#### REVENUE PROTECTION INITIATIVES IN NIGERIA



# PLUG THE BLEEDING PROJECT

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#### **OVERVIEW**

- Introduction
  - PHED challenges/commitment
  - Solution road map
- Plug the bleeding initiatives
- Results
- Field operation issues and challenges
- Project achievement at a glance
- Training
- Lessons learned
- Way forward(conclusion)



#### INTRODUCTION

The Nigerian Electricity Utilities currently face a daunting task to reduce commercial losses averaging 45% in the 11 privatized Distribution Companies within a period of only 5 years.

This presentation is focused on the proactive steps taken by PHED's Revenue Protection with regard to making this a reality.



## The Eleven Electricity Distribution Companies in Nigeria

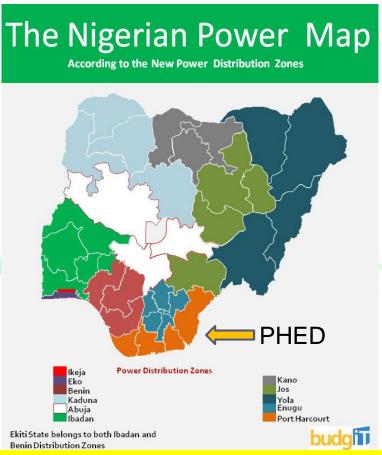
Abuja Electricity Distribution Company

Kaduna Electricity Distribution Company

**Benin** Electricity Distribution Company

**Enugu** Electricity Distribution Company

**Ibadan** Electricity Distribution Company



Jos Electricity Distribution Company

**Eko** Electricity Distribution Company

Kano Electricity Distribution Company

Yola Electricity Distribution Company

Ikeja Electricity Distribution Company

Port Harcourt Electricity Distribution Company estimated at a land area of 39,206.25sq.km,





## **Challenges of PHED**

- Poor billing efficiency due to energy theft
- Collection loss of over 55%
- Aggregate technical and commercial loss of 0ver 60%
- Grid energy insufficiency and instability
- Network infrastructure challenges (overloaded transformers and feeders, obsolete equipment, limited network etc)
- Metering challenges (huge metering gap, estimated billing, poor meter maintenance, etc.)
- Operational challenges (long feeders, quality of workforce, large operational areas, etc.)
- Funding challenges (absence of long term "patient" capital (equity/debt) to fund CAPEX investment, high cost of borrowing, poor credit history etc

#### **Commitment of PHED**

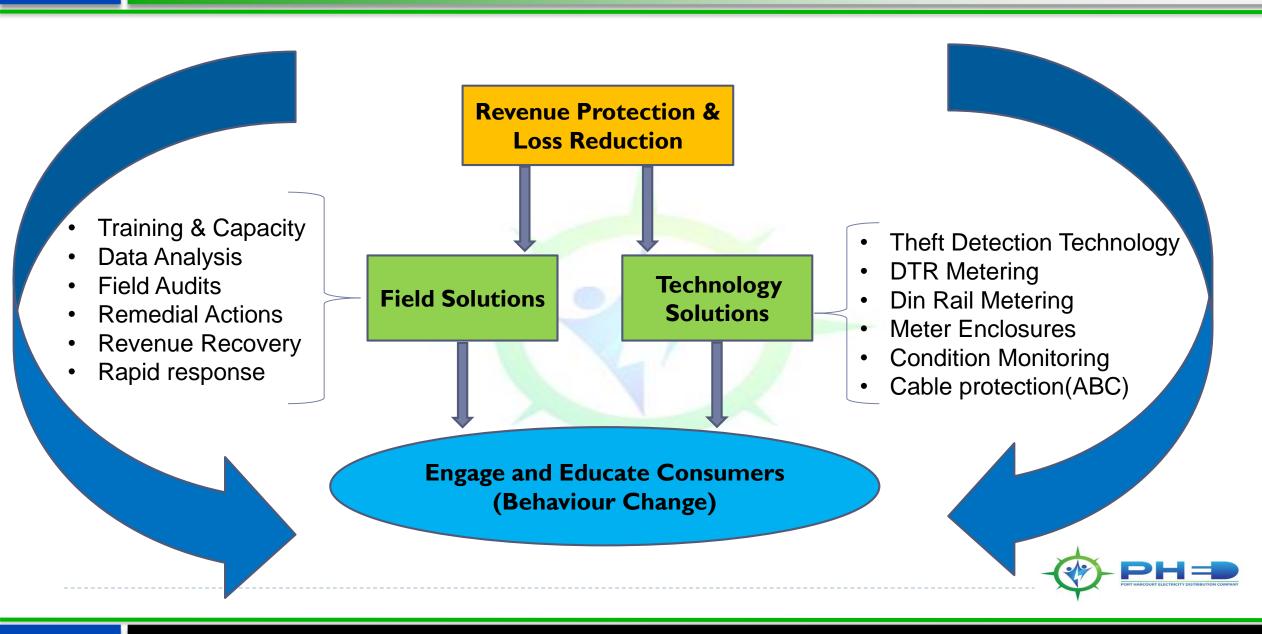
- > Make the necessary capital investments in network improvement
- > Invest in metering infrastructure to address these losses
- > Optimize the operations within her network.

