ELECTRICAL NETWORK DESIGN- RESIDENTIAL & COMMERCIAL DEVELOPMENTS

1. Objective

The following policy is formulated to provide a guide line for the following:

1.1 Design of Electrical infrastructure in Residential apartment considering Maximum demand as per development viz. Casa, Aspirational, and High End/Luxury and in commercial buildings as per developments viz, Supremus, i-Think, Excelus, Malls and retails.

1.2 Design of Electrical Infrastructure for Residential tower and commercial building considering overall diversified Maximum Demand.

1.3 Common area (internal & external) load diversity.

1.4 Point Load/Power/Light/T.V/Data/Telephone/Intercom/VDP/Bell/Motion Sensor allocation apartment type wise.

1.5 Do's & Don'ts for Electrical Network Design

2. Development Classification

a. Residential developments are classified as follows:

i. Luxury
ii. High End
iii. Aspirational
iv. Casa

b. Commercial Developments are classified as follows;

i. Supremus
ii. I-Think
iii. Excelus
iv. Malls

3. Load Calculation and Equipment Sizing: Listed below are diversity factor to be considered for Maximum Demand (@each apartment) and Overall Maximum Demand (for each Tower Load):

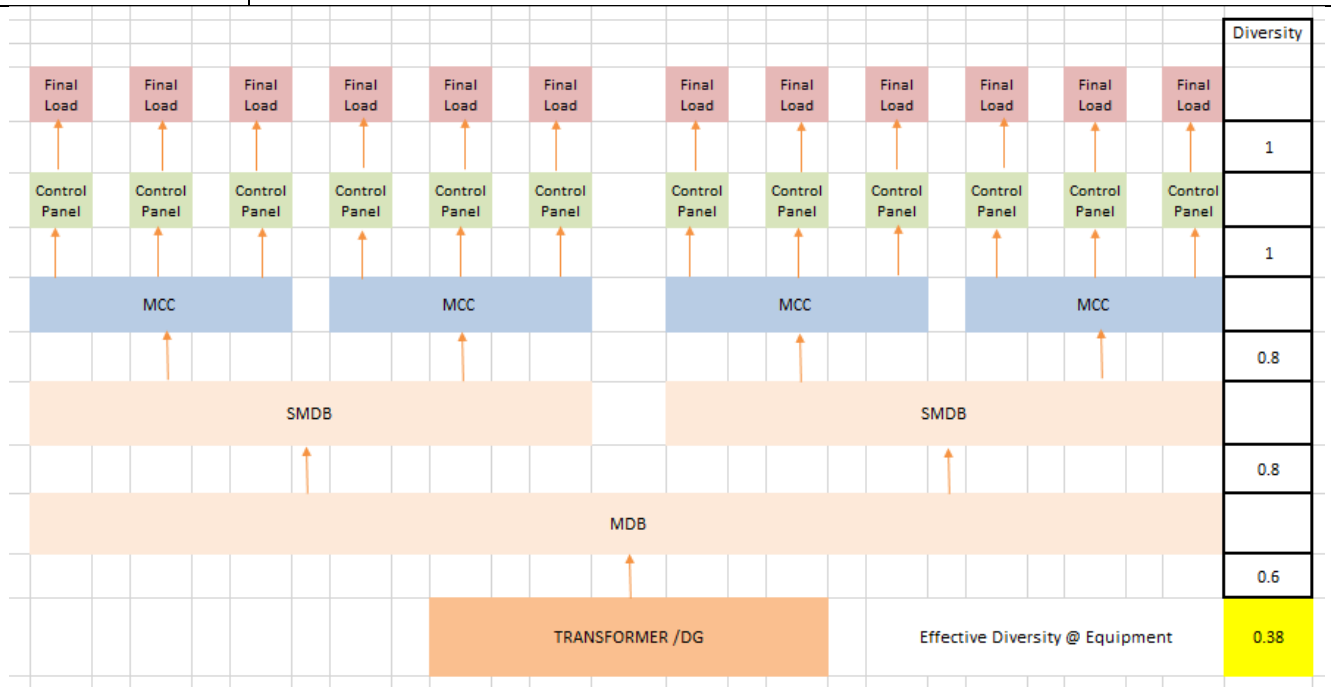
1. Connected Load of Unit/Common Area = Sum of all electrical loads in the unit / common area which are served of a single DB
2. DB load = Connected Load of Unit x Unit Diversity (/ Connected Load of Common Area x Common Area Diversity)
3. Cable Load = DB Load (note: assumed that one cable is connected to one DB)
4. Bus Bar Load = Sum of all DB or Cable Loads connected to the bus bar x Bus Bar Diversity

The final rating of selected bus bar shall be on the higher side of the current rating required.

5. Panel Load = Sum of all loads fed by Bus Bar connected to the Panel x Panel Diversity + Sum of all loads fed directly by Cable connected to the Panel
6. Transformer Load = Panel Load
7. Wherever transformer rating is governed by utility company, the panel diversity shall be adjusted to match the condition above.
   To calculate connected load see Annexure A.
8. Diversity Factors for different type of load:

	Residential	**Office**	**Retail**
Unit Diversity	0.6 High end/Luxury 0.6 Casa/Aspirational(including cable from DB to meter)	Unit HVAC – 1, Lighting – 0.9, All other loads – 0.9	
Bus Bar / Bus Riser Diversity	Bus riser (high rise): 0.4 Meter room bus bar (where submain cabling is used):0.25	0.8 (in both conditions – busriser or meter room busbar)	0.8 (in both conditions – busriser or meter room busbar)

Common Area Diversity	Life safety loads - 1, Elevator/escalator and common HVAC – 0.6, All other connected loads – 0.6
Main distribution Board Diversity	0.8 for minimum 3 feeders are connected on single panel. 0.6 Where 4 or more feeders are connected on single panel. Refer below illustration for reference.



9. Demand Load criteria for applying Meters and allocating substation area in residential & commercial buildings:-

Type of Project	**Load to be considered**	**Diversity for Area less than and upto 500sqft**	**Diversity for Area above 500sqft**
Residential	75W/sqmtrs Or (6.9W/sqft)	1.5	2.5
Commercial unit	Shall follow the load specified in this policy		

Ex:-

Unit area (Residential) = 475sqft

Demand Load = (475x6.9)/1.5 = 2185W or 2.18kW

4. Do's for Residential Electrical Network Design

4.1 For Level of Electrical Switches and Sockets for Residential Apartments refer to the latest Architectural Policy No 67.

