#### **APPENDIX**

# NEW DIRECTIVES AND REVIEW OF COMPLIANCE OF PREVIOUS DIRECTIVES ISSUED BY THE COMMISSION

- 1. The following new directives are issued by the Commission:
  - Directive on conducting Consumers' Interation Meetings in the O & M sub-divisions for redressal of consumer complaints:

During the Public Hearings held by the Commission to hear the views, comments & suggestions of the consumers and other stakeholders on the ESCOMs' Tariff applications, it was brought to the notice of the Commission by many consumers that the Consumer Interaction Meetings chaired by the Superintending Engineers, in the O&M sub-divisions of ESCOMs are not being conducted regularly, thus denying them of the opportunity to attend such meetings to air their complaints/ grievances pertaining to supply of electricity and any other issues. The consumers have urged the Commission to ensure that ECOMS take necessary action to make the sub-divisions conduct Consumer Interaction meetings regularly to hear and address the consumer grievances.

The Commission strongly opines that if the ESCOMs conduct consumer interaction meetings regularly, not only most of the grievances of the consumers could be redressed in such meetings, the ESCOMS could also redesign/realign their operations and investments on capital and other works to optimally deliver better and satisfactory service to the consumers. Such development could also increase the efficiency and revenues of the ESCOMs.

Hence, the Commission hereby directs the BESCOM to ensure that Consumer Interaction Meetings chaired by the Superintending Engineers, are conducted in each O&M sub-division according to a pre-published schedule, at least once in every three months. Further, the consumers shall be invited to such meetings in advance through emails, letters, notices on BESCOM's website, local newspapers etc., to facilitate participation of maximum number of consumers in such meetings. The BESCOM should ensure that the proceedings of such meetings are recorded and uploaded on its website, for the information of consumers. Compliance in this regard shall be reported once in three months to the Commission, indicating the date, the number of consumers attending such meetings and the status of redressal of their complaints.

If the BESCOM fails to ensure conduct of the Consumer Interaction Meetings as directed, the Commission would consider imposing a penalty of upto Rs one lakh per O&M sub-division per quarter for each instance of non-compliance, and also direct that such penalty shall be recovered from the concerned Superintending Engineer who fails to conduct such meetings.

ii. Directive on preparation of energy bills on monthly basis by considering 15 minute's time block period in respect of EHT/HT consumers importing power through power exchange under Open Access

The Commission has noticed that, year on year, there has been a substantial increase in the number of EHT and HT consumers of the distribution licensees opting for open access resulting in substantial volume of energy being procured through Power Exchanges, which imposes a burden on the SLDC, in grid management.

Further, in accordance with the stipulations in Clause 6.3 (f) of the the Karnataka Electricity Grid Code (KEGC), 2015, under the chapter on Operation Planning, in order to facilitate demand estimation for operational purpose, the distribution licensee (ESCOM) is required to provide to the SLDC, on a day ahead basis,

at 09.00 hours each day, its estimated demand for each 15-minute block, for the ensuing day. The distribution licensee is also, required to provide to the SLDC, the estimates of loads that may be shed, when required, in discrete blocks, with the details of arrangements of such load shedding. Consequent to such stipulation the ESCOMs are required to prepare monthly energy bills in respect of EHT/HT consumers importing power through power exchange under Open Access, by considering 15 minute's time block. However, it is observed that except in rare cases, this billing requirement is not being complied with the ESCOMs.

In view of this, the Commission directs the BESCOM to ensure preparation of energy bills on monthly basis by considering the 15 minute's time block period in respect of EHT/HT consumers importing power through power exchange under Open Access. The BESCOM shall implement the directive forthwith and the compliance regarding the same shall be submitted monthly from May, 2017 onwards, to the Commission, regularly.

# 2. Review of Compliance of Existing Directives:

The Commission, in its earlier Tariff Orders and communications had issued several directives for compliance by the BESCOM. An analysis of such directives and their compliance is as under:

# i. Directive on Energy Conservation:

The Commission had directed the ESCOMs to service all the new installations only after ensuring that the BEE \*\*\*\*\* (Bureau of Energy Efficiency five-star rating) rated Air Conditioners, Fans, Refrigerators, etc., are being installed in the applicant consumers' premises.

Similarly, ESCOMS were directed to ensure that all new streetlight/high mast installations including extensions made to the existing streetlight

circuits are serviced only with LED lamps/energy efficient lamps like induction lamps.

Further, the Commission had directed the ESCOMs to take up programmes to educate all the existing domestic, commercial and industrial consumers, through media and distribution of pamphlets along with monthly bills, regarding the benefits of using five-star rated equipment certified by the Bureau of Energy Efficiency in reducing their monthly electricity bills and conservation of precious energy.

# Compliance by the BESCOM:

The BESCOM has issued a circular to all its officers vide dated 30.07.2016, to use only BEE five-star rated Energy Efficient Appliances.

The BESCOM has sold 57,86,236 number of LED bulbs through M/s EESL during the period from 23.12.2015 to 31.10.2016. There is an approximate savings of 140 MU of energy, on account of use of these LED bulbs.

Further, the BESCOM has taken up several initiatives to create awareness among the public on energy conservation through various modes of communication such as distribution of pamphlets, printing slogans on the backside of the monthly electricity bills, advertisement near railway reservation counters through DDIS system, magazines, stalls etc.

# Commission's Views:

The Commission notes that the BESCOM has not submitted the compliance regularly on implementation of the directive. It is also observed from the BESCOM's report that it has merely issued a circular to all its officers to use BEE five-star rated Energy Efficient Appliances, and has not taken any further effective steps in the field to ensure service to all new installations only with BEE five-star rated Air Conditioners, Fans, Refrigerators, etc., in the applicant consumers' premises. The BESCOM should focus on effective implementation of this

directive by reviewing periodically the progress/status of implementation of its circular instructions by its field officers and take corrective action wherever necessary.

Further, it is also important that the BESCOM draws up a continuous awareness programme to educate the consumers about the benefits of using the energy efficient appliances in their premises and ensure increase in use of energy efficient appliances.

The Commission reiterates that the BESCOM shall service all the new installations only after ensuring that the BEE \*\*\*\*\* (Bureau of Energy Efficiency five-star rating) rated Air Conditioners, Fans, Refrigerators, etc., are being installed in the applicant consumers' premises and the compliance thereon shall be reported to the Commission once in a quarter regularly.

# ii. Directive on implementation of Standards of Performance (SoP)

The directive issued was as follows:

"The BESCOM is directed to strictly implement the specified Standards of Performance while rendering services related to supply of power as per the KERC (Licensee's Standards of Performance) Regulations, 2004. Further, the BESCOM is directed to display prominently, in both Kannada & English languages, the details of various critical services such as replacing the failed transformers, attending to fuse off call / line breakdown complaints, arranging new services, change of faulty meters, reconnection of power supply, etc., rendered by it as per Schedule-1 of the KERC (Licensee's Standards of Performance) Regulations, 2004 and Annexure-1 of the KERC (Consumer Complaints Handling Procedure) Regulations, 2004, on the notice boards in all the O & M sections and O & M sub-divisions, in its jurisdiction for the information of consumers as per the following format:

Nature of Service	Standards of Performance (indicative minimum time limit for rendering services)	Primary responsibility centers where to lodge complaint	Next higher Authority	Amount payable to affected consumer
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The BESCOM shall implement the above directive within one month from the date of this order and report compliance to the Commission regarding the implementation of the directives".

# Compliance by the BESCOM:

The BESCOM vide letter No. BC-26/F-2411/2009-10/517, dated 14.08.2015, has submitted the compliance to the Commission, it is stated that as per the directions of the Commission, the details of the specified Standards of Performance in accordance with the KERC (Licensee's Standards of Performance) Regulations, 2004 and the KERC (Consumer Complaints Handling Procedure) Regulations, 2004, have been displayed in both Kannada and English on the notice boards in all the O&M section and sub-division offices.

	O & M Sub-divisions				O & M Sections			
BESCOM	Total Nos	No. of sub- divisions where SoP parameters displayed	Balance	Likely date of completion	Total Nos	No. of sections where SoP parameters displayed	Balance	Likely date of completion
	120	120	0	NA	460	460	0	NA

The BESCOM in its Tariff application vide page number 91, has furnished the compliance relating to display of SoP in both Kannada and English on the notice boards of all the O&M sections & sub-divisions. Hence, BESCOM has requested the Commission to drop the directive.

#### Commission's Views:

The Commission while noting the compliance furnished, reiterates that the BESCOM shall continue to comply with its earlier directive by displaying the details of SoP in all its O&M section and sub-division offices for the information of the consumers, and also to adhere to the

specified standards of performance in rendering various services to consumers in a time bound manner.

The Commission notes that, during the Public Hearings held on the ESCOMs' Tariff petitions, the consumers participating in the hearing have stated that, the ESCOMs, contrary to their submission before the Commission on compliance of the directive issued by the Commission, have not displayed the SoP parameters on the notice boards in the O&M offices and also not adhered to the timelines stipulated in the SoP. They have sought the intervention of the Commission to ensure that the ESCOMs comply with the directive on SoP.

The Commission notes that the situation indicates that there is lack of effective supervision over the functioning of field offices by the ESCOMs especially in rendering services relating to supply of power to the consumers.

Therefore, the Commission once again reiterates its directive to the BESCOM to continue to strictly implement the specified SoP while rendering services related to supply of power as per the KERC (Licensee's Standards of Performance) Regulations, 2004 and directs the BESCOM to monitor effective implementation of the directive on SoP in all its O&M offices. The Commission shall initiate appropriate action on any instance of breach of its directive.

