

STANDARD OPERATING PROCEDURE (SOP)

FOR




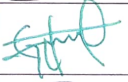
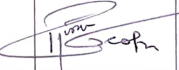
“MAP PROCESS”

“METERING DEPARTMENT”

1. DOCUMENT DETAILS

Document Name	MAP Process
Initiating Department	Metering Unit
Document Owner	Metering
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2. DOCUMENT APPROVAL DETAILS

S/N	AUTHORISING OFFICERS' ROLE	JOB TITLE	NAME	SIGNATURE	DATE
1	Initiator	Ag. Head Metering	Engr Orerome Ofu		20/8/24
2	Reviewer (HOD or Supervisor)	MDTA	Engr Muyiwa Akinkunmi		20/8/24
3	Concurrence (PPRC)	Chief Commercial Officer	Mr. Akinleye Ogunleye		20/8/24
4	Concurrence (Audit)	Chief Internal Audit	Mr. Gilbert Owoupele		20/08/24
5	Approval	MD/CEO	Mr Deolu Ijose		25/08/2024

Note: This sign-off authorizes the immediate implementation of this document.

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4. STANDARD OPERATING PROCEDURE (SOP)

4.1 DEFINITION OF TERMINOLOGIES

Make a list of all the acronym and/or technical terms used in the SOP and their respective meanings, see example below:

<i>ACRONYM</i>	<i>MEANING</i>
AMI	Advanced Metering Infrastructure
BEDC	Benin Electricity Distribution Company
F&A	Finance & Accounts
IT	Information Technology
KCT	Key Change Token
MAP	Meter Asset Provider
MU	Metering Unit
ME	Meter Engineer
MM	Meter Management
NERC	Nigerian Electricity Regulatory Commission
NEMSA	Nigerian Electricity Management Services Agency
NESI	Nigerian Electricity Supply Industry
PA	Payment Aggregator
RPD	Revenue Protection Department
RH	Regional Head
SGC	Supply Group Code
DSSO	Distribution Sub-Station Officer

4.2 PURPOSE

This document is a guide to all relevant stake holders involved in MAP Metering operations. This ensures tasks are carried out correctly by the operators in the metering process. The document will also guide other departments with review functions (Internal control, compliance or Audit) and other units /departments that interfaces with Metering Operations for their operations and/or on behalf of customers (Regions, Sub-Regions, customer care, etc.).

It creates a standardized approach on recommendation, deployment, and installation of meters in the Company helping Company achieve its organisation's goals.

4.3 SCOPE

This standard operating procedure aims to account for customers embracing the MAP scheme to pay for meters and the metering service provided to them.

4.4 PREREQUISITES/REQUIREMENT

The tool available to carry out the procedure is the Integrated Meter application provided by IT for managing MAP metering process.

4.5 RESPONSIBILITIES

The Head, Metering is responsible for the implementation and review of this SOP.

4.6 WORKFLOW

4.6.1 DELIVERY AND ACCEPTANCE OF MAP METERS

4.6.2 Process Owners

WORKFLOW ACRONYM	SOURCES OF DATA	INITIATORS DESIGNATION	1ST LEVEL APPROVAL	2ND LEVEL APPROVAL	PROCESSED BY
	Email	Store Officers	Metering	Risk	Metering

4.6.3 Procedures

ACTIVITY	DESCRIPTION	RESPONSIBILITY	TIMELINE
Overview	<p>Predetermined buffer meters are supplied to each Regional Stores by MAPs. The MAPs are to restock meters to the minimum buffer level set in concerned region.</p> <p>Every batch of meters delivered to store undergo Meter Acceptance test conducted by MU to confirm MAPs supplied all accessories required for installation and customer use, the meters are functioning satisfactorily, the meters are NEMSA certified, and all meters comply to BEDCs default KCT & SGC set standard.</p>	MAP/Store officers/Metering	5 days
Documentation and approval required	<p><u>SUPPLY & ACCEPTANCE OF METERS</u></p> <ul style="list-style-type: none">❖ Waybill❖ Email notification from store❖ Meter Acceptance Certificate from Metering Engineer	MAP/Store officers/Metering	
Procedure	<p><u>DELIVERY AND ACCEPTANCE OF MAP METERS</u></p> <p>I. <u>Metering/Store operations</u></p>	<p>a) Store b) Metering c) Head Metering d) Head Metering/ Meter</p>	<p>a) 1 day b) 1 day c) 1 day d) 2 days e) 1 day</p>

