Technical Loss. The component of Distribution System Losses that are inherent in the physical delivery of electric energy such as conductor losses and transformer losses.

Non-Technical Loss. It includes the electric energy lost due to pilferages, meter tampering, and erroneous meter reading and/or billing

Historical Performance

Focus on BIG Customers



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Strategies

Detection

- Off Cycle Reading (Small IS and NIS)
- Concentrate on High Loss Circuits

Apprehension

- Relentless Saturation of ISC Colonies by Sector
- Saturation of High Loss Circuits

Deterrence

- Reconstruction/Relocation to secure metering facilities
- Legalization of ISC Colonies
- Community-based LT Solutions

Monitoring

- Technical Loss: DT Metering
- Accuracy of SBU Data

Recoveries

- VOC/ISC Collection

Losses in Depressed Areas

- Depressed Area Electrification Program was launched in 1994
- 100,604 households in slum areas with illegal service connections
- largest numbers of ISC Colonies were identified and found in Manila, Malabon and Las Piñas.
- Estimated monthly losses in 2004 was 8.8 Gwh/mo or Php 53 million/mo

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Key Factors

- Support from local officials through MOA
- Certificate of Electrical Inspection (CEI) was facilitated by the city government
- Local Area officials helped in the handling of delinquent accounts and reporting of illegal connections
- Collaboration of Local Government and Meralco in the design and financing of load-side wiring
- Local Area officials help conduct information campaign in applying for legal electric service
- Partnership with government institutions and NGOs to create community-based long-term solutions (e.g. livelihood)
- Local PNP to provide police assistance in apprehension

