REPLIES TO PRELIMINARY OBSERVATIONS
(Reference KERC Letter No.B/03/21/1179/Dt.10th December 2021)

A. OBSERVATIONS ON ANNUAL PERFORMANCE REVIEW FOR FY21

1. Sales other than IP Sets:

Hon'ble Commission has rightly noted that there was reduction in energy sales in respect high revenue yielding categories and increase in domestic consumption due to covid-19 regulations prevailed in FY21.

2. Sales to IP sets for FY21:

Hon'ble Commission's observations & replies:

a) Actual specific consumption for FY21 is 4772 units against which the actual of 5156 units in FY20. Thus, there is a decrease in the specific consumption by 384 units. The overall consumption has also decreased by 43.67 MU in FY21 compared to FY20. Needs explanation.

It is to be submitted that the actual consumption depends upon the consumption behavior of the consumers and monsoon variations. As the rainy season has prolonged in FY21 the consumption of IP sets reduced.

b) & c. Approved specific consumption for FY21 is 4796 units against which the actual is 4772 units. Thus, there is a decrease in the specific consumption by 24 units. The overall consumption has also decreased by 5.16 MU in FY21 compared to approved sales in spite of increase in number of installations by 640. Needs explanation.

It is to be submitted that the actual consumption depends upon the consumption behavior of the consumers and monsoon variations. As the rainy season has prolonged in FY21 the consumption of IP sets reduced.

d) Number of pilot DTCs considered for IP consumption assessment is different for different months. Illustration: The numbers considered for October 2020 is 1353 and for January 2021 it is 1456.

Pilot DTCs considered for IP consumption assessment in different months of FY21 are as follows;

	Total number of predominantly IP sets feeding DTCs	Number of predominantly IP sets feeding DTCs considered for assessment	Remarks
Apr-20	1554	1434	For assessing the IP set consumption, the DTCs with abnormal / sub normal / faulty meters are excluded for the reasons that taking such readings for assessment
May-20	1560	1446	
Jun-20	1562	1405	
Jul-20	1562	1385	
Aug-20	1564	1354	
Sep-20	1569	1382	
Oct-20	1560	1353	

Nov-20	1561	1428	may detract the realistic assessment.
Dec-20	1561	1423	
Jan-21	1561	1456	
Feb-21	1561	1436	
Mar-21	1561	1447	

e) Average specific consumption per month in FY21 is 397.63 units with reference to the total consumption and annual mid-year number of installations. Whereas, as per calculation sheets furnished for FY21, month on month specific consumption is ranging from 1 unit / month to 5797 units / month in April 2020. Needs explanation for such abnormal and sub normal average consumption.

As submitted above, for assessing the IP set consumption readings of only good meters are considered. Even if the specific consumption of any of the IP sets become lesser compared to its usual average and if the DTCs meter which recorded such consumption is good then also such consumptions have to be considered for realistic assessment. Otherwise the consumption might have gone up abnormally.

Further, it is to be submitted that the actual consumption depends upon the consumption behavior of the consumers and monsoon variations.

f) Furnish the data of GPS as on 31-03-2020 and 31-03-2021 by reconciling survey data with the number of installations as per DCB.

Initially MESCOM had carried out the GPS survey through an outsourced agency for the number of IP sets existed as at the end of March-2019. However, as the agency had not completed the task even after two years, the service of the agency has been short closed. The balance number of IP sets for which survey was not conducted by the agency i.e., 56838, are got surveyed by MESCOM field staff. Further, the newly service IP sets from 01.04.2019 onwards also got surveyed by the field staff as already had informed to the Hon'ble Commission in this office letter dated 02-09-2020.

Further, it is to be submitted that the IP installations identified as 'Not in use / defunct / dried up' will once again become active whenever the availability of water becomes available and hence, these installations have also to be considered on par with live installations as can be observed from the status of IP sets indicated in the below tables;

Position as at the end of March-2019:

Circles	Authorized IP sets			Status of authorized IP sets surveyed		
	No. of IP Sets as per DCB	IP set surveyed	Balance	In Use	No of IP sets defunct/dried up/ disconnected	Total
1	*2*	*3*	*4=2-3*	*5*	*6*	*7=5+6*
Mangalore	109048	92203	16845	91028	1175	92203
Udupi	71688	63010	8678	61946	1064	63010
Shivamogga	85721	67013	18708	58883	8130	67013
Chikkamagaluru	59730	47123	12607	39001	8122	47123
Total:	**326187**	**269349**	**56838**	**250858**	**18491**	**269349**

Position as at the end of March-2020:

Circles	Authorized IP sets			Status of authorized IP sets surveyed		
	No. of IP Sets as per DCB	IP set surveyed	Balance	In Use	No of IP sets defunct/dried up/ disconnected	Total
1	*2*	*3*	*4=2-3*	*5*	*6*	*7=5+6*
Mangalore	114915	92203	22712	91028	1175	92203
Udupi	74968	63010	11958	61946	1064	63010
Shivamogga	92953	67013	25940	58883	8130	67013
Chikkamagaluru	61646	47123	14523	39001	8122	47123
Total:	**344482**	**269349**	**75133**	**250858**	**18491**	**269349**

Position as at the end of March-2021:

Circles	Authorized IP sets			Status of authorized IP sets surveyed		
	No. of IP Sets as per DCB	IP set surveyed	Balance	In Use	No of IP sets defunct/dried up/ disconnected	Total
1	*2*	*3*	*4=2-3*	*5*	*6*	*7=5+6*
Mangalore	119834	119834	0	119266	568	119834
Udupi	76881	76572	309	75601	971	76572
Shivamogga	97802	97802	0	91961	5841	97802
Chikkamagaluru	67368	62151	5217	54183	7968	62151
Total:	**361885**	**356359**	**5526**	**341011**	**15348**	**356359**

Position as at the end of September-2021:

Circles	Authorized IP sets			Status of authorized IP sets surveyed		
	No. of IP Sets as per DCB	IP set surveyed	Balance	In Use	No of IP sets defunct/dried up/ disconnected	Total
1	*2*	*3*	*4=2-3*	*5*	*6*	*7=5+6*
Mangalore	122303	122303	0	122013	290	122303
Udupi	77298	77298	0	77060	238	77298
Shivamogga	100718	100718	0	100198	520	100718
Chikkamagaluru	70369	70369	0	69807	562	70369
Total:	**370688**	**370688**	**0**	**369078**	**1610**	**370688**

g) Status of bifurcation of agricultural feeders and the action plan for completing the work has not been furnished.