	<ul style="list-style-type: none"> a) Store notifies metering on supply of meters by the MAPs stating the quantity supplied. b) Metering conducts Meter Acceptance Test to confirm. <ul style="list-style-type: none"> i. MAPs supplied all accessories required for installation and customer use. ii. The meters are functioning satisfactorily. iii. The meters are NEMSA certified. iv. The meters comply to BEDCs default KCT & SGC set standard. c) MAPs are notified of meters that have failed (MAT) for recovery and correction. d) Meters that have passed (MAT) are allocated to Region/BHs and scanned into the metering application directory. e) Risk approves meters into the metering application 	<p>Management Team</p> <p>e) Risk</p>	
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4.6.4 MAP METERING

4.6.5 Process Owners

WORKFLOW ACRONYM	SOURCES OF DATA	INITIATORS DESIGNATION	1ST LEVEL APPROVAL	2ND LEVEL APPROVAL	PROCESSED BY
	<i>Online customer application</i>	Metering Engineers	NA	NA	MAP

4.6.6 Procedures

ACTIVITY	DESCRIPTION	RESPONSIBILITY	TIMELINE
Overview	<p>Customers are expected to apply for MAP via BEDC website or walk into any of our customer care offices.</p> <p>Metering Engineers are to conduct Technical Evaluation in conjunction with the MAP designate to evaluate the</p>	Customer/Metering/ MAP	Meter installation is 10

	<p>customer's premises to confirm premises is suitable/ready for Metering.</p> <p>The customer proceeds to make payment using the MAP ID. The MAP then installs the meter in the customer premises while the Metering Engineer monitors installation and compliance. Where applicable, previous functional, obsolete or faulty meter(s) at customer's premises are recovered and credited to BEDC stores by the ME and inventory of recovered meters are received by Store.</p>		days after payment
Documentation and approval required	<p><u>MAP METERING</u></p> <ul style="list-style-type: none"> ❖ Customer must have an existing account or meter to apply. ❖ Means of I.D ❖ Technical evaluation assessment (see appendix) 	Metering Engineer	
Procedure	<p><u>TECHNICAL EVALUATION, INSTALLATION & CERTIFICATION</u></p> <p>4 <u>Metering/MAP Operations</u></p> <ul style="list-style-type: none"> a) The Metering Engineer with the support of the DSSOs, evaluates customer premises to confirm meter type and ensure premises is ready for metering. b) Customer is advised to make payment for meter. Customer then chooses MAP and makes payment only if meter is available in the Region/BU store covering his area. c) The Store officer issues meters to MAPs based on SRIN document & MAP list provided by the resident Metering Engineer which must be 	<ul style="list-style-type: none"> a) Metering Engineer b) The metering application (autorun) c) Store officer d) MAP e) Metering Engineer f) MAP g) RH & Metering Engineer h) RPD 	<ul style="list-style-type: none"> a) 10 days b) Autorun c) 1 days d) 10 days e) Continuous f) Continuous g) 1 Day h) Continuous

	<p>concluded by the respective Regional/BU Auditor.</p> <p>d) MAP installs meter for customers who have paid for meters and reports meter installation via the metering application.</p> <p>e) MAP submits Installation document for issuance of Certificate of Completion.</p> <p>f) RH and Metering Engineer signs Certificate of completion certifying the meters have been installed in the customer premises in line with BEDC requirements.</p> <p>g) Revenue Protection Department conducts second level certification of meters installed in customers premises.</p>		
Procedure	<p><u>MAP DEFAULT ON INSTALLATION</u></p> <p>a. Customer reports on MAP failure to meter within ten days.</p> <p>b. Metering confirms payment made by customer to the MAP.</p> <p>c. Confirmed payments are compiled and sent to the MAP for installation and Regulatory for action.</p> <p>d. Regulatory analyses report and advises management on breach of NERC Regulation by MAP.</p> <p>e. MAP installs meter for customers who have paid for meters and reports meter installation via metering application.</p> <p>f. Metering Engineer certify installations and advises MAP to correct poor/wrong installations.</p>	<p>a) Customer</p> <p>b) Metering Officer</p> <p>c) Metering Officer</p> <p>d) Regulatory Officer</p> <p>e) MAP</p> <p>f) Metering Engineer</p> <p>g) MAP</p> <p>h) RH & Metering Engineer</p> <p>i) RPD</p>	<p>a) Continuous</p> <p>b) 1 Day</p> <p>c) 1 Day</p> <p>d) Continuous</p> <p>e) 10 days</p> <p>f) Continuous</p> <p>g) Continuous</p> <p>h) 1 Day</p> <p>i) Continuous</p>

