



Bangalore Electricity Supply Company Limited

(Wholly owned Government of Karnataka undertaking)

No.: BESCOM/CGM (OP)/DGM (OP3)/2024-25/*lys-94*

Corporate Office,
K.R.Circle, BESCOM
Bengaluru-560001.

Date: **13 FEB 2025**

Operational Guidelines for Smart Meter

Sub: Operational guidelines to be followed for availing power supply through a smart meter (pre-paid/post-paid)- reg.

- Ref:**
1. Karnataka Electricity Regulatory Commission Letter No. KERC/S/ F-61/Vol-All/1311 dated: 06.02.2024.
 2. Karnataka Electricity Regulatory Commission (Pre-paid Smart Metering) Regulations, 2024 vide no KERC/6/DDD/F-1335/2023-24/1458, Bengaluru, dated: 06.03.2024.
 3. CEA Gazette notification dated 23.12.2019.
 4. Proceedings of the Progress Review meeting of Energy Department with KPTCL and all other ESCOMs including KREDL held on 14.10.2024 under the chairmanship of Hon'ble Energy Minister, GoK.
 5. Proceedings of KPTCL and ESCOMs co-ordination committee meeting dated:19.10.2024.
 6. Contract Award to M/s Rajashree Electricals Pvt Ltd on 23.12.2024.
 7. Note approved by Managing Director, BESCOM

Preamble:

1. With the advent of technology and introduction of smart meters (with inbuilt facility for remote disconnection and reconnection) the Commission issued Regulations vide ref (1) to avail power supply for the electricity consumers who opt for pre-paid smart meters.
2. Hence, the Distribution Licensees shall provide Smart Meters to the new installations with swappable modules with an option for swapping GPRS and RF communication system.
3. In order to adhere to KERC Regulations vide ref (1) and ref (2), BESCOM had prepared to install the smart (pre-paid/post-paid) energy meter to its consumers and awarded to M/s Rajashree Electricals Pvt Ltd, as AMI Common Service Provider for Sale of Smart Meters to prospective consumers in BESCOM Jurisdiction on contract award basis in retail outlets while arranging power supply to new connections (including temporary installations) for a period of 5 years and given responsibility to Supply, Implementation, Commissioning & Maintenance of the common AMI System for Smart meters for a period of 10 years in all the ESCOMs of Karnataka on 23.12.2024.
4. As part of the state-wide implementation of smart meters across BESCOM and other ESCOMs, operational guidelines are being issued in accordance with KERC regulations. These guidelines aim to streamline the process and ensure compliance with regulatory standards, while leveraging new software and functionalities in Smart Meter and AMI. Field staff are instructed to adhere to the following points.

Hence the Guidelines,

I) Operational Guidelines for Arranging Power Supply through Prepaid Smart meter for new permanent/temporary installations.

All new installations (all categories of consumers except temporary) are obligated to install with smart pre-paid/post-paid energy meter at their cost. Provided that availing power supply through a smart pre-paid meter shall be at the option of the consumer except temporary installations, for which it is mandatory.

At the time of registration, **if the applicant opts for pre-paid connection in case of permanent installation** and mandatory pre-paid connection for temporary installations, the procedure to be followed is as below.

