

TD-201 Rev No. 00	Form No.		PRODUCT STANDARD PROJECT ENGINEERING & SYSTEMS DIVISION, HYDERABAD	ANNEXURE-05 to PY55294 Rev No. 00 Page 1 of 3						
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company. ANNEXURE-5 TO PY55294 SUB-VENDOR LIST FOR 33kV GAS INSULATED SWITCHGEAR <table border="0"> <tr> <td>PROJECT</td> <td>75MW VISAKH REFINERY MODERNIZATION PROJECT (VRMP)</td> </tr> <tr> <td>CUSTOMER</td> <td>M/S HINDUSTAN PETROLEUM CORPORATION LIMITED,VIZAG,A.P</td> </tr> <tr> <td>CONSULTANT</td> <td>ENGINEERS INDIA LIMITED</td> </tr> </table>					PROJECT	75MW VISAKH REFINERY MODERNIZATION PROJECT (VRMP)	CUSTOMER	M/S HINDUSTAN PETROLEUM CORPORATION LIMITED,VIZAG,A.P	CONSULTANT	ENGINEERS INDIA LIMITED
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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company. Sub vendors for the 33kV Gas Insulated switchgear components shall be as per the following list: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">SN</th> <th style="width: 35%;">Component</th> <th style="width: 60%;">Make</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Numerical Relay</td> <td>ABB/ALSTOMT&D/GE/SIEMENS/SCHNEIDER</td> </tr> <tr> <td>2</td> <td>Instrument Transformers CT & PT</td> <td>ABB/KAPPA ELECTRICALS/PRAGATI ELECTRICALS LIMITED/SCHNEIDER/AUTOMATIC ELECTRIC LTD.</td> </tr> <tr> <td>3</td> <td>Control Switches / Selector switches</td> <td>ALSTOM T&D / KAYCEE INDUSTRIES LTD. / LARSEN AND TOUBRO LTD-AHMEDNAGAR/ RELIABLE ELECTRONIC COMPONENTS PVT LTD. / SIEMENS LIMITED/SWITRON DEVICES</td> </tr> <tr> <td>4</td> <td>Auxillary Relays</td> <td>ABB/ ALSTOM T&D/ SCHNEIDER/OMRAN/OEN/JVS ELECTRONICS PVT LTD.</td> </tr> <tr> <td>5</td> <td>Optical Fibre Cable</td> <td>ABB INDUSTRI AS/ BIRLA ERICSSON OPTICAL LIMITED/ FINOLEX CABLES LTD./ HIMACHAL FUTIRISTIC COMMUNICATIONS LTD./ KEC INTERNATIONAL LTD/ KABEL RHEYDT/ PIRELLI CAVI SPA/ STERLITE OPTICAL TECHNOLOGIES LTD/ U M CABLES LTD/ VIN DHYA TEELINKS LIMITED</td> </tr> <tr> <td>6</td> <td>Network Switches (Managed/Unmanaged)</td> <td>CISCO</td> </tr> <tr> <td>7</td> <td>Furniture</td> <td>Godrej / PYROTECH</td> </tr> <tr> <td>8</td> <td>MCB</td> <td>Schneider/ ABB / HAVELLS INDIA LTD/ LEGRAND (INDIA) PVT. LTD / SIEMENS LIMITED/ L&T</td> </tr> <tr> <td>9</td> <td>PC and Server</td> <td>HP/ DELL</td> </tr> <tr> <td>10</td> <td>Meters</td> <td>AUTOMATIC ELECTRIC LTD/ MECO INSTRUMENTS PVT LTD/ NIPPEN ELECTRICAL INSTRUMENTS CO./ RISHABH INSTRUMENTS PVT LTD/ Schneider</td> </tr> <tr> <td>11</td> <td>PUSH BUTTON AND INDICATING LAMPS</td> <td>ESSEN DEINKI/ LARSEN & TOUBRO LTD-POWAI/ SCHNEIDER ELECTRIC INDIA P LTD/ SIEMENS LIMITED/ TEKNIC ELECTRIC (I) PVT. LTD.