THE BRIHANMUMBAI ELECTRIC SUPPLY AND TRANSPORT UNDERTAKING (Of the Brihanmumbai Mahanagarpalika)

ELECTRIC SUPPLY OFFICE

Ref. No.: ESO/DGMES/ 142 / 2016

Date: - 24th Aug., 2016

Procedure Order - 90D

Sub: Policy for requirement of space for Distribution substation / Receiving Substation

(Amendment to clauses pertaining to Project and Planning Departments in Procedure Order 90C).

The procedures and norms required for obtaining substation sites has been governed by the Procedure Order No. 90C issued in 2011. This procedure order is modified taking into account the changed scenario of e-business and as per the directives of management for revision in existing PO 90C and also to formulate policy for monitoring progress of RSS and DSS cases (till site is taken over/ commissioning). The policy must lay down the procedure for ease of doing Business with BEST undertaking so that consumer gets a prompt and single point service from BEST. The modified Procedure Order is approved by GM on 23/08/2016. This Procedure Order is termed as P.O. 90D.

1.1 In view of difficulties experienced by developer / builder and Undertaking in processing the proposals of redevelopments requiring DSS /RSS site, a meeting was held under the chairmanship of Addl. GM in the presence of representative of the developers, builders, stake holders, LEC & senior officer from Customer Care dept, Planning Dept, Civil dept. The suggestions arising out of the discussions were considered and incorporated while revising the policy. The subject was also discussed in the meeting of Sub-Committee held on 30.03.2016. It was felt that this procedure order needs modifications in the context of changing scenario and migration of consumers to other utility.

2.0 In view of the above, for streamlining the existing procedure, revised policy has been prepared, which will be termed as P.O.90D and contains following Annexures:

Annexure - I	Criteria for network study to decide requirement of DSS.		
Annexure – II Guidelines for Integrated approach for individual redevelopment cases of small plots in cluster to decrequirement of DSS for cluster of small plots.			
Annexure - III	Criteria for network study to decide requirement of RSS		
Annexure- IV	Policy to review old NOC cases		
Annexure - X	Requirement of Space for electric substations		
Annexure - A	Standard sizes of electric substations		
Annexure - B	Standard sizes of 33 kV HT room and 33kV/ 11kV RSS		
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3.0 Issuing of LOR/NOC:

3.1 LOR/NOC pertaining to only electric substation will be issued by DEPLN as per PO 90D with the approval of concerned authority as tabulated below.

Sr. No.	Net Plot Area	, Authority		
	11017104	'A'	In the absence of 'A'	
1	Upto 500 sq.Mtrs.	DEPLN	DCEPL	
2	501 to 1500 sq.Mtrs.	CEPL	DGMES	
3	1501 sq. mtrs. above	Addl.GM	GM	

- 3.1.1 Since it is difficult to cover all the aspects in the P.O. 90D, any deviation if felt necessary by DEPLN, may put up the case with justification for approval of CEPL for Sr. No. 1 & 2 and Addl. GM for Sr. No. 3 above.
- 3.1.2 In specific cases such as the development near railway track, in coastal area or on trust plots, where the proposed development as per approved plan with FSI 1.33 and where there is less chances to get more FSI permissible, then such cases shall be dealt & decided by DEPLN with the approval of authority as mentioned in Para. 3.1 above.
- 3.2 For plot up to 1000 sq. mtrs., DEPLN can agree for modifications in size if no. of transformers remain same and for plot above 1000 sq. mtrs., DCEPL can agree for modifications in size of DSS. DCEPL is authority for approval of layout plan of DSS with standard clearance as per IE rule.

- 3.3 Processing part development (i.e. additional structure in addition to existing structures where supply is on) proposals having net plot area less than 10,000 sq. mtrs. and MD as per norms for part development is less than 3000 kW, DEPLN shall put up the proposal for the requirement of DSS, with feasibility report to establish the substation, otherwise, DEPLN shall exercise the capacity available in the existing network to release the part load by putting proposal for approval of concerned authority as per Para. 3.1 above.
- 3.4 In respect of cases, where we have asked space for DSS as per the Procedure Order 90A, 90B or 90 C, same will be reviewed if requested by the party along with approved development plans only as per guidelines under Annexure IV.
- 3.5 Cases pertaining to RSS are few and require detailed study, hence such cases will be studied in detail and put up by DEPRO. Since, it is difficult to cover all the aspects in the PO 90D, any deviation if felt necessary by DEPRO, may be put up with justification. DCEPL shall incorporate requirement of RSS if any in the proposal of DSS initiated by DEPLN for approval of Addl. GM. NOC will be issued by DEPLN, accordingly.
- 3.6 This Procedure Order is not applicable to cases where the building is reconstructed/ renovated without change in original plan and no change of usage resulting in increase of load i.e. repairs to building.
- 3.7 DEPLN shall issue the LOR/NOC to the applicant within 7 working days for Sr. No. 1 (Para. 3.1) & within 10 days for Sr. No. 2, 3 above (Para. 3.1) and except the cases which are required to be studied by Project division & in the revised LOR/NOC cases.
- 4.0 This Procedure Order 90D supersedes the PO 90C.
- 5.0 This issues with the approval of General Manager.