# iii. Directive on use of safety gear by linemen

The directive issued was as follows:

"The Commission directs the BESCOM to ensure that all the linemen in its jurisdiction are provided with proper and adequate safety gear and also ensure that the linemen use such safety gear provided while working on the network. The BESCOM should sensitise the linemen about the need for adoption of safety aspects in their work through suitably designed training and awareness programmes. The BESCOM is also directed to device suitable reporting system on the use of safety gear and mandate supervisory/higher officers to regularly cross check

the compliance by the linemen and take disciplinary action on the concerned if violations are noticed. The BESCOM shall implement this directive within one month from the date of this order and submit compliance report to the Commission."

# Compliance by the BESCOM:

The following safety measures are being implemented:

- Safety goggles, safety shoes and safety belts are procured and issued to field staff.
- II. Tenders were called for safety materials like safety gloves, safety helmets and rainwear, Purchase Order is placed for rubber gloves. The tender for safety helmets and rainwear was opened and is under technical evaluation.
- III. Instructions are issued from corporate office to follow the safety protocol at work field.
- IV. On every Monday morning, the section officer explains about safety aspects and use of safety gadgets during the work, to all the linemen under his jurisdiction. The section officer also instructs the linemen not to take up the work without availing line-clear/ work-permit and creating safe working zone.
- V. Surprise inspection of works is being carried out to check whether the safety materials are used, safety zone is created etc., as per the check list provided. Casual leave for one day is deducted if any of the staff is found not using the safety tools provided to them.

#### Commission's Views:

It is important that the BESCOM should continue to focus on safety aspects to reduce the electrical accidents occurring due to negligence and non-adherence of safety procedures by the field staff while working on the distribution network. Further, the linemen should be given training periodically on adherence to safety aspects so that it becomes part of their routine.

The Commission reiterates its directive that the BESCOM shall ensure that, all the linemen in its jurisdiction are provided with proper and adequate safety gear and ensure that they use the safety gear provided to them while attending to their duites in the field. The compliance in this regard shall be submitted once in a quarter to the Commission regularly.

# iv. Directive on providing Timer Switches to Streetlights by the ESCOMs

The directive issued was as follows:

"The Commission directs the BESCOM to install timer switches using own funds to all the streetlight installations in its jurisdiction wherever the local bodies have not provided the same and later recover the cost from them. The BESCOM shall also take up periodical inspection of timer switches installed and ensure that they are in working conditions. They shall undertake necessary repairs/replacement work, if required and later recover the cost from local bodies. The compliance regarding the progress of installation of timer switches to streetlight installations shall be reported to the Commission within three months of the issue of the Order".

# Compliance by the BESCOM:

The progress of installation of timer switches to streetlight installations as on 30.09.2016 is as under:

BESCOM	Total No. of existing streetlight installations as on September16	No. of installations provided with timer switches as on September16	No. of timer switches in working condition as on September16	No. of timer switches not in working condition as on September16	Balance No. of timer switches to be fixed as on September16
	Α	В	С	D	E=A-C
	52,817	15,313	12,636	3,308	40,181

The BESCOM has issued a circular vide dated 15.09.2016 directing the field staff to install timer switches to new streetlight installations and any

extension/modification carried out to the existing streetlight installations shall also be serviced only with timer switches.

The BBMP/local bodies are maintaining the streetlight installations. Hence, the work of providing timer switches to the streetlights has to be taken up by BBMP/local bodies only and in this regard letters will be addressed to them.

Further, the Government of Karnataka has initiated "Nagara Jyothi" through M/s EESL, a joint venture of the MoP, GoI, for replacement of existing SV/MV/FL streetlight fixtures by the energy efficient LED lamps with provision of smart timer switches in urban local bodies, vide GoK Order No. EN/52/VSC/2015, dated 17.06.2015. Since the initiative is being taken up by the Government and the project is taken up by Urban Development Department, it is requested to exclude the above directive.

#### Commission's Views

The Commission observes that there are around 3,300 number of timer switches provided to the streetlight installations which are not functioning as reported by the BESCOM. But, the BESCOM does not seem to have initiated any action to coordinate with the concerned authorities for necessary repair/replacement of such non-working timer switches. The inaction by the BESCOM has resulted in non-utilization of timer switches already installed to properly regulate the illumination of streetlights aimed at avoiding wastage of electricity.

It is also noted that providing timer switches to streetlight installations under "Nagara Jyothi" programme through M/s EESL covering all streetlight installations has not yet taken off. The same should be pursued with utmost seriousness. The progress /status in this regard shall be reported to the Commission on a quarterly basis, regularly.

Further, wherever feasible the BESCOM should install the timer switches at its cost and later recover the cost from the concerned local bodies. The BESCOM is also directed to persuade the local bodies to install

timer switches at their cost availing funds / grants received from the Government and other agencies for such programmes.

The Commission reiterates its directive that the BESCOM shall ensure that, the new streetlight installations and any extension/modification to be carried out to the existing streetlight installations shall be serviced only with timer switches.

# v. Directive on load shedding:

The Commission had directed that:

- Load shedding required for planned maintenance of transmission / distribution networks should be notified in daily newspapers at least 24 hours in advance for the information of consumers.
- 2) The ESCOMs shall on a daily basis estimate the hourly requirement of power for each sub-station in their jurisdiction based on the seasonal conditions and other factors affecting demand.
- 3) Any likelihood of shortfall in the availability during the course of the day should be anticipated and the quantum of load shedding should be estimated in advance. Specific sub-stations and feeders should be identified for load shedding for the minimum required period with due intimation to the concerned sub-divisions and substations.
- 4) The likelihood of interruption in power supply with time and duration of such interruptions may be intimated to consumers through SMS and other means.
- 5) Where load shedding has to be resorted due to unforeseen reduction in the availability of power, or for other reasons, consumers may be informed of the likely time of restoration of supply through SMS and other means.
- 6) Load shedding should be carried out in different sub-stations / feeders to avoid frequent load shedding affecting the same sub-stations / feeders.
- 7) The ESCOMs should review the availability of power with respect to the projected demand for every month in the last week of the

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- previous month and forecast any unavoidable load shedding after consulting other ESCOMs in the State about the possibility of inter-ESCOM load adjustment during the month.
- 8) The ESCOMs shall submit to the KERC their projections of availability and demand for power and any unavoidable load shedding for every succeeding month in the last week of the preceding month for approval.
- 9) The ESCOMs shall also propose specific measures for minimizing load shedding by spot purchase of power in the power exchanges or bridging the gap by other means.
- 10) The ESCOMs shall submit to the Commission substation-wise and feeder-wise data on interruptions in power supply every month before the 5<sup>th</sup> day of the succeeding month.

The Commission had directed that the ESCOMs shall make every effort to minimize inconvenience to consumers by strictly complying with the above directions. The Commission had indicated that it would review the compliance of directions on a monthly basis for appropriate orders.

# Compliance by the BESCOM:

The prevailing power supply arrangements in the BESCOM is indicated as follows:

#### a) Load Restriction:

Presently there is no load restriction; in case of any major outages in the generating stations, the load restriction is planned as below.

- Priority-1: NJY feeders, 2 to 4 hours in a day on rotational basis.
- **Priority-2:** Town feeders (other than Bengaluru city), 2 to 4 hours in a day on rotational basis.
- Priority-3: Domestic/residential feeders in Bengaluru city, 2 to 4 hours on rotational basis.

- **Priority-4:** Commercial feeders in Bengaluru city, 2 hours on rotational basis.
- **Priority-5:** Staggering of holidays for industrial feeders.

# b) Hours of power supply for agricultural feeders:

- **Rural mixed feeders:** 3 phase, 6 to 7 hours, single phase, 7 to 8 hours.
- Exclusive agriculture feeders: 3 phase, 6 to 7 hours, single phase, 7 to 8 hours.

Consequent to depleted storage of water in major Hydel reservoirs of Linganamakki, Supa & Mani, to meet the peak demand of ensuing summer days, presently Hydel generation is being restricted to 10.5 MU per day from these power plants.

However, to meet the deficit of power, the following measures have been taken by the BESCOM:

- Purchase of power through the Energy Exchange (IEX), 200-300
   MW between 00.00 hrs and 11.00 hrs, 500-750 MW between 11.00 hrs and 18.00 hrs, based on the day ahead availability declared by the SLDC and the anticipated demand based on previous days recorded demanded with seasonal conditions.
- Purchase of power to an extent of 215 MW of BESCOM share from Damodar Valley Corporation through PPA.
- Hydro generation will be increased during ensuing summer and school examinations.

Further, at present, the BESCOM has developed a web-based SDRA application which utilizes the SCADA data and generates MIS reports on power supply position, performance of feeders and also hours of power supply in geographical area-wise, pubic constituency-wise and also BESCOM O&M unit-wise. Using this software, SMS are being sent to public representatives. The information regarding scheduled outages of 11kV feeders, 66 KV lines and sub-stations, will be uploaded on its website- BESCOM.ORG for public information (automatically through LC portal).

As regards sending of SMS about load shedding to the public / consumers, the same is in process. Also, integration of this application with computers of sub-station log book application developed by the KPTCL, to fill up the gaps in the data acquired through SCADA, is in progress.

The BESCOM has also developed web-based Feeder Shutdown Protocol (FSP) application which support the process of 11 KV feeder selection on indiscriminating basis for load shedding in the event of unscheduled outage which can be a result of loss of generating unit or loss of major transmission unit.