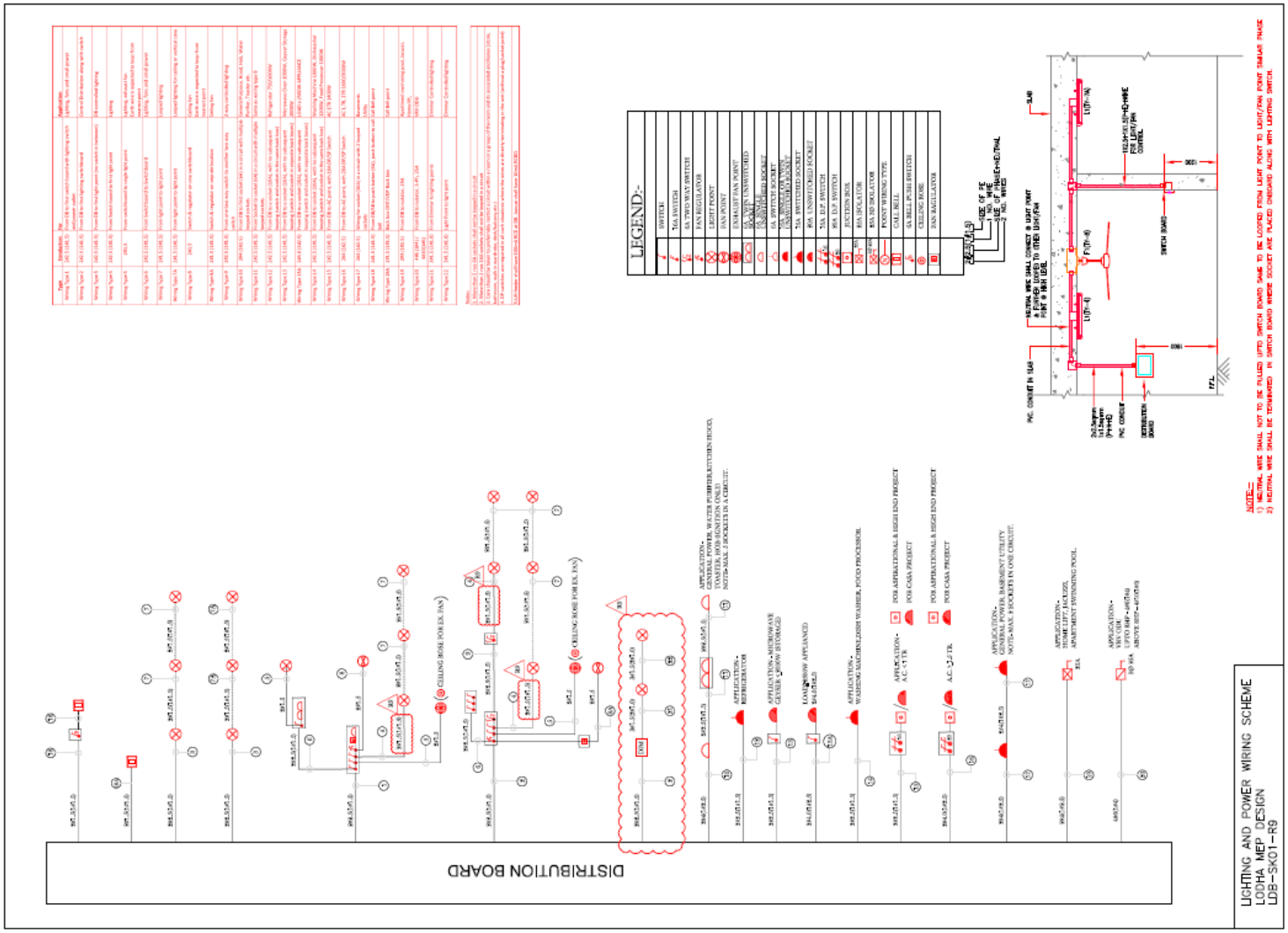
4.2 16A cable outlet (for 2000W Geyser)/20A cable outlet(for 3000W Geyser) to be provided adjacent to the Geyser location as power outlet, Geyser switch of similar rating shall be installed together with toilet lights switches.

4.3 All development including CASA & Crown inside the flats, the Air-conditioning units shall be controlled by a DP switch. A/C units in the flats shall be directly wired without any socket. The wires from the switch shall be directly terminated to the IDU. All further wiring i.e. interconnection between IDU and ODU will be in the vendor's scope. Only back-box to be provided behind the IDU. Care to be taken to position the back-box such that it is directly behind the IDU and will not be visible after fixing the IDU.

4.4 Apartment DB's should be preferably located at a centralized location which doesn't have aesthetic impact and is easily accessible as well as decently ventilated viz. store room, servant's room, behind main door, passage wall to kitchen. Location should also be chosen taking into consideration optimization of radial wiring length. Top of the Distribution boards should be +1900mm above finished floor level, to avoid access to children below 12 years. Distribution system inside apartment to be protected by 30mA rating ELCB/RCBO. All lighting circuit to be protected by 6/10A Type C outgoing MCB as per circuit load and power circuit be protected by 16/20/25A Type C outgoing MCB as per circuit load. The RCD/RCBO for the apartment Jacuzzi/pool shall be rated as 10 mA.

4.5 All development Double Door DB to be used.

4.6 Refer Point Wiring Schematic below. Same must be attached with all the tender documents.


LEGEND:-
DISTRIBUTION BOARD
LIGHTING AND POWER WIRING SCHEME
LODHA MEP DESIGN
LDB-SKD1-R9

4.7 The voltage drop calculation & temperature correction factor (de-rating factor) shall be done before finalizing the amperage rating of the Bus Bar. The bus bar shall be considered as being de-rated for a 40° C ambient temperature & 55 deg rise over and above ambient temp.

4.8 Bus duct insulation shall be minimum Class B, 130deg C.

4.9 Power outlet for all exhaust fans (in Toilets & Kitchen) shall be concealed within the exhaust fan cut-out so that post installation, no wires are visible internally or externally and to be a controlled by switch combined together with lighting switch board in respective area. A sample of an aesthetically more pleasing version of the exhaust fan (max. CFM 100 as per Policy MEP-04_Unit HVAC Guidelines for Residential Project) is provided below and should be considered for use in bathrooms due to its aesthetic superiority



FIG-1

4.10 2nos 2.5sqmm+1nos 1.5sqmm FR wires to be used till the switch boards for circuit feeding combined load of lighting and general purpose/small power . Loading of 2.5sqmm radial circuit with multiple equipment's/light should be in the range of 800 to 1000W. Load above 1500W to 2000W should not be shared with other equipment's/lighting/small power and shall be fed from individual circuit of 2nos 2.5 + 1nos 1.5sqmm FR sq mm wire rating.

4.11 In an apartment each bedroom / living room lighting & small power General purpose (GP) shall be fed with same circuit respectively excluding TV and home theatre. All bedrooms TV /home theatre outlet shall be fed with single circuit. For living room TV & home theatre shall be fed with separate circuit which can be clubbed with general purpose socket in the living room.

4.12 1 Data point is to be provided in line with Architectural policy # 67. In hi-end and luxury residential, wi-fi will be done by purchasers themselves. In case of hi-end/luxury projects, once Fibre to Home (FTH) partner is selected, consultation should be done as to how IPTV will be enabled in the house and if that require data points, then data points should be provided (though cost should be borne by the FTH partner).

4.13 The outlet for ONT & VDP shall be connected with 2nos 1.5sqmm+1nos 1.5sqmm FR wires in a back box behind the ONT/IDU. The wires shall be terminated directly in the unit. Wherever ELV DBs have provision to keep ONT inside it power sockets shall be provided inside the DB.

4.14 Load more that 2500W shall be fed from individual circuit of 2nos 4sqmm + 1nos 2.5sqmm wire which shall be verified for voltage drop calculations.

4.15 For fairly enclosed lift/entrance lobbies in such area where natural light is low, lighting (excluding emergency lighting) shall be controlled by motion sensor with adjustable timers to save operational costs.

4.16 Street/landscape lighting shall be based on astronomical timer at building or GSM based module for street/infra lighting to save opex.