Encl: Annexures - I, II, III, IV, X, A, B

Addl.GM

All Chief Engineers of E.S. Branch All Dy. Chief Engrs. of E.S. Branch

All Div. Engrs. of E.S. Branch

cc: SSGM

To accompany Procedure Order No. 90D ANNEXURE – I

Sub: Criteria for network study to decide requirement of DSS

Requirement of DSS is to be decided on the basis of Total transformer capacity, total load and percentage loading of total capacity against total load as given below:

1.1 For Net Plot Area up to 500 sq mtr :

- 1.1.1 Eventual Total Capacity: The eventual total capacity to be calculated by adding ultimate capacity of transformers up to 1600 KVA which can be installed at existing DSS and proposed DSS which are likely to be materialized i.e. where EEBP approval on site plan or building drawing is received and substation is certain to be materialized, in the vicinity of 250 mtrs from the center of the plot measured by cable route length.
- 1.1.2 Total Forecasted M.D.: Total forecasted load is to be worked out by adding (a) the existing peak load (with 0.85 PF) of the substations with load growth of 2.5 % per year for 15 years.
- (b) Load of the proposed development i.e. estimated MD with minimum FSI 3.0 or actual FSI, whichever is more. However, in specific cases where proposed development as per approved plan with FSI 1.33 and there is less chances to get more FSI permissible, then such cases shall be dealt & decided by DEPLN with the approval of concerned authority of PO 90D.
- (c) other NOCs/LORs issued with remarks of 'No DSS' earlier and
- (d) load released while giving Technical Clearance on existing DSS (but not reflected) for "NO DSS" cases of redevelopment in the vicinity of 250 mtr. However, Technical Clearance given to release the load for requisitions of extension of load, temporary supply and firefighting supply shall not be considered.

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- 1.1.3 Limit for loading: If the ratio of total forecasted load to the Eventual Total Capacity is within 80% and if the load of the DSS (considering aspects such as location of plot across the road, loading of DSS) which will normally feed the load doesn't exceed 80% of eventual Capacity of feeding DSS, then DSS is not required.
- 1.1.4 MD above 400 KW: Space for DSS is to be asked irrespective of network study.
 However, number of transformers are to be decided as per Annexure X.

1.2 For Net Plot Area between 500 sq mtr and 2000 sq.mtrs:-

- 1.2.1 Eventual Total Capacity: The eventual total capacity to be calculated by adding ultimate capacity of transformers up to 1000 KVA which can be installed at existing DSS and proposed DSS which are likely to be materialized i.e. where EEBP approval on site plan or building drawing is received and substation is certain to be materialized, in the vicinity of 250 mtrs. from the center of the plot measured by cable route length. However, if 1600 KVA transformer is already existing at DSS in the vicinity of 250 mtrs., then capacity of same to be considered.
- 1.2.2 Total Forecasted M.D.: Total forecasted load is to be worked out by adding (a) the existing peak load (with 0.85 PF) of the substations with load growth of 2.5 % per year for 15 years.
- (b) Load of the proposed development I.e. estimated MD with minimum FSI 3.0 or actual FSI, whichever is more. However, in specific cases where proposed development as per approved plan with FSI 1.33 and there is less chances to get more FSI permissible, then such cases shall be dealt & decided by DEPLN with the approval of concerned authority of PO 90D.
- (c) other NOCs/LORs issued with remarks of 'No DSS' earlier and
- (d) load released while giving Technical Clearance on existing DSS (but not reflected) for "NO DSS" cases of redevelopment in the vicinity of 250 mtr. However, Technical Clearance given to release the load for requisitions of extension of load, temporary supply and firefighting supply shall not be considered.
- 1.2.3 Limit for loading: If the ratio of total forecasted load to the Eventual Total Capacity is within 80% and if the load of the DSS (considering aspects such as location

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of plot across the road, loading of DSS) which will normally feed the load doesn't exceed 80 % of eventual Capacity of feeding DSS, then DSS is not required.

