



सत्यमेव जयते
Government of India
Central Electricity Authority

Regional Inspectorial Organisation
Block IV, Floor III, Shastri Bhawan, Chennai – 600 006

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PLANCELL

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No.39/72/5/2018-RIO

Dated 18/07/2018.

To
Authorised Signatory,
M/s Green Infra Renewable Energy Limited,
5th Floor, Tower C, Building No.8,
DLF Cyber City, Gurugram,
Haryana – 122 002.

**Approval for Electrical Installations
(Under Regulation 32 & 43)**

Installations:-

Equipment:

- 60 Nos. 2.1 MW Wind Energy Generators, 60 Nos. 2300 KVA 33kV/690V Transformers, 33kV DP Structures,
- 2 x 100 MVA 33kV/230kV Transformers & 230kV Sub-Station as per list enclosed – Seven Pages

Location: M/s Green Infra Renewable Energy Limited, Ottapidaram Tirunelveli Road, Thoothukudi – 628 401

Inspected by: Deputy Director, RIO, CEA Chennai on 24.05.2018

Reference:-

Your Letter No.	Online Application No. A/2018/03451	Dated	08.05.2018
Our Letter No.	39/72/5/2018-RIO/467	Dated	11.06.2018
Your Letters No.	Nil	Dated	30.06.2018 &
	Nil	Dated	18.07.2018

With reference to the above, approval is hereby granted for energizing the electrical installation as given above. This approval is strictly subject to your full compliance with the relevant provisions of the CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 (as amended to date) in every respect. The statement of energisation particulars may please be forwarded to this office immediately after energisation of the installation.

The next inspection of these equipments under regulation 30 shall be due after two years from the date of this approval.

Maryk

(MARY FRANCIS)
Deputy Director
For CEI to Govt. of India

उप निदेशक / Deputy Director
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Copy to:-

The Chief Engineer (CEI), CEA, New Delhi – 110 016

M/S.GREEN INFRA RENEWABLE ENERGY LIMITED,
Ottapidaram Tirunelveli Road,
Thoothukudi- 628 401.

HV INSTALLATIONS:-

1. 230/33KV SWITCH YARD (COMPRISING OF) :-

216kV, 10kA, CLASS-III, LIGHTNING ARRESTER	- 03Nos
POTENTIAL TRANSFORMERS BUS PT (THREE WINDINGS (1Ø))	- 06Nos
CAPACITIVE VOLTAGE TRANSFORMER (TWO WINDINGS (1Ø))	- 03Nos
230kV, 2000A, 40kA, DOUBLE BREAK MOTOR OPERATED ISOLATOR WITHOUT EARTH SWITCH WITH 4kN INSULATOR	- 02Nos
230kV CURRENT TRANSFORMER	- 03Nos
230kV WAVE TRAP (R & B PHASE)	- 02Nos
245kV SOLID CORE POST INSULATOR, 6kN (BUS POST INSULATOR)	- 15Nos
30kV LIGHTING ARRESTER, CLASS III, 10kA	- 30Nos
33kV, 800A ISOLATOR WITH MANUAL OPERATED MECHANISM AND WITH SINGLE MANUAL OPERATED EARTH SWITCH	- 10Nos

2. 245kV PASS LINE/TRAFO MODULE (MOS):-

MAKE	: ABB INDIA LTD
SL.NO	: 245D039
RATED VOLTAGE/CURRENT	: 245kV/3150A
RATED SHORT CURRENT	: 50kA/3Sec

3. 245kV PASS LINE/TRAFO MODULE (MOS):-

MAKE	: ABB INDIA LTD
SL.NO	: 245D040
RATED VOLTAGE/CURRENT	: 245kV/3150A
RATED SHORT CURRENT	: 50kA/3Sec

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4. 245kV PASS LINE/TRAFO MODULE (MOS):-