Status of feeder segregation is furnished below.

Segregation of 124 numbers of non-agriculture feeders have been taken up in Shivamogga, Bhadravathi, Sagar, Shikaripura and Kadur divisions. Against this target, 120 NJY feeders have been commissioned and commissioning of 4 feeders is pending due to railway crossing and other statutory approval issues. In this course of execution, 252 numbers of rural mixed load feeders are aligned as *'exclusive IP set feeders'*.

Division	Sub Divisions covered	No. of Non-IP feeders commissioned with New breakers	No. of Non-IP feeders commissioned with existing breakers	Number of exclusive IP feeders formed
Shivamogga	Kumsi	3	3	6
	Shivamogga RSD	6	4	7
Bhadravathi	Bhadravathi RSD	6	0	5
	Holehonnuru	11	0	16
Sagar	Soraba	9	0	20
Shikaripura	Shikaripura	12	0	44
	Shiralakoppa	8	0	27
	Anavatti	4	0	9
Kadur	Kadur	21	0	49
	Birur	12	0	22
	Tarikere	13	0	32
	Ajjampura	8	0	15
	Kumsi	3	3	6
Total:		**113**	**7**	**252**

Furnish data of IP consumption in the format given for the period from FY17 to FY21.

Particulars	FY17		FY18		FY19	
	Apr to Sep	Oct to Mar	Apr to Sep	Oct to Mar	Apr to Sep	Oct to Mar
LT4a-Instllations (Nos)	283535	291129	299120	306053	314576	326187
Midyear Installations (Nos)	**285225**		**306582**		**316120**	
LT4a-sales(MU)	693.7	934.21	786.33	875.31	661.69	969.2
Sp. consumption in units/IP/annum	**5707**		**5420**		**5159**	

Particulars	FY20		FY21	
	Apr to Sep	Oct to Mar	Apr to Sep	Oct to Mar
LT4a-Instllations (Nos)	337140	344482	352138	361885
Midyear Installations (Nos)	**335335**		**353184**	
LT4a-sales(MU)	964.75	764.17	893.98	791.28
Sp. consumption in units/IP/annum	**5156**		**4772**	

h) Observation on Capex for FY21:

Hon'ble Commission's observations & replies:

1. & 2. Furnish capex details for FY21 in the format given.

Details furnished in **Annexure-P1**.

a. Furnish sources of funding for FY21 against each of the category of works.

Other sources of funding (besides loans raised) utilized to meet the Capex of FY21 is as below:

Source of funding other than loan	Rs. in Cr.
Equity	52.24
Govt. Grants	10.46
Other internal resources	58.15
Total	**120.85**

b. Furnish division wise abstract of capacity wise replacement of faulty transformers by new transformers with reasons for having incurred Rs.1.77 Cr.

With effect from September-2018 Company has changed the accounting policy wherein the faulty transformers released in the field are not being withdrawn from assets accounts in the books of accounts. The Asset value along with applicable accumulated depreciation is being withdrawn only in respect of scrapped assets. Therefore when repaired good transformers are utilized in the field for replacement of faulty transformers, no assets are created again. However the transformers released before September-2018 and repaired and utilized in the field in the current year are again taken into asset account as the value was withdrawn while transformers are released (in the old method).

Further instructions were issued to the field staff to draw only released/ repaired good transformers for replacement works. However rarely when repaired good transformers are not readily available in stores good transformers are used to restore the power supply. During the year 2020-21 only 86 new transformers are used for replacement works.

The amount of Rs.1.77 Cr as given in the observation also includes the value of transformers used for enhancement works. Division wise abstract of replacement of faulty transformers by new transformers is given below.

Divisions	Released good transformers utilized for replacement works		New transformers utilized for replacement works		New transformers utilized for enhancement works		Total	
	No.	Value (Rs.in Cr)	No.	Value (Rs.in Cr)	No.	Value (Rs.in Cr)	No.	Value (Rs.in Cr)
Mangalore	10	4.67	1	1.2	-	-	11	5.87
Kavoor	3	0.9	1	1.19	-	-	4	2.09
Bantwal	4	1.57	21	19.77	-	-	25	21.34
Puttur	0	0	8	8.06	-	-	8	8.06
Udupi	10	3.6	10	13.72	-	-	20	17.32
Kundapur	-	-	-	-	-	-	-	-
Shimoga	5	3.15	-	-	2	2.53	7	5.68
Bhadravati	7	0.77	1	1.4	-	-	8	2.17
Sagar	2	0.95	13	14.11	25	29.7	40	44.76
Shikariura	18	3.09	-	-	-	-	18	3.09
Chikmagalur	15	2.61	22	17.35	22	28.98	59	48.94
Koppa	7	1.79	9	10.73	-	-	16	12.52
Kadur	11	5.13	-	-	-	-	11	5.13
Total	**92**	**28.23**	**86**	**87.53**	**49**	**61.21**	**227**	**176.97**

c. Furnish an abstract of number of works sanctioned, completed and balance works under Model Sub division works and details of source of funding for Rs.5.69 Cr.

Division	Details related to Model Sub Division Works	
	No. of works sanctioned	Amount (Rs.in Cr.)
Mangaluru	1	0.01
Shivamogga	3	5.68
Total:	**4**	**5.69**

d. Furnish list of works carried out under 33 KV station and line works for having incurred Rs.15.45 Cr.

Details furnished in **Annexure-P2**.

e. Furnish division wise abstract of IP sets energized and cost thereon under GK scheme and regularized under UNIP scheme for having incurred capex of Rs.47.69 Cr and Rs.42.35 Cr respectively.

Division	Details of energisation of IP under general & GK Scheme		Details of energisation of IP under Regularization of UNIP Scheme	
	No. of Works	Amount (Rs.in Cr)	No. of Works	Amount (Rs.in Cr)
Mangalore	41	0.11	-	-
Kavoor	372	0.76	-	-
Bantwal	1795	3.70	-	-
Puttur	671	1.91	-	-
Udupi	926	2.32	-	-
Kundapur	247	1.32	-	-
Shimoga	630	4.91	21	0.49
Bhadravati	585	2.50	-	-
Sagar	493	4.63	727	20.18
Shikariura	469	3.66	336	7.83
Chikmagalur	1018	7.72	36	0.63
Koppa	452	3.31	25	0.71
Kadur	1331	10.84	466	12.51
Total	**9030**	**47.69**	**1611**	**42.35**

i) Observations on Power Purchase for FY21:

1. Furnish statement showing the variable cost in the ascending order for different sources of power. Explain, if there is deviation in merit order scheduling.