- 1.2.4 MD above 400 KW: Space for DSS is to be asked irrespective of network study.
 However, numbers of transformers are to be decided as per Annexure X.
- 1.2.5 In case, there is only one DSS existing in the vicinity of 250 mtrs. and DSS is single transformer DSS, then space for single transformer DSS may be asked irrespective of network study.

1.3 For Net Plot Area above 2000 sq.mtrs:

- 1.3.1 Eventual Total Capacity: The total eventual capacity to be calculated by adding ultimate capacity of transformers up to 1000 KVA which can be installed at existing DSS and proposed DSS which are likely to be materialized i.e. where EEBP approval on site plan or building drawing is received and substation is certain to be materialized, in the vicinity of 250 mtrs from the center of the plot measured by cable route length. However, if 1600 KVA transformer is already existing at DSS in the vicinity of 250 mtrs., then capacity of same to be considered.
- 1.3.2 Total Forecasted M.D.: Total forecasted load is to be worked out by adding (a) the existing peak load (with 0.85 PF) of the substations with load growth of 2.5 % per year for 15 years.
- (b) Load of the proposed development i.e. estimated MD with minimum FSI 3.0 or actual FSI, whichever is more. However, in specific cases where proposed development as per approved plan with FSI 1.33 and there is less chances to get more FSI permissible, then such cases shall be dealt & decided by DEPLN with the approval of concerned authority of PO 90D.
- (c) Other NOCs/LORs issued with remarks of 'No DSS' earlier and
- (d) load released while giving Technical Clearance on existing DSS (but not reflected) for "NO DSS" cases of redevelopment in the vicinity of 250 mtr. However, Technical Clearance given to release the load for requisitions of extension of load, temporary supply and firefighting supply shall not be considered.

- 1.3.3 Limit for loading: If the ratio of total forecasted load to the Eventual Total Capacity is within 80% and if the load of the DSS (considering aspects such as location of plot across the road, loading of DSS) which will normally feed the load doesn't exceed 80 % of eventual Capacity of feeding DSS, then DSS is not required.
- 1.3.4 For MD up to 150 KW, requirement of DSS is decided as per guidelines given in Annexure I of PO 90D.
- 1.3.5 For MD above 151 kW: Space for DSS is to be asked irrespective of network study.
- 1.3.6 In case, there is only one DSS existing in the vicinity of 250 mtrs and DSS is single transformer DSS, then space for single transformer DSS is to be asked irrespective of network study.
- 2.0 DSS to be excluded: Ultimate capacity of existing DSS across the Railway lines and corridor/main road will not be considered for calculation eventual capacity However, DEPLN shall make specific mention of such DSS while calculating spare capacity. Ultimate capacity of proposed DSS for calculation of eventual capacity shall be decided by DEPLN taking in to account that DSS is certain to be materialized.
- 3.0 Requirement of Transformers:-
- 3.1 For MD up to 3000 kW, number of Distribution Transformer is to be decided as per Annexure X and
- 3.2 For MD above 3000kW, No. of distribution transformer is to be decided by using formula.

No. of Xmers. = (Estimated MD as per norms \times 1.5) (PF(0.85) \times 1600 KVA Tr. ultimate capacity).

If the decimal point of digit is above 0.1, then no. of transformer is rounded to next complete digit.

However, in case of huge plot area, No. of Distribution Transformer and location of DSS shall be decided to meet concentrate load at different location within the plot, to minimize the length of service cable resulting and to reduce the distribution loss.

- 4.0 In respect of cases where we have issued NOC/LOR as per the earlier Procedure Orders shall be reviewed as revision of old cases clauses.
- 5.0 Sharing of spaces for DSS will be considered between adjoining plots can meet the load demand of both shared plots, which will not burden the individual builder/developer for sharing the required spaces.

To accompany Procedure Order No. 90D

ANNEXURE - II

Sub: Guidelines to decide requirement of DSS for cluster of small plots being developed individually.

We receive redevelopment proposals for small plots i.e. up to Net Plot Area 500 Sq.mtr. where load requirement is less than 150 KW. Therefore space for DSS cannot be insisted as load is less than 150 KW. However if area is such that all the plots are small i.e. cluster of small plots then a DSS will be necessary to meet the combined load (integrated approached) of all the plots but since all the plots are small DSS may not be feasible. Therefore in such cases MCGM be requested to identify the plots for substation in some of these plots in coordination with Planning Authorities. Also attempt to be made to acquire space for DSS from two adjacent plots. The number of substation that would be required eventually will be determined as per Annexure – X and accordingly informed to MCGM / Planning Authorities. All the cases pertaining to cluster of small plots are to be dealt by DCEPL.

