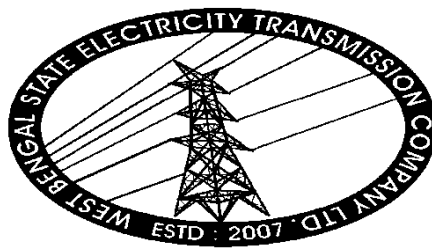


**TECHNICAL SPECIFICATION
MAKERS' LIST-2015
SUB-STATION**



CHIEF ENGINEER (ENGINEERING)
WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED

MAKERS' LIST OF EQUIPMENT AND MATERIALS FOR SUBSTATION

Note :

1. Equipment and Accessories shall be Type tested within 5 Years from the date of NIT manufactured and supplied as per relevant technical specification and subsequent amendment/clarification, if any.
2. For items not covered in the above list, suppliers approved by PGCIL during last five years shall be considered subject to fulfillment of Technical Specification requirement and relevant Standards, and approval by WBSETCL.
3. The Makers' List is approved by the MD, WBSETCL vide his note dated 18.05.2015.
4. This List is valid for a period of six (06) months from the date of approval i.e 18.05.2015.

Sl.No.	<u>Name of Equipment with makers</u>
1	400 KV SF6 Breaker
<i>a)</i>	<i>M/s Crompton Greaves Ltd.</i>
<i>b)</i>	<i>M/s Asea Brown Boveri Ltd.</i>
<i>c)</i>	<i>M/s Siemens Ltd.</i>
<i>d)</i>	<i>M/s Alstom T&D Ltd.</i>
2	245 KV & 145 KV SF6 Breaker
<i>a)</i>	<i>M/s Crompton Greaves Ltd.</i>
<i>b)</i>	<i>M/s Asea Brown Boveri Ltd.</i>
<i>c)</i>	<i>M/s Siemens Ltd.</i>
<i>d)</i>	<i>M/s Alstom T&D Ltd.</i>
3 (i)	36 KV SF6 Breaker
<i>a)</i>	<i>M/s Crompton Greaves Ltd.</i>
<i>b)</i>	<i>M/s Asea Brown Boveri Ltd.</i>
3 (ii)	36 KV Vacuum Circuit Breaker
<i>a)</i>	<i>M/s Siemens Ltd.</i>
<i>b)</i>	<i>M/s ABB Ltd.</i>
<i>c)</i>	<i>M/s Schneider Electric</i>
4	400 KV HCB & Pantograph Isolator
<i>a)</i>	<i>M/s Siemens Ltd.</i>
<i>b)</i>	<i>M/s ABB Ltd.</i>
<i>c)</i>	<i>M/s Switchgear & Structural Ind. Pvt. Ltd., Hyderabad</i>
<i>d)</i>	<i>M/s HIVELM</i>
<i>e)</i>	<i>M/s GR Power</i>

5	245 KV HCB and 245 KV&145 KV Staggered Isolator
a)	<i>M/s Siemens Ltd.</i>
b)	<i>M/s ABB Ltd.</i>
c)	<i>M/s Switchgear & Structural Ind. Pvt. Ltd., Hyderabad</i>
d)	<i>M/s HIVELM</i>
e)	<i>M/s GR Power</i>
6	145 KV HCB Isolator
a)	<i>M/s Siemens Ltd.</i>
b)	<i>M/s ABB Ltd.</i>
c)	<i>M/s Switchgear & Structural Ind. Pvt. Ltd., Hyderabad</i>
d)	<i>M/s HIVELM</i>
e)	<i>M/s GR Power</i>
f)	<i>M/s. Electrolities (Power) Pvt. Ltd.</i>
g)	<i>M/s G Nandy& Co</i>
h)	<i>M/s P R Engineering Works</i>
7	36 KV Isolator
a)	<i>M/s G Nandy& Co</i>
b)	<i>M/s GK Electricals</i>
c)	<i>M/s Switchgear & Structural Ind. Pvt. Ltd., Hyderabad</i>
d)	<i>M/s Bharat Electrical Industries</i>
e)	<i>M/s Siemens Ltd.</i>
f)	<i>M/s HIVELM</i>
g)	<i>M/s GR Power</i>
h)	<i>M/s. Electrolities (Power) Pvt. Ltd.</i>
i)	<i>M/s P R Engineering Works</i>
j)	<i>M/s J D Electricals</i>
8	C&R Panels
a)	<i>M/s Siemens Ltd.</i>
b)	<i>M/s Asea Brown Boveri Ltd.</i>
c)	<i>M/s Areva T&D Ltd.</i>
d)	M/s Easun Reyrolle Ltd.(New)
e)	M/s CG – ZIV Power Automation Solution Limited. (NEW)
9	Main Protective Relays (Numerical)
a)	<i>M/s Siemens Ltd.</i>
b)	<i>M/s Asea Brown Boveri Ltd. (Peenya)</i>
c)	<i>M/s Alstom T&D Ltd.</i>
d)	M/s CG – ZIV Power Automation Solution Limited. (NEW)
e)	M/s Easun Reyrolle Ltd.(New)
10	Auxiliary Relays
a)	<i>M/s Siemens Ltd.</i>
b)	<i>M/s Asea Brown Boveri Ltd. (Peenya)</i>