1. The application registration followed by field inspection, estimate preparation etc shall be processed as per the existing procedures.
2. Power sanction letter shall be issued duly mentioning all the applicable charges, except security deposit. However, the applicant shall pay minimum amount equivalent to the monthly fixed/demand charges plus monthly energy charges in advance and the energy consumption charges shall be computed for one month based on the burning hours' basis at the prevailing tariff rates as provided clause No. 5.1 of the K.E.R.C. (Security Deposit) Regulations, 2007 and subsequent amendments.
3. After payment of necessary charges by the applicant, the work order shall be issued duly following the procedures as per KERC norms.
4. After completion of necessary electrical infrastructure (i.e. service line/service main etc.) & ensuring readiness of the applicant for availing power supply, respective AEE, C, O&M Subdivision needs to issue the Smart Meter Procurement letter to applicant duly mentioning the number of meters, the meter procurement charges to be borne by the applicant and the monthly fixed/demand charges plus advance energy charges paid by the applicant.
5. The applicant has to purchase the meter from the respective divisional retail outlets.
6. AMI Service Provider will be responsible for collecting the smart meter from the consumer for installation and commissioning at the consumer's premises and ensure that the smart meter is properly installed and integrated with the billing IT system through AMI system with appropriate tariff structure and category under the supervision of jurisdictional O & M officers (AEEs/AEs /JEs).
7. The commissioning of the smart meter shall be followed with PC test in the presence of designated Meter Testing officers as per the existing practices.
8. The pre-paid smart meter shall read physically, once every quarter as per delegation of powers.
9. All other existing procedures shall remain unaltered.

II) Operational Guidelines for Arranging Power Supply through Postpaid Smart meter for new installations.

1. The existing procedures shall be followed upto the issue of Smart Meter Procurement letter to applicant.

2. Respective AEE, C, O&M Subdivision shall issue the Smart Meter Procurement letter to applicant duly mentioning the number of meters and the meter procurement charges to be borne by the applicant.
3. Further, applicant has to purchase the meter from the respective divisional retail outlets.
4. AMI Service Provider will be responsible for collecting the smart meter from the consumer for installation and commissioning at the consumer's premises and ensure that the smart meter is properly installed and integrated with the billing IT system through AMI system with appropriate tariff structure and category under the supervision of jurisdictional O & M officers (AEEs/AEs /JEs).
5. The commissioning of the smart meter shall be followed with PC test in the presence of designated Meter Testing officers as per the existing practices.
6. All other existing procedures shall remain unaltered.

III) Operational Guidelines for migration of the existing post-paid energy meter to prepaid smart meter.

1. A request letter/online application shall be obtained from the consumer for migration from the existing post-paid energy meter to prepaid smart meter.
2. The migration to the smart meter prepaid mode shall be allowed subject to clearing all arrears (including short claims), after adjustment of the Security Deposit. The Sub-divisional officer shall ensure that, there are no arrears outstanding in the name of the consumer before switching to prepaid metering mode.
3. Intimation shall be issued to the consumer duly mentioning minimum amount equivalent to the monthly fixed/demand charges plus energy charges at the prevailing tariff rates subject to a minimum amount equivalent to one week's average consumption as recorded in the immediate preceding week or preceding month whichever is higher.
4. After payment of necessary charges by the applicant, respective AEE, C, O&M Subdivision shall issue the Smart Meter Procurement letter to applicant duly mentioning the number of meters, the meter procurement charges to be borne by the applicant and the monthly fixed/demand charges plus advance energy charges paid by the applicant.
5. The applicant has to purchase the meter from the respective divisional retail outlets.
6. AMI Service Provider will be responsible for collecting the smart meter from the consumer for installation and commissioning at the consumer's premises and ensure that the smart meter is properly installed and integrated with the billing IT system through AMI system with appropriate tariff structure and category under the supervision of jurisdictional O & M officers (AEEs/AEs /JEs).
7. The commissioning of the smart meter shall be followed with PC test in the presence of designated Meter Testing officers as per the existing practices.
8. The released meter (existing electromechanical/ electrostatic) shall be returned to the divisional stores duly following the existing practices after completing the meter change (MC case) in the respective IT system.

9. The pre-paid smart meter shall read physically, once every quarter as per delegation of powers.
10. All other existing procedures shall remain unaltered.

IV) Operational Guidelines for migration of the existing post-paid energy meter to post-paid smart meter.