This promise was captured in a Performance Agreement with the BPE.

However

PHED would loose her investment and be given only **one dollar** as compensation, from the government, if it fails to achieve the ATC & C reduction rate or percentage over a five year period, as promised.

## **Pathway to Success**





#### PROPOSED STRUCTURE FOR REVENUE PROTECTION

Team Composition			1	Head, Revenue			Team Composition					
MD Non-MD		Protection				HQ Admin		Field Services		5		
Engineer/Te chnician	1 IBC Lead Team Co-ord.	1				(1)		Managemer	nt	4 Non MD		58
Assistant	1 Technician	2						Support Services		10 MD		8
Technician	T recimician					457				Technica	l team	2
	Auditors	2				A.			l			82
Data Capture	er	1						Total				
Co-coordinator, C (Non-MD (1)		•		Le  •HQ Technic  •Data Analy  •Data Capto  •Investigati  •Admin Offi	ırer (1) on Officers (2	2)	Co	Oper	nator, MD rations (1)			
IBC Non-MD Field Operation (6 staff Per IBC)x 10 IBCs					HQ/P 3 MD Te (2 per team)	eams		(2 pei	Calabar 1 MD Team r Team) for			

#### **COMMON TERMINOLOGY**

#### 1) Recertification

To renew the certification of a measuring device / installation / process – this refers especially to certification given by a licensing board.

#### 2) Inactive meters

Meters installed at a customers premises according to the data system, but for one or other reason is not been utilized to provide accurate meter readings

#### 3) Revenue Recovery

The process of investigating the reasons for losses and dealing with issues in a progressive way to find solutions, determine payback and legal closure



#### INITIATIVES

#### 1) PPM Audit project (8490)

- Zero vending and target audits.
- Focus on different findings and addressing all the known issues

#### 2) MD Recertification project (400)

- Audit all installations
- Target repairs / meter replacement actions as soon as possible