Statement showing the variable cost in the ascending order for different sources of power procured during FY21 is enclosed as **Annexure-P3**.

In this regard, it is to be submitted that based on the load requirements SLDC is scheduling the power in order to balance the load-generation. This is a dynamic exercise which SLDC is giving effect in respect of all time blocks. However, as can be observed from the statement merit order dispatch has been complied with in scheduling the energy.

2. Actual RE consumption is higher compared to approved energy indicating lack of proper forecasting of generation. Needs explanation.

Comparison of approved and actual RE energy for FY21 is as indicated below;

Source	Approved by Hon'ble Commission for FY21 in Tariff Order 2019 (MU)	Actuals for FY21
Solar	644.51	724.68
Mini Hydel	348.08	393.66
Wind	266.23	261.1
Co-generation	106.27	152.44
Total:	**1365.09**	**1531.88**

There is difference of 166.79 MU. Actuals of FY21 includes banked energy from mini hydel (27 MU) & wind mill (2 MU) sources who are under wheeling & banking agreements and energy from solar rooftop purchases (7.71 MU) also. Otherwise difference would be about 130 MU. Since the approved figures are estimations based on previous years energy generation and given the infirm nature of generation, the variation of about 10% may be acceptable. Hence, Hon'ble Commission is requested to approve the actuals as proposed in the petition.

3. PGICIL charges increased by 12%. Needs explanation.

In the Tariff Order 2019, Hon'ble Commission has approved Rs.219.39 Cr towards PGCIL charges in respect of southern region. However, MESCOM has incurred the transmission charges as below in FY21.

Southern Region PGCIL charges:	: Rs.224.20 Cr
DVC Transmission charges – Western Region	: Rs.18.53 Cr
NTPC –VVNL Bundled power Tr. Charges	: Rs.1.05 Cr
TANGEDCO Tr. Charges	: Rs.0.04 Cr
Non-POC charges	: Rs.1.86 Cr
Total	: Rs.245.68 Cr

PGCIL is basing the SRPC data for sharing the central transmission charges under POC mechanism as per CERC sharing regulations and it is binding on the ESCOMs to bear the same. Further, the modified PoC charges sharing methodology, as per CERC (Sharing of Inter State Transmission charges and loss) Regulations 2020, has come into force with effect from 01.11.2020 by which it is expected that in FY22, the POC charges will come down considerably.

4. Furnish basis for payment of hydel energy and other than hydel energy in energy balancing in D1 format and furnish reconciliation statement for the energy balancing among the ESCOMs.

Inter-ESCOM receivable and payment amount is being calculated based on the average approved power purchase cost after energy balancing in each month. Hence, whatever may the overdrawn energy, irrespective of whether it is from hydel or otherwise, average cost is applied to arrive at the payable / receivable amount for energy overdrawn by MESCOM in FY21 which has been indicated in D1 statement. As the quantum of hydel energy in the energy balanced quantum is also being reduced from the total energy for the purpose of RPO it has been shown separately. Otherwise there would be only one quantum and amount relating to energy balancing exercise.

The reconciliation statement furnished by SLDC has already been submitted to Hon'ble Commission vide Annexure-2 in the petition.

5. Explain how energy sales of 131.25 MU in IEX @ Rs.3.33 / unit will earn profit to MESCOM taking into consideration the merit order dispatch.

It is expected by the Hon'ble Commission that any surplus energy available from the tied up sources of energy would be traded by the ESCOMs through PCKL on commercial principles.

In this direction, trading of excess power in any time blocks / time period as informed by SLDC is being traded by PCKL on behalf of ESCOMs. In case such surplus energy is not traded then it would be consider in deviation settlement mechanism impacting negatively to ESCOMs attributing to UI charges which may be far less than the amount what would have been realized by trading. Hence, whatever the surplus energy traded and revenue realized in FY21 would have to be reckoned as reduction in such revenue loss.

6. Furnish the details for the payment of Rs.30.77 Cr indicated as Other Charges in D1 statement.

Details for Rs.30.77 Cr payment indicated in D1 statement is as below;

Reimbursement of MAT as per generic tariff orders	: Rs.2.27 Cr
PTC India Open Access charges	: Rs.1.99 Cr
Reactive charges, refund of RRAS, SCED amount	: Rs.(-) 2.32 Cr
Amount paid to AMR Power Pvt. Limited	: Rs.28.83 Cr (*)
Total	: Rs.30.77 Cr

Amount paid to AMR Power Pvt. Limited as per Hon'ble Commission's order dated 23.03.2021 in OP No.192/2017. In the order MESCOM was directed to pay for the energy supplied from 16.10.2011 to 16.10.2014 considering corresponding month-wise price of short term transactions of electricity for RTC power per unit discovered in bilateral transactions through traders less 7 paise per unit towards trading margin.

7. Furnish reasons for high average cost per unit in respect of BTPS Unit-1, NTPC Vallur, Kudgi, UPCL, NTPC Bundle Power Solar.

Source	KERC Approved in Tariff Order 2020				Actuals for FY21			
	Energy (MU)	CC Rs./ unit	VC Rs./ unit	Avg./ unit	Energy (MU)	CC Rs./ unit	VC Rs./ unit	Avg./ unit
BTPS Unit-1	102.17	2.68	3.99	6.67	36.63	6.26	2.94	9.20
NTPC Vallur	62.80	2.56	3.99	6.55	27.33	6.21	3.16	9.37
Kudgi	100.80	8.06	3.79	11.85	237.87	5.40	2.87	8.27
UPCL	468.00	3.17	3.63	6.80	280.34	5.06	3.07	8.13
NTPC-VVNL Bundle Power Solar	9.53	-	10.52	10.52	7.58	-	10.63	10.63

- In respect of BTPS Unit-1, NTPC Vallur, and UPCL, it can be noted that the variable charges per unit are less than approved by Hon'ble Commission. However, the capacity charges per unit are higher. This is because of non-scheduling of power to the extent of approved quantum from these sources by SLDC to balance the Load-Generation.