4.17 All the floor lamps shall be IP 67 Rated. All external up-lighters shall be IP68.

4.18 Adjacent GP switch sockets, light switches etc. to be clubbed on single face plate and back box to improve aesthetics. All such units should be on the same phase.

4.19 In case FTTH is planned for a project. Cat 6/equivalent cable from the LVDB/ONT to the data points should be provided. Wi-fi in individual residences will be done by 3rd party broadband provider and resident will enter into their own arrangement with them. If the ONT is not centrally located in the apartment, one data point shall be provided such that adequate Wi-fi coverage can be achieved. Power outlet should be provided for the additional Wi-fi unit. Location of Power outlet and WiFi unit to be co-ordinate with architect for aesthetics.

4.20 Need for Multi-room connections, HDR connections and future changes in signal polarities planned by Satellite TV operators will likely increase the number of RG-6 (co-axial) cables that will need to go into a flat from the shaft and distributed to the end points. Therefore, size of LV conduits should be 25mm dia to handle three RG-6 cables at a time so that if required the customer can pull the required number of cables.

4.21 Two light point to be provided in bathrooms inside unit for residential projects (One ambient and other for vanity mirror on either ceiling or wall as per design). Bathroom lights to be controlled by switches. Exhaust fan to be looped with ceiling light controlled by one switch. The architects/owners shall select mirror lights such that it has a local inbuilt switch/control. No switches/sockets should be next to the shower/wet areas. Wherever committed in sales brochure ceiling lights & exhaust fan shall be controlled by occupancy sensor with bypass switch in line with Architectural policy #67. For all new projects occupancy sensor shall not be provided.

4.22 Cable connection outlet for geyser shall be one meters away from water connection point. Geyser power outlet and exhaust fan shall be provided above false ceiling near to the trap door location. Control switch for geyser shall be located next to lighting switch board in combined back box. Both circuit shall be on same phase.

4.23 Use standardized low cost electrical fixtures & fittings (switches, etc.) in all non-habitable areas like service floors, service lobbies, and other back of house areas like servant rooms, servant toilets, etc.

4.24 Suitable size 4 core Aluminium FR cables shall be used for connection between meter to apartment DB. For buildings without false ceiling in the corridor/apartment up to DB, bulkhead to be provided to accommodate cable (clamped to soffit, this can also be used for sprinkler pipes, if applicable).

4.25 GI earthing wires/strips to be used and copper earthing wires/strips to be avoided. Copper earthing wires/strips shall be used for neutral earthing of sub-stations if essentially required by local authority or else same should be done in GI earthing strips with next higher size.

4.26 Bus duct for electrical distribution should be used for residential building having height > 100 mtrs and for commercial buildings > 80 mtrs with power requirement of > 110kW (MD) per floor with inclusion of following :

a. For open lobby architecture (electrical shaft open in naturally ventilated space) first 30 typical floors of the building shall be fed with LV cable, subject to availability of the space in the electrical risers.(Refer Policy MEP-39_Guidelines for service risers)

b. One bus riser shall feed 20-25 typical floors instead of 15floors.

c. Bus ducts should be designed in such a way that the ones with high/highest amperage have the lowest length and vice-versa. The goal should be to reduce cost of bus bar by using medium capacity busbars with higher nos. (Max. of 2500A/3200 A for a transformer capacity of 1600/2500 KVA respectively). There are following disadvantages in considering very high rated transformers, bus-bars:

   - Associated high kA of the LT system which in turn increase the cost
   - Ratings higher than noted above are more than the standard utility approved ratings therefore should only be considered with prior utility/liaison approval.)

d. Within a given bus duct, use of reducers should also be considered at the upper levels to reduce the current and consequently cost.

e. The maximum length of the bus duct shall be limited by the maximum voltage drop (max. 6%) between transformer and the last distribution board (this is to achieve overall max voltage drop of 9% in entire network from HT tapping onwards). The no. of floors served should NOT be a limit to the bus duct length.

f. For each project (multiple buildings) using bus ducts, following spares are required to be handed over to HFM and should be appropriately included in the scope of the electrical contractor:

i. Two Bus Lengths of same size or amperage capacity of a model/make
ii. Two numbers of the Bus couplers
iii. One number Tap off units
iv. Torque Wrench

4.27 Use of Power Factor Correction equipment (APFC):

i. Residential connections (except for Clubhouse and PPL) – No
ii. Clubhouse connection – Yes
iii. PPL connection – Yes
iv. Commercial / IT / Retail connections – Yes (APFC for tenant connections shall be in tenant's scope)

4.28 Usage norms for Fire Survival (FS) Cables:

FS Cables usage to be limited since availability of same in Indian market is quite difficult (especially smaller length of cables). Below details shall be followed for LV cables serving emergency Load.

a) Cable serving emergency equipment/Panel within the same room shall be FR with cable tray. Following are the examples:-

i) Fire Pump room.
ii) LV room
iii) DG room
iv) Fan Room of basement Supply Fan

c) Cable serving emergency equipment but passing through different fire zone shall be
i) FS Cable

Application:-

i. Vertical Transfer pumps (supplying to the fire water tanks)
ii. Fire lifts
iii. Staircase /lift well / Lobby pressurization fans
iv. Incoming cable to Basement Supply and Exhaust Fans
v. Fire Alarm/Voice evacuation exposed wiring
vi. Incoming cable to Emergency Lighting Distribution Boards (outgoing circuit wiring shall be FR in conduit embedded in slab or in LHSFT conduit)
vii. Aviation Lighting Control

d) Cable serving Jet and Centrifugal fans should be avoided for full length of the cabling by – installing the 3/6runs of FR wires in embedded conduits from jet fan panels from where onwards FS PH120 cables or FR cable in LHSFT conduit to be used for exposed cabling.

4.29 Containment:

4.29.1 L angle & Z angle supports to be used for LV Cables up to 4cx25sqmm.

4.29.2 Cable Tray

Cable tray & cable ladder shall be used for cables size 50sqmm and above.

4.29.3 Conduit

The conduits shall be embedded in slab as much as possible.

a. Type of conduits:
   i. PVC – HMS (for >100m tall buildings), MMS (for <100m tall buildings)

1. Embedded in slab or wall
2. On surface, inside the false ceiling void

ii. LHSFT (Low Halogen smoke free temperature stable conduit)

1. Exposed in plant room (where embedded PVC conduiting is not done)
2. Exposed in basements, parking (where embedded PVC conduiting is not done)
3. Exposed in Risers, Shafts

b. Size of conduits shall be as per requirement and relevant codes with the minimum conduit size being 20mm in dia.

c. Pre-approval to be taken from HOC to allow the slab casting without embedded conduits.

4.29.4 Following to be provided in bare shell :-

a. An isolator of suitable rating to be provided inside apartment as per location identified by architect.

b. ONT box to be provided for data & tel. Enclosure with back box shall are by FTTH vendor.

c. Splitter in enclosed box for TV near to isolator. Splitter selection shall be as per nos. of TV outlet.

4.29.5 Electric motors – used in mechanical plants

a. All plumbing and hvac plant which runs on a daily basis shall always have an IE3 motor. Applicable for Commercial projects.
b. All plumbing motors which runs on a daily basis shall always have an IE3 motor for Residential projects.
    1. Delivery alignment and GA approvals shall be carried out at the time of order
c. IE2 motors shall be retained only in the fire emergency motors (fire pumps, pressurisation fans, etc.) which have no running cost consequence during the lifecycle. Applicable for Commercial as well as Residential projects.