MAKE : ABB INDIA LTD
 SL.NO : 245D041
 RATED VOLTAGE/CURRENT : 245kV/3150A
 RATED SHORT CURRENT : 50kA/3Sec

5. 245kV PASS BUS COUPLER MODULE (MOS):-

MAKE : ABB INDIA LTD
 SL.NO : 245S019
 RATED VOLTAGE/CURRENT : 245kV/3150A
 RATED SHORT CURRENT : 50kA/3Sec

6. 100MVA, 230KV/33KV TRANSFORMER-1:-

RATING : 100MVA
 VOLTAGE : 230KV/ 33KV
 MAKE : IMP POWERS LTD
 SL.NO : PT-8075
 HV CURRENT : 251.03A
 LV CURRENT : 1749.60A
 VECTOR GROUP : YNyn0

7. 100MVA, 230KV/33KV TRANSFORMER-2:-

RATING : 100MVA
 VOLTAGE : 230KV/ 33KV
 MAKE : IMP POWERS LTD
 SL.NO : PT-8076
 HV CURRENT : 251.03A
 LV CURRENT : 1749.60A
 VECTOR GROUP : YNyn0

8. 33KV SWITCH GEAR:-

INCOMER - 33KV 2000A VCB - 3Nos.
 BUSCOUPLER - 33KV 2000A VCB - 2Nos.
 OUTGOING - 33KV 800A VCB - 10Nos.
 FED FROM - 100MVA TR-1 THROUGH 33KV 2000A BUSDUCT AND
 100MVA TR-2 THROUGH 33KV 2000A BUSDUCT

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9. 250KVA, 33KV/415V TRANSFORMER-1:-

RATING	-	250KVA
VOLTAGE	-	33KV/ 433V
MAKE	-	HAMMOND POWER SOLUTIONS PVT. LTD
SL.NO.	-	12088
FREQUENCY	-	50Hz
AMPS	-	347.8A
VECTOR GROUP	-	DYN 11
TYPE OF COOLING	-	ONAN
FED FROM	-	33KV SWITCH GEAR

10. 250KVA, 33KV/415V TRANSFORMER-2:-

RATING	-	250KVA
VOLTAGE	-	33KV/ 433V
MAKE	-	HAMMOND POWER SOLUTIONS PVT. LTD
SL.NO.	-	12088
FREQUENCY	-	50Hz
AMPS	-	347.8A
VECTOR GROUP	-	DYN 11
TYPE OF COOLING	-	ONAN
FED FROM	-	33KV SWITCH GEAR

11. ACDB:-

INCOMER	-	400A 4P MCCB	- 2Nos.
	-	63A 4P MCCB	- 1No.
OUTGOING	-	63A 4P MCCB	- 4Nos.
	-	32A 4P MCCB	- 8Nos.
	-	16A DP MCB	- 4Nos.
FED FROM	-	250KVA TRANSFORMER-1&2	
I/C CABLE SIZE	-	FROM 250KVA TR-1:2Rx3.5Cx150Sq.mm AL. AR. CABLE	
	-	FROM 250KVA TR-2:2Rx3.5Cx150Sq.mm AL. AR. CABLE	

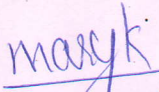
12. 40KVA,3Ø,415V GENERATOR:- (CONTAINER SET)

ALTERNATOR:

RATING	-	40KVA
VOLTAGE	-	415V
MAKE	-	EMERSON INDUSTRIAL AUTOMATION ELECTRIC POWER GENERATION PVT LTD
SL.NO.	-	LBS3F17G11775-H
FREQUENCY	-	50Hz
AMPS	-	1500rpm

ENGINE:

MAKE	-	ESCORTS AGRI MACHINERY
SL.NO	-	E3408912
BHP	-	33BHP


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LIST OF EQUIPMENTS FOR WTG

WTG - KME011, KME044, KUM162, KUM164, KUM165, KUM166, KUM211, KUM212, KUM216, KUM128, KUM267, MNS054, MNS056, MNS070, MNS071, MNS082, MNS085, MNS111, MNS120, OTA020, OTA026, OTA031, OTA052, OTA075, OTA092, OTA093, OTA100, OTA106, OTA112, OTA121, MNS105, OTA053, OTA132, OTA046, OTA027, KUM214, OTA050, OTE099, MNS052, MNS075, MNS067, MNS086, MNS065, MNS076, OTA064, OTA038, OTA120, MNS097, MNS106, MNS100, MAN106, OTA114, KUM218, KUM250, MAN113, MNS099, OTE101, MAN108, MNS090, OTA099:- (60Nos)