- In respect of Kudgi, the average cost is lesser than the approved cost due to sourcing higher energy than the approved quantum.

- Solar bundling in respect of NTPC-VVNL is being done considering the pooled cost. Hence, there is slight variation.

In view of the above, Hon'ble Commission is requested to approve the energy quantum and cost as per the actuals detailed in the petition.

8. Furnish details for UI charges of Rs.5.53 Cr indicated in D1 statement.

The details of Rs.5.53 Cr of UI charges indicated in D1 statement is as below;

UI paid in the months May-2020, Jun-2020, & Mar-2021 : Rs.1.89 Cr.
UI gained in the months Apr-2020, July-2020 to Feb-2021 : Rs.(-)7.42 Cr.
Net gain in FY21 : Rs.(-) 5.53 Cr.

j) Other Debits:

Furnish details for other debits of Rs.6.05 Cr that is indicated in accounts.

Particulars	Amount (Rs.in Cr)
Asset Decommissioning Costs	1.56
Losses relating to Fixed Assets/sale of scraped assets	3.04
Sundry Debit balance Written off	0.44
Compensation for injuries, death and damages- staff & outsiders	1.01
Total	**6.05**

B. OBSERVATIONS ON ARR FOR CONTROL PERIOD FY23 TO FY25

1. Category wise sales other than IP sets for FY23 to FY25:

i) Methodology:

a. **Furnish details for estimating number of installations for BJ/KJ category using trend method along with bifurcation between those consuming 40 units & below and above 40 units.**

GOK is providing subsidy to BJ/KJ installations upto 40 units per month. In case, it exceeds 40 units such of the installations are to be billed as per LT-2a tariff and charges have to be collected from the respective consumers.

As of now no BJ/KJ scheme is in existence for servicing of new installations. In the last four years it is observed that the installations significantly the consumption behavior is coming under above 40 units bracket and installations with below 40 units bracket is reducing. In the DCB these two sub categories are distinctly figuring and above the indicated trend are discernible with the following data.

Year	With Cons. below 40 units	With Cons. above 40 units	TOTAL
FY18	179636	11526	191162
FY19	175524	12480	188004
FY20	169140	15103	184243
FY21	161434	17784	179218

Thus, Trend forecasting tool has been applied to past three year's data to capture the above trend in the estimations for future period.

Hence, Hon'ble Commission is requested to approve the number of installations projected and proposed in the petition.

b. CAGR is higher for number of installations. But generally trend method is used to estimate the number of installations. It is advisable to estimate on higher side while making perspective plan.

CAGR and Trend method both are acceptable forecasting tools when historical data is available. However, the objective is to forecast reasonably neither higher nor lower. As such, MESOM chose to apply trend method which appears to be more probative.

As such, Hon'ble Commission is requested consider the projections as made out in the petition.

c. Furnish working sheets for computations of sales / installations using CAGR method.

As desired, the working sheets are provided in **Annexure-P4(a) & P4(b)**.

d. While computing CAGR in certain cases the data for FY20 & FY21 considered. Since sales for FY20 & FY21 were affected by covid-19, suitable corrections may be applied.

During the period FY18, FY19, FY20 and FY21 the year on year growth rate in energy sales was 3.71%, 1.48%, 5.86% and (-)3.68%. It can be observed that in FY19, pre-covid period, the growth rate is as lower as 1.48% and in FY20 and FY21 it was 5.86% and (-)3.68%. MESOM's forecasting of energy sales has absorbed these two extremes and the growth considered in the petition is happened to be moderately around 3.50% which justifies that the projections are neither higher nor lower but reasonable.

As such, Hon'ble Commission is requested consider the projections as made out in the petition.

e. In certain categories like HT-2b, HT-2c etc., though the year on year growth is considered, it is indicated as CAGR.

It is clearly stated in page No.105, 108 and 111 that the growth rate considered for energy sales for the categories HT-2a, HT-2b and HT-2c is with reference to previous year i.e. FY20 over FY19 / FY19 over FY18. The same has been indicated under the table at page No.123 also.

ii) In case of LT-5 category though there is increase in number of installations, the sales are retained at 123.74 MU for all the years of control period. Considering the increase in new installations, there should be some increase in sales. Clarify.

Gathered from the previous years data only the projections have been made for the category. During the period from FY17 to FY21 there is increase in number of installations whereas energy sales are in the same range. Even in FY19 there is reduction in energy sales in spite of increase in number of installations. Hence, it may not be appropriate to correlate the number of installations to energy sales for the category.

As such, Hon'ble Commission is requested consider the projections as made out in the petition.

iii) To reconcile number of HT-2a installations in D2 format and page No.104 for FY22 to FY25.

MESOM is considering the MSEZ installations as one of the industrial installations. But for the sake of clarity it is being shown separately in D2 format as 'Supply to MSEZ'. Hence, there is difference of one installation between the figures in page No.104 and D2 format under HT-2a category.

iv) The growth rate considered for estimating the number of installations is lower for all the categories as compared with CAGR.

MESCOM has adopted Trend method for estimating the number of installations as it appears to be more probative. Further, the objective is to forecast reasonably neither higher nor lower.

As such, Hon'ble Commission is requested consider the projections as made out in the petition.

v) Growth rate considered for energy sales is lower for LT-2a, LT-2b, LT-5, LT-6 ws and HT-3 categories are lower compared to FY20 growth over FY19. And in respect of LT-6SL, HT-1 and HT-2c it is higher.

MESCOM has estimated the energy sales in respect of all the tariff categories with due conscientiousness as it has direct bearing on tariff revision. The base considered for each of the categories for estimations are detailed in the petition indicating the previous years position.

As such, Hon'ble Commission is requested consider the projections as made out in the petition.

2. Sales to IP sets for FY23 to FY25:

1. Projected sales to IP sets for FY23 to FY25:

i. MESCOM has not considered the Commission approved sales figures while making projections for FY23 to FY25.