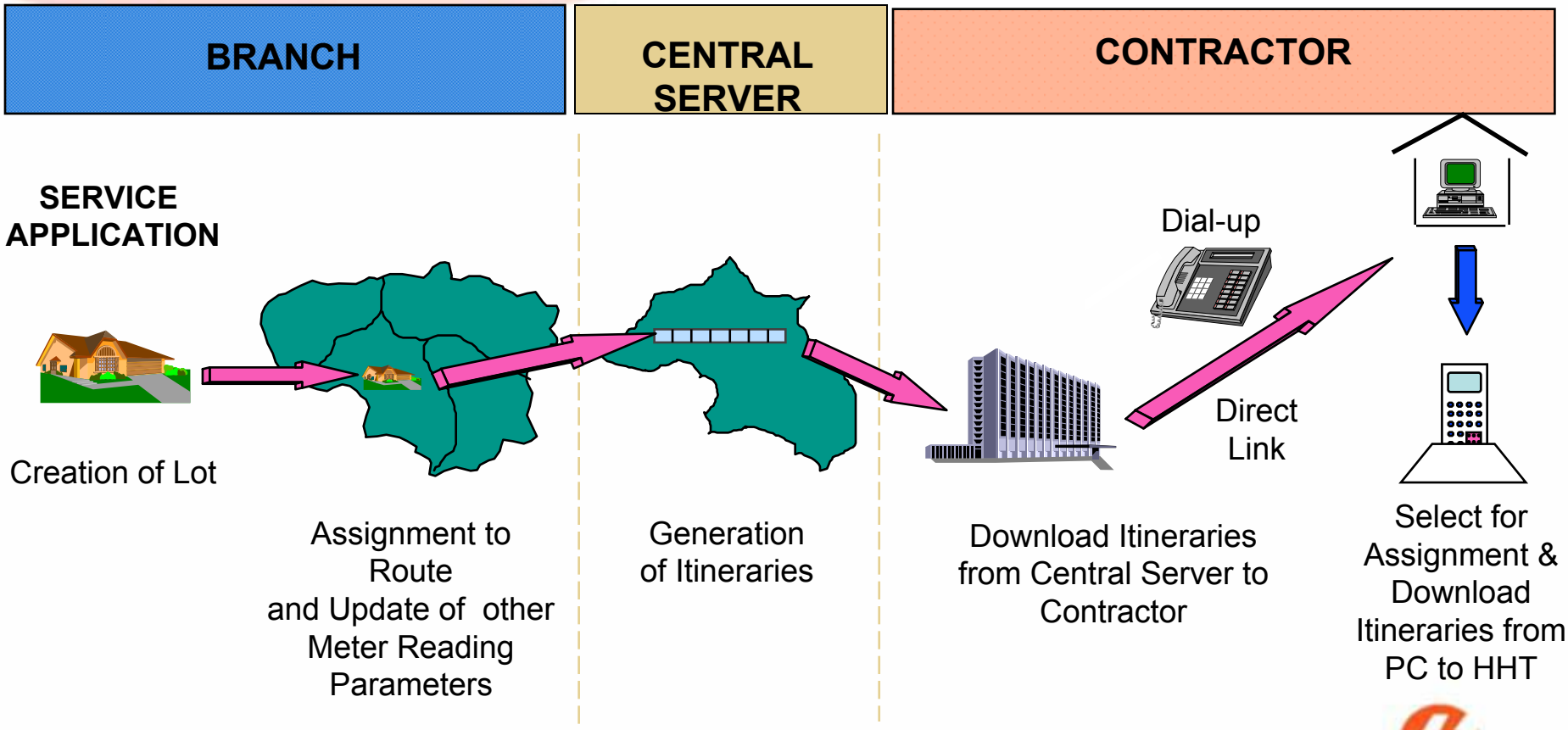
Meter Reading

PROCESS OBJECTIVES

1. To provide timely and accurate meter reading

2. Regularity of customers' billing

Meter Reading Process

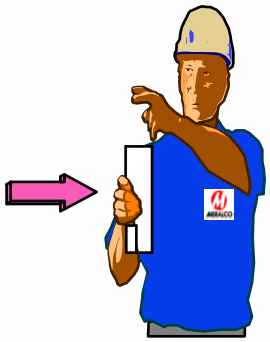


Meter Reading (continued)

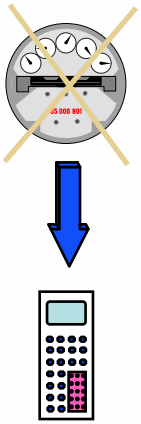
CONTRACTOR

CENTRAL SERVER

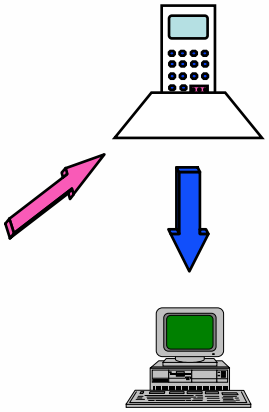
Assign to reader



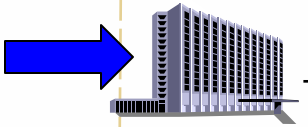
Read meter



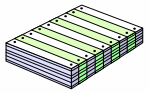
Enter readings, field findings and remarks



Upload from HHT to PC



Interface w/ billing



Reports

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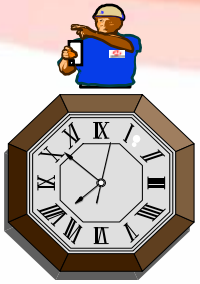
Critical Parameters



Difficulty level - the sum of time from the reading center to the first lot, to move from one lot to another until all lots assigned in the route are visited.

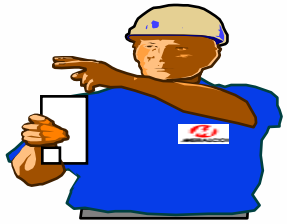
Meter Reading time in the lot - the time it takes to read all the meters in a lot. It is the summation of the standard times set to read the the different types of meters.

Travel Time from Previous Lot - the time it takes to move from one lot to another

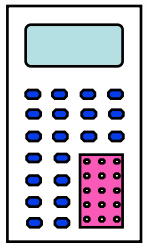
Travel Time from the Reading Center - the time it takes to move from the reading center to the lot.

Resource Parameters

Working Days - the days allowed for meter readers to perform their assigned task. This must be defined in the system for correct scheduling of work.



Meter Readers - Residential and small IS/NIS services are read by accredited contractors while medium and large IS/NIS services are read by Meralco readers.



HHT - the electronic hand-held device used by the meter reader to store reading data and field findings. The number of available rovers must always be updated for correct management of itineraries.