As of now, the BESCOM is furnishing day ahead requirement to the SLDC for the requirement of power and based on the requirement and availability, the SLDC is allocating the power. In future, the BESCOM will furnish the projected requirement on month ahead basis to the Commission.

As per the Commission's directive, the details of both scheduled and un-scheduled load shedding due to system constraints is uploaded day ahead in the BESCOM's website for public information.

#### **Urjamithra Programme:**

- Urjamithra programme is an initiative of Ministry of Power,
  Government of India, which provides outage management and
  notification platform for dissipating the outage information to
  power distribution consumers across India through
  SMS/email/push notification.
- Objective of this programme is to share the information with consumers about outages in rural and urban areas through SMS/email/push notification.
- In this regard consumer data collection is in progress.

#### Commission's Views:

The Commission notes that the BESCOM is arranging 7 to 8 hours of single phase power supply on exclusive agriculture feeders segregated under NJY scheme. This is over and above 6-7 hours of 3 phase power. While the intention of providing single phase power may be for use in non-IP set purpose, past experience has indicated that it can be easily used for running IP sets and the ESCOMs have not been able to technically stop such misuse. Just to stop such misuse, NJY is being implemented and BESCOM's action of equating both exclusive agriculture feeder and NJY feeder though for limited hours goes against the scheme of segregation of feeders. The BESCOM is directed reexamine its action and also explain as to why it is extending single phase power supply on exclusive agriculture feeders on par with NJY feeders.

Further, the Commission notes that the BESCOM has not expedited the 'application software' which it has been reportedly developing through Consultants for integration with the SCADA data to enable providing information to the consumers through SMS in advance about the time and duration of probable interruptions. There is no progress in this regard as the status is the same as compared to the previous year. The Commission notes that the BESCOM has not effectively and satisfactorily complied with the directive on load shedding. The BESCOM shall expedite development of necessary software and other process required to inform consumers through SMS regarding both scheduled and un-scheduled load sheddings due to reasons such as system constraints, breakdowns of lines/equipment, maintenance etc., This would significantly address the "consumers' dissatisfaction" on this issue and prevent inconvenience/disruption caused to industrial consumers.

Further, the Commission observes that the BESCOM is not submitting its projections of availability and demand for power and any

unavoidable load shedding for every succeeding month in the last week of the preceding month to the Commission regularly. The BESCOM shall henceforth submit the same regularly to the Commission without fail.

The Commission reiterates that the BESCOM shall comply with the directive on load shedding and submit monthly compliance reports thereon to the Commission regularly.

# vi. Directive on Establishing a 24x7 Fully Equipped Centralized Consumer Service Center for Redressal of Consumer Complaints:

The directive was as under:

"The BESCOM is directed to put in place a 24x7 fully equipped Centralized Consumer Service Center at its Headquarters with a state of the art facility/system for receiving consumer complaints and monitoring their redressal so that electricity consumers in its area of supply are able to seek and obtain timely and efficient services in the matter of their grievances. Such a Service Center shall have adequate desk operators in each shift so that the consumers across the jurisdiction of the BESCOM are able to lodge their complaints to this Centre.

Every complaint shall be received on helpline telephone number by the desk operator and registered with a number which shall be intimated to the Consumer. In turn, the complaints shall be transferred online to the concerned field staff for resolving the same. The concerned O&M/local service station staff shall visit the complainant's premises at the earliest to attend to the complaints and then inform the Centralized Service Centre that the complaint is attended. Then, the desk operator shall also call the complainant and confirm with him whether the complaint has been attended. The complaints shall be closed only after receiving consumer's confirmation. Such a system should also generate daily reports indicating the number/nature of complaints received, complaints attended, complaints pending and

reasons for not attending to the complaints along with the names of the officers responsible with remarks be placed before the Managing Director on the following day for his attention who would review and take corrective action in case of any pendency/delay in attending to the complaints.

The BESCOM shall publish the details of complaint handling procedure/Mechanism with contact numbers in the local media or in any other form periodically for the information of the consumers. The compliance of the action taken in the matter shall be submitted to the Commission within two months from the date of this Order.

Further, the Commission directs the BESCOM to establish/strengthen 24x7 service stations, equipping them with separate vehicles & adequate line crew, safety kits and maintenance materials at all its sub-divisions including the rural areas for effective redressal of consumer complaints".

# Compliance by the BESCOM:

To facilitate the consumers, the BESCOM has established a well-integrated 24 X 7 Customer Help Line with latest technology and software along with in-built automatic call transfer system. Consumers can call on the Customer Help Line Number "1912" which has 45 concurrent lines with Multi Channel Complaint Registration Facility (Phone, SMS, Online, E-mail and Facebook).

As per the directions of the Commission, the BESCOM has published the contact number (1912) of the Centralized Consumer Service Centre initially through all Newspapers, Radio and Television. In addition to this, 24X7 Helpline contact number 1912 is being publicized regularly through pamphlets, hoardings, advertisements, Facebook, Twitter, BESCOM's service station vehicles, display on linemen's uniforms and notifications.

All the consumer complaints are being registered in the Web enabled PGRS (Public Grievance Redressal System) application. Whenever any

consumer registers complaint, he will be provided with a Docket Number, using which he can track his complaint's status through the BESCOM Website. For the speedy redressal of complaints, the BESCOM has established Circle control rooms in all the 8 Circles. In the Circle Control rooms, the executives do follow up of complaints pertaining to their Circle till resolution.

Further, as per the directive of the Commission, the BESCOM had initiated Consumer Interaction Meetings from the year 2012. The Consumer Interaction Meetings are being conducted in all the subdivisions as per the monthly schedule specified by the BESCOM, regularly.

The Zone-wise details of the Consumer Interaction Meetings chaired by the respective Superintending Engineers from April to November, 2016 are as follows:

# Bangalore Metropolitan Area Zone (BMAZ)

Circle	Division	Sub- division	Date	No. of consumers attended	No. of complaint s lodged	No. of complaints attended
North	Peenya	N4	16.11.16	60	5	5
East	Indiranagar	E3	05.08.16	7	0	0
East	Indiranagar	E10	25.10.16	5	5	5
East	Shivajinagar	E2	07.09.16	17	2	2
	Vidhanasoud					
East	ha	W5	23.11.16	1	1	1
South	Jayanagar	S6	18.11.16	14	6	6
South	Jayanagar	\$1	07.11.16	3	3	3
South	HSR	S11	23.11.16	5	5	5
West	Rajajinagar	N1	14.11.16	10	9	9
West	R.R.Nagar	W7	18.11.16	4	3	3

# Bangalore Rural Area Zone (BRAZ)

Circle	Division	Sub- division	Date	No. of consumers attended	No. of complai nts lodged	No. of complaints attended
BRC	Hosakote	HK1	19.10.16	0	0	0
BRC	Nelamangala	TV1	11.11.16	3	2	2
BRC	Hoskote	DH1	28.11.16	8	6	6
Ramanagar a	Ramanagara	CP2	06.09.16	3	2	2
Ramanagar						
а	Kanakpura	SA1	17.10.16	4	2	2
Kolar	KGF	KG1	30.11.16	1	4	4
Kolar	Bangarpet	BG1	25.11.16	6	8	8

# Chitradurga Area Zone (CTAZ):

Circle	Division	Sub - division	Date	No. of consumers attended	No. of complai nts lodged	No. of complaints attended
Tumkuru	Tipturu	CN1	24.11.16	9	5	5
Davanagere	Harihara	HN1	05.12.16	11	10	10
Davanagere	Davanagere	DV1	07.11.16	7	3	3

#### Commission's Views

The BESCOM should continue its efforts in improving the delivery of consumer services to reduce the consumer complaint downtime so as to ensure delivery of prompt services to them. The BESCOM should develop necessary capacity and infrastructure for prompt and effective response to consumer complaints on breakdown of lines/equipment, failure of transformers etc., resulting in interruptions in power supply. In addition to this, BESCOM should take up steps to continuously sensitize its field staff that they need to discharge their work efficiently.

The Commission reiterates its directive to the BESCOM to publish the complaint handling procedures / contact number of the Centralized Consumer Service Centre in the local media, host it on its website and also publish it through other modes periodically for the information of public and ensure that all the complaints of consumers are registered only through the Centralized Consumer Service Centre for proper monitoring of disposal of complaints registered. The compliance in this regard shall be furnished once in a quarter regularly, to the Commission.

# vii. Directive on Energy Audit

The Commission had directed the BESCOM to prepare a metering plan for energy audit to measure the energy received in each of the Interface Points and to account for the energy sales. The Commission had also directed the BESCOM to conduct energy audit and chalk out

an action plan to reduce distribution losses to a maximum of 15 percent wherever it was above this level in the towns/ cities having a population of over 50,000.

The Commission had earlier directed all the ESCOMs to complete installation of meters at the DTCs by 31st December, 2010. In this regard the ESCOMs were required to furnish to the Commission the following information on a monthly basis:

- a) Number of DTCs existing in the Company.
- b) Number of DTCs already metered.
- c) Number of DTCs yet to be metered.
- d) Time bound monthly programme for completion of the work.

# Compliance by the BESCOM:

DTC metering status as on October 2016 is as below:

Number of DTCs existing : 2,48,253

Number of DTC already metered : 1,10,965

Percentage of DTCs metered : 44.70

Number of DTCs yet to be metered: 1,37,288

As metering of DTCs under agricultural feeders and single water supply installations are exempted, the balance DTCs metering to be carried out is approximately 25,000 to 30,000, for which tender is proposed.

Further, for carrying out energy audit of metered DTCs, the BESCOM has taken all measures to resolve the issues and the same is under progress.