4.29.6 In all MSEDCL substations LT feeder connection between two feeder pillars shall be provided, wherever CSS are deployed such LT looping shall be done between nearest two CSS/Feeder Pillars; This is as per MSEDCL's requirement.

4.29.7 Single phase power distribution shall be considered for CASA and Crown apartments up to 2 BHK.

5. Don'ts for Residential Electrical Network Design

5.1 No Electrical switch or socket shall be installed under the taps and horizontally a minimum distance of 1.5 meter shall be maintained.

5.2 If possible we should avoid the floor boxes.

5.3 Normal lights shall not be installed in the external areas. These lights shall be minimum IP65 Rated.

5.4 Normal Sockets shall not be installed in the external areas. These shall be minimum IP66 rated.

5.5 Normal wires shall not be used for the landscape lighting and wiring joining using tapes shall be avoided. We should use flexible (unarmoured) cables for the distribution and all the joints shall be done inside water proof junction boxes. The cables shall be fixed with the PVC glands to these boxes.

5.6 No exposed wires shall be made visible, to connect Ex. Fans / Water coolers etc and same to be done with flexible cables, which will be supplied by respective vendors.

5.7 Power for VDP units shall be in concealed back box behind the equipment. Provision of direct wire connection to VDP IDU to be facilitated without socket/plug and same should be informed to VDP vendor during bidding. In KCA's, same is also to be done for display units but with socket.

6 Utility and Developer Scope bifurcation and capex responsibility matrix

6.1 All projects where sanction of power is not yet received from the utility (MSEDCL, Torrent (Upper Thane), BEST, Tata, Adani); the following works shall be in utility's scope:

	Source			Distribution				Metering	
Utility	Incoming Supply Cable to the project (HT)	EHV/Switching Station/MRSS (as applicable) "equipment"	EHV/Switching Station/MRSS (as applicable) "civil works"	HT distribution	Distribution Substations "equipment and civil works"	Containment for HT or LT cabling in infra (refer c. below)	Substation to meter room cabling	Meter room works	Busrisers; if applicable
Adani	Utility	Utility	Lodha	Utility	Utility	Lodha	Utility	Utility	Lodha
BEST	Utility	Utility	Lodha	Utility	Utility	Lodha	Utility	Utility	Lodha
Tata	Utility	Utility	Lodha	Utility	Utility	Lodha	Utility	Utility	Lodha
MSEDCL	Utility	Utility	Utility	Utility	Utility	Lodha	Utility	Utility	Lodha
Torrent	Utility	Utility	Utility	Utility	Utility	Lodha	Utility	Utility	Lodha

6.2 The above table shall be subject to following conditions:

6.2.1 If the substation is part of the podium/building then the civil works shall remain in Lodha's scope and civil works reimbursement will not be provided by utility

6.2.2 If the transformers are Dry Type then only the differential amount between dry and oil type transformers can be reimbursed

6.2.3 Since infra cabling containment is expensive, it will be Lodha's decision to lay the infra cables and seek reimbursement or provide permanent containment to the utility on case to case basis

6.2.4 Active coordination will be required with MSEDCL/Torrent as is currently done with other utilities (e.g. Tata, Adani, BEST). Detailing of the structure and aesthetics of the substations will have to be controlled and streamlined.

6.3 The substations where the sanctions/approvals are already in place, even if the construction of the substation is planned in future, the reimbursement cannot be claimed.
6.4 The utility capex or reimbursement scheme is not applicable for Industrial projects.
6.5 Utilities will not reimburse or install CSS.
6.6 Since we will have to transfer land of sizes applicable for EHV, MRSS, Switching Station and/or Distribution Substation to the utility, therefore care shall be taken that future shifting of these can be avoided.

Annexure A

(1) Connected Load Norms for Residential

(2) For Substation sizing demand load criteria mentioned under point # 3(9) to be followed.

(a) High End/Luxury Development for finished apartment

FACILITY TABLE FOR 1 BHK FLAT (HIGH END + LUXURY BRAND) for Finished Apartment																							
S.No.	Name of location	Light Point			Fan Point		6A Power point			16A Power point							AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	Oven	MICROWAVE	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	10	60	60	60	100	100	100	500	1500	600	2000	2000	1000	1500	1500	0	0	0	0	0	0	0
1	Living room/Dinning	4	0	2	3	0	6	0	0	0	0	0	0	0	0	0	2	1	1	1	1	1	0	0
2	Deck	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Kitchen	1	3	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
6	Utility	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7	Store	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Master Bed	3	0	2	1	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
9	Common Toilet	2	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	16	3	5	5	2	17	1	1	1	1	1	2	1	1	1	3	1	2	1	1	1	1	0
	Connected Load(W)	960	30	300	300	120	1700	100	100	500	1500	600	4000	2000	1000	1500	4500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	19210																						
	Maximum Demand Load (Watts)	11526			(at 0.6 div) (DB level)					* Geyser not required in kitchen if tapping is available from nearby toilet														
	Infrastructure Demand Load (Watts) for Trafo. selection	4610			(at 0.4 div)																			

FACILITY TABLE FOR 3 BHK FLAT (HIGH END + LUXURY BRAND) for Finished Apartment																								
S.No.	Name of location	Light Point			Fan Point		6A PP			16A PP								AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	Oven	MICROWAVE	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	10	60	60	60	100	100	100	500	1500	600	2000	2000	1000	1500	1500/tr	0	0	0	0	0	0	0
1	Living room/Dinning	6	0	3	3	0	6	0	0	0	0	0	0	0	0	0	2	1	1	1	1	1	0	0
2	Deck 1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Deck 2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Passage	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5	Puja	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Kitchen	2	3	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
7	Utility	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
8	Store	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Bed Room 1	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
10	Common Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11	Bed Room 2	2	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
12	Bed Room 2 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
13	Master Bed	3	0	2	1	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
14	Master Toilet	2	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
15	Walkin Wardrobe	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Powder Toilet	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Servant Room	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Servant Toilet	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	33	3	13	8	5	30	1	1	1	1	1	4	1	1	1	5	1	4	1	1	1	1	0
	Connected Load(W)	1980	30	780	480	300	3000	100	100	500	1500	600	8000	2000	1000	1500	7500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	29370																						
	Maximum Demand Load (Watts)	17622			(at 0.6 div) (DB level)																			
	Infrastructure Demand Load (Watts) for Trafo. selection	7049			(at 0.4 div)																			