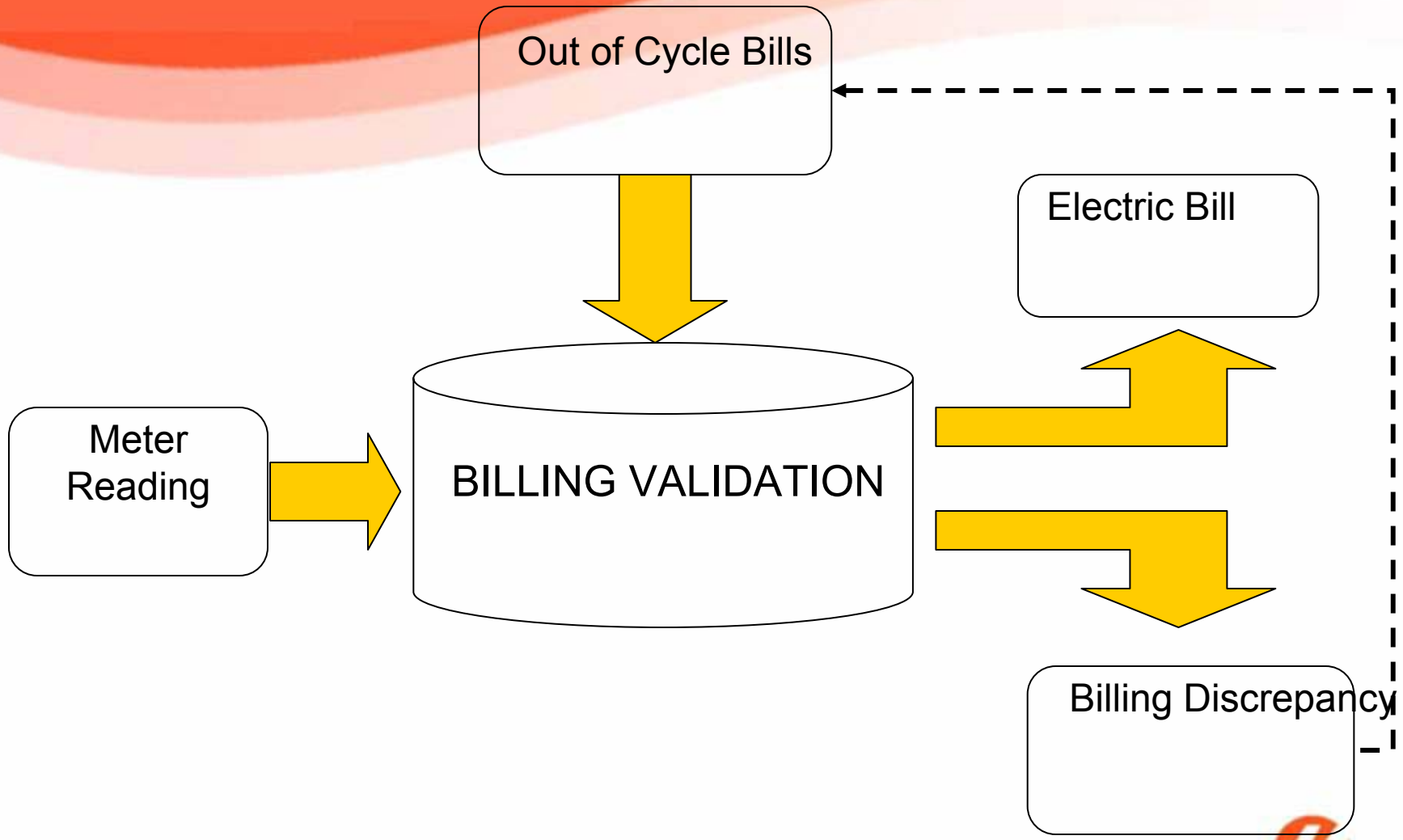
Billing Process Objectives

- To provide accurate and timely bills for all services (released and delivered according to the schedule of the billing cycle, 28-31 days)
- To ensure timely resolution of all billing discrepancies

Manner of Deriving Consumption

- Reading based
  - billing is based on actual meter registration
- Estimate Billing
  - billing computation is based on the similar period using the historical billing data
- Proportionate Billing
  - actual consumption of a portion of the period is applied to the whole period
- Fixed Rate
  - for non-metered services; bill based on a fixed rate

Billing Process Flow



Billing Process Controls

- Billing Validation
  - the system process where all services due for billing pass through an acceptance criteria using validation parameters. This determines the billing or non-billing of a service for the period
- Billing Discrepancy Resolution
  - Services which failed the validation process must be examined and resolved
  - Out- of-Limits, 2nd Consecutive Estimation, meter not consistent with complements

Payment Process Objectives

- To provide informative billing statements and deliver them on time
- To provide all possible payment options that are most convenient
- To ensure bills are collected within financial schedule and quantity standards
- To ensure payments are accurately and duly accounted for and remitted on time
- To provide an effective system for managing & controlling unpaid accounts

Payment Process

DELIVERY OF BILLS


To all customers


To banks/ CC companies (ADA, CC)