#### 3) Inactive MD meters (352)

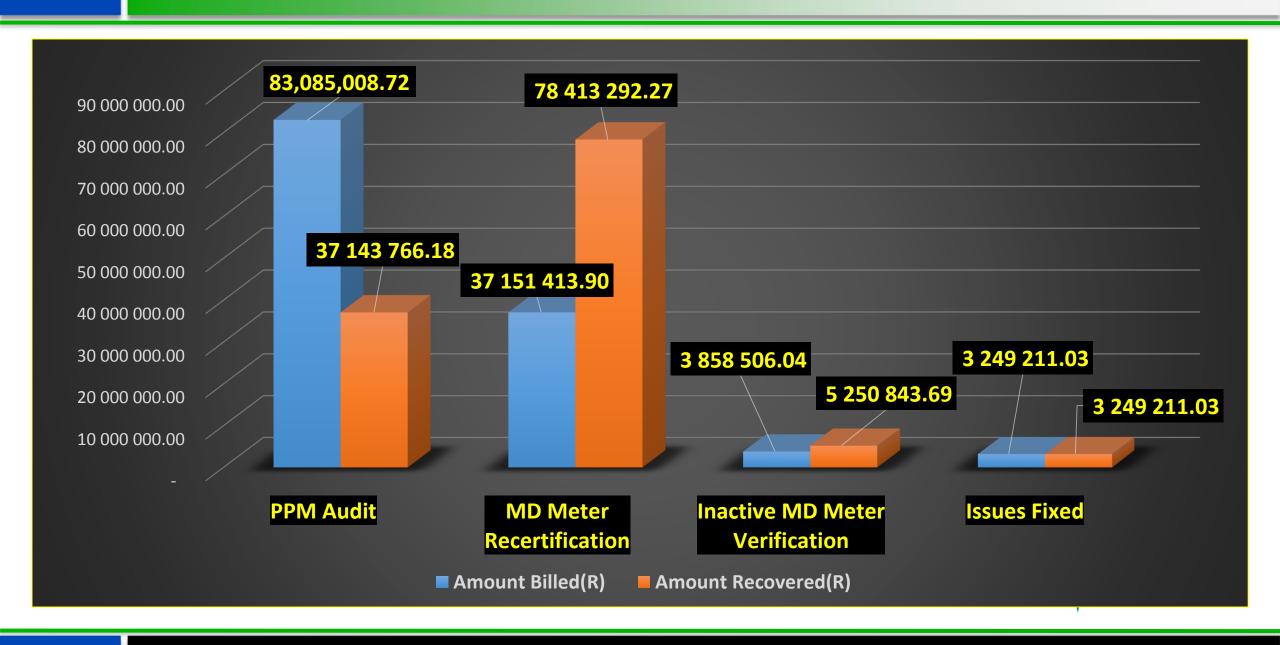
- Audit all installations
- Cleaning the data to identify outstanding issues and installations
- Focus on findings and bring customers back on the system

#### 4) Revenue Recovery / Investigation of incidents

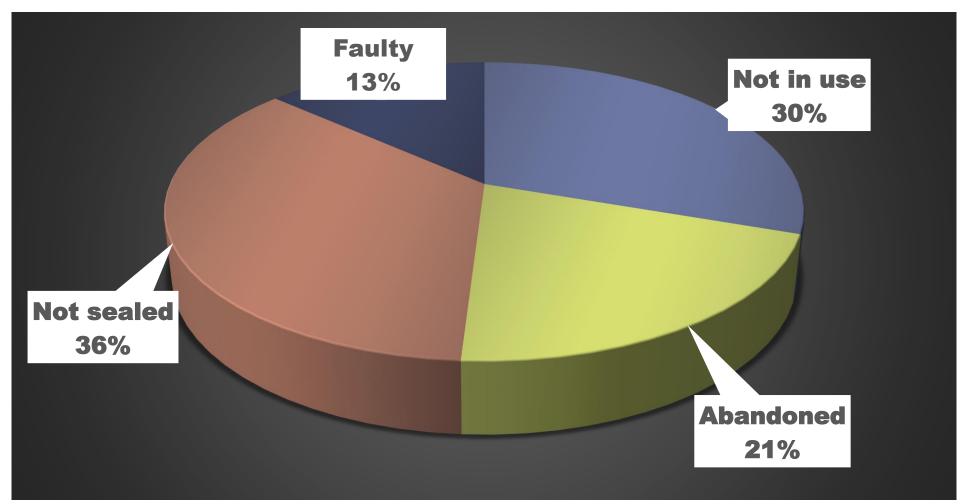
- Performing investigations and defining close-out processes