* Geyser not required in kitchen if tapping is available from nearby toilet

FACILITY TABLE FOR 4 BHK FLAT (HIGH END + LUXURY BRAND) for Finished Apartment																									
S.No.	Name of location	Light Point			Fan Point		6A PP			16A PP								AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	OVEN	MICROWAVE	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
2	Deck 1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Deck 2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Deck 3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Passage	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6	Puja	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Kitchen	2	3	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
8	Utility	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
9	Store	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Bed Room 1	4	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
11	Common Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12	Bed Room 2	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
13	Bed Room 2 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
14	Bed Room 3	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
15	Bed Room 3 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16	Master Bed	4	0	2	1	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
17	Master Toilet	2	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18	Walkin Wardrobe	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Powder Toilet	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Servant Room	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Servant Toilet	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	42	3	16	9	6	35	1	1	1	1	1	5	1	1	1	6	1	5	1	1	1	1	0
	Connected Load(W)	2520	60	960	540	360	3500	100	100	500	1500	600	10000	2000	1000	1500	9000	0	0	0	0	0	0	0
	Total Connected Load (Watts)	34240																						
	Maximum Demand Load (Watts)	20544			(at 0.6 div) (DB level)								* Geyser not required in kitchen if tapping is available from nearby toilet											
	Infrastructure Demand Load (Watts) for Trafo. selection	8218			(at 0.4 div)																			

FACILITY TABLE FOR 5 BHK FLAT (HIGH END + LUXURY BRAND) for Finished Apartment																								
S.No.	Name of location	Light Point			Fan Point		6A PP			16A PP							AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	OVEN	MICROWAVE	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	20	60	60	60	100	100	100	500	1500	600	2000	2000	1000	1500	1500	0	0	0	0	0	0	0
1	Living room/Dinning	7	0	3	3	0	6	0	0	0	0	0	0	0	0	0	2	1	1	1	1	1	0	0
2	Deck 1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Deck 2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Deck 3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Passage	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6	Puja	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Kitchen	2	3	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
8	Utility	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
9	Store	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Bed Room 1	4	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
11	Common Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12	Bed Room 2	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
13	Bed Room 2 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
14	Bed Room 3	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
15	Bed Room 3 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16	Bed Room 4	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
17	Bed Room 4 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18	Master Bed	4	0	2	1	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
19	Master Toilet	2	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
20	Walkin Wardrobe	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Powder Toilet	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Servant Room	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Servant Toilet	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	46	3	19	10	7	40	1	1	1	1	1	6	1	1	1	7	1	6	1	1	1	1	0
	Connected Load(W)	2760	60	1140	600	420	4000	100	100	500	1500	600	12000	2000	1000	1500	10500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	38780																						
	Maximum Demand Load (Watts)	23268			(at 0.6 div) (DB level)																			
	Infrastructure Demand Load (Watts) for Trafo. selection	9307			(at 0.4 div)																			

* Geyser not required in kitchen if tapping is available from nearby toilet

FACILITY TABLE FOR Penthoue FLAT (HIGH END + LUXURY BRAND) for Finished Apartment																								
S.No.	Name of location	Light Point			Fan Point		6A PP			16A PP							AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	OVEN	MICROWAVE	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	20	60	60	60	100	100	100	500	1500	600	2000	2000	1000	1500	1500	0	0	0	0	0	0	0
1	Living room/Dinning	7	0	3	3	0	6	0	0	0	0	0	0	0	0	0	2	1	1	1	1	1	0	0
2	Deck 1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Deck 2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Deck 3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Passage	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6	Puja	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Kitchen	2	3	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
8	Utility	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
9	Store	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Bed Room 1	4	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
11	Common Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12	Bed Room 2	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
13	Bed Room 2 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
14	Bed Room 3	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
15	Bed Room 3 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16	Bed Room 4	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
17	Bed Room4 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16	Bed Room 5	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
17	Bed Room 5 Toilet	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18	Master Bed	4	0	2	1	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
19	Master Toilet	2	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
20	Walkin Wardrobe	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Powder Toilet	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Servant Room	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Servant Toilet	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	50	3	22	11	8	45	1	1	1	1	1	7	1	1	1	8	1	7	1	1	1	1	0
	Connected Load(W)	3000	60	1320	660	480	4500	100	100	500	1500	600	14000	2000	1000	1500	12000	0	0	0	0	0	0	0
	Total Connected Load (Watts)	43320																						
	Maximum Demand Load (Watts)	25992			(at 0.6 div) (DB level)								* Geyser not required in kitchen if tapping is available from nearby toilet											
	Infrastructure Demand Load (Watts) for Trafo. selection	10397			(at 0.4 div)																			

(b) Aspirational Development

FACILITY TABLE FOR 1.5BHK FLAT (ASPIRATIONAL)																				
S.No.	Name of location	Light Point		Light Point		6A Power			16A Power					AC						
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Hob	Water Purify	General	Fridge	Geyser	MICROWAVE/OVEN	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	100	500	600	2000	2000	1000	1500	0	0	0	0	0	0	0
1	Living room/Dinning	3	2	2	0	6	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0
2	Passage	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Study	1	1	1	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
5	Kitchen	2	0	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0
6	Utility	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7	Common Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8	Master Bed	2	2	1	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
9	Master Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	14	7	5	3	16	1	1	0	1	2	1	1	3	1	2	1	1	1	1	0
	Connected Load(W)	840	420	300	180	1600	100	100	0	600	4000	2000	1000	4500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	15640.00																			
	Maximum Demand Load (Watts)	9384	(at 0.6 div) (DB level)																		
	Infrastructure Demand Load (Watts)	2346	(at 0.25 div)																		

FACILITY TABLE FOR 2BHK FLAT (ASPIRATIONAL)																				
S.No	Name of location	Light Point		Light Point		6A Power			16A Power					AC							
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Hob	Water Purify	General	Fridge	Geyser	MICROWAVE/ OVEN	WASHING MACHINE	A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	100	500	600	2000	2000	1000	1500	0	0	0	0	0	0	0
1	Living room/Dinning	3	2	2	0	6	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0
2	Desk	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Bed room-1	2	1	1	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
6	Kitchen	2	0	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0
7	Utility	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
8	Common Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9	Master Bed	2	2	1	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
10	Master Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	16	7	5	3	18	1	1	0	1	2	1	1	3	1	3	1	1	1	1	0
	Connected Load(W)	960	420	300	180	1800	100	100	0	600	4000	2000	1000	4500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	15960.00																			
	Maximum Demand Load (Watts)	9576.00		(at 0.6 div) (DB level)																	
	Infrastructure Demand Load (Watts)	3830.40		(at 0.4 div)																	

FACILITY TABLE FOR 2.5BHK FLAT (ASPIRATIONAL)																				
S.No.	Name of location	Light Point		Light Point		6A Power			16A Power					AC							
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Hob	Water Purify	General	Fridge	Geyser	MICROWAVE/ OVEN	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	100	500	600	2000	2000	1000	1500	0	0	0	0	0	0	0
1	Living room/Dinning	3	2	2	0	6	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0
2	Desk	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Study	1	1	1	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
6	Bed room-1	2	1	1	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
7	Bed room-1 Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8	Kitchen	2	0	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0
9	Utility	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
10	Common Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11	Master Bed	2	2	1	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
12	Master Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	18	9	6	4	21	1	1	0	1	3	1	1	4	1	3	1	1	1	1	0
	Connected Load(W)	1080	540	360	240	2100	100	100	0	600	6000	2000	1000	6000	0	0	0	0	0	0	0
	Total Connected Load (Watts)	20120.00																			
	Maximum Demand Load (Watts)	12072.00		(at 0.6 div) (DB level)																	
	Infrastructure Demand Load (Watts)	4828.80		(at 0.4 div)																	