In the Tariff Order 2021, Hon'ble Commission has reckoned the actual specific consumption of FY20 i.e., 5156 units for approving the IP energy sales for FY22. On

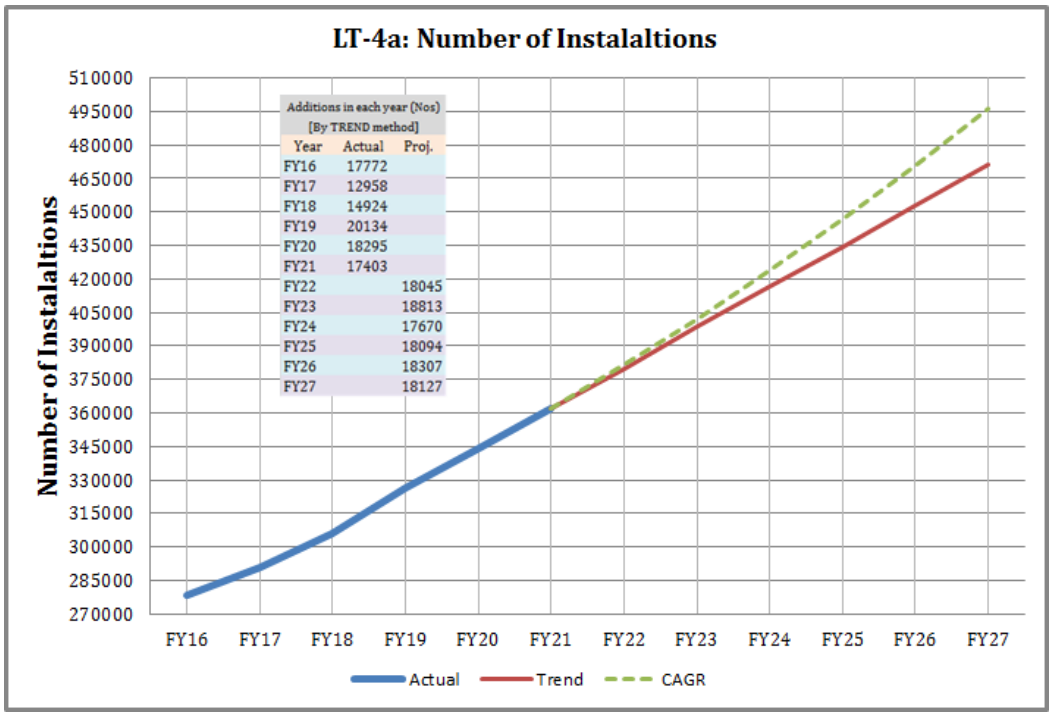
the same lines MESCOM has considered the actual specific consumption of FY21 i.e., 4772 units for estimating the energy sales for the category.

As such, Hon'ble Commission is requested consider the projections as made out in the petition.

ii. Furnish details of calculations in trend method for projection of number of installations for FY23 to FY25.

MESCOM has applied the trend method for estimating the number of installations with reference to the previous years data.

Year	No. of installations at the end of each year	No. of additions in each year
FY15	260399	-
FY16	278171	17772
FY17	291129	12958
FY18	306053	14924
FY19	326187	20134
FY20	344482	18295
FY21	361885	17403



It can be observed that the highest number of installations additions was in FY19 i.e. 20,134. Thereafter, the additions were in the range of 17000 to 18000 installations per year for the category. This trend has been well captured in the Trend curve, compared to CAGR, which appears to be more probative as it is reflecting the Business-As-Usual position. Accordingly, the number of installations for the period from FY23 to FY25 has been estimated.

As such, Hon'ble Commission is requested consider the projections as made out in the petition.

iii. Furnish details for projecting the energy sales for FY23 to FY25.

MESCOM has applied the actual specific consumption of FY21 for projecting the energy sales with reference to the projected number of installations.

Particulars	FY21 (Actual)	FY22 (Projection)	FY22 (Projection)	FY22 (Projection)
No. of installations	361885	398743	416413	434507
Additions in each year	17403	18813	17670	18094
Mid-year no. of installations	353184	389337	407578	425460
Consumption in MU	1685.26	-	-	-
Specific consumption (units/installation/annum)	4772	4772	4772	4772
Sales in MU	-	1857.77	1944.81	2030.14

As such, Ho'ble Commission is requested consider the projections as made out in the petition.

iv. Furnish IP set consumption for the period April to September 2021 in the prescribed format.

IP set consumption during the period from April-2021 to September-2021 is as below.

Apr-2021	: 275.70 MU
May-2021	: 206.49 MU
Jun-2021	: 72.38 MU
July-2021	: 63.88 MU
Aug-2021	: 62.45 MU
Sep-2021	: 59.82 MU
Total	: 740.42 MU

Kindly refer **Annexure-P5** for detailed working sheets.

v. MESCOM to resubmit the sales projection based on the specific consumption arrived on the basis of Commission approved sales and on the basis of observations made above.

MESCOM considered the methodology adopted in the previous years tariff orders for estimating the energy sales and the same has been detailed in Sl.No.iii above.

vi. Furnish details of feeders commissioned agricultural feeder and explain why assessment has not done based on these feeder consumption.

Status of feeder segregation is furnished below.

Segregation of 124 numbers of non-agriculture feeders have been taken up in certain sub divisions of Shivamogga, Bhadravathi, Sagar, Shikaripura and Kadur divisions. Against this target, 120 NJY feeders have been commissioned and commissioning of 4 feeders is pending due to railway crossing and other statutory approval issues. In this course of execution, 252 numbers of rural mixed load feeders are aligned as *'exclusive IP set feeders'*.

Division	Sub Divisions covered	No. of Non-IP feeders commissioned with New breakers	No. of Non-IP feeders commissioned with existing breakers	Number of exclusive IP feeders formed
Shivamogga	Kumsi	3	3	6
	Shivamogga RSD	6	4	7
Bhadravathi	Bhadravathi RSD	6	0	5
	Holehonnuru	11	0	16
Sagar	Soraba	9	0	20
Shikaripura	Shikaripura	12	0	44
	Shiralakoppa	8	0	27
	Anavatti	4	0	9
Kadur	Kadur	21	0	49
	Birur	12	0	22
	Tarikere	13	0	32
	Ajjampura	8	0	15
	Kumsi	3	3	6
Total:		**113**	**7**	**252**

As can be observed from the above table, 252 numbers of rural mixed load feeders are aligned as *'exclusive IP set feeders'* in this course of feeder segregation task. It is contemplated to consider the consumption recorded in these feeders for assessment of IP consumption in the relevant area of the sub divisions covered from FY23. For the present, the divisional officers have already been instructed to carryout parallel calculations so as to attempt an error free assessment.