As on October, 2016	No.of DTCs existing	No. of DTCs metered	Balance to be metered	No. of DTCs with modems	Balance DTCs to be fixed with modems/ Legacy meters
RAPDRP	54,384	53,517	867	52979	538
Non-RAPDRP	1,93,869	57,448	1,36,421	45,000	12,448
Total	2,48,253	1,10,965	1,37,288	97,979	12,986

In RAPDRP area, DTC-wise energy audit reports require fine-tuning of the incremental data, GIS updation and integration with RAPDRP system and once it is integrated, DTC- wise system generated energy audit reports will be submitted regularly to the Commission.

In Non-RAPDRP area due to software integration issues between the meter manufacturer (M/s AFTL and M/s Genus) and the billing agency (M/s N-soft) DTC-wise energy audit reports are not generated. About 12,287 DTCs' energy audit reports are generated in Tumakuru circle, but due to improper tagging most of the DTCs are showing abnormal losses. Action is being taken to set right the same. For remaining DTCs repeated letters have been addressed to the Meter manufacturers to resolve the software issues, at the earliest.

Further, to furnish energy audit report in the prescribed format as per the Commission's letter dated 20.04.2015, energy audit reports at DTC level are not being generated due to issues mentioned earlier. However, town/division/feeder-wise energy audit reports are furnished regularly to the Commission in the prescribed PQM format for quarterly review meetings. PQM format 3a (division-wise), 3b (feeder-wise) and 3c (town-wise) from April to June 16 are enclosed for further needful.

#### Commission's Views:

It is observed that the monthly energy audit reports of cities/towns with detailed analysis are not being submitted by the BESCOM regularly to the Commission. The Commission directs the BESCOM to conduct energy audit of identified cities/towns and initiate necessary measures on the basis of energy audit results to reduce the technical losses and improving collection efficiency to achieve the mandated A T & C loss of less than 15 per cent. The BESCOM is directed to submit compliance thereon regularly to the Commission.

The Commission further notes that, of the total 2,48,253 DTCs in BESCOM'S jurisdiction, 1,10,965 (45%) DTCs are provided with meters, but, despite completing 45 per cent of the metering of the DTCs, the

BESCOM has failed to take up DTC-wise energy audit, citing non-completion of tagging of consumer installations with the concerned feeders/DTCs and also software integration issues. The stand repeatedly taken by the BESCOM for the last three years that tagging of consumer details with the concerned feeders/DTCs is in progress, does not augur well for the Company which wants to run its business on commercial principles. This shows that the BESCOM is not serious about conducting energy audit and run its business efficiently. The Commission views with displeasure, the delay in completing the tagging work and taking up the energy audit, on the part of the BESCOM.

The BESCOM is directed to take up energy audit of DTCs where meters have already been installed and to initiate remedial measures for reducing energy losses in the distribution system. The compliance in respect of DTC-wise energy audit conducted with analysis and the remedial action initiated to reduce loss levels shall be regularly submitted to the Commission on a quarterly bais.

Further, the BESCOM is directed to submit to the Commission the consolidated energy audit report for the FY17, as per the formats prescribed by the Commission, vide its letter No. KERC/D/137/14/91 dated 20.04.2015, before 15<sup>th</sup> May, 2017.

# viii. Directive on Implementation of HVDS:

In view of the obvious benefits in the introduction of HVDS in reducing distribution losses, the Commission had directed the BESCOM to implement High Voltage Distribution System (HVDS) in at least one O&M division in a rural area in its jurisdiction by utilizing the capex provision allowed in the ARR for the year.

# Compliance by the BESCOM:

The HVDS work in respect of balance 28 (out of total 68) feeders in Tumkuru, Chikkaballapura and Nelamangala divisions was completed and the feeders were also commissioned during the December, 2015.

The evaluation of pre and post analysis of all the 68 feeders was entrusted to TPIA (Third Party Inspection Agency) M/s N Arc Consulting, New Delhi, vide DWA No. DGM/HVDS/TPIA/16-17/03/ 04/05, dated 10.11.2016. Two months' time has been given to the Agency for submission of analysis report and on receipt of the reports, the same will be submitted to the Commission.

Further, the BESCOM has taken action to identify the feeders having highest distribution losses for implementing HVDS scheme at a reasonable cost duly following the guidelines issued by the Commission. The BESCOM has taken all the necessary measures and the overall DPR cost of implementation of HVDS scheme in Kanakapura taluk has been reduced from Rs 174 crore to Rs 136.88 crore and cost of thr projects in Huliyurdurga O&M section & Tumakuru taluk has been reduced from Rs. 32.25 crore to Rs 25.90 crore. In this regard, a reply on the discrepancies noted by the Commission will be submitted to the Commission shortly.

Tenders are invited for implementation of HVDS in Ramanagara rural, Channapatna urban and Bidadi sub-divisions in Ramanagara circle, already evaluation is completed and awarding is yet to be finalized. Tender has been re-invited for Channapatna Rural sub-division and NIT was issued on 17.12.2016.

#### Commission's Views:

The Commission notes that implementation of HVDS involving 68 feeders in Tumakuru RSD1&2, Chikkaballapura and Doddaballapura sub-divisions has been completed. The BESCOM is directed to expedite analysis of the feeders commissioned in order to evaluate the benefits accrued to the system post implementation vis-à-vis the objectives set out in the DPR. Further, the BESCOM needs to expedite implementation of HVDS in its Ramanagara circle by drawing up an action plan for timely completion so as to derive the envisaged benefits on implementation of the scheme.

The Commission with a view to minimize the cost had issued revised guidelines for implementation of HVDS in sub-divisions/feeders having highest distribution losses, so that a higher loss reduction could be achieved on implementation of HVDS at a reasonable cost. The BESCOM is directed to follow these guidelines to reduce the cost of implementation of HVDS in Ramanagara circle.

As regards the implementation of HVDS in Kanakapura sub-division, the Commission vide its letter No. KERC/D/75/2016-17/2603, dated 14.2.2107 has asked the BESCOM to attend to the observations noted by the Commission and submit the revised report of the project as per actuals. The BESCOM was also directed to make a presentation before the Commission outlining the benefits accrued to the system post implementation of the HVDS project in Kanakapura sub-division. The Commission directs the BESCOM to comply with these instructions at the earliest.

The Commission reiterates its directive that the BESCOM shall follow the revised guidelines issued by the Commission on this issue and implement the HVDS programme in Ramanagara circle and submit the progress/compliance thereon once in a quarter, to the Commission regularly.

# ix. Directive on Niranthara Jyothi – Feeder Separation:

The ESCOMs were directed to furnish to the Commission the programme of implementing 11 KV taluk-wise feeders' segregation with the following details:

- a) Number of 11 KV feeders considered for segregation.
- b) Month-wise time schedule for completion of envisaged work.
- c) Improvement achieved in supply after segregation of feeders.

# Compliance by the BESCOM:

BESCOM has reported that, out of the 271 feeders taken up under phase-1, all the feeders have been commissioned and out of the 281

feeders proposed under phase-2, 280 feeders have also been commissioned. The project was scheduled for completion in all respect by January, 2016. Further, a total of 380 feeders are proposed under phase-3 of Niranthara Jyothi extending the scheme to the left out villages and the areas earlier covered under RLMS scheme, at a total cost of Rs 703 crore. Out of 380 feeders proposed under phase-3, already 156 feeders have been commissioned. The project is scheduled for a total completion by March, 2017. It is submitted that for Niranthara Jyothi feeders, 20-22 hours of three phase power supply is being arranged as envisaged. Limited number of hours of power supply to IP-sets i.e., for agriculture feeders is 7 hours at three phases as per the decision of GoK.

Further, M/s MECON Limited, a Government of India undertaking has been entrusted with pre and post analysis of feeders commissioned under Niranthara Jyothi phase-1 and concurrent analysis of feeders commissioned under phase-2, as follows:

Bengaluru Rural : 24 feeders
 Kolar : 08 feeders
 Tumakuru : 40 feeders
 Davanagere : 28 feeders

M/s MECON has submitted a report in respect of feeders identified in Davangere and Kolar circles and which is validated by the concerned superintending engineers (Ele.,). Further, M/s PRDCL has also evaluated the pre and post analysis of feeders commissioned under Niranthara Jyothi phase-1 in Harpanahalli Taluk, in Davanagere circle.

The agencies have submitted a detailed report separately for each of the feeders on which the analysis was carried out. The reports show that the NJY has benefited the rural population to a considerable extent through better quality of power supply and in providing 24 x7 power to the rural non-agricultural loads. The consumers are satisfied with the better power supply conditions prevailing after the implementation of NJY.

The benefits derived from NJY scheme is noted below:

#### • 24x7 power supply to villages:

The main purpose envisaged in the implementation of NJY is to arrange 24x7 uninterrupted power supply to the villages. As seen from the vital statistics of the sub-stations feeding the area, these villages which were having intermittent power supply earlier, are now having continuous 3-phase power supply and the BESCOM is not resorting to load shedding, which was the case earlier. But, in a few cases there have been continued interruptions due to system constraints, line clear issues and unforeseen faults. But, now after implementation of NJY, the BESCOM is able to supply continuous uninterrupted quality power supply for longer duration during morning and evening peak hours.

#### • Energy input from sub-stations:

There is increase in consumption of both the metered category installations and IP-sets. However, the increase in IP-consumption is attributed to the increase in number of IP-sets due to regularization of unauthorized IP-sets.