FACILITY TABLE FOR 3BHK FLAT (ASPIRATIONAL)																				
S.No.	Name of location	Light Point		Light Point		6A Power			16A Power					AC						
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Hob	Water Purify	General	Fridge	Geyser	MICROWAVE/ OVEN	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	100	500	600	2000	2000	1000	1500	0	0	0	0	0	0	0
1	Living room/Dinning	3	2	2	0	6	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0
2	Desk	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Bed room-1	2	1	1	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
6	Kitchen	2	0	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0
7	Utility	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
8	Common Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9	Bed room-2	2	1	1	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
10	Bed room-2 Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11	Master Bed	2	2	1	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
12	Master Toilet	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	19	9	6	4	23	1	1	0	1	3	1	1	4	1	4	1	1	1	1	0
	Connected Load(W)	1140	540	360	240	2300	100	100	0	600	6000	2000	1000	6000	0	0	0	0	0	0	0
	Total Connected Load (Watts)	20380.00																			
	Maximum Demand Load (Watts)	12228.00		(at 0.6 div) (DB level)																	
	Infrastructure Demand Load (Watts)	4891.20		(at 0.4 div)																	

(c) Casa Development

FACILITY TABLE FOR 1BHK FLAT (CASA)																			
S.No.	Name of location	Light Point		Fan Point		6A PP		16A PP											
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Fridge	Geyser	MICROWAVE/ OVEN	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	400	3000	2000	600	1500	0	0	0	0	0	0	0
1	Living room/Dinning	3	1	2	0	6	0	0	0	0	0	1	1	1	1	1	0	0	0
2	Passage	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Kitchen	1	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0
5	Utility	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
6	Common Toilet	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
7	Master Bed	1	1	1	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0
	Total number of fixtures	9	3	4	2	13	1	1	1	1	1	2	1	2	1	1	0	1	0
	Connected Load(W)	540	180	240	120	1300	100	400	3000	2000	600	3000	0	0	0	0	0	0	0
	Total Connected Load (Watt)	11480																	
	Maximum Demand Load (Watt)	6888 (at 0.6 div) (DB level)																	
	Infrastructure Demand Load (Watt)	1722 (at 0.25 div)																	

FACILITY TABLE FOR 1.5BHK FLAT (CASA)																			
S.No.	Name of location	Light Point		Fan Point		6A PP		16A PP											
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Fridge	Geyser	MICROWAVE/ OVEN	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	400	3000	2000	600	1500	0	0	0	0	0	0	0
1	Living room/Dinning	3	1	2	0	6	0	0	0	0	0	1	1	1	1	1	0	0	0
2	Passage	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Study	1	0	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0
5	Kitchen	1	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0
6	Utility	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7	Common Toilet	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
8	Master Bed	1	1	1	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0
9	Master Toilet	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
10	Deck	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	12	4	5	3	16	1	1	2	1	1	3	1	2	1	1	0	1	0
	Connected Load(W)	720	240	300	180	1600	100	400	6000	2000	600	4500	0	0	0	0	0	0	0
	Total Connected Load (Watt)	16640																	
	Maximum Demand Load (Watt)	9984 (at 0.6 div) (DB level)																	
	Infrastructure Demand Load (Watt)	2496 (at 0.25 div)																	

FACILITY TABLE FOR 2BHK FLAT (CASA)																			
S.No.	Name of location	Light Point		Fan Point		6A PP		16A PP											
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Fridge	Geyser	MICROWAVE/ OVEN	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	400	3000	2000	600	1500	0	0	0	0	0	0	0
1	Living room/Dinning	2	2	2	0	6	0	0	0	0	0	1	1	1	1	1	1	0	0
2	Deck	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Bed Room 1	1	1	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0
6	Kitchen	2	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0
7	Utility	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
8	Common Toilet	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
9	Master Bed	2	1	1	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0
10	Master Toilet	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	14	5	5	3	16	1	1	2	1	1	3	1	2	1	1	1	1	0
	Connected Load(W)	840	300	300	180	1600	100	400	6000	2000	600	4500	0	0	0	0	0	0	0
	Total Connected Load (Watt)	16820																	
	Maximum Demand Load (Watt)	10092 (at 0.6 div) (DB level)																	
	Infrastructure Demand Load (Watt)	2523 (at 0.25 div)																	

FACILITY TABLE FOR 2.5BHK FLAT (CASA)																			
S.No	Name of location	Light Point		Fan Point		6A PP		16A PP											
		Light Point	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Fridge	Geyser	MICROWAVE/ OVEN	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	60	60	60	100	100	400	3000	2000	600	1500	0	0	0	0	0	0	0
1	Living room/Dinning	2	2	2	0	6	0	0	0	0	0	1	1	1	1	1	1	0	0
2	Deck	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Study	1	0	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0
6	Bed Room 1	2	1	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0
7	Kitchen	2	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0
8	Utility	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
9	Common Toilet	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
10	Master Bed	2	1	1	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0
11	Master Toilet	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	16	6	6	3	18	1	1	2	1	1	4	1	2	1	1	1	1	0
	Connected Load(W)	960	360	360	180	1800	100	400	6000	2000	600	6000	0	0	0	0	0	0	0
	Total Connected Load (Watt)	18760																	
	Maximum Demand Load (Watt)	11256	(at 0.6 div) (DB level)																
	Infrastructure Demand Load (Watt)	2814	(at 0.25 div)																

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FACILITY TABLE FOR 1 BHK FLAT (LUXURY BRAND/Bare shell)																									
S.No.	Name of location	Light Point			Fan Point		6A Power point			16A Power point								AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	In line Geyser*	Oven	MICROWAVE	WASHING MACHINE	20A point A.C. (1500w/1TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	10	60	60	60	100	100	100	500	1500	600	3000	18000	2000	1000	1500	1500	0	0	0	0	0	0	0
1	Living room/Dinning	4	0	2	3	0	6	0	0	0	0	0		0	0	0	0	2	1	1	1	1	1	0	0
2	Deck	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
5	Kitchen	1	3	0	1	1	2	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0
6	Utility	1	0	0	0	0	0	0	0	0	0	0		0	0	0	1	0	0	0	0	0	0	0	0
7	Store	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
8	Master Bed	3	0	2	1	0	6	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
9	Common Toilet	2	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	16	3	5	5	2	17	1	1	1	1	1	1	1	1	1	1	3	1	2	1	1	1	1	0
	Connected Load(W)	960	30	300	300	120	1700	100	100	500	1500	600	3000	18000	2000	1000	1500	4500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	36210.00																							
	Maximum Demand Load (Watts)	21726.00			(at 0.6 div) (DB level)					* Geyser not required in kitchen if tapping is available from nearby toilet															
	Infrastructure Demand Load (Watts) for Trafo. selection	8690.40			(at 0.4 div)																				

FACILITY TABLE FOR 2 BHK FLAT (LUXURY BRAND/Bare shell)