c)	<i>M/s Alstom T&D Ltd.</i>
d)	M/s Easun Reyrolle Ltd.(New)
e)	M/s CG – ZIV Power Automation Solution Limited. (NEW)
11	PLCC Equipment
i)	Line Trap
a)	<i>M/s Alstom T&D Ltd.</i>
b)	<i>M/s BPL</i>
ii)	Coupling Capacitor & CVT
a)	<i>M/s Asea Brown Boveri Ltd.</i>
b)	<i>M/s Bharat Heavy Electrical Ltd.</i>
c)	<i>M/s Crompton Greaves Ltd.</i>
d)	<i>M/s Alstom T&D Ltd.</i>
e)	M/s Siemens Ltd. (Oil type 400 KV CVT-New)
iii)	PLC Terminals
a)	<i>M/s CG – ZIV Power Solution Limited.</i>
b)	<i>M/s Asea Brown Boveri Ltd.</i>
c)	<i>M/s Alstom T&D Ltd.</i>
iv)	EPAX
a)	<i>M/s BPL</i>
b)	<i>M/s Matrix Telecom Pvt. Ltd., Vadodora</i>
c)	<i>M/s Siemens Ltd.</i>
12	CT (400 KV & 220 KV – Oil Type)
a)	<i>M/s Asea Brown Boveri Ltd.</i>
b)	<i>M/s Crompton Greaves Ltd.</i>
c)	<i>M/s Bharat Heavy Electrical Ltd.</i>
d)	<i>M/s Alstom T&D Ltd.</i>
e)	<i>M/s TELK</i>
f)	<i>M/s. Victrans Engineers (up to 220KV)</i>
g)	<i>M/S Mehru Electrical & Mechanical Engineers(P) Ltd.(up to 220KV)</i>
h)	<i>M/s Toshiba T & D India Ltd.(up to 220KV)</i>
13	CT (132 KV –Oil Type)
a)	<i>M/s Asea Brown Boveri Ltd.</i>
b)	<i>M/s Crompton Greaves Ltd.</i>
c)	<i>M/s Bharat Heavy Electrical Ltd.</i>
d)	<i>M/s Alstom T&D Ltd.</i>
e)	<i>M/s TELK</i>
f)	<i>M/s Indian Transformer Co. Ltd.</i>

g)	<i>M/s Vidyut Control System (Pvt.) Ltd.</i>
h)	<i>M/s Victrans Engineers, Nagpur</i>
i)	<i>M/S Mehru Electrical & Mechanical Engineers(P)</i>
j)	<i>M/s Toshiba T & D India Ltd.</i>
k)	M/S Pragati Electricals Pvt. Ltd. (New)
14	PT (220 KV& 132 KV)
a)	<i>M/s Crompton Greaves Ltd.</i>
b)	<i>M/s Bharat Heavy Electrical Ltd.</i>
c)	<i>M/s TELK</i>
d)	<i>M/s Indian Transformer Co. Ltd. (for 132 KV only)</i>
e)	<i>M/s Vidyut Control System (Pvt.) Ltd.(for 132 KV only)</i>
f)	<i>M/s Victrans Engineers, Nagpur</i>
g)	<i>M/S Mehru Electrical & Mechanical Engineers(P)</i>
h)	<i>M/s Toshiba T & D India Ltd.</i>
i)	M/S Pragati Electricals Pvt. Ltd. (upto 132 KV-New)
15	33 KV CT & 33 KV PT
a)	<i>M/s S.G Electricals</i>
b)	<i>M/s Laxmi Engineering</i>
c)	<i>M/s Indian Transformer Company Ltd.</i>
d)	<i>M/s Pragati Electrical Pvt. Ltd.</i>
e)	<i>M/s Vidyut Control System (Pvt.) Ltd.</i>
f)	<i>M/s. Modern Electronic</i>
g)	<i>M/s. AdhunikYantraUdyog Pvt. Ltd.</i>
h)	<i>M/S Mehru Electrical & Mechanical Engineers(P)</i>
i)	<i>M/s Victrans Engineers, Nagpur</i>
j)	<i>M/s Toshiba T & D India Ltd.</i>
16	1500 KVA, 630KVA & 315 KVA Station Service Transformer & 33 KV Earthing Transformer
a)	<i>M/s ABB Ltd.</i>
b)	<i>M/s. Kanohar Ltd.</i>
c)	<i>M/s Eastern Transformer & Equipment (New for 315 KVA and Earthing Transformer)</i>
d)	<i>M/s. Marsons Ltd.</i>
e)	M/S Raychem RPG Ltd. (New)
17	Lightning Arrestor
a)	<i>M/s. Crompton Greaves Ltd.</i>
b)	<i>M/s Alstom T&D Ltd.</i>
c)	<i>M/s. Elpro Ltd.</i>
d)	<i>M/s. Oblum Ltd.</i>
e)	<i>M/S Lamco Ltd.</i>