1. A request letter/online application shall be obtained from the consumer for migration from the existing post-paid energy meter to post-paid smart meter.
2. The migration from existing post-paid energy meter to post-paid smart meter mode shall be allowed subject to clearing all arrears (including short claims and ASD) and ensuring that the existing deposit for the account is sufficient.
3. After payment of necessary arrears (if any) by the consumer, respective AEE, C, O&M Subdivision shall issue the Smart Meter Procurement letter to applicant duly mentioning the number of meters and the meter procurement charges to be borne by the applicant.
4. The applicant has to purchase the meter from the respective divisional retail outlets.
5. AMI Service Provider will be responsible for collecting the smart meter from the consumer for installation and commissioning at the consumer's premises and ensure that the smart meter is properly installed and integrated with the billing IT system through AMI system with appropriate tariff structure and category under the supervision of jurisdictional O & M officers (AEEs/AEs /JEs).
6. The commissioning of the smart meter shall be followed with PC test in the presence of designated Meter Testing officers as per the existing practices.
7. The released meter (existing electromechanical/ electrostatic) shall be returned to the divisional stores duly following the existing practices after completing the meter change (MC case) in the respective IT system.
8. All other existing procedures shall remain unaltered.

V) Operational Guidelines for migration of the existing consumers from prepaid connection to post-paid connection in smart meter.

1. A request letter/online application shall be obtained from the consumer for migration from prepaid connection to post-paid connection in smart meter.
2. Intimation shall be issued to the consumer duly mentioning security deposit to be paid by consumer in addition to other formalities if any to be followed as per prevailing regulations.
3. After payment of necessary charges by the applicant, respective AEE, C, O&M Subdivision needs to issue a letter to the AMI service provider for making necessary changes for migration from prepaid connection to post-paid connection in smart meter and shall ensure that the smart meter is properly integrated with the billing IT system through AMI system with appropriate tariff structure and category under the supervision of jurisdictional O & M officers (AEEs/AEs /JEs).
4. All other existing procedures shall remain unaltered.

VI) Operational Guidelines for migration of the existing consumers from post-paid connection to prepaid connection in smart meter.

1. A request letter/online application shall be obtained from the consumer for migration from the existing post-paid connection to prepaid connection in smart meter.
2. The migration to the smart meter prepaid mode shall be allowed subject to clearing all arrears (including short claims), after adjustment of the Security Deposit. The Sub-divisional officer shall ensure that, there are no arrears outstanding in the name of the consumer before switching to prepaid metering mode.
3. Intimation shall be issued to the consumer duly mentioning minimum amount equivalent to the monthly fixed/demand charges plus energy charges at the prevailing tariff rates subject to a minimum amount equivalent to one week's average consumption as recorded in the immediate preceding week or preceding month whichever is higher.
4. After payment of necessary charges by the applicant, respective AEE, C, O&M Subdivision needs to issue a letter to the AMI service provider for making necessary changes for migration from prepaid connection to post-paid connection in smart meter and shall ensure that the smart meter is properly integrated with the billing IT system through AMI system with appropriate tariff structure and category under the supervision of jurisdictional O & M officers (AEEs/AEs /JEs).
5. All other existing procedures shall remain unaltered

VII) Billing, payment and recharge of electricity charges for pre-paid smart meters:

1. The pre-paid smart meter billing system is having the provision for ensuring recovery of fixed charges, Fuel & Power Purchase Cost Adjustment (FPPCA) charges, Time of Day (ToD) tariff and the energy consumption charges, taxes and other applicable charges. Here, any other charges viz., FPPCA, TOD, HV Rebate, etc., will be treated as energy charges only.
2. However, the electricity tax will be collected at the time of first payment and every recharge, i.e. the consumer energy charges account shall be credited with the total consumption amount (calculated based on per unit tariff rate) and the Tax on such consumption amount, to be separately accounted as payable to Government.
3. Starting of the billing month is, 1st day of every calendar month. With such provision of the billing day, the calendar week from Monday to Sunday of a calendar month will be reckoned as week for the purpose of prepaid recharges.
4. The consumer shall recharge the energy charges as and when required in multiples of Rs.100/-, subject to a minimum amount equivalent to one week's (Monday to Sunday of a calendar month) average consumption as recorded in the immediate preceding week or preceding month whichever is higher and there shall be no maximum limit for recharge amount.
5. The computation of the energy charges shall take place on a unit basis, as per tariff schedule. The energy charges as per actual consumption shall be

deducted on a unit basis from the amount paid by the consumer. The monthly fixed charge shall be deducted at the beginning of the calendar month.