# Increase in metered consumption:

The energy consumption of metered category installations has shown an increase of about 25 to 30 per cent after the implementation of NJY. In some of the cases, where the exact feeder-wise metered consumption was not furnished due to change in billing software and non-availability of previous data, a sample of energy consumption of a few installations selected at random in various villages fed from the feeder over a period of 6 months before and after the implementation of NJY, as extracted from the sub-divisional DCB was analyzed. This also indicates the increasing trend of consumption of metered installations. However, it can be safely assessed that there is an increase of 25% to 30% in metered energy consumption.

# • Unmetered consumption:

As compared to the earlier scenario, there is a considerable increase in the IP consumption post-implementation of NJY. The total unmetered consumption of IP sets in respect of the combined IP feeders has shown an increasing trend as compared with the IP set consumption before implementation of NJY. This is due to increase in number of IP sets serviced under regularization and also due to mix-up of feeder loads during re-arrangement of feeders envisaged in the project. However, IP consumption, which was hitherto being assessed based on assumptions, can now be measured more accurately, as there is a total exclusive feeder with metering facilities at sub-station end, for calculating feeder-wise total daily and monthly IP-consumption.

#### • Rate of failure of transformers:

After the implementation of NJY, the failure rate of transformers in the IP feeders as well as NJY feeders has reduced significantly as compared to the failure rate of transformers before implementation of NJY.

#### • Better consumer satisfaction:

As per the opinion obtained from the consumers, in different villages fed by NJY feeders, it is evident that the consumers are happier with the better power supply conditions after implementation of NJY.

# Results of the socio-economic survey carried out for the beneficiaries of the NJY Project:

A survey was conducted on the effectiveness of the project by obtaining opinion from a cross section of people in different villages fed by NJY feeders, the results are as follows:

- o Improvement in quality of power supply viz., less voltage fluctuations, reduction in interruptions/better tail-end voltages.
- Improved standards of living.

- o Increase in level of literacy/education.
- Improvement in basic amenities such as drinking water supply, improved services in Primary Health Centers.
- Development of small scale industries leading to local employment and increased job opportunities.

Further, the BESCOM has ensured that the illegal tapping of NJY feeders is curbed and wide publicity has been given through media, highlighting the punishments laid down under the law for power theft or illegal hooking.

The BESCOM will furnish the total IP-set consumption monthly to the Commission on the basis of data obtained from agricultural feeders' energy meters.

Following are the observations pertaining to 36 NJY feeders covering Davanagere and Kolar Circles:

SI No	Parameter	Before bifurcation	After bifurcation NJY non-agri feeder	After bifurcation agri feeder	Conclusion
1	Total No. of installations	Domestic lighting and water supply – 48,720 numbers &IP Sets – 9,340 numbers	Domestic lighting and water supply – 52,445 numbers	IP Sets – 11,150 numbers	Increase in installations after bifurcation is about 9.6%
2	Total connected load	12,60,500 KW (Domestic and IP) load cannot be segregated since the connected load is based on installed transformer capacity)	Domestic Lighting and Water Supply 2,36,000 kW	IP Sets 11,85,000 kW	Increase in connected load after bifurcation is about 12.2%
3	Total energy sent out from substation (kWh)	Domestic lighting and water supply - 38,28,650 kWh& IP Sets - 1,39,45,000kWh	Domestic lighting and water supply 56,57,600 kWh	IP Sets 92,65,500 kWh	Decrease in energy sent out from the substations after bifurcation is about 16%
4	Total metered energy consumption (kWh)	Domestic lighting and water supply - 31,57,600 kWh& IP Sets -Realized about 88,30,000 kWh	50,06,300 kWh	It is assumed that the entire energy consumed by the bifurcated Agri feeders is assessed and	Increase in metered energy consumption after bifurcation is about 19%

			1	م ما الثين	
				will be realized from	
				the Govt. at a later date	
5	Average technical loss	17.5%	11.5%	Not possible to evaluate	Reduction in technical loss is about 5.5%
6	Average Commercial loss	6%	5.5%	AT&C for a pure Agricultural feeder since	Reduction in commercial loss is about 0.5%
7	Aggregate Technical and commercial loss	23.50%	17%	the realization is an assumed value of 100%	Reduction in AT&C loss is about 6.5%
8	Transformer Failure rate	14%	16%	17.5%	Even though the number of failure of transformers has reduced, the percentage failure rate for the bifurcated non-Agri NJY feeder has increased marginally by about 2%. This may be attributable to high service period of about 20 to 22 hours a day as compared to earlier 8 to 10 hours a day
9	Voltage Regulation (HT)	7%	4.50%	9.50%	Even with this improvement for the non-Agricultural NJY feeder, the regulation is above the acceptable range of + 2.5% (up to transformer) as per REC guidelines. This may be attributable to higher line lengths
10	Peak Load	140A to 200A	about 45 A	120 to 135 A	This has led to improved quality of power supply viz., good tail end voltage at the consumer end. This is evident from the survey carried out of the consumers.

The following are the observations pertaining to Socio-Economic Survey carried out for the Beneficiaries of NJY scheme (36 NJY feeders) of Davanagere and Kolar Circles of BESCOM. A survey was carried out covering 5 villages per feeder and 6 respondents per village:

Circle	Davangere
No of sub-divisions	8
No of feeders for evaluation	28
Circle	Kolar
No of sub-divisions	2
No of feeders for evaluation	8

SI No	Parameter	Response
1	Voltage Measured at consumer premises	Within acceptable value
2	Is the respondent aware of NJY scheme (Yes/ No)	No (80%) However the surveyor has appraised the respondent about the scheme
3	Availability of power 24x7 after NJY (Yes/ No)	Yes (93%) > 20 Hrs a Day
4	Improvement in quality of power viz. less voltage fluctuations after NJY (Yes / No)	Yes (86%)
5	Reduction in power Interruptions after NJY (Yes / No)	Yes (73%)
6	Whether satisfied with quality and duration of power supply for IP sets (Yes/ No) if applicable	No (73%)
	Respondents perception(Yes/No) on whether implementation of NJY has led to	
	a) Improvement in standard of living	Yes (87%)
7	b) Increase in level of literacy/education levels	Yes (97%)
	c) Improvement in basic amenities such as drinking water supply, improved services in Primary Health Centers	Yes (83%)
	d) Development of Small Scale Industries leading to local employment and increased job opportunities	Yes (77%)
	e) Reduction in migrant population to urban areas	No (87%)
8	Overall satisfaction level about the project (Good/ Average/Needs further improvement)	Average

#### Commission's Views:

The Commission notes that the BESCOM has commissioned all the feeders under NJY phase 1&2 and achieved significant progress under phase 3 also. But, there has been an inordinate delay in completion of the NJY works across its jurisdiction which has resulted in non-realization of envisaged benefits set out in the DPR when the project was initiated.

The BESCOM is hereby directed to commission the remaining feeders taken up under phase-3 expediously and thereafter to carry out the feeder-wise analysis so as to ensure that the objectives set out as per DPR are accomplished. Further, the BESCOM shall ensure that NJY feeders are not tapped illegally for running IP-sets which would defeat the very purpose of feeder segregation scheme undertaken at huge cost. The Consumers who are found to be tapping the NJY feeders need to be dealt with seriously for theft of energy. The field officers/officials who fail to note and curb illegal tapping shall be personally held responsible for these irregulariites.

The Commission notes that, the BESCOM has carried out the analysis of feeders commissioned under NJY indicating the benefits accrued to the system in terms of reduction in failures of distribution transformers; improvement in tail-end voltage; improvement in supply/reduction in interruptions and increase in metered consumption. The analysis reveals that there is an overall improvement in supply condition after implementation of NJY besides benefiting the consumers in rural area, resulting in a positive socio-economic impact. The analysis also reveals that the consumers are satisfied as the number of hours of quality power availability has increased, post implementation of NJY.

Further, it is noted that the BESCOM has already segregated significant number of feeders under phase1, 2 and 3 works and consequently the agricultural feeders are exclusively used to supply power to rural IP set loads and the energy consumed by the IP sets could be more accurately measured at the 11 KV feeders at the sub-stations, duly

considering the distribution losses in 11 KV lines, distribution transformers and LT lines. The BESCOM is directed to report every month, the specific consumption and the overall IP set consumption, only on the basis of the data from energy meters installed to the agricultural feeder, as per the formats prescribed by the Commission.

The Commission reiterates its directive to the BESCOM to continue to furnish feeder-wise IP set consumption based on energy meter data in respect of agriculture feeders segregated under NJY, to the Commission every month.

# x. Directive on Demand Side Management in Agriculture:

In view of the urgent need for conserving energy for the benefit of the consumers in the State, the Commission had directed the BESCOM to take up replacement of inefficient Irrigation Pumps with energy efficient Pumps approved by the Bureau of Energy Efficiency, at least in one sub-division, in its jurisdiction and report compliance thereon.

# Compliance by the BESCOM:

A brief note on solar water pumping system "Surya Raitha Scheme" is as under:

**Introduction:** In September 2014, the GoK had envisaged a sustainable solution to the problem of agricultural power by way of the Surya Raitha scheme. This scheme proposes to provide net metered solar water pumps and earn a tariff for net energy exported thereby completely eliminating energy usage for agriculture in the converted pumps.

# Surya Raitha, pilot project:

The BESCOM has initiated action to arrange power supply to 310 IP-sets on Harobele 11kV feeder of Kanakapura sub-division on a pilot basis. The project provides for energizing the IP-sets with solar power by replacing existing inefficient pump sets with efficient pump sets and feed in excess energy to the grid on net-metering basis. The excess

energy fed into the grid will be paid back to the farmers as per the tariff fixed by the Commission resulting in additional income to the farmers apart from the income earned through crops.