18	ACDB ,DCDB,
a)	<i>M/s. Control and Switchgear</i>
b)	<i>M/s. Maktel System</i>
c)	<i>M/s. Electro Allied Product</i>
d)	<i>M/s. Unilec</i>
e)	<i>M/s. Vikas Engg. Associates</i>
f)	<i>M/s L&T</i>
g)	<i>M/s Siemens Ltd.</i>
h)	<i>M/s Schneider Electric</i>
i)	<i>M/s. Bose Corporation</i>
19	Battery
a)	<i>M/s. Exide</i>
20	Battery Charger :
a)	<i>M/s Caldyne</i>
b)	<i>M/s Statcon</i>
c)	<i>M/s. Dekem Engineering (P) Ltd.</i>
d)	<i>M/s S M Creative Electronics</i>
e)	M/S Power Electronics Engineers (New)
21	Post Insulator
a)	<i>M/s. Aditya Birla Insulators Ltd.</i>
b)	<i>M/s. Modern Insulator</i>
c)	<i>M/s. Saravana Insulator</i>
d)	<i>M/s. WSI</i>
e)	<i>M/s. IEC</i>
22	Disc Insulator
a)	<i>M/s. Aditya Birla InsulatorsLtd.</i>
b)	<i>M/s. BHEL</i>
c)	<i>M/s. IEC</i>
23	Aluminium Pipe Bus
a)	<i>M/s. Hindalco</i>
b)	<i>M/s. Century Extrusion.</i>
c)	<i>M/s. Balco</i>
d)	<i>M/s Sudal Industries Ltd.</i>
e)	M/s Alom Extrusions Ltd.(New)
24	ACSR Conductor
a)	<i>M/s. Apar Industries</i>
b)	<i>M/s. Saravathi Conductor</i>
c)	<i>M/s. Sterlite Industries</i>
d)	<i>M/s. Smita Conductor</i>
e)	<i>M/s Cabcon India Pvt. Ltd.</i>
f)	<i>M/s Mehra Electric Co.</i>
g)	<i>M/s. Lumino Industries Ltd.</i>
25	400 KV Clamps, Connectors and Bundle Spacer.
a)	<i>M/s. IAC</i>
b)	<i>M/s Klemmen</i>