#### RECOVERY AGAINST BILLING



## STATUSES OF AUDITED METERS





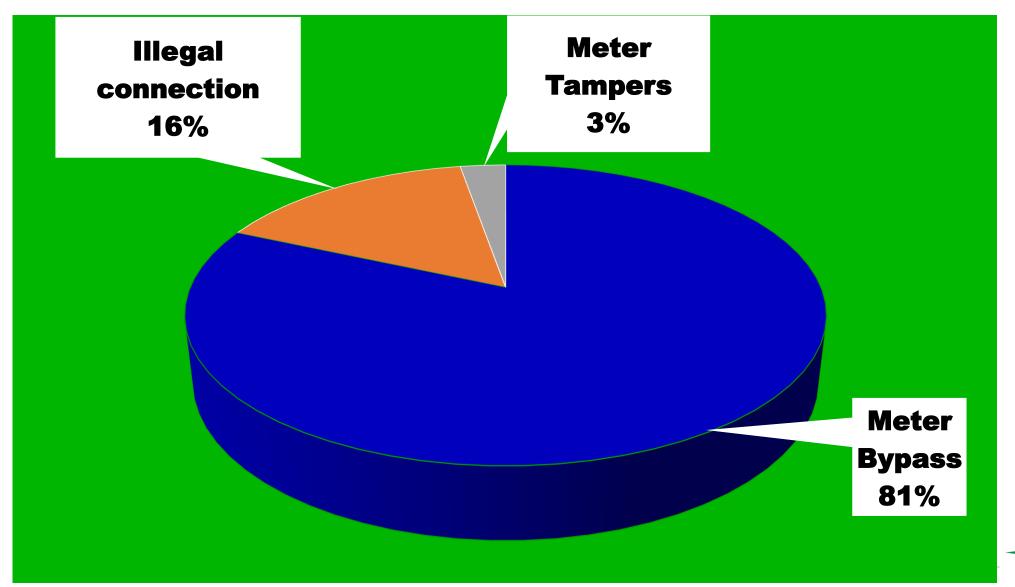
## PPM AUDIT REPORT SUMMARY

#### **PPM AUDIT REPORT SUMMARY**

ITEM	ZERO VEN	OTHER	TOTAL	COMMENTS		
Premises Audited	5,068	4,334	8,474	Shortfall of <b>16</b>		
Theft cases	277	566	846	Disconnected all cases, monitoring ongoing		
Abandoned Meters	524	389	913	Those who connected to other sources have were		
Abandoned Weters	324		913	disconnected		
<b>Bad/Nonfunctional</b>	63	177	240	Customers have been placed on fixed monthly		
Meters	03		240	cosumption		
No Meters	ers 477 228		705	Customers advised to apply for CAPMI Meters		
Wrong Tariff/Upgrade	113	86	199	Actioned by IT, Database update		
Deveragle to Destroid	100	48	148	All reconnected back to PPM and Arrears transferred		
Reversals to Postpaid	100	48	148	accordingly, Postpaid account closed		
Vacant	534	130	664	List intact, retrieval for safe keep recommended		
Not Activated	115	53	168	All activated and have commenced vending		
Not sealed	138	498	636	All tested and sealed		



# **ANALYSIS OF THEFT TECHNIQUES**





## MD METER RECERTIFICATION SUMMARY

<u> </u>		
NO. OF METERS RECERTIFIED	347	All 400 visited but 347 recertified
TOTAL NO. OF DEFAULTERS	27	Disconnected and charged
TOTAL NO. OF DEFAULTLING	<u> </u>	accordingly
FIXTURES	25	Issues fixed and benefits rolling in
METER RE-INSTALLATIONS	1	done
CT REPLACEMENTS	9	done
VOLTAGE / CT REVERSALS CORRECTED	6	done
MISSING VOLTAGE/CURRENT RESTORED	9	done
METER SEALS REPLACED	202	done
METERS REPLACED	16	PMO has replaced
PENDING ISSUES		
OUTSTANDING METERS TO BE REPLACED BY PMO	50	Schedule sent to PMO for action
CTs TO BE REPLACED	14	on
RE-WIRING	7	on
	1	