	<ul style="list-style-type: none"> g. MAP submits Installation document for issuance of Certificate of Completion h. RH and Metering Engineer signs Certificate of completion certifying the meters have been installed in the customer premises in line with BEDC requirements. i. Revenue Protection Department conducts second level certification of meters installed in customers premises. 		
	<p><u>Sanctions to MAPS</u></p> <ul style="list-style-type: none"> a. MAP performance is analysed on a monthly basis and Customers not metered by the 3rd consecutive bidding cycles (3 months) are identified and listed. b. The list is submitted for Management/MD approval to initiate <ul style="list-style-type: none"> i. The calling of the APG ii. The engagement of an installer in line with the Meter service Agreement iii. Implementation of the sanctions in line with the deregulation of Meter Prices for Meters deployed under the Meter Asset Provider Scheme and Meter Service Agreement (MSA) c. Management/MD selects appropriate sanctions and approves. d. Implementation of sanctions 	<ul style="list-style-type: none"> a. Metering b. Metering c. Management/MD d. Metering 	<ul style="list-style-type: none"> a. Monthly b. 1 day c. 5 days d. Immediate

4.6.7 ACCOUNT RECONCILIATION & DEBT FACTORIZATION

Refer to Billing SOP with Ref No. BEDC/SOP/BO/001

4.6.8 MAP PAYMENT

4.6.9 Process Owners

WORKFLOW ACRONYM	SOURCES OF DATA	INITIATORS DESIGNATION	1ST LEVEL APPROVAL	2ND LEVEL APPROVAL	3RD LEVEL APPROVAL	PROCESSED BY
	The metering application & Payment Aggregator	Metering	Risk	F&A	MD	Metering