The scheme will be financed by a combination of farmer's investment, GoK subsidy, MNRE subsidy and BESCOM's investment through soft loans that will be repaid by the farmer through his net metering tariff revenues in the initial years. The net meeting revenues will be deposited into an Escrow account and will be diverted first to service the loan corpus fund as per the tariff of Rs 7.20 fixed by the KERC for SRTPV / small solar projects, out of which Rs1/- will be paid as generation based incentive to farmers through farmers' Co-operative Society and Rs 0.20 will be paid to the Co-operative Society for its maintenance. Payback period is estimated at 10-12 years based on the solar generation and utilization factor of the pump set.

To enable a self-sufficient system and to recover the loan at the earliest, the PV panel is oversized by 50 per cent, so that the additional power will always feed power to the grid even while the solar water pumps are in use. The feeder will be kept on from 6 am to 6 pm during day time for injecting excess energy to the grid. Typically, 66 per cent of energy is fed to the pump and 33 per cent to the grid.

The breakup of cost of the project is as below:

Particulars	5 HP capacity per IP- set	7.5 HP capacity per IP- set	Total
Total cost of system, Rs.	6,78,342	9,08,342	
Number of pumps installed, Nos	223	87	310.00
GoK contribution, Rs.Crs.	58,000	1,69,000	2.76
MNRE contribution, Rs. Crs.	1,62,000	1,62,000	5.02
Interest free loan from BESCOM, Rs.Crs.	4,08,342	5,02,342	14.43
Upfront payment by farmer, Rs. Crs.	50,000	75,000	1.77
Total cost of the project Rs. Crs.			23.98

# Benefits from the net-metering programme for GoK:

- Permanent stoppage of subsidized energy to agricultural customers with an opportunity to deploy the same energy in other revenue generating segments.
- Energy saved from agricultural customers and delivered from netmetering can be used to bridge energy deficit in the State.
- Improved ground water ecology and agricultural output.

#### Benefits to the BESCOM:

- Reduction in peak load and energy consumption.
- Reduction of T &D losses.
- Save on infrastructure cost.
- Improvement in fiscal deficits.
- Reduction in failure of DTCs.
- Save on high cost energy.

#### Benefits to farmers:

- Increased agricultural productivity.
- Improvement of water table.
- Enhanced quality of irrigation.
- Assured day time power supply.
- Steady income from solar generation.
- Source of income during drought years.

# **Progress of the Project:**

- The Work award was issued on 07.09.2015 to M/s Sun Edison Solar Power India Pvt., Ltd., at a cost of Rs.19.5 crore for design, supply, testing, installation, commissioning, repair and maintenance for a period of 10 years for 250 numbers of grid connected Solar PV based irrigation pump sets on net metering basis under "Surya Raitha Scheme" on 11 kV Haroblele F2 feeder in Kanakapura Taluk.
- The BESCOM Board has approved the scheme to cover 310 IP-sets at a cost of Rs.23,98,25,112/-.

- The Govt. has released subsidy to an extent of Rs. 2.2 crore for 250
  IP sets. The GoK will be requested for additional subsidy for 60 IP sets
  and MNRE for sanctioning subsidy.
- Co-operative Society in the name of "Surya Raitha Krushi Vidyuth Balekedarara Sahakara Sangha Niyamitha" at Harobele is registered on 19.08.2015.
- Detailed survey has been conducted and work is in progress.
- A demo PV panel has been installed at Harobele on 24<sup>th</sup>
   September, 2015, and it is running successfully.
- Street plays are conducted to create awareness among the farmers about the scheme.
- The work is expected to complete by 28.02.2016.

The latest progress is that around 69 number of solar IP-sets have been commissioned as on 31.05.2016. Based on the request of M/s Sun Edison, the project work is assigned to M/s Ishaan Solar, duly obtaining BESCOM's Board approval. The firm has committed to commission all the 310 number of IP-sets by the end of January 2017.

#### Commission's Views:

The Commission notes that the BESCOM is implementing Surya-Raitha scheme in Kanakapura taluk as a part of DSM initiatives. But, there is delay in implementation of this scheme. It is important to see that all the pending works relating to this project are expedited by the BESCOM, so as to complete the work at the earliest and the farmers are able to avail the benefits of this scheme. Further, it is seen that the BESCOM has not initiated any steps for implementation of DSM measures in the other parts of BESCOM area, in order to conserve energy and also precious water, for the benefit of farmers. The BESCOM should focus its attention on implementation of DSM measures and initiate steps to scale up this programme in its entire jurisdiction.

The BESCOM is directed to expedite the implementation of DSM measures in 11kV Harobele feeder in Kanakapura taluk and report

compliance thereon to the Commission within three months from the date of this Order.

# xi. Directive on Lifeline Supply to Un-Electrified households:

The Commission had directed the ESCOMs to prepare a detailed and time bound action plan to provide electricity to all the un-electrified villages, Hamlets and Habitations in every taluk and to every household therein. The action plan was required to spell out the details of additional requirement of power, infrastructure and manpower along with the shortest possible time frame (not exceeding three years) for achieving the target in every taluk and district. The Commission had directed that the data of un-electrified households could be obtained from the concerned Gram Panchayaths and the action plan be prepared based on the data of un-electrified households.

# Compliance by the BESCOM:

The physical progress of electrification of BPL households under RGGVY XII plan is as follows:

			identified for	Progress as on					
SI. No.	Name of district	No. of BPL households identified for electrificati on as per DWA		July'16	Aug'16	Sep'16	Oct'16	Cumula- tive progress	Progress in % w.r.t. Survey
1	Bangalor e Rural	6,167	8,410	7,790	256	0	2	8,048	95.70%
2	Davanag ere	21,294	25,652	17,202	1,801	836	1,014	20,853	81.29%
3	Kolar	13,041	21,312	13,004	1,202	1,473	1,689	17,368	81.49%
4	Chikkaba Ilapura	15,460	24,696	18,819	2,060	1,443	1,085	23,407	94.78%
5	Ramana gara	4,569	19,601	6,980	236	0	0	7,216	36.81%
Total		60,531	99,671	63,795	5,555	3,752	3,790	76,892	77.15%

As per REC guidelines, the work shall be completed within 24 months from the date of issue of work award to the Agency. The BESCOM is

committed to complete the project in all aspects within the stipulated time fixed by the REC.

Further, for electrification of BPL households as per the guidelines of REC 1,19,659 BPL households are identified in 08 districts of BESCOM under Dena Dayal Upadhyaya Grama Jyothi Yojana (DDUGJY).

The district-wise BPL households identified for electrification under the scheme are as follows:

SI. No.	Name of the district	No. of BPL households identified for electrification under DDUGJY
1	Bengaluru Rural	4,315
2	Davangere	5,885
3	Kolar	4,563
4	Chikkaballapura	4,173
5	Ramanagara	7,689
6	Anekal taluk of Bengaluru Urban	5,523
7	Chitradurga	36,817
8	Tumakuru	50,694
	Total	1,19,659

For implementation of the same, the tenders have been floated and the works have to be awarded to the qualified bidder after completion of the evaluation process. The time schedule fixed for implementation of DDUGJY scheme is 24 months from the date of issue of Detailed Work Award (DWA).

Initially the DPRs under the RGGVY XII Plan (as per the guidelines of REC the population of the selected village shall be more than 100) were prepared for 5 Districts namely Bengaluru Rural, Kolar, Ramanagara, Chikkaballapura and Davanagere districts. The same has been approved by the REC and the detailed work awards have been issued to the successful bidder during the month of January, 2015. As per the detailed work award issued, the time schedule for completion of the work is 31st December, 2016.

For the remaining three districts, namely, Chitradurga, Tumakuru & Bengaluru Urban (Anekal taluk), the DPRs for electrification of BPL

households were prepared under RGGVY XII Plan and submitted to REC for sanctioning. Meantime, Government of India has introduced new scheme called "Deena Dayal Upadyaya Grama Jyothi Yojana (DDUGJY)" in which all the villages having a population less than 100 shall also be covered under the scheme. In view of this, proposal for electrification of BPL households in RGGVY XII plan has been dropped in respect of Chitradurga, Tumakuru & Bengaluru Urban (Anekal taluk) districts and proposed to include the same under DDUGJY scheme.

Under DDUGJY scheme, DPRs for all the 08 districts have been prepared as per REC guidelines and submitted to REC for acceptance. The monitoring committee of MoP and in turn Additional Chief Secretary, Energy department, GoK has allocated Rs.235.36 crore to the BESCOM under DDUGJY scheme. The tenders for the works have been floated and the detailed work awards have to be issued to the successful bidders.

The timeline fixed for completion of works in all aspects is 24 months from the date of issue of detailed work award, to the Agencies. The BESCOM is committed to complete the project in all aspects within the stipulated time fixed by REC and will be completed by the end of January, 2019.