Further, in respect of other parts of sections / sub divisions where the above stated *'exclusive IP set feeders'* are not covered, the existing practice of assessing the IP set consumption based on meter readings of DTCs which are feeding predominantly to IP sets will be continued.

3. Validation of sales:

a. Furnish category wise number of installations for FY20, FY21 & FY22 in the given format.

Tariff Category	2019-20		2020-21		2021-22	
	As on 30th Nov (Actual)	As on 31st Mar (Actual)	As on 30th Nov (Actual)	As on 31st Mar (Actual)	As on 30th Nov (Actual)	As on 31st Mar (Est.)
LT-2 a	1582197	1592285	1616705	1626736	1648572	1668212
LT-2 b	3577	3590	3619	3640	3654	3685
LT-3	217685	220417	224977	228224	232961	235738
LT-4 (b)	164	165	162	161	145	161
LT-4 (c)	4619	4713	4789	4878	5193	5043
LT-5	31940	32311	33138	33769	34736	35078
LT-6a	15808	16005	16513	16838	17345	17793
LT-6b	24148	24668	26026	26574	27648	27961
LT-7	16834	17638	17574	20572	20546	20572
HT-1	109	112	117	121	123	128
HT-2 (a)	932	951	971	993	1009	1052
HT-2 (b)	768	788	794	806	830	867
HT-2 C	301	303	316	323	329	337
HT-3 (a) & (b)	31	33	33	34	37	34

HT-4	59	60	64	67	69	68
HT-5	18	16	18	19	16	19
MSEZ	1	1	1	1	1	1
Sub Total(Other than BJ/KJ and IP)	1899191	1914056	1945817	1963756	1993214	2016749
BJ/KJ<=40units/month	166812	169140	154885	161434	152052	154609
BJ/KJ>40units/month	20228	15103	26738	17784	24540	20426
IP sets LT-4a	338826	344482	354780	361885	373571	379930
Sub Total(BJ/KJ and IP)	**525866**	**528725**	**536403**	**541103**	**550163**	**554965**
Grand Total	**2425057**	**2442781**	**2482220**	**2504859**	**2543377**	**2571714**

b. Furnish category energy sales for FY20, FY21 & FY22 in the given format.

Tariff Category	2019-20 (MU)		2020-21 (MU)		2021-22 (MU)	
	Apr to Nov (Actual)	Dec to Mar (Actual)	Apr to Nov (Actual)	Dec to Mar (Actual)	Apr to Nov (Actual)	Dec to Mar (Est.)
LT-2 a	758.50	706.21	1032.28	497.50	1065.71	523.66
LT-2 b	7.12	7.74	4.82	3.23	6.25	2.26
LT-3	199.75	194.07	217.33	132.65	245.38	116.57
LT-4 (b)	0.45	0.43	0.55	0.34	0.33	0.56
LT-4 (c)	3.81	4.27	5.18	3.52	3.06	5.94
LT-5	67.50	69.38	76.33	47.42	85.95	37.79
LT-6a	63.60	68.37	95.26	49.54	100.65	51.15
LT-6b	32.45	34.02	42.46	24.33	46.29	21.08
LT-7	10.15	9.86	11.36	6.96	14.09	4.23
HT-1	45.80	49.91	66.72	34.07	71.64	32.82
HT-2 (a)	292.40	342.80	326.31	224.23	465.97	93.77
HT-2 (b)	104.90	100.82	85.04	55.40	105.29	38.85
HT-2 C	73.75	66.12	55.78	34.03	69.05	25.66
HT-3 (a) & (b)	16.98	52.70	47.57	48.02	73.63	21.96
HT-4	11.54	10.26	13.54	7.19	15.35	5.97
HT-5	1.45	1.95	1.35	0.94	1.91	0.38
MSEZ	36.44	20.44	40.49	20.49	41.27	2.48
Sub Total(Other than BJ/KJ and IP)	1726.59	1739.35	2122.37	1189.86	2411.82	985.13
BJ/KJ<=40units/month	17.39	17.26	23.19	11.81	23.60	11.67
BJ/KJ>40units/month	7.87	7.04	13.51	5.40	12.91	7.24
IP sets LT-4a	964.29	764.63	997.77	687.48	854.55	915.28
Sub Total(BJ/KJ and IP)	**989.55**	**788.93**	**1034.47**	**704.69**	**891.06**	**934.19**
Grand Total	**2716.14**	**2528.28**	**3156.84**	**1894.55**	**3302.88**	**1919.32**

c. MESCOM to reconcile the data of MSEZ sales with their submission.

In the Tariff Order 2021, Hon'ble Commission has approved 43.75 MU of energy sales for FY22. MESCOM has maintained the same for FY23 to FY25. Only a slight difference is there between MSEZ estimations and MESCOM proposal.

4. Distribution loss for FY23 to FY25:

MESCOM to revisit the loss reduction targets to justify the capex investment and submit revised distribution loss targets.

MESCOM's distribution loss for FY21 is 9.86% which is comparatively lower. Given the situation that due to servicing of the LT installations LT network is being expanded which is contributing to increased distribution loss. Majority of the capex utilized for system improvement works are to maintain the distribution loss to the existing loss level rather than reducing the same since the increase in LT network is in fact nullifying the loss

reduced due to improvement works. In spite of that, efforts are being made to expand the HT network and reduce the LT network wherever possible so that the distribution losses are reduced further.

Hence, Hon'ble Commission is requested to approve the distribution loss trajectory as proposed in the petition.

5. Wheeling Charges & Banking of Energy for FY23:

6. Capital Investment Plan for FY23 to FY25:

1. & 2. Furnish justification on each of the following works in terms of purpose, requirement, physical progress, cost and timeliness of completion along with division wise abstract of works, no. of works proposed to be taken in each of the year for the control period.

The Capital Investment Programme of MESCOM for the fiscal year 2022-23, 2023-24 and 2024-25 is prepared for a total amount of Rs.661.92 Cr, Rs.506.42 Cr and Rs.509.69 Cr respectively. In the proposed CAPEX the details of Budget requirement are as given below:

i) **System Augmentation & Strengthening:** The System improvement works like providing additional transformers, Link-Lines, Re-conductoring of HT/LT/33kV lines are being carried out regularly. Hence a yearly Budget provision of Rs.100.00 Crores is made for FY 23-25.