</td> </tr> <tr> <td>12</td> <td>Timers</td> <td>LARSEN & TOUBRO LTD-AHMEDNAGAR / SIEMENS LIMITED/ Schneider Electrical India Pvt Ltd./ Legrand India Pvt Ltd</td> </tr> <tr> <td>13</td> <td>Terminal block</td> <td>WAGO / PHOENIX / SCHNEIDER-TELEMECHANIQUE/ CONNECTWELL / ELMEX</td> </tr> </tbody> </table>					SN	Component	Make	1	Numerical Relay	ABB/ALSTOMT&D/GE/SIEMENS/SCHNEIDER	2	Instrument Transformers CT & PT	ABB/KAPPA ELECTRICALS/PRAGATI ELECTRICALS LIMITED/SCHNEIDER/AUTOMATIC ELECTRIC LTD.	3	Control Switches / Selector switches	ALSTOM T&D / KAYCEE INDUSTRIES LTD. / LARSEN AND TOUBRO LTD-AHMEDNAGAR/ RELIABLE ELECTRONIC COMPONENTS PVT LTD. / SIEMENS LIMITED/SWITRON DEVICES	4	Auxillary Relays	ABB/ ALSTOM T&D/ SCHNEIDER/OMRAN/OEN/JVS ELECTRONICS PVT LTD.	5	Optical Fibre Cable	ABB INDUSTRI AS/ BIRLA ERICSSON OPTICAL LIMITED/ FINOLEX CABLES LTD./ HIMACHAL FUTIRISTIC COMMUNICATIONS LTD./ KEC INTERNATIONAL LTD/ KABEL RHEYDT/ PIRELLI CAVI SPA/ STERLITE OPTICAL TECHNOLOGIES LTD/ U M CABLES LTD/ VIN DHYA TEELINKS LIMITED	6	Network Switches (Managed/Unmanaged)	CISCO	7	Furniture	Godrej / PYROTECH	8	MCB	Schneider/ ABB / HAVELLS INDIA LTD/ LEGRAND (INDIA) PVT. LTD / SIEMENS LIMITED/ L&T	9	PC and Server	HP/ DELL	10	Meters	AUTOMATIC ELECTRIC LTD/ MECO INSTRUMENTS PVT LTD/ NIPPEN ELECTRICAL INSTRUMENTS CO./ RISHABH INSTRUMENTS PVT LTD/ Schneider	11	PUSH BUTTON AND INDICATING LAMPS	ESSEN DEINKI/ LARSEN & TOUBRO LTD-POWAI/ SCHNEIDER ELECTRIC INDIA P LTD/ SIEMENS LIMITED/ TEKNIC ELECTRIC (I) PVT. LTD.	12	Timers	LARSEN & TOUBRO LTD-AHMEDNAGAR / SIEMENS LIMITED/ Schneider Electrical India Pvt Ltd./ Legrand India Pvt Ltd	13	Terminal block	WAGO / PHOENIX / SCHNEIDER-TELEMECHANIQUE/ CONNECTWELL / ELMEX
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14	LED LAMP (Panel mounted indication lamp only)	BINAY / SCHREIDER-TELEMECHANIQUE / GE INDIA / BCH
15	Cable glands	ELECTROMAC INDUSTRIES/ FCG FLAMEPROOF CONTROL GEARS/ FLAMEPROOF EQUIPMENTS PVT.LTD./ PROMPT ENGINEERING WORKS/ FCG POWER INDUSTRIES/ FLEXPOT ELECTRICALS PVT. LTD./ UNITED AGRO ENGINEERING PVT. LTD.
16	Cable lugs	AUTOMIC ELECTRIC/ CHETNA ENGINEERING CO./ ELECTROMAC INDUSTRIES/ FORWARD ENGINEERING INDUSTRIES

NOTES:

- Vendor shall strictly follow the list of makes for equipments as specified above.
- For components other than the above, vendor list shall be as followed in standard EIL projects subject to approval of BHEL/EIL/HPCL during detailed engineering. Also vendor shall submit past track record for proposed sub vendors and obtain the written approval from BHEL.
- BHEL reserves the right to choose any particular make from the above list for Protection relays during order execution for overall system integration.