S.No.	Name of location	Light Point			Fan Point		6A Power point			16A Power point								AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	In line Geyser*	Oven	MICROWAVE	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	Tv	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	10	60	60	60	100	100	100	500	1500	600	3000	18000	2000	1000	1500	1500	0	0	0	0	0	0	0
1	Living room/Dinning	4	0	2	3	0	6	0	0	0	0	0		0	0	0	0	2	1	1	1	1	1	0	0
2	Deck	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
3	Passage	2	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	1	0
4	Puja	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
5	Kitchen	1	3	0	1	1	2	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0
6	Utility	1	0	0	0	0	0	0	0	0	0	0		0	0	0	1	0	0	0	0	0	0	0	0
7	Store	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
8	Bed Room 1	2	0	2	1	0	4	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
9	Common Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
10	Master Bed	3	0	2	1	0	6	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
11	Master Toilet	2	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	19	3	8	6	3	22	1	1	1	1	1	1	2	1	1	1	4	1	3	1	1	1	1	0
	Connected Load(W)	1140	30	480	360	180	2200	100	100	500	1500	600	3000	36000	2000	1000	1500	6000	0	0	0	0	0	0	0
	Total Connected Load (Watts)	56690.00																							
	Maximum Demand Load (Watts)	34014.00			(at 0.6 div) (DB level)																				
	Infrastructure Demand Load (Watts) for Trafo. selection	13605.60			(at 0.4 div)																				

* Geyser not required in kitchen if tapping is available from nearby toilet

FACILITY TABLE FOR 3 BHK FLAT (LUXURY BRAND/ bare & shell)																									
S.No.	Name of location	Light Point			Fan Point		6A PP			16A PP									AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	Inline Geyser*	Oven	MICROWAVE	WASHING MACHINE	20A point A.C. (1500w/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	10	60	60	60	100	100	100	500	1500	600	3000	18000	2000	1000	1500	1500/tr	0	0	0	0	0	0	0
1	Living room/Dinning	6	0	3	3	0	6	0	0	0	0	0		0	0	0	0	2	1	1	1	1	1	0	0
2	Deck 1	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
3	Deck 2	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
4	Passage	3	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	1	0
5	Puja	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
6	Kitchen	2	3	0	1	1	2	1	1	1	1	1	1		1	1	0	0	0	0	0	0	0	0	0
7	Utility	1	0	0	0	0	0	0	0	0	0	0		0	0	0	1	0	0	0	0	0	0	0	0
8	Store	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
9	Bed Room 1	3	0	2	1	0	4	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
10	Common Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
11	Bed Room 2	2	0	2	1	0	4	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
12	Bed Room 2 Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
13	Master Bed	3	0	2	1	0	6	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
14	Master Toilet	2	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
15	Walkin Wardrobe	2	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
16	Powder Toilet	1	0	1	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
17	Servant Room	0.6	0	0	1	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
18	Servant Toilet	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	32.6	3	13	8	5	30	1	1	1	1	1	2	3	1	1	1	5	1	4	1	1	1	1	0
	Connected Load(W)	1956	30	780	480	300	3000	100	100	500	1500	600	6000	54000	2000	1000	1500	7500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	81346.00																							
	Maximum Demand Load (Watts)	48807.60			(at 0.6 div) (DB level)																				
	Infrastructure Demand Load (Watts) for Trafo. selection	19523.04			(at 0.4 div)																				

* Geyser not required in kitchen if tapping is available from nearby toilet

FACILITY TABLE FOR 4 BHK FLAT (LUXURY BRAND/Bare & shell)																									
S.No.	Name of location	Light Point			Fan Point		6A PP			16A PP								AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	Inline Geyser*	OVEN	MICROWAVE	WASHING MACHINE	20A point A.C. (1500w/1TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	20	60	60	60	100	100	100	500	1500	600	3000	18000	2000	1000	1500	1500	0	0	0	0	0	0	0
1	Living room/Dinning	7	0	3	3	0	6	0	0	0	0	0		0	0	0	0	2	1	1	1	1	1	0	0
2	Deck 1	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
3	Deck 2	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
4	Deck 3	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
5	Passage	3	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	1	0
6	Puja	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
7	Kitchen	2	3	0	1	1	2	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0
8	Utility	1	0	0	0	0	0	0	0	0	0	0		0	0	0	1	0	0	0	0	0	0	0	0
9	Store	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
10	Common Toilet	4	0	2	1	0	4	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
11	Bed Room 1	4	0	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12	Common Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
13	Bed Room 2	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
14	Bed Room 2 Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
15	Bed Room 3	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
16	Bed Room 3 Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
17	Master Bed	4	0	2	1	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
18	Master Toilet	2	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
19	Walkin Wardrobe	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Powder Toilet	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Servant Room	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Servant Toilet	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixtures	46	3	18	10	6	39	1	1	1	1	1	2	4	1	1	1	3	5	2	1	1	1	1	0
	Connected Load(W)	2760	60	1080	600	360	3900	100	100	500	1500	600	6000	72000	2000	1000	1500	4500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	98560.00																							
	Maximum Demand Load (Watts)	59136.00			(at 0.6 div) (DB level)									* Geyser not required in kitchen if tapping is available from nearby toilet											
	Infrastructure Demand Load (Watts) for Trafo. selection	23654.40			(at 0.4 div)																				

FACILITY TABLE FOR 5 BHK FLAT (LUXURY BRAND/Bare &shell)

S.No.	Name of location	Light Point			Fan Point		6A PP			16A PP								AC							
		Light Point	Strip Light	Wall Bracket light	Ceiling	Exhaust	General	Water Purify	Hob	Hood	Dish Washer	Fridge	Geyser*	Inline Geyzer*	OVEN	MICROWAVE	WASHING MACHINE	20A point A.C. (1500W/TR)	Tel	TV	Intercom	Data	VDP	Bell	Motion Sensor
	Typical Wattage	60	20	60	60	60	100	100	100	500	1500	600	3000	18000	2000	1000	1500	1500	0	0	0	0	0	0	0
1	Living room/Dinning	7	0	3	3	0	6	0	0	0	0	0		0	0	0	0	2	1	1	1	1	1	0	0
2	Deck 1	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
3	Deck 2	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
4	Deck 3	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
5	Passage	3	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	1	0
6	Puja	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
7	Kitchen	2	3	0	1	1	2	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0
8	Utility	1	0	0	0	0	0	0	0	0	0	0		0	0	0	1	0	0	0	0	0	0	0	0
9	Store	1	0	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
10	Common Toilet	4	0	2	1	0	4	0	0	0	0	0		0	0	0	0	1	0	1	0	0	0	0	0
11	Bed Room 1	4	0	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12	Common Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
13	Bed Room 2	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
14	Bed Room 2 Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
15	Bed Room 3	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
16	Bed Room 3 Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
17	Bed Room 4	3	0	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
18	Bed Room 4 Toilet	1	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
19	Master Bed	4	0	2	1	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
20	Master Toilet	2	0	1	0	1	1	0	0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0
21	Walkin Wardrobe	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Powder Toilet	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Servant Room	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Servant Toilet	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Total number of fixturer	50	3	21	11	7	44	1	1	1	1	1	2	5	1	1	1	3	6	2	1	1	1	1	0
	Connected Load(W)	3000	60	1260	660	420	4400	100	100	500	1500	600	6000	90000	2000	1000	1500	4500	0	0	0	0	0	0	0
	Total Connected Load (Watts)	117600.00																							
	Maximum Demand Load (Watts)	70560.00			(at 0.6 div) (DB level)									*Geyzer not required in kitchen if tapping is available from nearby toilet											
	Infrastructure Demand Load (Watts) for Trafo. selection	28224.00			(at 0.4 div)																				