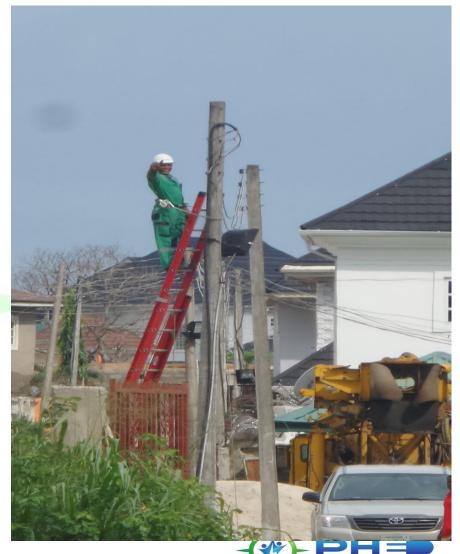
## **INACTIVE MD METER VERIFICATION SUMMARY**

<b>OBSERVATION</b>	COUNT	COMMENT			
Total No. Audited	352	All locations Visited, 43 untraceable			
Tamper/Bypass	3	All disconnected and awarded charges accordingly,			
Account Migration to		Untransfered arrears of R123, 170,450.58 sent to			
Account Migration to PPM	91	customers service for furher verification and			
PFIVI		necessary action			
Illegal reconnection	9	Disconnected and awarded charges accordingly			
DNP	46	Still on DNP, Monitoring for illegal reconnectin			
DINP	40	ongoing			
DTR Problem	9	Report made to relevant IBCs for necessary action			
Customers willing to	26	Negociation on arrears payment pread and			
Reconnect	20	reactivation terms ongoing.			
On supply and paying	182	Issues had been resolved prior to visit			