Further, it is proposed to replace 25 year old conductor of around 15,000 of DTCs for which additional budget requirement of Rs.150.00 Crores is made for FY 21 and 22. Hence, a total budget provision of Rs.100 Cr, Rs. 250 Cr and Rs.250 Crores is made for FY 23-25. The physical targets are given below:

Sl. No.	Particulars	2022-23	2023-24	2024-25
1	No. of DTC's proposed to be added	1400	1400	1400
2	New 11 KV lines & Link-Lines in RKms	600.00	600.00	600.00
3	HT lines reconductoring in RKms	400.00	400.00	400.00
4	LT line	100.00	100.00	100.00
5	LT line reconductoring in RKms	1500.00	1500.00	1500.00
6	Providing intermediate poles	8000	8000	8000

ii) **Replacement of MNR/DC & Electromagnetic meters by Static meters and SMART metering:** The physical and financial targets are given below

Particulars		2021-22	2022-23	2023-24	2024-25
Single phase meters	Nos	50,000	55,000	60,500	66,550
	Amount (Rs.in Cr)	21.00	23.10	25.41	27.95
Three phase meters	Nos	10,000	11,000	12,100	13,310
	Amount (Rs.in Cr)	6.00	6.60	6.26	7.99
Total:		**27.00**	**29.70**	**32.67**	**35.94**

iii) **DTC metering :** Kindly refer **Annexure-P6a.**

iv) **33 KV Station and line works :** Kindly refer **Annexure-P7(a) & P7(b).**

v) Providing Infrastructure to regularized UIP sets and IP sets :
Kindly refer **Annexure-P6a.**

vi) Model village : Kindly refer **Annexure-P6a.**

vii) Model sub-division: Kindly refer **Annexure-P6(a).**

viii) Civil Engineers Works: Kindly refer **Annexure-P6(b).**

3. Furnish the details of sources of funding (like grants, debt, equity and internal resources) for the proposed capex.

Year	Created out of Consumers Contribution and Govt. grants (Rs.in Cr)	Created out of borrowings and internal resources (Rs.in Cr)	Total (Rs.in Cr)
FY23 (Projected)	127.29	534.61	661.90
FY24 (Projected)	119.28	387.14	506.42
FY25 (Projected)	111.79	397.90	509.69

4. Furnish tariff impact on consumers for the proposed capex to be met from borrowing.

MESCOM has proposed a capex amount of Rs.661.92 Cr for FY23 and it is expected to add that much of assets during the year. It is proposed borrow Rs.430 Cr from the commercial institutions, which is about 65% of the proposed capex. Further, the proposed contribution from consumers Rs.63.19 Cr and Rs.168.73 Cr out of equity would suffice for carrying out the proposed capex.

Accordingly, the financial impact of the proposed capex on the tariff would be as below;

Depreciation @ 5.186% on Rs.661.92 Cr : Rs.34.32 Cr
Interest on borrowings of Rs.430 Cr @ 11% : Rs.47.30 Cr
Total : Rs.81.62 Cr

Energy sales estimated for FY23 : 5422.85 MU
Average tariff impact : 15 paise / unit
Expected tariff impact in FY23 viz-a-viz the proposed capex : 7.50 paise / unit (*)

(*) For the computation purpose proposed sales for FY23 has been considered. The tariff effect of 15 paise / unit may not be reflected entirely in FY23 since the capitalization will happen throughout the year and the borrowings are whenever required to discharge the capex liabilities. In this sense 50% of 15% i.e., 7.50 paise may be the tariff impact in FY23.

7. Power purchases for FY23 to FY24:

1. **Furnish reasons for indicating the transmission loss of 2.978% for all the years from FY22 to FY23.**

   In the KPTCL Tariff Order 2021, Hon'ble Commission has approved the transmission loss of 2.978% for FY22. The same has been maintained for FY23 to FY25. Hon'ble Commission may kindly take a view on this as KPTCL has also filed its ARR/ERC/Tariff petition for the control period FY23 to FY25.

2. **Furnish basis for preparing energy and cost in D1 statement for the years FY23 to FY25.**

   Kindly refer **Annexure-P8.**

3. **Furnish month wise breakup of source wise capacity and energy in respect of RE sources.**

Month	Solar		Mini Hydel		Wind	
	Capacity (MW)	Energy (MU)	Capacity (MW)	Energy (MU)	Capacity (MW)	Energy (MU)
Apr	381.00	67.42	218.18	11.85	149.35	10.30
May	381.00	65.80	218.18	11.64	149.35	18.75
Jun	381.00	55.42	218.18	23.89	149.35	36.65
Jul	381.00	52.66	218.18	50.23	149.35	27.84
Aug	381.00	50.60	218.18	68.71	149.35	42.00
Sep	381.00	51.05	218.18	60.61	149.35	24.71
Oct	381.00	55.76	218.18	48.04	149.35	14.37
Nov	381.00	56.11	218.18	30.30	149.35	19.49
Dec	381.00	62.24	218.18	15.78	149.35	22.38
Jan	381.00	61.48	218.18	12.92	149.35	17.11
Feb	381.00	63.87	218.18	11.89	149.35	13.36
Mar	381.00	74.56	218.18	20.50	149.35	12.14
Total		**716.97**		**366.36**		**259.10**

4. **Furnish plan for sale of excess energy, if any.**

   As has been carried out in FY21, PCKL is contemplating to trade surplus energy available from the tied up sources of energy in close interaction with SLDC.

5. **Furnish detailed analysis for projecting source wise variable cost for KPCL thermal, UPCL and CGS duly comparing the same with previous three years.**

   Details furnished in **Annexure-P9**.

8. Balances under Gross Fixed Assets:

Furnish bifurcated figures of GFA created out of consumer's contribution & grants and internal resources of borrowing at the end of FY20 and FY21 and also the amount included in the projected closing balances for FY23 to FY25.

Year	Created out of Consumers Contribution and Govt. grants (Rs.in Cr)	Created out of borrowings and internal resources (Rs.in Cr)	Released equipment to be reused (Rs.in Cr)	Total (Rs.in Cr)	CB of Gross Fixed Assets (Rs.in Cr)
OB	274.71	2429.49	10.96	2715.16	**2715.16**
FY20 (Actual)	355.53	314.06	(-)5.44	664.15	**3379.31**
FY21 (Actual)	109.87	456.38	(-)1.52	564.73	**3944.04**
FY22 (Projected)	135.84	361.23	-	497.07	**4441.11**
FY23 (Projected)	127.29	506.74	-	634.03	**5075.14**
FY24 (Projected)	119.28	355.37	-	474.65	**5549.79**
FY25 (Projected)	111.79	363.22	-	475.01	**6024.80**

9. Depreciation for FY21 and for the control period:

The amount of depreciation Rs.193.14 Cr for FY21 indicated in D8 statement is in agreement with the annual accounts.