To accompany Procedure Order No. 90D

ANNEXURE - III

Sub: Guidelines for requirement for 33/11KV RSS & 33 kV HT Romms

Cases with load more than 3000 kW or Net Plot Area more than 10000 sq.mtr. will be examined by Project Dept. for the requirement of RSS.

- 1.1 Plots with area 20000 sq. mtrs. or more: Minimum Two transformers RSS to be asked up to 16 MW. Number of transformers will increase as per load demand. The number of 11kV/415V DSS will depend on load demand.
- 1.2 **Plots with area 10000 sq. mtrs. up to 20000 sq. mtrs.**: The requirement of Single transformer RSS for load up to 5MW shall be decided by DEPRO as per the following guide lines and further for load above 5 MW, Single transformers RSS is to be asked irrespective of network study. Number of transformers will increase as per load demand.
- 1.2.1 <u>Requirement of 33 kV/11 kV RSS</u>: Requirement is to be worked out as per the following steps:
- <u>Step No. 1</u>: Calculation of Firm Capacity: The firm capacity is to be calculated by adding capacities of existing Transformers of RSS including upgrading to 33 KV and proposed RSS likely to be materialized as decided by DEPRO i.e. where EEBP's approval is received and RSS is certain to be materialized, within 2.5 KM (cable route length) from the plot boundary and deducting capacity of highest power transformer per six transformers from the total capacity.
- <u>Step No. 2</u>: Calculation of Ultimate Load:- Ultimate forecasted load is to be worked out by adding existing peak load of RSS considering load growth at the rate of 2.5 % per year for 15 years, load of plot under development and load of plots where NOC/LOR issued without insisting RSS.

Step No. 3: Requirement of RSS:

- (i) If the total forecasted load in the vicinity of the plot under redevelopment is within 80% of the firm capacity then 33 KV/ 11KV RSS is not required and for such cases load to be met by establishing 11kV / 415 V DSS. The number of DSS and locations of DSS to be decided on the basis of load demand.
- (ii) If the total forecasted load in the vicinity of the plot under redevelopment is not within 80% of the firm capacity then 33 KV/ 11KV RSS is required and same is to be demanded.
- (iii) RSS across railway lines will not be considered for calculation of firm capacity.
- (iv) Sharing of spaces will be considered between adjoining plots asking RSS/DSS which will not burden the individual builder/developer for sharing the required spaces.
- 1.4 In respect of cases where we have asked space for RSS as per the Procedure Order 90A or 90B & 90C (other than S/PRO or building drawing is approved by EEBP), then such cases shall be reviewed as per PO 90D after ascertaining the feasibility to establish the RSS by DEPRO.



To accompany Procedure order No. 90D

Annexure - IV

Sub: - Policy to review Old NOC/LOR cases

Review of old NOC/LOR cases: We have come across a number of cases where NOC/LOR have been granted with/without substation as per earlier Procedure Order No. 90A, 90B and 90C. However, as per the subsequent change in parameters or lapsed of validity or due to space constraint, when parties have approached for revised NOC/LOR, the following to be applied:-

- 1.1 In most of cases, it is observed that the party has gone ahead with the construction without provision for substation in accordance with the earlier NOC/LOR issued. In such cases, wherever there has been no increase in built up area or MD as per norms, the earlier NOC issued without substation will stand. In remaining cases, where there is increase either in built-up-area or MD as per norms, the additional load up to 20% can be released, if permissible as per the guidelines for working out spare capacity given in Annexure I. If there is requirement of DSS as per guidelines, feasibility of establishing a substation shall be examined. If DSS is not feasible, the load up to the extent as per the earlier NOC or as per the guidelines, whichever is higher, shall only be released.
- 1.2 In cases where earlier NOC/LOR is issued with/ without asking DSS and party has not started construction or old structure still exist on the plot, such cases shall be considered as 'fresh case' under prevailing PO 90D.
- 1.3 In cases where DSS is asked as per NOC/LOR issued earlier and if the party has gone ahead with the construction and S/PI or building drawing of DSS is approved by EEBP, then earlier remark of DSS will stand irrespective of the requirement worked out as per network study by PO 90D. For other cases, if no DSS is required as per PO 90D, then NOC shall be issued by DEPLN, after specific approval of concerned authority as per Para. 3.1 of PO 90D. However, feasibility to establish substation can be ascertained by DEPLN.
- 1.4 We have come across number of cases prior to 2005, where DSS have been asked on the basis of relevant P.O. in vogue then. However, DSS is not materialized till date, even though we have released regular supply. Whenever, consumer from the said premises applies for additional load, same is denied due to remark of necessity of DSS on file/ service card, even though spare capacity is available in the existing distribution network. DEPLN shall review such cases on basis of network study as per PO 90D.
- 1.5 <u>DEPLN shall issue revised LOR/NOC after obtaining approval of concerned authority as tabulated in Para. 3.1 of PO 90D.</u>