6. The priority of deduction of charges from consumer energy charges account shall be as below:
 - i. Arrears if any
 - ii. Tax on Arrears as applicable
 - iii. PF penalty if applicable
 - iv. MD penalty if applicable
 - v. D & R fees if any
 - vi. Fixed charge
 - vii. Energy charge
 - viii. Tax on Energy charge
 - ix. FPPCA
 - x. HV rebate
 - xi. Any other applicable charges
7. At the end of the billing month, the fixed charges will become ZERO. A summary of the charges paid and utilised shall be sent to the consumer via WhatsApp, email, MobileApp etc.
8. Thereafter the next recharge by the consumer shall be for a minimum amount of monthly fixed charges and energy charge (para No. VII(4)) as per his requirement.
9. Further, in case the energy charges deposited by the Consumer are more than monthly fixed charges, there should be automatic transfer of amount from energy charges to monthly fixed charge account.
10. While accepting recharge amount, recovery of monthly fixed charge shall be ensured and the break-up of fixed/demand charge and energy charge shall be communicated to the consumer immediately.
11. Thereafter, A notification to the consumer on registered mobile phone shall be sent to pay the weekly energy charges under the following circumstances
 - a) In case the balance of energy charges is less than 75% of the monthly energy charges.
 - b) In case the balance of energy charges is less than 75% of the weekly energy charges.
 - c) The notification shall be sent 7 days before the expiry of the running month, if the outstanding balance is less than the sum of energy charges of the running week, arrears & penalty if any, monthly fixed charges and weekly energy charges of the immediate succeeding month.
 - d) In case the balance of energy charge reaches zero, the power supply disconnected notification will be sent to the consumer.
12. Pre-paid smart metering system is having the facility for recharge of the amount in the consumers' account through online such as mobile App (Smart meter-ESCOMs), Credit / Debit Cards, web application or digital payment systems (e-wallet / wallet, UPI, web portal) etc., on real time basis.

13. The consumers shall be given facility for providing standing instructions to their respective banks for Auto deduction of specific amount for recharge of the energy charges.
14. The AMI service provider shall ensure that the bills for smart meter prepaid accounts are generated (by AMI service provider) as per the prevailing tariff rates and the same is in sync with the respective billing system (RAPDRP/TRM). However, in case of any discrepancy the bill generated by the respective billing system shall prevail.
15. All other existing procedures shall remain unaltered.

VIII) Disconnection & Reconnection of Prepaid Smart meter:

1. Disconnection process shall be scheduled only between 10 AM to 1 PM of any particular day.
2. In case the balance of energy charge is less than one unit, the supply shall be disconnected and such disconnection shall be deemed to be temporary disconnection.
3. The disconnection of power supply shall not be effected to during weekly and other general holidays to avoid inconvenience to consumer and the field officer shall ensure the continuity of power supply.
4. The temporary disconnection shall be restored within 6 (six) months only after recharging with an adequate amount.
5. In case of temporary disconnection, the consumer may recharge the meter and restore the electricity supply, subject to automatic adjustment of the recharged amount towards the negative balance, if any. Further, the recovery of arrears, if any, from the consumer shall be as per the existing norms.
6. The software application will initiate auto reconnection after successful recharge of the pre-paid smart meter.
7. In case of HT/LT installations where the CT operated smart prepaid meters are installed, the facility of automatic disconnection/ reconnection is not available in the smart prepaid meter. Hence, field officers shall physically disconnect/ reconnect the installation as per existing practices.
8. In case, the consumers do not recharge their account after temporary disconnection, the notification / alert sent, shall be considered as notice for recharging the account and power supply shall be disconnected on failure to recharge the account by consumers, without any further notice.
9. If the consumer fails to recharge the account within 6 (six) months of temporary disconnection, the connection shall be disconnected permanently, and the meter shall be physically removed from the consumer premises and the power supply agreement shall be deemed to be terminated.
10. After permanent disconnection, fresh connection to such consumer shall be done as per the existing practices.
11. All other existing procedures shall remain unaltered.