1. GENERATOR:- (60Nos)

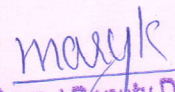
OUTPUT WITH SHORT	
CIRCUITED ROTOR	- 1850KW
OUTPUT WITH CONVERTER	- 2170KW
TYPE NO	- MRL063Z06
COOLING	- IC616

2. POWER PANEL:- (60Nos)

INCOMER	- 2500A 4P ACB
FED FROM	- TRANSFORMER
INCOMING CABLE	- WTG TO CONVERTER PANEL-ROTOR CABLE: 9x1Cx70 Sq.mm COPPER CABLE (3 RUNS EACH PHASE)
	- WTG TO JUNCTION BOX-STATOR CABLE: 15x1Cx185 Sq.mm. COPPER RUBBER CABLE (5 RUNS EACH PHASE)
	JUNCTION BOX TO POWER PANEL-STATOR CABLE: 12x1Cx400 Sq.mm. ALUMINUM RUBBER CABLE (4 RUNS EACH PHASE)

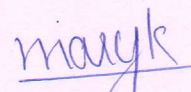
3. TRANSFORMER:- (60Nos)

RATING	- 2300KVA
VOLTAGE	- 33KV/ 690V
FREQUENCY	- 50Hz
AMPS	- 1924.50A
VECTOR GROUP	- DYN 11
TYPE OF COOLING	- ONAN
FED FROM	- CSS HT YARD
I/C CABLE SIZE	- 12x1Cx400 Sq.mm. ALUMINUM RUBBER CABLE (4 RUNS EACH PHASE) + 2x1Cx400 Sq.mm. ALUMINUM RUBBER CABLE FOR T/F NEUTRAL (PEN CONNECTION)

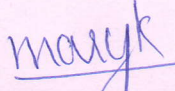

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4. CSS HT YARD:- (60Nos)

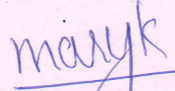
33 kV, INSULATION BOOT/INSULATION TAPE FOR BUSHING	- 3Nos.
33kV HV BUSHING	- 6Nos.
33kV BUSBAR WITH HT SLEEVE	- 1SET.
INDOOR TYPE PT 33KV Min 400 VA, SINGLE PHASE PT	- 1No.
33kV 800A INDOOR VCB 25kA FOR 3 SECOND	- 1No.
INDOOR TYPE CT's:- 200/5A, 15VA, 5P10	- 3Nos.
DISC INSULATOR: - 33kV, 70kN, COMPOSITE TYPE	- 3Nos.
CONDUCTOR: - AL - 59 DOG	- 1Lot.
0 SWG INSULATED CONDUCTOR	- 1Lot.
POLYMERIC SURGE ARRESTOR: - 30 kV, 10kA, CLASS II	- 3Nos.
ISOLATOR: - 33kV, 400 AMP DOUBLE BREAK HORIZONTAL	
WITHOUT EARTH BLADE	- 1Set.
ISOLATOR OPERATING HANDLE WITH LOCK	- 1No.
HDGI POLE: - 200 x 100 mm (4.5m LONG)	- 2Nos.
PIN INSULATOR: - 33 kV, 10kN WITH GI PIN	- 3Nos.