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Requirement of Space for Electric Substation as per PO 90D (to be read with covering note, Annexure I, II, III, IV and Annexure A & B)

ANNEXURE - X

4	ω.	N	Р.	No.
And further above 10000 sq.	Above 2000 sq. mtrs.	501 - 2000 sq. mtrs.	sq.mtrs.	1
any voltage level	415 V	415 V	15 V	Voltage
Requirement of Space for Receiving Substation for net plot area above 10000 Division and No. of Distribution Transformer to	Requirement of single Tr. (1000 KVA) DSS (8m x 5.5m) to be decided as per guidelines given in Annx. I of PO 90D If DSS is required only for giving fire fighting service (i.e. alternate source of DSS is not available in the vicinity of 250 mtrs.), then NOC to be issued with condition " for normal electric supply to the building no electric supply to the building no electric supply are party has to make his own arrangement of electric supply for fire fighting and if in future, party requires fire fighting supply from BEST, then single Tr. DSS is required to be established".	Requirement of single Tr. (1000 KVA) DSS (5m x 4m) to be decided as per guidelines given in Annx. I of PO 90D lif DSS is required only for giving fire fighting service (i.e. alternate source of DSS is not available in the vicinity of 250 mtrs.), then NOC to be issued with condition "for normal electric supply to the building no electric substation is required, however party has to make his own arrangement of electric supply for fire fighting and if in future, party requires fire fighting supply from BEST, then single Tr. DSS is required to be established".	If DSS is required only for giving fire fighting service (i.e. alternate source of DSS is not available in the vicinity of 250 mirs.), then NOC to be issued with condition " for normal electric supply to the building no electric substation is required, however party has to make his own arrangement of electric supply for fire fighting and if in future, party requires fire fighting supply from BEST, then single Tr. DSS is required to be established".	Up to 150 kW 151kW to 400
living Substation for net plot area above 10000 sq. mtrs and MD as per norms above 3001 l Division and No. of Distribution Transformer to be calculated by Planning Network Division	Single Tr. DS5 (8m x 5.5m) to be asked irrespective of network study	Requirement of single Tr. (1000 KVA) DSS (8m x 5.5m)to be decided as per guidelines given in Annx. I of PO 90D III f DSS is required only for giving fire fighting service (i.e. alternate source of DSS is not available in the vicinity of 250 mtrs.), then NOC to be issued with condition "for normal electric supply to the building no electric substation is required, however party has to make his own arrangement of electric supply for fire fighting and if in future, party requires fire fighting supply from BEST, then single Tr. DSS is required to be established".	Requirement of single Tr. (1000 KVA) DSS (5m x 4m) to be decided as per guidelines given in Annx.1 of PO 900 If DSS is required only for giving fire fighting service (i.e. alternate source of DSS is not available in the vicinity of 250 mtrs.), then NOC to be issued with condition "for normal electric supply to the building no electric substation is required, however party has to make his own arrangement of electric supply for fire fighting and if in future, party requires fire fighting supply from BEST, then single Tr. DSS is required to be established".	kw
nd MD a ted by P	Two Tr. DSS (1000 KVA) to be asked irrespective of network study	Single Tr. DSS (1000 KVA) to be asked irrespecti ve of network study	Single Tr. DSS (Bm x 5.5m) to be asked irrespecti ve of network study	401kW to 600kW
s per no		Two Tr. DSS (1000 KVA) to be asked irrespecti ve of network study	1	601kW to 1001 to 1000kW 1500kW
Netwo	Three Tr. DSS (1000 KVA) to be asked irrespecti ve of network study	Three Tr. DSS (1000 KVA) to be asked irrespecti we of network study	Ĭ	1500kW
ove 3001 rk Division	Two nos. of Two Tr. DSS (1000 xVA) to be asked irrespective of network study, at different location	Two nos. of Two Tr. DSS (1,000 KVA) to be asked irrespective of network study, at different location	. 1	1501kW to 2000kW
MW to	Two nos. of Two Tr. DSS (1600 KVA) to be asked irrespecti ve of network study		l.	2001kW to 3000kW
sq. mtrs and MD as per norms above 3001 MW to be reviewed by Probe calculated by Planning Network Division		Two nos. Further no. of distribution of Two Tr. be asked, is calculated by DSS (1600 formula with installed cap. KVA) to 1600 KVA, No. of be asked (MD of plotx 1.5)/(1600 KV irrespect) 0.85) we of AND network are to be established at diffstudy location.		Above 3001 kW