The project-wise coverage of un-electrified BPL households and progress achieved as at the end of November, 2016 under RGGVY XII Plan scheme is as under:

		RGGVY	XII Plan	DDU	GJY	Total		
SI. No.	Name of the District	Coverage (as per survey)	Achieved as on Nov' 2016	Coverage (As per survey)	Achieved as on Nov' 2016	Coverage	Achieved as on Nov' 2016	
1	Bengaluru Rural	8,410	8,048	4,315	0	12,725	8,048	
2	Davanagere	25,652	22,515	5,885	0	31,537	22,515	
3	Kolar	21,312	20,159	4,563	0	25,875	20,159	
4	Chikkaballapura	24,696	23,674	4,173	0	28,869	23,674	
5	Ramanagara	19,601	7,216	7,689	0	27,290	7,216	
6	Chitradurga	0	0	36,817	0	36,817	0	
7	Tumakuru	0	0	50,694	0	50,694	0	
8	Bengaluru Urban							
	(Anekal Taluk)	0	0	5,523	0	5,,523	0	
To	otal	99,671	81,612	1,19,659	0	2,19,330	81,612	

### Commission's Views:

The Commission notes with displeasure that only 77 per cent progress has been achieved by the BESCOM, in electrification of the households under RGGVY XII Plan. The BESCOM needs to expedite electrification of un-electrified households so as to complete the same at the earliest. It is noted that the electrification of households has not progressed as targeted for the last many years resulting in large number of households in the State remaining without electricity. The Commission expresses its displeasure over the BESCOM's tardy progress and apparent lack of seriousness in electrification of un-electrified households in its jurisdiction. The BESCOM must implement the programme within in a time bound period to ensure that the people without electricity are provided with the basic need of electricity.

Further, the Commission concerned with the slow pace of progress of this programme, in its previous Tariff Orders had directed the BESCOM to cover electrification of 5 per cent of the total identified unelectrified households every month beginning from April, 2015, so as to complete this programme in about twenty months. However, the progress achieved in electrification of households so far by the BESCOM is disappointing.

The Commission directs the BESCOM to expedite action to provide electricity to the un-electrified households and cover all the remaining households at the earliest and report compliance thereon to the Commission regarding the monthly progress achieved from May, 2017 onwards. The Commission as already indicated in the earlier Tariff Orders would be constrained to initiate penalty proceedings under section 142 of the Electricity Act, 2003, against BESCOM in the event of non-compliance in the matter.

## xii. Directive on Implementation of Financial Management Framework:

The present organizational set up of the ESCOMs at the field level appears to be mainly oriented towards maintenance of power supply

without a corresponding emphasis on realization of revenue. This has resulted in a serious mismatch between the power supplied, expenditure incurred and the revenue realized in many cases. The continued inability of ESCOMs to effectively account the input energy and its sale in different sub-divisions of the ESCOM in line with the revenue realization rate fixed by the Commission, urgently calls for a change of approach by the ESCOMs, so that the field level functionaries are made accountable for ensuring realization of revenues vis-à-vis the input energy supplied to the jurisdiction of sub-division/ division.

The Commission had therefore directed the BESCOM to introduce a system of Cost-Revenue Centre Oriented sub-divisions at least in two divisions, on a pilot basis, in its operational area and report the results of the experiment to the Commission.

## Compliance by the BESCOM:

The Commission has principally agreed to dispense with the implementation of SBU concept, instead has suggested to implement Financial Management Framework in line with a report prepared by M/S PWC on pilot basis in selected divisions in BESCOM. Based on the Commission's direction, the division-wise draft financial evaluation was done based on the actuals of FY16. The Draft results are tabulated below:

Divisions	Net Consumption	PP Cost	Other Cost	Total Cost	Demand Total	Collecting Total	ARR Demand	ARR Collection	Cost per unit	Profit/ loss Demand basis	Profit / loss Collection basis
Chandapura	1309.85	4.37	0.37	4.74	937.41	876.51	7.16	6.69	4.74	317	256
Chikballapura	538.34	4.37	1.07	5.44	221.88	212.88	4.12	3.95	5.44	-71	-80
Chintamani	465.43	4.37	0.63	5.00	160.32	152.19	3.44	3.27	5.00	-72	-81
Chitradurga	510.21	4.37	1.10	5.47	198.47	192.20	3.89	3.77	5.47	-81	-87
Davanagere	789.16	4.37	0.85	5.22	399.15	314.21	5.06	3.98	5.22	-13	-98
Harihara	512.11	4.37	0.68	5.05	184.39	176.08	3.60	3.44	5.05	-74	-83
Hebbala	985.49	4.37	0.64	5.01	649.97	634.19	6.60	6.44	5.01	156	140
Hiriyuru	522.88	4.37	1.00	5.37	197.07	181.32	3.77	3.47	5.37	-84	-99
HSR	1346.47	4.37	0.54	4.91	1004.69	961.50	7.46	7.14	4.91	344	300
Indiranagar	1952.73	4.37	0.48	4.85	1519.25	1466.00	7.78	7.51	4.85	572	519
Jayanagar	1410.10	4.37	0.66	5.03	1000.01	981.78	7.09	6.96	5.03	291	273
K.G.F	984.96	4.37	0.47	4.84	418.04	385.85	4.24	3.92	4.84	-59	-91

Kanakpura	619.73	4.37	0.42	4.79	277.10	254.60	4.47	4.11	4.79	-20	-42
Kengeri	734.55	4.37	0.42	4.79	431.72	417.37	5.88	5.68	4.79	80	66
Kengen	734.33	4.37	0.42	4./ 7	431.72	417.37	3.00	3.66	4./ 7	00	00
Kolara	456.87	4.37	0.94	5.31	207.88	185.06	4.55	4.05	5.31	-35	-58
Koramangala	1860.13	4.37	0.40	4.77	1464.99	1400.13	7.88	7.53	4.77	578	513
Madhugiri	664.46	4.37	0.82	5.19	225.78	197.57	3.40	2.97	5.19	-119	-147
Malleswaram	641.39	4.37	1.66	6.03	492.50	478.33	7.68	7.46	6.03	106	92
Nelmangala	1036.19	4.37	0.59	4.96	608.53	537.95	5.87	5.19	4.96	95	24
Peenya	989.84	4.37	0.69	5.06	681.53	660.04	6.89	6.67	5.06	181	159
Rajajeshwarinagar	537.35	4.37	0.90	5.27	356.85	347.03	6.64	6.46	5.27	74	64
Rajajinagara	762.03	4.37	0.89	5.26	499.27	490.43	6.55	6.44	5.26	98	90
Ramnagara	543.09	4.37	0.77	5.14	294.57	290.00	5.42	5.34	5.14	15	11
Shivajinagara	1011.70	4.37	0.70	5.07	730.22	707.71	7.22	7.00	5.07	217	195
Tipturu	516.00	4.37	0.76	5.13	188.23	170.07	3.65	3.30	5.13	-76	-95
Tumkuru	1342.36	4.37	0.75	5.12	567.48	536.32	4.23	4.00	5.12	-120	-151
Vidhanasouda	457.66	4.37	1.12	5.49	346.72	340.81	7.58	7.45	5.49	95	90
Yelahanka	1037.08	4.37	0.45	4.82	527.17	489.81	5.08	4.72	4.82	27	-10
	24538										

# The BESCOM has fixed division-wise targets for FY17 as under:

Divisions	Contribution factor	Approved by KERC for FY17	Targeted ARR For FY17
Chandapura	1.29	5.96	7.67
Chikballapura	0.74	5.96	4.42
Chintamani	0.62	5.96	3.69
Chitradurga	0.70	5.96	4.17
Davanagere	0.91	5.96	5.42
Harihara	0.65	5.96	3.86
Hebbala	1.19	5.96	7.07
Hiriyuru	0.68	5.96	4.04
HSR	1.34	5.96	8.00
Indiranagara	1.40	5.96	8.34
Jayanagara	1.28	5.96	7.60
K.G.F	0.76	5.96	4.55
Kanakpura	0.80	5.96	4.79
Kengeri	1.06	5.96	6.30
Kolara	0.82	5.96	4.88
Koramangala	1.42	5.96	8.44
Madhugiri	0.61	5.96	3.64
Malleswaram	1.38	5.96	8.23
Nelamangala	1.06	5.96	6.30
Peenya	1.24	5.96	7.38
Rajajeshwarinagar	1.19	5.96	7.12
Rajajinagar	1.18	5.96	7.02
Ramanagara	0.98	5.96	5.81
Shivajinagar	1.30	5.96	7.74
Tipturu	0.66	5.96	3.91
Tumkuru	0.76	5.96	4.53
Vidhanasouda	1.36	5.96	8.12
Yelahanka	0.91	5.96	5.45

Draft evaluation and targets are set and regarding setting up of targets to distribution loss, action will be initiated.

Further, as recommended by the Consultant, M/s PWC, financial evaluation can be done in two steps. Revenue and Cost Management as indicated in stage II implementation is tabulated at page 111 of the BESCOM's Tariff application. By considering average power purchase cost of BESCOM to all divisions, the cost component of each division varies. This has resulted in a loss in majority of the rural divisions and profit in case of divisions under BMAZ. Further, financial evaluation on Revenue Management as indicated in Stage-I implementation is tabulated below:

## Evaluation of results – April to Oct'16 – Performance against ARR targets

Divisions	Sales in	Demand 3	Collection 4	ARR-D 5=3/2	ARR-C	ARR- Taret	Margin		Profit/(loss)	
	Mυ						Demand	Collection	Demand	Collection
	2				6=4/2	7	8=5-7	9=6-7	10=2*8	11=2*9
Chandapura	828.33	597.78	587.08	7.22	7.09	6.62	0.60	0.47	49.43	38.73
Chikballapura	341.33	149.08	141.17	4.37	4.14	6.1	(1.73)	(1.96)	(59.13)	(67.04)
Chintamani	274.72	104.95	94.1	3.82	3.43	5.84	(2.02)	(2.41)	(55.49)	(66.34)
Chitradurga	341.28	140.48	134.61	4.12	3.94	6.14	(2.02)	(2.20)	(69.07)	(74.94)
Davanagere	435.13	202.92	197.94	4.66	4.55	6.05	(1.39)	(1.50)	(60.33)	(65.31)
Harihara	288.9	122.15	121.09	4.23	4.19	5.92	(1.69)	(1.73)	(48.88)	(49.94)
Hebbala	593.2	418.57	422.5	7.06	7.12	6.41	0.65	0.71	38.33	42.26
Hiriyuru	329.11	130.51	124.76	3.97	3.79	5.98	(2.01)	(2.19)	(66.30)	(72.05)
HSR	864.61	683.04	672.83	7.9	7.78	6.68	1.22	1.10	105.48	95.27
Indiranagara	1187.6	989.35	1000.1	8.33	8.42	6.66	1.67	1.76	198.43	209.19
Jayanagara	842.15	636.54	644.78	7.56	7.66	6.62	0.94	1.04	79.04	87.28
K.G.F	546.08	261.82	243.21	4.79	4.45	6	(1.21)	(1.55)	(65.83)	(84.44)
Kanakpura	378.48	187.25	181.46	4.95	4.79	5.88	(0.93)	(1.09)	(35.30)	(41.09)
Kengeri	461.34	291.5	288.37	6.32	6.25	6.08	0.24	0.17	11.01	7.88
Kolara	315.99	147.52	136.58	4.67	4.32	5.95	(1.28)	(1.63)	(40.49)	(51.43)
Koramangala	1106.8	942.61	938.82	8.52	8.48	6.67	1.85	1.81	204.37	200.58
Madhugiri	492.77	179.63	166.82	3.65	3.39	5.98	(2.33)	(2.59)	(115.05)	(127.86)
Malleswaram	385.15	281.75	283.16	7.32	7.35	6.5	0.82	0.85	31.40	32.81
Nelmangala	671.85	403.43	385.12	6	5.73	6.16	(0.16)	(0.43)	(10.43)	(28.74)
Peenya	613.08	446.07	451.89	7.28	7.37	6.19	1.09	1.18	66.57	72.39

Rajajeshwarinagara	331.72	233.76	237.97	7.05	7.17	6.35	0.70	0.82	23.12	27.33
Rajajinagara	471.03	325.85	330.95	6.92	7.03	6.25	0.67	0.78	31.46	36.56
Ramnagara	318.83	199.78	198.59	6.27	6.23	6.7	(0.43)	(0.47)	(13.84)	(15.03)
Shivajinagara	648.99	491.49	492.97	7.57	7.6	6.44	1.13	1.16	73.54	75.02
Tipturu	374.37	142.97	135.71	3.82	3.63	6.18	(2.36)	(2.55)	(88.39)	(95.65)
Tumkuru	826.07	381.39	369.18	4.62	4.47	6.14	(1.52)	(1.67)	(125.82)	(138.03)
Vidhanasouda	273.46	217.94	217.78	7.97	7.96	6.33	1.64	1.63	44.84	44.68
Yelahanka	544	333.33	319.89	6.13	5.88	6.27	(0.14)	(0.39)	(7.76)	(21.20)

In Step-I also, majority of the rural divisions are under loss, since, same yardstick is used to measure urban and rural divisions, negative results are obtained. Hence, evaluation should not be based on the results but based on the targets.

#### Commission's Views:

The Commission has forwarded a report prepared by the Consultants, M/s PWC regarding implementation on Financial Management Framework to bring in accountability on the performance of the divisions / sub-divisions by analyzing the quantum of energy received, sold and cost thereon so that the ESCOMs conduct their business on commercial principles.

The BESCOM has not submitted the compliance in respect of implementation of Financial Management Framework, on quarterly basis to the Commission. In the details furnished to the Commission for FY16, it is observed that huge variation in the figures under column Profit/Loss in respect of many O&M divisions which needs to be verified and corrective action initiated.

The BESCOM is directed to review the performance of the divisions & sub-divisions in respect of energy received, sold, average revenue realization and average cost of supply using the financial framework Model. Further, the BESCOM is directed to analyze the following parameters each month to monitor the performance of the divisions/sub-divisions at corporate level:

- a) Target losses fixed and the achievement at each stage.
- b) Target revenue to be billed and achievement against each category of consumers.
- c) Target revenue to be collected and achievement under all categories.
- d) Targeted distribution loss reduction when compared to previous years' losses.
- e) Comparison of high performaning divisions in sales with low performaning divisions.

Based on the analysis, the BESCOM needs to take corrective measures to ensure 100 per cent meter reading, billing, and collection; analysis of sub-normal consumption; replacement of non-recording meters; etc.

The Commission reiterates its directive that the BESCOM shall implement the financial management framework model and report compliance thereon on a quarterly basis to the Commission.

#### xiii. Directive on Prevention of Electrical Accidents:

The directive was as follows:

"The Commission has reviewed the electrical accidents that have taken place in the State during the year 2015-16 and with regret noted that as many as **430** people and **520** animals have died due to these accidents.

From the analysis, it is seen that the major causes of the accidents are due to snapping of LT/HT lines, accidental contact with live LT/HT/EHT lines, hanging live wires around the electric poles /transformers etc., in the streets posing great danger to human lives.

Consideing the above facts, the Commission hereby directs the BESCOM to prepare an action plan to effect improvements in its distribution network and implement safety measures to prevent electrical accidents. A detailed division-wise action plan shall be submitted by the BESCOM to the Commission".

## Compliance by the BESCOM:

- i. Instructions have been issued from Corporate Office to rectify the identified hazardous installations, on top priority.
- ii. Third Saturday of every month is conducted as "safety day" and instructions are issued from Corporate Office to the field staff to conduct safety day, every month, wherein the officers have to educate the field staff regarding safety and to take at least one feeder maintenance work every month in each division.
- **iii.** Lol is issued for fixing the name plate for every DTC to indicate the details of incoming & outgoing cables and change over points.
- iv. Several circulars have been issued from the Corporate Office regarding safety to staff and public.
- v. Instructions have been issued from Corporate Office to attend to the observations in respect of DTCs and lines suggested by the Electrical Inspectorate, GoK.
- vi. Safety pamphlets, Book markers and safety game boards have been distributed during ELECRAMA-2016.
- vii. LT spacers are being installed whereever required.
- viii. LTD boxes are being installed where ever required.
- ix. Instructions have been issued to all the field staff to immediately rectify the dangling wires on transformers/poles, raise the aerial fuse boards to safety height, prune the trees along the HT/LT lines, clean the transformer/ RMU surroundings, maintain feeder pillar boxes and LTD boxes etc.
- **x.** Modification of 11KV GoS in all the DTCs in BMAZ area has been carried out.

Further, the number of hazardous locations/installations identified in BESCOM network for FY16 were 4,095 and the number of such installations rectified in FY16 were 4,837. The number of hazardous locations/installations identified in BESCOM network for the FY17 were 4,172 and the number of such installations rectified up to November 2016 are 2,740.

The following is the action plan to reduce the accidents:

- a. Instructions have been issued from Corporate Office to conduct Safety Day to educate staff & public regarding safety and also to discuss the system improvement of at least one feeder (end to end) at a time. The progress of the same is being reviewed by the Corporate Office during monthly accident review meeting.
- b. In the meeting held on 21.12.2016, it was decided to provide a set of safety equipment to the linemen like life-time items and regular items so that each set of materials is provided to the linemen. Tenders will be called for procuring set of life-time items and regular items (based on the guarantee period) separately.
- c. By organizing a function at BESCOM, the set of items procured shall be distributed among all the linemen.
- d. By 1st of March, 2017, the safety equipment will be procured and distributed. For other regular safety equipment; the tenders will be called for every six months / one year, based on their guarantee period.

#### Commission's Views:

The Commission notes that the BESCOM has taken various remedial measures including rectification of hazardous installations and carried out improvements to its distribution network. However, despite taking these measures by the BESCOM, the number of fatal electrical

accidents involving both human and livestock has increased, which is a matter of serious concern. The increase in the number of electrical accidents indicates that identification and rectification of hazardous installations, which is a continuous process, should be regularly done without any let up. Therefore, the BESCOM should make more concerted efforts for countinuous identification and rectification of all the hazardous installations, including streetlight installations / other electrical works under the control of local bodies to prevent electrical accidents. In addition, it is also important that the BESCOM takes up awareness campaign through visual/print media continuously about safety aspects among public.

During the ESCOMs' Review meetings held, the Commission has been emphasizing that the ESCOMs should take up periodical preventive maintenance works, install LT protection to distribution transformers, conduct regular awareness programme for public on electrical safety aspects in use of electricity and also ensure use of safety tools &tackles by the field staff besides imparting necessary training to the field staff at regular intervals.

Further, the Commission is of the view that the hazardous installations in the distribution network is the result of works carried out shabbily without adhering to the best construction practices as per the standards, while taking up construction/expansion of the distribution network. Therefore, the BESCOM shall take adequate and effective steps to ensure that distribution network is hazardous free. In addition to this, the BESCOM also needs to conduct regular safety audit of its distribution system and to carryout preventive maintenance works as per schedule in order to keep the network equipment in healthy condition.

The Commission has already forwarded the Safety Technical Manual to the ESCOMs, which prescribes detailed steps to be taken on each of the elements of the distribution system, which would help the engineers in the field to identify and attend to the defects. In this context, it is necessary that the ESCOMs are required to continuously monitor the implementation of the suggestions / recommendations contained in the Safety Technical Manual to ensure that distribution network is maintained properly.

The Commission, therefore, reiterates its directive that the BESCOM shall continue to take adequate measures to identify & rectify all the hazardous locations/installations existing in its distribution system under an action plan to prevent and reduce the number of electrical accidents occurring in its distribution system. The compliance thereon shall be submitted to the Commission every month, regularly.