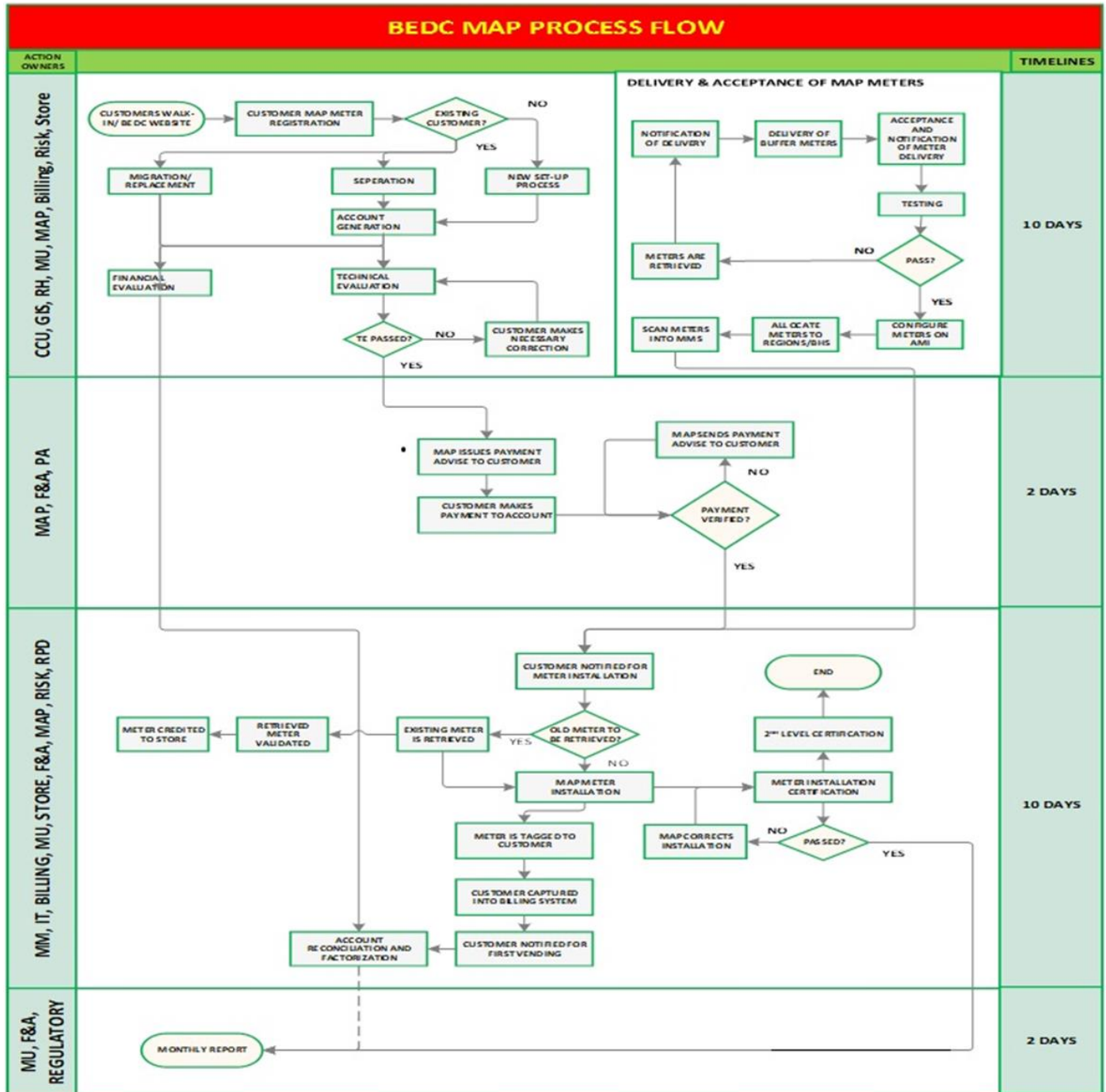
4.6.10 Procedures

ACTIVITY	DESCRIPTION	RESPONSIBILITY	TIMELINE
Overview	MAPs are to receive payment for meters directly into their MAP accounts via the payment aggregator.	Metering	Continuous

Documentation and approval required	MAP METERING ❖ Advanced Payment Guaranty (APG)	Metering	
Procedure	<p>a) MAPs must submit a valid Advanced Payment Guaranty from a bank covering 20% of the value of 2,000 meters.</p> <p>This will serve as collateral to receive payments directly to their accounts via a Payment Gateway.</p> <p>b) Metering receives and confirms submitted APG and advises IT to setup MAP account on the metering application/payment gateway platform.</p>	<p>a) MAPs</p> <p>b) Metering</p> <p>c) IT</p>	<p>a) 1 day</p> <p>b) 2 days</p> <p>c) 1 day</p>

	<p>c) IT to setup MAP account on the metering application/payment gateway. Payments must reflect MAP IDs</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The APG is to be valid for 1 year. 2. The APG value is to be re-evaluated when the price of meters has increased by 50% of its initial value. 		
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4.7 MAP PROCESS



5 APPENDIX: TECHNICAL EVALUATION CHECK LIST

The meter must be High Wall mounted and conform to the checklist for compliance.

1. How many phases enter the customer premises?

Relevance: The number of phases entering the premises must be confirmed.

2. Are the service cables visible from the termination point on the pole to the customer's fuse board/box?

Relevance: Service cables must be traceable and visible from the Pole to the meter.

3. Service cable installation description (if not visible):

Relevance: This is a note for further action.

4. Are the service cables passing through the ceiling?

Relevance: Service cables must not enter the ceiling before the meter.

5. Are there any extensions of the service cables from the concerned premises/apartment to other buildings/apartments?

Relevance: This is to ensure neat installations are done.

6. Does the service cable meet BEDCs minimum technical requirement?

Relevance: Standard wiring is required.

7. If single phase is recommended, have the other phases been disconnected and removed from the concerned premises?

Relevance: Single phase meter for three phase wiring is not acceptable.

8. Will the meter be visible afar when it is installed?

Relevance: To ease monitoring and auditing of metering inspection

9. Is there an existing meter?

Relevance: To confirm meter to be retrieved from the premises.

10. Are the premises fit for metering?

Relevance: To ensure premises that can be metered can pay for meters.

11. Enter existing meter number (if any)

Relevance: To confirm meter to be retrieved from the premises.

12. Estimated Customers present energy consumption

Relevance: To confirm the meter type required for the premises.

13. Recommended customer classification: MD/NMD








Relevance: To ensure MD customers do not pay for residential meters.

14. Recommended meter type

Relevance: A metering engineer is to recommend a meter type suitable for the metering of the concerned premises.

BEDC SOP

PPRC MEMBERS RATIFICATION

S/N	Name	Designation	Position	Signature	Date
1	Akinleye Ogunleye	CCO	Chairman		20/8/24
2	Evwienure Agama	CFO	Member		20/8/24
3	Collins Igwe	CRCM	Member		20/8/24
4	Gilbert Owoupele	CIA	Member		20/8/24
5	Jonathan Lawani	CTO	Member		20/8/24
6	Opeoluwa Afolabi	Head, TS&CP	Member		20/8/24
7	Felix Ndidi Nkeki	Head, GIS	Secretary		20/08/2024