# FIELD OPERATIONS





## THEFT DETECTION TEAM



## FIELD CHALLENGES AND RISKS

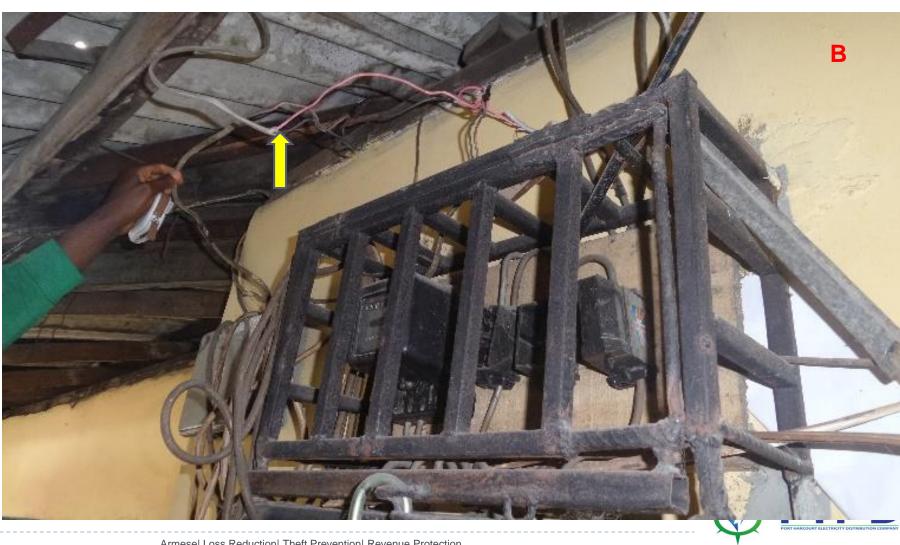




Armese Loss Reduction | Their Prevention | Revenue Protection

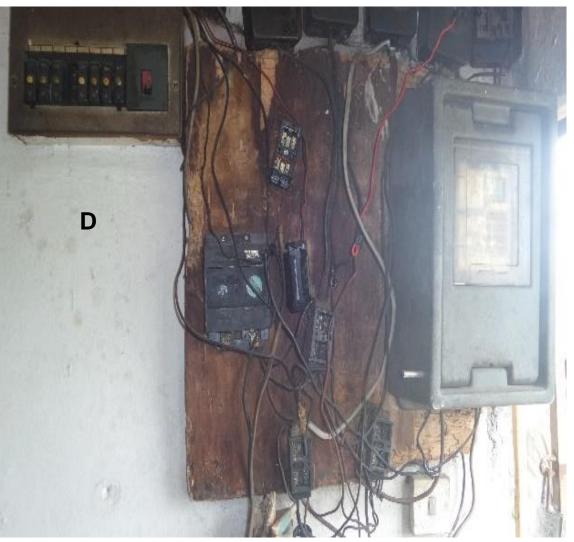
# **INSTALLATION - QUALITY MANAGEMENT**





# **QUALITY MANAGEMENT**







# **UNSAFE CONNECTION**



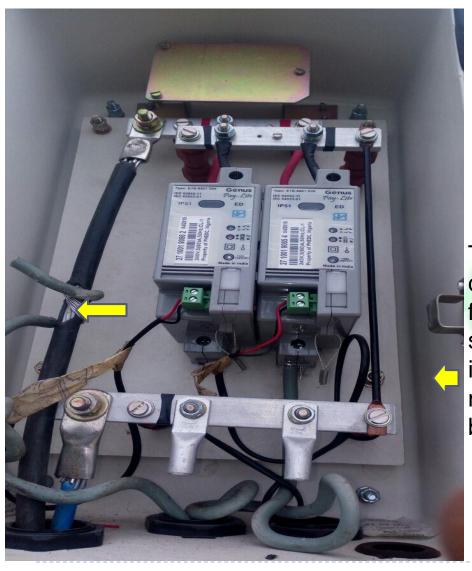
## SMART THEFT- AIR CONDITIONER HOLE



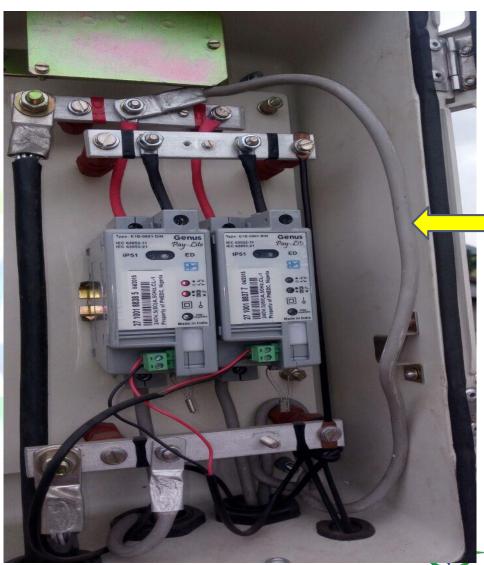




### **SMART THEFT**



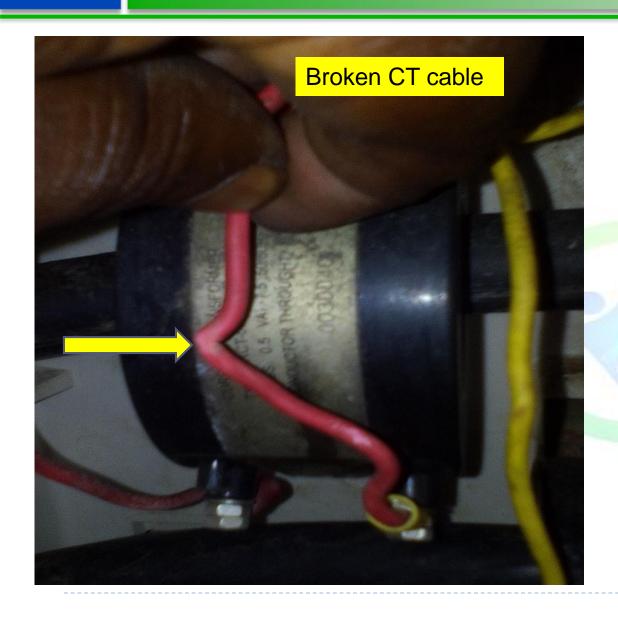
Tapping directly from source inside meter box