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Sr No	Location	Generator	Transformer	CSS
1	OTA020	MH5217C17105	SXP/1414/17-18	1217548-42
2	OTA026	TN5217C17008	SXP/1418/17-18	1217548-19
3	OTA031	MH5217C17117	SXP/1399/17-18	1217548-18
4	OTA052	TN5217C17009	SXP/1427/17-18	1217548-20
5	OTA075	TN5217C17010	SXP/1419/17-18	1217548-13
6	OTA092	MH5217C17080	SXP/1387/17-18	1217548-03
7	OTA093	MH5217C17077	SXP/1380/17-18	1217548-01
8	OTA100	MH5217B17069	SXP/1392/17-18	1217548-47
9	OTA106	MH5217C17078	SXP/1379/17-18	1217548-08
10	OTA121	MH5217C17116	SXP/1395/17-18	1217548-04
11	MNS054	MH5217B17066	SXP/1364/17-18	1217548-05
12	MNS056	MH5217C17099	SXP/1425/17-18	1217548-17
13	MNS070	MH5217C17096	SXP/1424/17-18	1217548-16
14	MNS071	MH5217C17107	SXP/1393/17-18	1217548-15
15	MNS082	MH5217B17040	SXP/1371/17-18	1217548-22
16	MNS085	MH5217C17091	SXP/1369/17-18	1217548-12
17	MNS111	MH5217B17030	SXP/1368/17-18	1217548-07
18	KUM128	TN5217C17005	SXP/1394/17-18	1217548-06
19	KUM162	TN5217C17006	SXP/1420/17-18	1217548-25
20	KUM164	MH5217017101	SXP/1409/17-18	1217548-02
21	KUM165	MH5217017095	SXP/1410/17-18	1217548-34
22	KUM166	MH5217C17106	SXP/1412/17-18	1217548-28
23	KUM211	MH5217017103	SXP/1416/17-18	1217548-39
24	KUM212	MH5217C17102	SXP/1415/17-18	1217548-40
25	KUM216	MH5217C17084	SXP/1418/17-18	1217548-41
26	KUM267	MH5217C17118	SXP/1433/17-18	1217548-21
27	KME011	TN5217C17011	SXP/1434/17-18	1217548-37
28	KME044	MH5217C17112	SXP/1423/17-18	1217548-33
29	OTA112	MH5217C17119	SXP/1432/17-18	1217548-38
30	MNS120	MH5217B17067	SXP/1373/17-18	1217548-27


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Sr.No	Location	Generator	Transformer	CSS
31	MNS105	MH5217B17029	SXP/1370/17-18	1217548-11
32	OTA053	MH5217C17115	SXP/1429/17-18	1217548-29
33	OTA132	MH5217C17158	SXP/1435/17-18	1217548-44
34	OTA046	MH5217C17157	SXP/1491/17-18	1217548-45
35	OTA027	MH5217C17113	SXP/1430/17-18	1217548-49
36	KUM214	TN5217C17007	SXP/1413/17-18	1217548-32
37	OTA050	TN5217C17015	SXP/1496/17-18	1217548-54
38	OTE099	MH5217C17151	SXP/1498/17-18	1217548-46
39	MNS052	TN5217C17004	SXP/1374/17-18	1217548-10
40	MNS075	MH5217C17094	SXP/1426/17-18	1217548-13
41	MNS067	MH5217C17098	SXP/1398/17-18	1217548-14
42	MNS086	MH5217B17031	SXP/1365/17-18	1217548-57
43	MNS065	MH5217B17028	SXP/1363/17-18	1217548-09
44	MNS076	TN5217C17003	SXP/1375/17-18	1217548-26
45	OTA064	MH5217C17153	SXP/1626/17-18	1217548-56
46	OTA038	MH5217C17097	SXP/1400/17-18	1217548-43
47	OTA120	MH5217C17154	SXP/1437/17-18	1217548-51
48	MNS097	MH5217B17064	SXP/1378/17-18	1217548-23
49	MNS106	MH5217C17082	SXP/1389/17-18	1217548-58
50	MNS100	MH5217C17089	SXP/1390/17-18	1217548-35
51	MAN106	MH5217B16309	SXP/1366/17-18	1217548-53
52	OTA114	MH5217C17100	SXP/1431/17-18	1217548-50
53	KUM218	TN5217C17018	SXP/1622/17-18	1217548-59
54	KUM250	TN5217C17017	SXP/1625/17-18	1217548-60
55	MAN113	MH5217C17081	SXP/1388/17-18	1217548-52
56	MNS099	TN5217C17023	SXP/1628/17-18	1217548-48
57	OTE101	MH5217C17114	SXP/1627/17-18	1217548-55
58	MAN108	MH5217B17063	SXP/1377/17-18	1217548-31
59	MNS090	MH5217C17156	SXP/1438/17-18	1217548-30
60	OTA099	MH5217C17083	SXP/1391/17-18	1217548-36


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