MANAGEMENT OF UNPAID BILLS

Sending of disconnection notices on time

Strict execution of disconnection

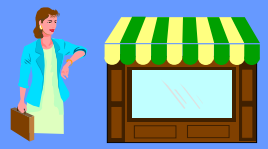
PAYMENTS MANAGEMENT

AUTOMATIC PAYMENT OPTIONS

ADA / CC

NON AUTOMATIC PAYMENTS OPTIONS

ATM



Meralco Offices
Bank (OTC)
Establishments

Teller phone

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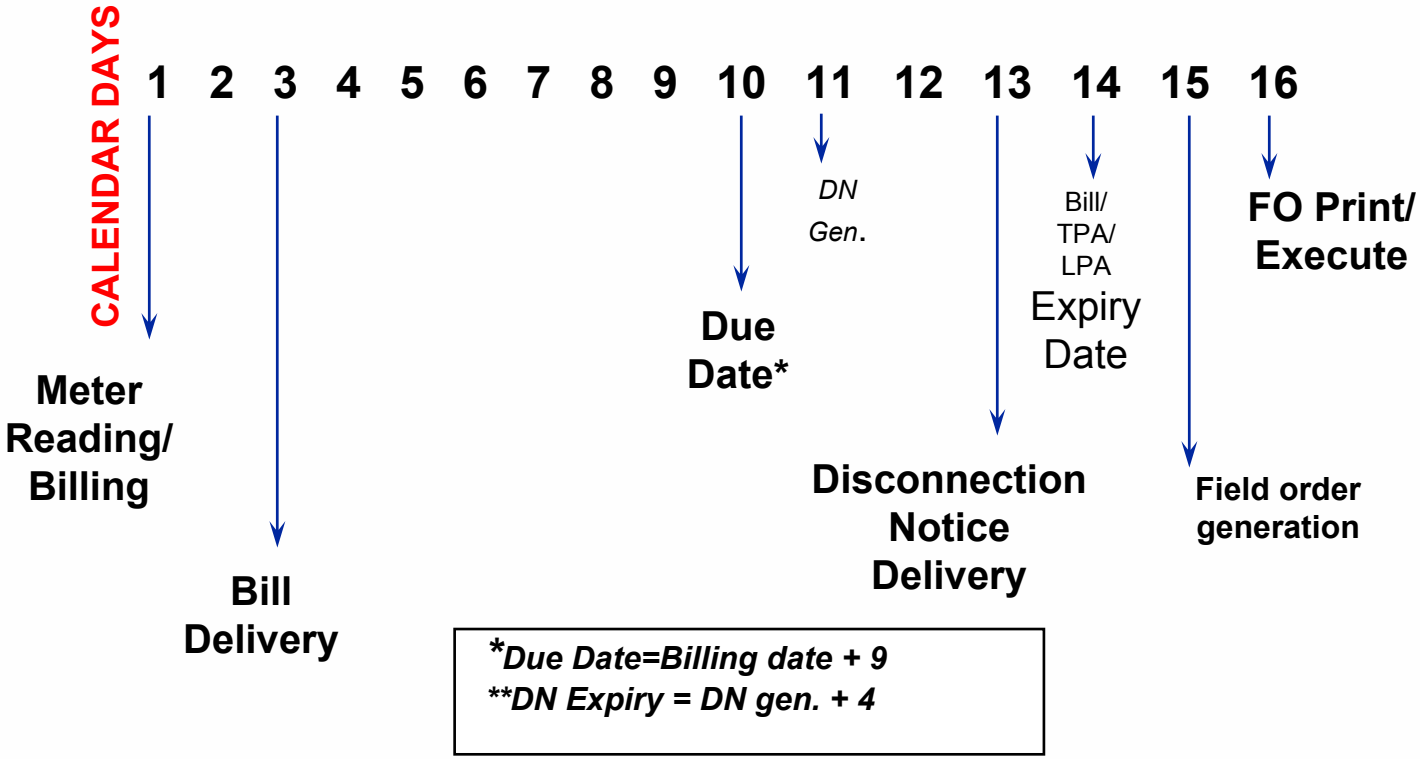
Payment Schedule

BILLING to DISCONNECTION



Vital Account Data

DISCONNECTION INDICATOR

- Whether or not subject to the automatic disconnection process

CREDIT RATING

- Delinquency history (e.g. history of DNs & Disconnections, including DN deferment due to credit rating & amount validation)
- Affected by returned checks

REPUBLIC ACT No. 7832

This Act is known as the "Anti-electricity and Electric Transmission Lines/Materials Pilferage Act of 1994."

The Law provides for:

- **Penalizing the pilferage of electricity and theft of electric power transmission materials**
- **Specifies prima facie evidence and the manner/basis of computation of differential bill, surcharge bill, other penalties**
- **Rationalizes system losses by phasing out pilferage losses through introduction of caps**

EPIRA Law

The Electric Power Industry Reform Act of 2001

(EPIRA law) provides for:

1. The restructuring of the electricity industry
   - separation of components the power sector: generation, transmission, distribution and supply.
2. Privatization of the National Power Corporation (NPC)
   - sale of the state-owned power firm's generation and transmission assets to private investors.