Upto the year FY16 Company was following Accounting Standard -12 issued by the Institute of Chartered Accountants of India for recognizing the Grants and Contributions received towards Capital expenditure wherein the value of grants and consumer contributions utilized towards the capital expenditure has been reduced from carrying amount of the fixed assets.

From the year FY17 with implementation of Indian Accounting Standards, the grants received from Government or other authorities towards capital expenditure as well as consumers' contributions to capital works are treated initially under deferred income and taken to income every year to the extent of depreciation that is charged during that year to the class of assets for which such grants/ contributions are received. However in respect of assets created out of grants / contributions up to FY16, old method is continued with respect to charging of depreciation.

Accordingly the depreciation charged by the accounting units during the year FY21 for the assets created upto FY16 amounting to Rs.2537.50 lakhs was withdrawn at Corporate Office as the assets were reduced to the extent of grants/ contributions received. In this way no depreciation was charged in the books for the assets created upto FY16 out of Grants and Contributions.

Further, the depreciation charged by the accounting units during the year FY21 for the assets created from FY17 amounting to Rs.3614.88 lakhs was credited to other income by debiting deferred income at Corporate Office as the Grants and Contributions are treated as deferred income. The depreciation amount included in the depreciation schedule is nullified by considering the same amount in income schedule.

Detailed workings enclosed vide **Annexure –P10**.

Further, the details of assets created out of 'Consumers' Contributions and Grants' and related depreciation claimed in D-15 and D-8 statements from FY21 to FY25 is indicated below;

Supplemental Details for D-15 statement (Gross Fixed Assets)							Rs.in Cr
Year	**OB**	**Additions**	**Retirement / Deductions**	**Net Additions**	**CB**	**Value of assets created out of 'Consumers' Contributions and Grants' included**	**Remarks**
FY21	3379.31	586.08	21.35	564.73	3944.04	740.11	Note-1
FY22	3944.04	521.89	24.82	497.07	4441.11	875.95	Note-2
FY23	4441.11	661.90	27.87	634.03	5075.14	1003.24	
FY24	5075.14	506.42	31.77	474.65	5549.79	1122.52	
FY25	5549.79	509.69	34.68	475.01	6024.80	1234.31	

Note-1:
Assets created out of **'Consumers' Contributions and Grants'** before FY17 not included in the Gross Assets. Hence, the depreciation charged on such assets in accounting units is withdrawn in Corporate Office i.e., amount for FY21 Rs.2537.50 Lakhs.

Assets created out of **'Consumers' Contributions and Grants'** from FY17 to FY21 included in the gross assets is Rs.740.11 Cr and the depreciation charged on such assets, Rs.3614.88 lakhs, is also included in expenses in the P&L account but considered as reduction out of 'Deferred Income' and included in 'Other Income' in P&L account.

Note-2:
The Gross Fixed Assets indicated includes the assets that is projected to be created out of **'Consumers' Contributions and Grants'**

Supplemental Details for D-8 statement (Depreciation)							Rs.in Cr
Year	**OB**	**Additions**	**Retirement / Deductions**	**Net Additions**	**CB**	**Value of depreciation on assets created out of 'Consumers' Contributions and Grants' included**	**Remarks**
FY21	975.59	193.14	15.64	177.50	1153.09	36.15	Note-3
FY22	1153.09	220.40	18.19	202.21	1355.30	41.90	Note-4
FY23	1355.30	247.95	20.43	227.52	1582.82	48.73	
FY24	1582.82	274.67	23.29	251.38	1834.20	55.12	
FY25	1834.20	299.03	25.43	273.60	2107.80	61.11	

Note-3:
The amount of depreciation for the assets created out of **'Consumers' Contributions and Grants'** after FY17 only included.

Note-4:
The amount of depreciation for the assets created out of **'Consumers' Contributions and Grants'** included in D-8 statement is as indicated in the table.

10. Interest on Working Capital:

Furnish reasons for claiming 11% interest on working capital.

In the Tariff Order 2021, Hon'ble Commission has considered the rate of interest on working capital as 11% for FY22. Considering the risk involved in working capital borrowings generally the financial institutions charge varied interest rates. Hence, Hon'ble Commission has rightly considered the interest rate of 11% in its Tariff Orders. Accordingly, MESCOM has maintained the same working capital interest rates for FY23 to FY25.

As such, Hon'ble Commission is requested to consider the working capital interest as proposed in the petition.

11. Terminal benefits:

Furnish calculations for claiming terminal benefits in respect of employees recruited prior to 31.03.2002 and those covered under NDCPS scheme separately.

For FY21 details are furnished in **Annexure-P11(a)** and **Annexure-P11(b)**.

For FY23 to FY25 normative inflation rate applicable to O&M Expenses i.e., 9.09% have been applied to projections as indicated below.

Year	Terminal Benefits in respect of Employees recruited prior to 31.03.2002 (Rs.in Cr)	Terminal Benefits in respect of employees covered under NDCPS (Rs.in Cr)	Total (Rs.in Cr)	Inflation Rate (%)	Projection (Rs.in Cr)
FY21 (Actual)	91.77	25.15	116.92	-	-
FY22 (Projected)	-	-	-	9.09%	**127.55**
FY23 (Projected)	-	-	-	9.09%	**139.14**
FY24 (Projected)	-	-	-	9.09%	**151.79**
FY25 (Projected)	-	-	-	9.09%	**165.59**

13. Sanctioned Load of Installations:

Kindly refer **Annexure-P12**.

14. Levy of Fixed / Demand Charges on the basis of slab-wise sanctioned load.

BESCOM's proposal to levy fixed / demand charges on the basis of slab wise sanctioned load can be accepted. Further, it is requested to consider MESCOM's proposal to increase the fixed charges to the extent proposed in the petition and reduce energy charges in respect of HT-2a, HT-2b and HT-2c categories.

Details sought are given in **Annexure-P13**.

:-:-:-:-: