



LEGEND		
SYMBOL	DESCRIPTION	QUANTITY
	PROPOSED 35sq.mm Cu/PVC/XLPE/PVC Cable	1894m
	PROPOSED 50sq.mm Cu/PVC/XLPE/PVC Cable	693m
	PROPOSED 70sq.mm Cu/PVC/XLPE/PVC Cable	311m
	PROPOSED 95sq.mm Cu/PVC/XLPE/PVC Cable	407m
	PROPOSED 120sq.mm Cu/PVC/XLPE/PVC Cable	1026m
	EXISTING Cable	-
	DISTRIBUTION BOX	-
	EXISTING DISTRIBUTION BOX TO BE REPLACED	35 Nos.
	EXISTING DISTRIBUTION BOX TO BE MODIFIED	-

NOTES:-

- THESE DRAWINGS ARE PRELIMINARY AND ARE FOR TENDERING PURPOSES ONLY.
- THE ENTIRE LV NETWORK OF KURINBI ISLAND SHALL BE MODIFIED IN LINE WITH THE NETWORK DIAGRAM AS GIVEN IN THE TENDER DRAWING.
- CONTRACTOR SHALL CARRY OUT DETAILED SITE SURVEY AND ENGINEERING / STUDY TO EVALUATE AND PROPOSE THE EXTENT OF REPLACEMENT / MODIFICATION REQUIRED IN THE EXISTING DISTRIBUTION NETWORK. THIS IS SUBJECT TO REVIEW AND APPROVAL BY THE EMPLOYER DURING THE ENGINEERING PHASE OF THE PROJECT.

	PURPOSE OF SUBMISSION	REV	AUTHORISED BY	DATE	DRAWING TITLE NETWORK DIAGRAM FOR B10-KURINBI		DESIGN : ESM	SCALE : N.T.S
	FIRST REVISION	B	GKH	17/04/16			DRAWN : DAI	DRW NO. : J431-GOPA-017-GR-E-D-0001-RevD
	SECOND REVISION	C	GKH	24/04/16	PROJECT PREPARING OUTER ISLANDS SUSTAINABLE DEVELOPMENT	CLIENT: GOVERNMENT OF THE REPUBLIC OF MALDIVES	LICENCE NO:	ISLAND NAME : - KURINBI
	THIRD REVISION	D	GKH	19/06/16			DATE: : 19JUN16	PAGE : 1/2

KURINBI-PROPOSED

From	To	No. of Runs	Cable Size (sq.mm)	Length (M)	Cable Current Capacity (A)	Cable Current Capacity After Deration (0.6) (A)	Power (kW)	Current (A)	Cable Loading (%)	Voltage (%) at DB Main Bus	Total Voltage Drop (%) in Cable Section	% Voltage Drop upto Distribution Boards	% Voltage Drop Acceptable (Less Than 5%)	Remarks
Feeder-A	DB-A1	1	4C x 70	100	265	159	25.42	45.57	28.70	99.39	0.61	0.61	YES	Proposed 4C x 70 sq.mm LV Cable
DB-A1	DB-A2	1	4C x 70	111	265	159	20.23	36.52	23.00	98.86	0.54	1.14	YES	Proposed 4C x 70 sq.mm LV Cable
DB-A2	DB-A3	1	4C x 50	132	215	129	15.11	27.44	21.30	98.19	0.67	1.81	YES	Proposed 4C x 50 sq.mm LV Cable
DB-A3	DB-A4	1	4C x 35	123	180	108	10.00	18.32	17.00	97.64	0.55	2.36	YES	Proposed 4C x 35 sq.mm LV Cable
DB-A4	DB-A5	1	4C x 35	126	180	108	4.97	9.17	8.50	97.36	0.28	2.64	YES	Proposed 4C x 35 sq.mm LV Cable
Feeder-B	DB-B1	1	4C x 95	185	315	189	35.68	63.96	33.80	98.81	1.19	1.19	YES	Proposed 4C x 95 sq.mm LV Cable
DB-B1	DB-B2	1	4C x 95	105	315	189	30.17	54.88	29.00	98.23	0.58	1.77	YES	Proposed 4C x 95 sq.mm LV Cable
DB-B2	DB-B2x1	1	4C x 70	100	265	159	14.99	27.46	17.30	97.86	0.36	2.14	YES	Proposed 4C x 70 sq.mm LV Cable
DB-B2x1	DB-B2x2	1	4C x 35	72	180	108	9.96	18.33	17.00	97.54	0.32	2.46	YES	Proposed 4C x 35 sq.mm LV Cable
DB-B2x2	DB-B2x3	1	4C x 35	94	180	108	4.96	9.17	8.50	97.33	0.21	2.67	YES	Proposed 4C x 35 sq.mm LV Cable
DB-B2	DB-B3	1	4C x 35	107	180	108	9.99	18.30	16.90	97.75	0.47	2.25	YES	Proposed 4C x 35 sq.mm LV Cable
DB-B3	DB-B4	1	4C x 35	87	180	108	4.97	9.16	8.50	97.56	0.19	2.44	YES	Proposed 4C x 35 sq.mm LV Cable
Feeder-C	DB-C1	1	4C x 120	240	360	216	41.16	73.57	34.10	98.52	1.48	1.48	YES	Proposed 4C x 120 sq.mm LV Cable
DB-C1	DB-C2	1	4C x 95	117	315	189	35.48	64.49	34.10	97.76	0.76	2.24	YES	Proposed 4C x 95 sq.mm LV Cable
DB-C2	DB-C2x1	1	4C x 35	101	180	108	4.97	9.16	8.50	97.53	0.22	2.47	YES	Proposed 4C x 35 sq.mm LV Cable
DB-C2	DB-C3	1	4C x 50	100	215	129	25.23	46.21	35.80	96.9	0.85	3.10	YES	Proposed 4C x 50 sq.mm LV Cable
DB-C3	DB-C4	1	4C x 50	75	215	129	20.01	37.05	28.70	96.39	0.51	3.61	YES	Proposed 4C x 50 sq.mm LV Cable
DB-C4	DB-C5	1	4C x 50	91	215	129	14.94	27.85	21.60	95.92	0.47	4.08	YES	Proposed 4C x 50 sq.mm LV Cable
DB-C5	DB-C6	1	4C x 35	150	180	108	9.92	18.59	17.20	95.25	0.68	4.75	YES	Proposed 4C x 35 sq.mm LV Cable
DB-C6	DB-C7	1	4C x 35	104	180	108	4.93	9.32	8.60	95.01	0.23	4.99	YES	Proposed 4C x 35 sq.mm LV Cable
Feeder-D	DB-D1	1	4C x 120	377	360	216	36.13	64.51	29.90	97.96	2.04	2.04	YES	Proposed 4C x 120 sq.mm LV Cable
DB-D1	DB-D1x1	1	4C x 35	108	180	108	4.97	9.15	8.50	97.72	0.24	2.28	YES	Proposed 4C x 35 sq.mm LV Cable
DB-D1	DB-D2	1	4C x 50	100	215	129	25.32	46.25	35.90	97.1	0.85	2.90	YES	Proposed 4C x 50 sq.mm LV Cable
DB-D2	DB-D3	1	4C x 50	165	215	129	20.08	37.08	28.70	95.98	1.13	4.02	YES	Proposed 4C x 50 sq.mm LV Cable
DB-D3	DB-D3x1	1	4C x 35	78	180	108	4.94	9.27	8.60	95.8	0.17	4.20	YES	Proposed 4C x 35 sq.mm LV Cable
DB-D3	DB-D4	1	4C x 35	145	180	108	9.92	18.59	17.20	95.32	0.65	4.68	YES	Proposed 4C x 35 sq.mm LV Cable
DB-D4	DB-D5	1	4C x 35	104	180	108	4.93	9.31	8.60	95.09	0.23	4.91	YES	Proposed 4C x 35 sq.mm LV Cable
Feeder-E	DB-E1	1	4C x 95	105	315	189	40.85	73.13	38.70	99.23	0.77	0.77	YES	Proposed 4C x 95 sq.mm LV Cable
DB-E1	DB-E1x1	1	4C x 35	122	180	108	10.04	18.20	16.80	98.69	0.54	1.31	YES	Proposed 4C x 35 sq.mm LV Cable
DB-E1x1	DB-E1x2	1	4C x 35	116	180	108	4.99	9.11	8.40	98.43	0.26	1.57	YES	Proposed 4C x 35 sq.mm LV Cable
DB-E1	DB-E2	1	4C x 50	98	215	129	25.43	45.87	35.60	98.4	0.83	1.60	YES	Proposed 4C x 50 sq.mm LV Cable
DB-E2	DB-E3	1	4C x 50	101	215	129	20.17	36.77	28.50	97.71	0.68	2.29	YES	Proposed 4C x 50 sq.mm LV Cable
DB-E3	DB-E4	1	4C x 50	95	215	129	15.03	27.62	21.40	97.23	0.48	2.77	YES	Proposed 4C x 50 sq.mm LV Cable
DB-E4	DB-E5	1	4C x 35	163	180	108	9.98	18.45	17.10	96.5	0.73	3.50	YES	Proposed 4C x 35 sq.mm LV Cable
DB-E5	DB-E6	1	4C x 35	94	180	108	4.94	9.23	8.50	96.29	0.21	3.71	YES	Proposed 4C x 35 sq.mm LV Cable

KURINBI-PROPOSED PV FEEDER

From	To	No. of runs	Cable Size (sq.mm)	Length (M)	Losses (%)
Power House (3Phase)	DB-E1	1	4C X120	105	2.39%
DB-E1	DB-E2	1	4C X120	98	
DB-E1x1	DB-E1x2	1	4C X35	116	
DB-E2	DB-E3	1	4C X120	101	
DB-E3	HEALTH CENTER-PV	1	4C X50	30	
DB-E3	DB-E4	1	4C X120	95	
DB-E4	SCHOOL-PV	1	4C X120	10	
DB-E4	DB-E5	1	4C X35	163	
DB-E5	DB-E6	1	4C X35	94	

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