Objective of two reforms:

- Encourage greater competition
- Attract more private-sector investments in the power industry
- More competitive power industry will in turn result in lower power rates
- More efficient delivery of electricity supply to end-users

MAGNA CARTA

for Residential Electricity Consumers

CONSUMER RIGHTS

- Article 6: Electric Service
- Article 7: Refund of Bill Deposits
- Article 8: Exemption from Meter Deposit Pymt
- Article 9: Accurate Watthour Meter: Determination of Ave Error
- Article 10: Refund of Overbillings
- Article 11: Properly Installed Meter
- Article 12: Meter Testing by DU/ERC
- Article 13: Prompt Investigation of Complaints
- Article 14: Extension of Lines & Facilities
- Article 15: Interruption Info
- Article 16: Transparent Billing
- Article 17: Monthly Electric Bill
- Article 18: Due Process Prior to Disconnection
- Article 19: Notification Prior to Disconnection
- Article 20: Suspension of Disconnection
- Article 21: Tender of Payment at Point of Disconnection
- Article 22: Electric Service Despite Arrearages of Previous Tenant
- Article 23: Reconnection of Electric Service
- Article 24: Witness Apprehension
- Article 25: ERC Testing of Apprehended Meter
- Article 26: Payment Under Protest
- Article 27: File Complaints before ERC

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MAGNA CARTA

for Residential Electricity Consumers

CONSUMER OBLIGATIONS

Article 28: Pay Bill Deposit	Article 32: Pay Monthly Bills
Article 29: Allow Inspection, Installation and Removal of Electricity Apparatus	Article 33: Pay Billing Art.
Article 30: Allow Construction of Poles, Lines & Circuits	Article 34: Not to Commit Illegal Use of Electricity
Article 31: Receive Monthly Bills	Article 35: Pay Differential Billing

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Thank you and
God bless

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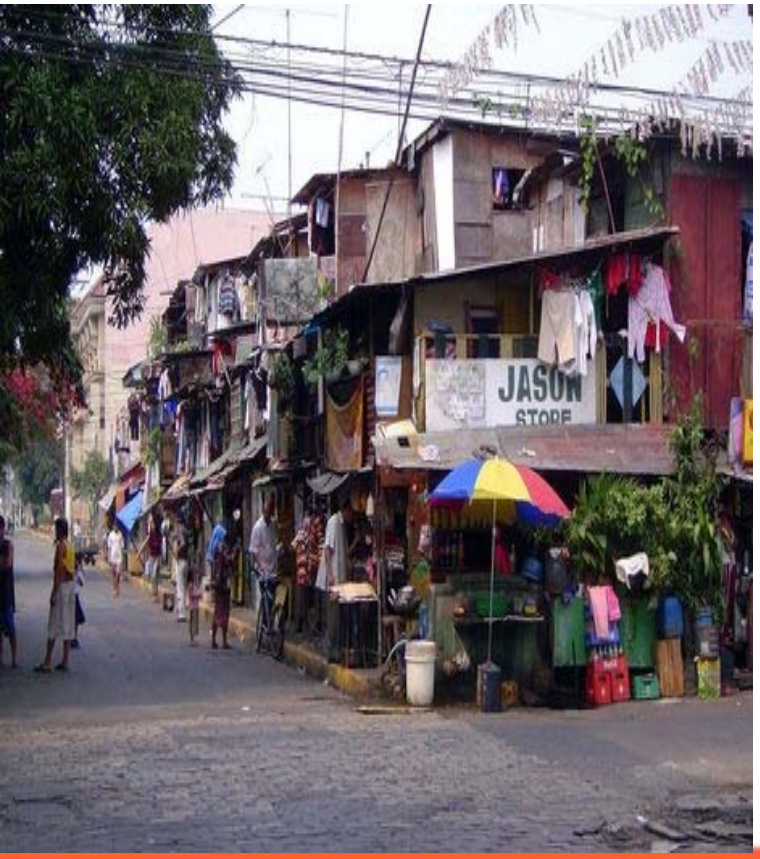
Previous Initiatives

DAEP (Depressed Area Electrification Program) was launched in 1994



- A soft loan was granted by OECF to finance electrification in depressed areas
- One of the main objectives of DAEP was to reduce system loss by legalizing electric services of pilferers
- Around 100,000 services were legalized and additional of 484,000 families were provided with electric service