c)	<i>M/s Megha</i>
d)	<i>M/s. Rashtraudhyog Ltd.</i>
e)	<i>M/s. Electromech &Transtech</i>
f)	M/s Premier Power Product (Kolkata) Pvt.Ltd.(New)
26	Clamps Connector and Bundle Spacer (220 KV, 132 KV & 33 KV)
a)	<i>M/s. Electromech &Transtech</i>
b)	<i>M/s. IAC</i>
c)	<i>M/s. Rashtraudhyog Ltd.</i>
d)	<i>M/s Industrial Spare Product</i>
27	400 KV Hardware Fittings
a)	<i>M/s. IAC</i>
b)	<i>M/s. EMI</i>
c)	<i>M/s Tag Corporation, Chennai</i>
d)	<i>M/s Tyco Electronics, Bangalore</i>
e)	<i>M/s. Rashtraudhyog Ltd.</i>
f)	<i>M/s EMC Limited</i>
g)	M/s. Electromech &Transtech (New)
28	Hardware Fittings (220 KV, 132 KV & 33 KV)
a)	<i>M/s. Electromech &Transtech</i>
b)	<i>M/s. IAC</i>
c)	<i>M/s. DN Industries</i>
d)	<i>M/s. EMI</i>
e)	<i>M/s. Rashtraudhyog Ltd.</i>
f)	<i>M/s Tag Corporation, Chennai</i>
g)	<i>M/s Tyco Electronics, Bangalore</i>
h)	<i>M/s Industrial Spare Product</i>
29	1.1KV Power Cable
a)	<i>M/s. KEI</i>
b)	<i>M/s. VIKAS Cable Co.</i>
c)	<i>M/s. Polycab Wires Pvt. Ltd.</i>
d)	<i>M/s GEMSCAB</i>
e)	<i>M/s NICCO</i>
f)	<i>M/s Gloster, Hyderabad</i>
g)	<i>M/s Cable Corporation of India</i>
h)	<i>M/s Torrent</i>
i)	<i>M/s Crystal Cable</i>
j)	M/s. Laser Cables Pvt. Ltd. (New)
30	Control Cable
a)	<i>M/s. KEI</i>
b)	<i>M/s. VIKAS Cable Co.</i>
c)	<i>M/s. Polycab Wires Pvt. Ltd.</i>
d)	<i>M/s GEMSCAB</i>
e)	<i>M/s NICCO</i>
f)	<i>M/s Gloster, Hyderabad</i>

<i>g)</i>	<i>M/s Cable Corporation of India</i>
<i>h)</i>	<i>M/s Torrent</i>
<i>i)</i>	M/s. Laser Cables Pvt. Ltd. (New)
31	Sub Station Lighting Equipment
<i>a)</i>	<i>M/s. Philips</i>
<i>b)</i>	<i>M/s. Bajaj</i>
<i>c)</i>	<i>M/s.CGL</i>
<i>d)</i>	<i>M/s Havells</i>
32	Air Conditioning System (Split type)
<i>a)</i>	<i>M/s. Carrier Aircon</i>
<i>b)</i>	<i>M/s. Blue Star</i>
<i>c)</i>	<i>M/s. Amtrex – Hitachi</i>
<i>d)</i>	<i>M/s Voltas</i>
33	Bay Marshalling Kiosk, Junction Box, Marshalling Box
<i>a)</i>	<i>M/s. Maktel</i>
<i>b)</i>	<i>M/s. Electro Allied Products</i>
<i>c)</i>	<i>M/s. Vikas Engg. Associates</i>
<i>d)</i>	<i>M/s. Bose Corporation</i>
<i>e)</i>	<i>M/s Control & Switchgear</i>
<i>f)</i>	<i>M/s Control devices</i>
34	400 KV 80 / 63 / 50 MVAR Shunt Reactor
<i>a)</i>	<i>M/s Bharat Heavy Electricals Limited</i>
<i>b)</i>	<i>M/s Crompton Greaves Limited</i>
<i>c)</i>	<i>M/s ABB Limited</i>
<i>d)</i>	<i>M/s Alstom T&D Ltd.</i>
35	132 KV Indoor dry type termination
<i>a)</i>	<i>M/s Raychem RPG</i>
<i>b)</i>	<i>M/s Nexan</i>
<i>c)</i>	<i>M/s NKT</i>
<i>d)</i>	M/s. Brugg Cables, Switzerland. (New)
36	220 KV Indoor dry type termination
<i>a)</i>	<i>M/s Raychem RPG</i>
<i>b)</i>	<i>M/s Nexan</i>
<i>c)</i>	M/s. Brugg Cables, Switzerland. (New)
37	132 KV / 220 KV outdoor oil type termination
<i>a)</i>	<i>M/s Raychem RPG</i>
<i>b)</i>	<i>M/s Nexan</i>
<i>c)</i>	<i>M/s NKT</i>
<i>d)</i>	<i>M/s ABB Kabeldon</i>
<i>e)</i>	<i>M/s G&W</i>
<i>f)</i>	<i>M/s Pfisterer</i>
<i>g)</i>	M/s. Brugg Cables, Switzerland. (New)
37	132 KV outdoor dry type termination for composite tower
<i>a)</i>	<i>M/s Raychem RPG</i>
<i>b)</i>	<i>M/s NKT</i>
<i>c)</i>	<i>M/s G & W</i>