FACILITY TABLE FOR 1BHK FLAT (LQH/CROWN)																			
Sr.	Name of area	Light Point		Fan Point		6A PP		16A PP											
		Light Point	Wall Bracket Light	Ceiling	Exhaust	General	Water Purify.	Fridge	M/W	W/M	GY	AC	TEL	TV	Intercom	Data	VDP	BELL	Motion Sensor
		60	60	60	60	100	100	400	2000	600	3000	1500	0	0	0	0	0	0	0
1	Living Room/Dining	2	0	1	0	5	0	0	0	0	0	0	1	1	1	1		1	0
2	Passage	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Kitchen	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
4	Utility	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5	Common Toilet/WC	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Bed	2	0	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0
7	Toilet/Bath	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	Total number of fixtures	9	0	3	3	9	1	1	1	1	1	1	1	1	1	1	0	1	0
	Connected Load (Watt)	540	0	180	180	900	100	400	2000	600	3000	1500	0	0	0	0	0	0	0
	Total of Connected Load (Watt)	9400																	
	Maximum Demand Load (Watt)	5640	(at 0.6 div) (DB level)																
	Infrastructure Demand Load (Watt)	1410	(at 0.6 div) (DB level)																

FACILITY TABLE FOR 2BHK FLAT (LQH/CROWN)																			
Sr.	Name of area	Light Point		Fan Point		6A PP		16A PP											
		Light Point	Wall Bracket Light	Ceiling	Exhaust	General	Water Purify.	Fridge	M/W	W/M	GY	AC	TEL	TV	Intercom	Data	VDP	BELL	Motion Sensor
		60	60	60	60	100	100	400	2000	600	3000	1500	0	0	0	0	0	0	0
1	Living Room/Dining	2	0	1	0	5	0	0	0	0	0	0	1	1	1	1	0	0	0
2	Passage	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3	Kitchen	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
4	Utility	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5	Common Toilet/WC	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Bed	2	0	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0
7	Toilet/Bath	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
8	Master Bed	2	0	1	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0
9	Master Toilet	2	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0
	Total number of fixtures	13	0	4	4	14	1	1	1	1	2	2	1	2	1	1	0	1	0
	Connected Load (Watt)	780	0	240	240	1400	100	400	2000	600	6000	3000	0	0	0	0	0	0	0
	Total of Connected Load (Watt)	14760																	
	Maximum Demand Load (Watt)	8856	(at 0.6 div) (DB level)																
	Infrastructure Demand Load (Watt)	2214	(at 0.6 div) (DB level)																

(2) Office & Retail:

A) Total Connected Load (TCL) Norms for Commercial/Retail

	Lighting Load (watts /sft of relevant Carpet)	Raw power (Watts/sft of relevant Carpet)	AC (Watts/sft of relevant Carpet)	Connected Load (watts/sft of relevant Carpet)
Offices				
Excelus	0.8	3	1.58*	5.38
iThink Offices	0.8	3	1.58*	5.38
Supremus Offices	0.8	3	6 (for VRV) 8 (Dx Systems)	9.8
Retails				
Shop Areas	3	3	3*	9
Non-Shop Areas	2	1	3*	6
Shop Areas with individual a/c units	3	3	9	15

Kitchen/ Restaurant:				
Food court (Serving Area)	1.5	3	3*	7.5
Food court (Kitchen Area only)	1.5	35	3.0	39.5
Restaurant (Dining Area)	1.5	3	3*	7.5
Restaurant (Kitchen Area)	1.5	35	3.0	39.5
Multiplex :				
Multiplex Office	1.0	1.0	2.3*	4.3
Multiplex area	1.5	6.0	3.0*	10.5
Common areas:				
Common Areas – Basement	0.2	0.5	1.5***	2.2
Common Areas – Entrance Lobby & Typ. corridor	1	1	2.3*	4.3

Centralized HVAC Load for building (for buildings with central HVAC) including common area**	NA	NA	5 (Air cooled) 4 (Water cooled – Scroll, Screw) 3 (Water Cooled - Centrifugal)	5 (Air cooled) 4 (Water cooled – Scroll, Screw) 3 (Water Cooled - Centrifugal)
Centralized AC load for Restaurants and multiplex	Na	Na	9*	9

In addition to this, load of common areas is to be calculated separately (e.g. lifts, water pump, firefighting equipment, ventilation fans, etc.).

Note:

* Low side load is assumed to be part of unit load, whereas high side load is assumed to be part of common area load.

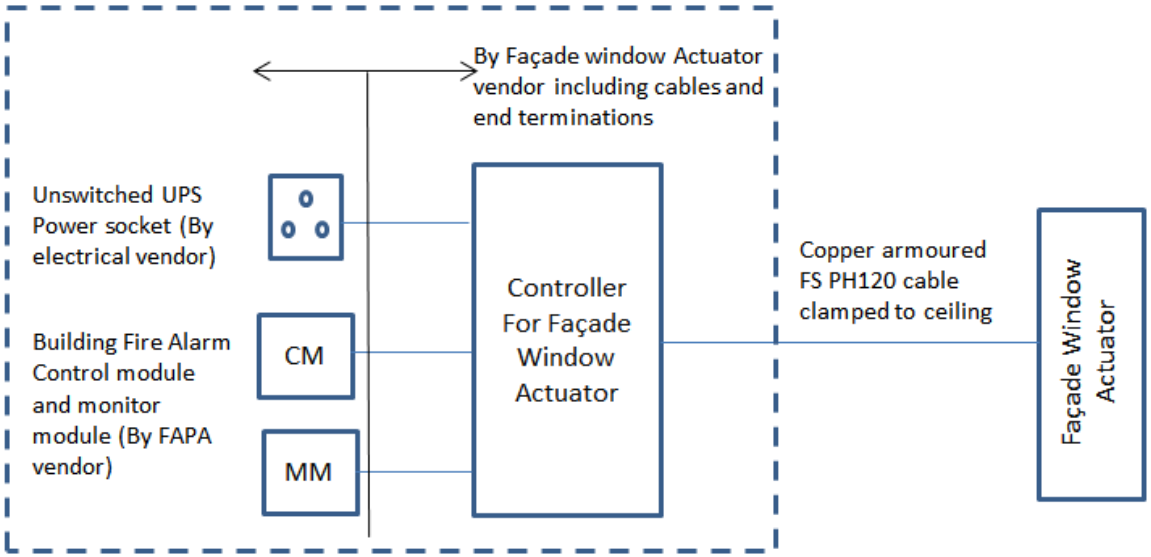
*** Ventilation load

Power densities to be considered in heat load calculations shall be as follows:

- Lighting power density (heat gain): TCL(Electrical) x Diversity x 0.85

Equipment power density (heat gain): TCL (Electrical) x Diversity x 0.5**B)** Consider dual source energy meter scheme for offices with Utility Company's approval. This gives flexibility in distribution system to accommodate changes in office areas (merger or division of units) and results in saving cabling and changeover.

C) Emergency Power supply and Fire alarm system control module for façade window automatic opening system shall be provided in common area. Further distribution shall be done by the façade window actuator vendor. The budgeting shall be done as per the battery limits shown below:-



D) Where common area loads are on a HT connection, instead of single transformer it is preferable to have 2 transformers (catering to 60% load each), if space permits. This will allow redundancy to cater minimum load in case of failure of one equipment. Additional space for one extra transformer shall also be considered in utility substation as per Supply Company's requirement.

Note: - This policy updation (Rev10) shall be implemented as per Architectural policy no 122.