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Sr.No.	Description	Size of RSS
Requiren	nent of 33/11 KV F	RSS -
1	One Tr. RSS	Plinth area 14 mtr. X 15.5 mtr. = 217 sq.mtr with ground + two floors structure height 12.6 mtrs. to be asked with 6m wide and 6m ht. means of access from public road 8 open space requirement around RSS as per Statutory Requirement of CFO/EEBP
2	Two Tr. RSS	Plinth area 24 mtr. X 15.5 mtr. = 372 sq.mtr. with ground + two floors structure height 12.6 mtrs. to be asked with 6m wide and 6m ht. means of access from public road 8 open space requirement around RSS as per Statutory Requirement of CFO/EEBP
3	Three Tr. RSS	Plinth area 34 mtr. X 15.5 mtr. = 527 sq.mtr. with ground + two floors structure height 12.6 mtrs.to be asked with 6m wide and 6m ht. means of access from public road 8 open space requirement around RSS as per Statutory Requirement of CFO/EEBP
Requirem	ent of 33 KV HT S	Supply -
1	H.T. Room	14 m x 7 m = 98 sq.m, Ht. of HT room = 4 m Also depends on number of switchgears require to install

Standard Sizes of Electric Substation

Sr.	Description	Size of Indoor DSS (Carpet Area)	Size of Indoor - Outdoor DSS (Carpet Area)	
Pag	uirement of LT Supply -		3 175	
1	Single Tr. DSS (630 KVA Tr.)	5m x 4m = 20 sq.mtr.		
2	Single Tr. DSS (995 KVA Tr.)	8m x 5.5m =44 sq.mtr.	Outdoor Space of 4m x 4m=16 sq.mtr. and Indoor space 5m x 4.5 m= 22.5 sq.mtr., totalling 38.5 sq.mtr.	
3	Two Tr. DSS (995 KVA)	12m x 5.5m = 66 sq.mtr.	Outdoor Space of 8m x 4m=32 sq.mtr. and Indoor space 6m x 4.5 m= 27 sq.mtr., totalling 59 sq.mtr.	
4	Two Tr. DSS (1600 KVA)	13m x 5.5m = 71.5 sq.mtr.	Outdoor Space of 8.5m x 4m=34 sq.mtr. and Indoor space 6m x 5 m= 30 sq.mtr., totalling 64 sq.mtr.	
5	Three Tr. DSS (995 KVA)	16m x 5.5m = 88 sq.mtr.	Outdoor Space of 12m x 4m= 48 sq.mtr. and Indoor space 7m x 4.5 m= 31.5 sq.m., totalling 79.5 sq.mtr.	
6	Three Tr. DSS (1600 KVA)	18m x 5.5m = 99 sq.mtr.	Outdoor Space of 11m x 4m=44 sq.mtr. and Indoor space 8.5m x 5.5 m=46.25 sq.m., totalling 90.25 sq.mtr.	
7	Four Tr.DSS (1600 KVA)	22m x 5.5m = 121 sq.mtr.	Outdoor Space of 14.5m x 4m= 58 sq.mtr. and Indoor space 8.5m x 6 m= 51 sq.m., totalling 109 sq.mtr.	
Req	uirement of HT Supply -			
1	H.T.Room (up to 1500 KW)	4m x 4m =16 sq.mtr.	1 <u>-11-11-1</u>	
2	H.T.Room (1501 KW to 2000 KW)	6m x 4m =24 sq.mtr.		
3	H.T.Room (2001 KW to 5000 KW)	6m x 4m =24 sq.mtr. for HT Room with Out door space of 5m x 4m=20 sq.mtr. for Distribution Tr.		
4	H.T.Room (Above 5001 KW)	Static DSS in the RSS		

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