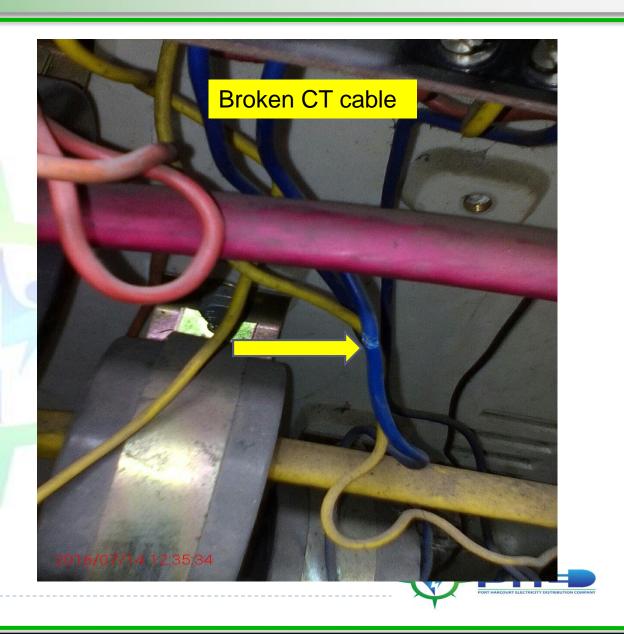


Neatly cabled and tapped from main bar

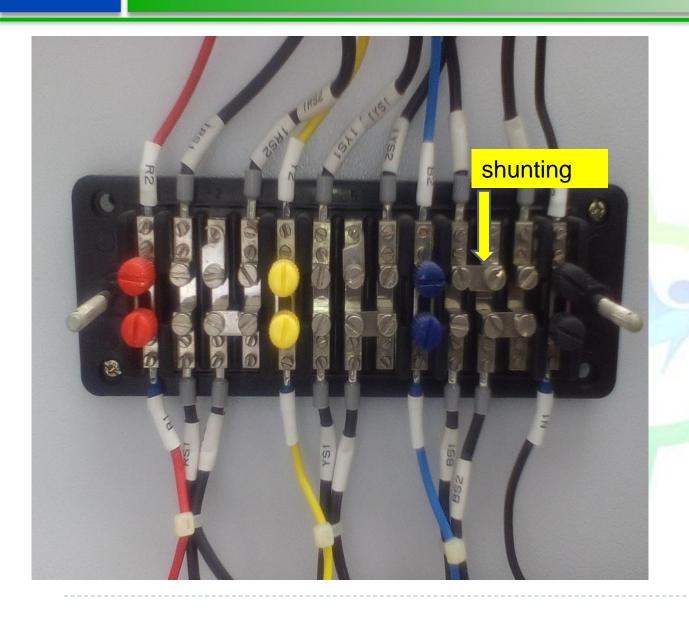


## MD METER TAMPERS





## MD METER TAMPERS





## SUMMARY OF RECOVERIES APR TO JUN 2016

	Violation Charges					Audit Gains	Total		
INITIATIVE		Billed	Recovery		Recovery		Recovery		
	No.	Amount(R)	No.	Amount(R)	No.	Amount(R)	(R)	(KwH)	
PPM Audit	846	75,961,592.68	264	25,250,188.78	1,249	8,352,232.40	33,602,421.18	1,181,332.81	
MD Recertification	27	30,006,884.20	6	2,182,954.00	207	75,220,731.27	77,403,685.27	1,736,170.41	
Inactive MD Audit	9	3,858,506.04	7	2,674,186.90	11	2,446,656.79	5,120,843.69	117,631.31	
Fixtures	-	-	-		322	3,249,211.03	3,249,211.03	117,750.64	
Total	882	109,826,982.92	277	30,107,329.68	1,789	89,268,831.49	119,376,161.17	3,152,885.16	



## **INVESTIGATIONS**

TYPE	NUMBER	RESOLVED	ARRESTS	PROSECUTION	ONGOING
BILLING	87	82	0	0	5
CRIMINAL	32	25	11	3 PENDING	5
ASSAULT	7	7	3	1 PENDING	0
CORRUPT PRACTICE	4	3	1 ON THE RUN	0	0
TOTAL	130	117	15	4	10



## **OPERATIONAL ETHICS AND SAFETY - BRIEFING**



#### RP MANAGEMENT TRAINING FOR SARPA MEMBERS



#### TRAINING OF POLICE PERSONNEL ON INFRASTRUCTURE VANDALISM





# Train the trainer training workshop





# TEAM BUILDING - CRICKET





## TEAM BUILDING- FOOTBALL







#### LESSONS LEARNED

#### 1. PPM Audit

- Inconsistences in database lead information
- Poor power supply reduce payment response to charges

#### 2. MD Meter Recertification

- Data from previous project is a challenge
- Need for extra support to cover all MD meters/replacements
- Supply quality/availability hampers progress

#### 3. Security and Investigation

Hotline/cash has increased workload

#### 4. Resources

Manpower and equipment inadequacy

#### 5. Process not completed

Process for meter recovery/retrieval not yet completed



#### **WAY FORWARD**

- Intensify the revisits to check recidivism- RP
- Warning notices of arrest/prosecute non- responsive defaulters- Legal
- Arrest/prosecute recidivists- Police/Legal
- Flexible payment window to allow payment spread- IT
- Publicize defaulters(Especially highly placed) in media.
   C. comm
- Propose monetary reward to whistle blowers leading to arrest of touts, recidivist etc.-Management
- Anti-theft campaign and community engagement- RP/C.comm/Spark Media.
- Anti-theft Hotline now running- Spark Media/RP



# THANK YOU