IX) Communication of pre-paid smart meter:

1. The data regarding energy consumption shall be made available on real time basis, to the consumer, through website, mobile App (Smart meter-ESCOMs) or any other digital mode and hence, the AMI Service Provider

(SP) shall educate the consumer about the operation of the mobile application associated with the smart meter. This mobile app will allow the consumer to manage their power usage and perform tasks such as recharging/topping up for power supply, make payments, and receive notifications about power usage and billing.

2. In case of failure of communication of smart prepaid meters for any reason, daily energy charges shall be calculated on the basis of estimated daily consumption based on average of immediately available last 7 (seven) days recorded consumption to enable the consumers to arrange for prepayment if the balance amount is less. The prepaid balance shall be immediately updated on the basis of actual consumption once the reading is received from such pre-paid smart meter.

X) Replacement of meters

In case the pre-paid smart meter gets damaged or burnt out the same shall be got tested at the meter testing lab or any NABL accredited labs. In case the reasons for the pre-paid smart meter getting damaged/ burnt out is attributable to the consumer, the same shall be replaced at the cost of the consumer. If the reason is attributable to the system constraints, the burnt out prepaid smart meter shall be replaced immediately at the cost of department.

Further, all the field officers are instructed to implement the above guidelines in harmony with the KERC CoS, RoE & Pre-paid Smart Metering Regulations /Electricity Act 2003 & its amendments defined by GoI & GoK.


**Chief General Manager,
Operations, BESCOM**

Copy for information:

1. The Secretary, KERC, No.16 C-1, Millers Tank Bed Area, Vasanthanagara, Bengaluru-560 052.
2. The Chief General Manager (Ele.), Projects/Procurement, Corporate Office, BESCOM.
3. The Chief General Manager, Internal Audit, Corporate Office, BESCOM.
4. The Deputy General Manager, Regulatory Affairs, Corporate Office, BESCOM.
5. PS to MD/DT/DF/CS(Company Secretary) with a request to place the same before MD/DT/DF/ CS(Company Secretary), BESCOM.
6. PS to MD/DT with a request to place the same before MD/DT, MESCOM, CESC, HESCOM, GESCOM.

Copy for information & needful action:

7. The Chief General Manager (Ele.), Corporate Affairs & MIS, Corporate Office, BESCOM.
8. The Chief Engineer, Elec., (C, O&M), Zone, BMAZ (North)/ BMAZ (South)/BRAZ/CTAZ, BESCOM.
9. The Chief General Manager, F & C/Accounts, Corporate Office, BESCOM.

10. The Superintending Engineer (Ele.), East/West/North/South/BRC/Ramanagar/Kolar/Tumkur/Davanagere Circle, BESCOM.
11. All the Executive Engineer (Ele.), C, O & M Divisions, BESCOM.
12. All the Assistant Executive Engineer (Ele.), C, O&M Sub Divisions, BESCOM.
13. MF.

Copy to:

14. The President, Karnataka State Licensed Electrical Contractors Association, Avenue Road, Old Tharagupet, Dodpete, Nagarathpete, Bangalore.
15. Bangalore Apartments Federation Owners and Residents Group, Location: 101, Brigade Paramount, 5, Old Madras Road, C.V. Raman Nagar, Bangalore-560093.