SIEMENS

BHEL / NTPC Limited
Patratu Stage I, 3x800 MW, SST5-6000 USC, India

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

The information given in this section is not subject to verification and non fulfillment of it or incorrectness/incompleteness of such information is not subject to any kind of rights or remedies of the Customer whatsoever.

Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
15F	HP SHAFT SEALING RING	III	162304		Siemens AG Energy Sector Rosswag Kind & Co KST Stellba Metal Ravne	 www.edelstahl-rosswag.de www.kind-co.de/kc_2010/index.html www.kst-berlin.de www.stellba.ch/cms/index.php?lang=de	Germany Germany Germany Germany Switzerland Slovenia	N (for all)
16	IP OUTER CASING CASTING	II	111110		Buderus Guss Siempelkamp Heidenheimer Giesserei Friedrich Wilhelm Hütte Cividale Ergocast	www.guss.buderus.de www.siempelkamp.com	Germany Germany Germany Germany Italy Germany	A A A A A A
17	IP OUTER CASING M/C	II	111345		MCE-MAP Siemens AG Energy Sector G.M.W. Präzisions GmbH Leipert	www.mce-map.com	Austria Germany Germany Germany	A (for all)
18	IP INNER CASING CASTING	II	112100		Voestalpine Giesserei Sande Stahlguss		Austria Germany	A DR
19	IP INNER CASING M/C	II	112330		MCE-MAP Siemens AG EnergySector Horst Jung Leipert Ludwig Lehner Hans Richter GmbH	www.mce-map.com	Austria Germany Germany Germany Germany Germany	A A A* A A* A*

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
20	IP ROTOR FORGING	II	121101		Saarschmiede S.d.F.Terni Doosan JSW (Japan steel works) JCFC (Japan Casting&Forging Corp.) Schmiedewerke Gröditz Doosan IMGB Buderus Edelstahl Pilsen Steel	www.saarschmiede.com www.fucineterni.it www.doosanheavy.com www.jsw.co.jp www.jcfc.jp www.stahl-groeditz.de www.doosanimgb.com www.buderus-steel.com www.pilsensteel.cz	Germany Italy Korea Japan Japan Germany Romania Germany Czech Rep.	A A DR A A DR DR DR DR
21	IP TURBINE SHAFT M/C	I	121390		Siemens AG Energy Sector Franco Tosi PG-P1 Charlotte		Germany Italy USA	A A DR
22	IP TURBINE ROTOR	I	121390		Siemens AG Energy Sector PG-P1 Charlotte		Germany USA	A DR
27	IP JOINT BOLTS	I			Stahlberg Zapp Mechanical		Germany Poland	A A
28	IP TURBINE ASSLY	II I	199410		Siemens AG Energy Sector		Germany	A
28A	IP THREADED RING	III	148341 oder 148351 gepanzert		Siemens AG Energy Sector Rosswag Kind & Co Stellba Deloro Metal Rayne	 www.edelstahl-rosswag.de www.kind-co.de/kc_2010/index.html www.stellba.ch/cms/index.php?lang=de www.stellite.de	Germany Germany Germany Switzerland Germany Slovenia	 N (for all)

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited Distt.-Ramgarh (Jharkhand) C & M Deptt. Confidential

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
28B	IP ANGLE SEALING RING	III	148344		Siemens AG Energy Sector Rosswag Kind & Co Stellba Delorox Metal Ravne	www.edelstahl-rosswag.de www.kind-co.de/kc_2010/index.html www.stellba.ch/cms/index.php?lang=de www.stellite.de	Germany Germany Germany Switzerland Germany Slovenia	N (for all)
28C	IP INLET CONNECTIONS IP INLET INSERT	II	188300		Siemens AG Energy Sector Rosswag Kind & Co Stellba Deloro Metal Ravne	www.edelstahl-rosswag.de www.kind-co.de/kc_2010/index.html www.stellba.ch/cms/index.php?lang=de www.stellite.de	Germany Germany Germany Switzerland Germany Slovenia	N (for all)
28D	IP SHAFT SEALING	III	162304		Siemens AG Energy Sector Rosswag Kind & Co Stellba Deloro Ubruek Metal Ravne Cross	www.edelstahl-rosswag.de www.kind-co.de/kc_2010/index.html www.stellba.ch/cms/index.php?lang=de www.stellite.de www.ubroek.nl	Germany Germany Germany Switzerland Germany Netherlands Slovenia	N (for all)
29	LP TURBINE SHAFT FORGING	II	121151		Saarschmiede S.d.F.Terni Doosan JSW (Japan steel works JCFC (Japan Casting&Forging Corp.) Schmiedewerke Groditz Doosan IMGB	www.saarschmiede.com www.fucineterni.it www.doosanheavy.com www.jsw.co.jp www.jcfc.jp www.stahl-groeditz.de	Germany Italy Korea Japan Japan Germania Romania	A A DR A A DR DR

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
30	LP TURBINE SHAFT M/C	II I	121370		Siemens AG Energy Sector Siemens AG Energy Sector		Germany USA	A DR
31	LP TURBINE ROTOR	I	121370		Siemens AG Energy Sector Siemens AG Energy Sector		Germany USA	A DR
32	LP INNER CASING-I Casted Design	I	115130		Buderus Guss Siempelkamp Heidenheimer Giesserei Torgelow Eisengiesserei		Germany Germany Germany Germany	A A A A
	LP INNER CASING-I Fabricated Design	I	115130		PT Siemens Indonesia T+S Prämab Popeci Dalian Heavy Bor-Pol Zhoule	 www.technologie-plus-service.de www.praemab-burg.de http://shzhoule.com/en	Indonesia Germany Germany Romania China Poland China	A A A A* DR A DR
	LP INNER CASING-(M/C)	I	113365		Siemens AG Horst Jung GmbH MCE-MAP Siemens AG Energy Sector Rothenpieler Leipert	 www.horst-jung.com www.mce-map.com	Germany Germany Austria Germany Germany Germany	A A* A A A A
34	LP INNER CASING-1&2 ASSLY	I	199405		Siemens AG Energy Sector		Germany	A
35	LP OUTER CASING (FRONT WALL, GIRDER, UPPER PART)	I	111220		Prämab T&S (Technologie+Service) PT Siemens Indonesia BOR-POL Ltd.	www.praemab-burg.de www.technologie-plus-service.de	Germany Germany Indonesia Poland	A A A A

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

SIEMENS

BHEL / NTPC Limited
Patratu Stage I, 3x800 MW, SST5-6000 USC, India

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
36	GUIDE BLADE CARRIER (GUIDE BLADE RINGS)	I	161201		SET PTSI Coupe Foundries Ergocast Akdas Ningbo Riyue Foundry		Hungary Indonesia Great Britain Germany Turkey China	A A A A DR DR
37	LPT COMPENSATORS FOR CAP	II I	TLV 1501		Eickhoff Ha-Tec	www.iag-gmbh.de www.hatecgmbh.de	Germany Germany	A A*
38	LP CROSS OVER PIPE	I	TLV 0805		T&S (Technologie+Service) Eickhoff EHR (Essener Hochdruck Rohrleitungsbau) Ha-Tec	www.technologie-plus-service.de www.iag-gmbh.de www.essener-hochdruck.de	Germany Germany Germany Germany	A A A A
39	LP STATIONARY/ MOVING BLADES FROM BAR	II	131120		Böhler Einsal Metalravne WTB		Austria Germany Slovenia China	N N N DR
	LP STATIONARY BLADES FROM BAR (M/C)	I	132300		SET Leistritz-Nürnberg Präwest Energietechnik Einsal ZEMA WTB	 www.turblade.com	Hungary Germany Germany Germany Italy China	A A A A A A
40	LP CAST BLADES (CASTED)	II	131300		Zollern ESCO		Germany Belgium	A A
41	LP BLADES (HOLLOW)	II	131260		Binder		Switzerland	A

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SIEMENS

BHEL / NTPC Limited
Patratu Stage I, 3x800 MW, SST5-6000 USC, India

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
42	LP MOVING BLADES FROM BARS				Metal Raven		Slovenia	A
					Böhler		Germany	A
					Einsal		Germany	A
43	LP FORGED BLADES (DROP)	II	132150		WTB	www.turblade.com	China	A
					Böhler	www.bohler-edelstahl.com	Austria	A
					Leistritz Remscheid	www.leistritz.com	Germany	A
					Sumitomo		Japan	A
					Pietro Rosa		Italy	A
					C-Blade		Italy	A
					Leistritz ATC		USA	A
			132373		WTB	www.turblade.com	China	A
					Böhler	www.bohler-edelstahl.com	Austria	A
					Leistritz Remscheid	www.leistritz.com	Germany	A
					Sumitomo		Japan	A
					Pietro Rosa		Italy	A
					C-Blade		Italy	A
					Leistritz ATC		USA	A
					FHI		Germany	A*
					MIC		Germany	A*
					Hong Yuan Forgging		China	DR

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

SIEMENS

BHEL / NTPC Limited
Patratu Stage I, 3x800 MW, SST5-6000 USC, India

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
43	LP FORGED BLADES (DROP) M/c	II	132370		Pietro Rosa		Italy	A
					Sumitomo		Japan	A
					WTB		China	A
					Menegazzi		Italy	A
					Leistritz ATC		USA	A
		I			Böhler		Austria	A
					Leistritz Remscheid		Germany	A
					C-Blade		Italy	A
					FHI		Germany	A*
					MIC		Germany	A*
			132371		Pietro Rosa		Italy	A
					Sumitomo		Japan	A
					WTB		China	A
					Menegazzi		Italy	A*
					Leistritz ATC		USA	A
					Böhler		Austria	A
					Leistritz Remscheid		Germany	A
					C-Blade		Italy	A
					FHI		Germany	A*
					MIC		Germany	A*
	LP SHAFT SEALING RING	III	162304		Siemens AG Energy Sector			
					Rosswag	www.edelstahl-rosswag.de	Germany	N (for all)
					Kind & Co	www.kind-co.de/kc_2010/index.html	Germany	
					Stellba	www.stellba.ch/cms/index.php?lang=de	Switzerland	
					Deloro	www.stellite.de	Germany	
					Ubruek	www.ubroek.nl	Netherlands	
					Cross			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Confidential - Distt-Ramgarh (Jharkhand)

SIEMENS

BHEL / NTPC Limited
Patratu Stage I, 3x800 MW, SST5-6000 USC, India

Technical Offer

Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016

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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
44	COUPLING BOLTS & NUTS (HP/IP/LP)	I	TLV		Stahlberg (solid bolts) **Pilgrim (from Barh)**		Germany	A A
45	BRG. SHELL FOR JOURNAL BRG (Forging)	II	TLV 2660 TLV		Eurobearings John Crane Bearing Technology Waukesha	www.eurobearings.com	Italy Germany	N (for all)
46	BEARING SHELL & THRUST PAD M/C	II	TLV 2660 TLV		Eurobearings John Crane Bearing Technology Waukesha	www.eurobearings.com	Italy Germany USA, GB	N (for all)
47A	BEARING PEDESTAL WITH COVER (Casting)	II	TLV		BuderusGuss Ergocast Coupe Foundries Akdas Ningbo RiyueFoundry Siemens Eroemuetechnika Schuler Guss	www.guss.buderus.de	Germany Germany Great Britain Turkey China Hungary Germany	N N N N N N N
47B	BEARING PEDESTAL WITH COVER (M/C)				Siemens EroemuetechnikaKFT AGL Eurobearings		Hungary Germany Italia	N N N
48	ELECTRO HYDRAULLIC ACTUATOR (STEAM VALVES)	II	TLV 2100		Bosch Rexroth AG Thiele GmbH	www.boschrexroth.com www.thiele-hydraulik.de	Germany Germany	A A*
	SERVOMOTOR & VALVE FOR CRH-NRV	II	TLV2005/ TLV2007 TLV 200		Sempel AG Weir Valves and Controls USA Inc.	www.sempell.com www.weirvalve.com	Germany US	A A

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

SIEMENS

BHEL / NTPC Limited
Patratu Stage I, 3x800 MW, SST5-6000 USC, India

Technical Offer				
Ref. No.	Section	Title	Rev. No.	Date
IN1141; Var.A.2.3.4; PG SU PRO EUS, CW.	15.1.0	Sub-Supplier-Steam-Turbine	00	Oct.2016
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Sl No.	Item	Inspection Category	Siemens QP No.		Sub Supplier Name		Place	Remarks
69	THERMAL INSULATION	II			Tapp Isolation		Germany	N
70	PRESSED LP DIFFUSOR				Zhoule Bor-Pol		China Poland	DR A

Remarks

A: Approved

A*: vendor experience with m/s Siemens Germany to be furnished for similar or higher rating turbine. In case of casting & forging new suppliers, the creep data to be furnished for review along with vendor experience.

N: The m/s Siemens proposed vendor is accepted by NTPC based on m/s Siemens experience with the vendor for similar and higher rating items

DR: vendor details including experience to be furnished

Bharat Heavy Electricals Limited ★ PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited ★ Distt-Ramgarh(Jharkhand) ★ C & M Deptt.

SUB VENDOR LIST FOR TG VALVES((TRICHY)						
PROJECT: PATRATU STPS (3 X 800 MW)						
PACKAGE: EPC						
CONTRACT NO: 9585-001-02						
Sno	Item Description	QP CAT	Proposed Sub Supplier	Place	BARH-Approval status / Cat	Remarks
1	HP BY PASS SYSTEM	I	BHEL	Trichy	DR	
	(SUB-QR ITEM)	I	CCI	Sweden / Switzerland	A	
		I	Sempell AG	Germany	A	
		I	Hora	Germany	A	
		I	Welland & Tuxhorn	Germany	DR	
		I	Bopp & Reuther	Germany	A	
2	ACTUATORS	REFER C&I LIST ENCLOSED TO THE LOA/NOA				
3	CONVENTIONAL VALVES GATE GLOBE & NRV - ALL CLASS RATINGS	I	BHEL	Trichy	A	
		I	Meiwa (TOA)	Japan	A	TOA valves are offered thro M/S Meiwa
		I	Velan	Canada	A	
		I	Kokusai (OKANO)	Japan	A	OKANO valves are offered thro M/S Kokusai
		I	Babcock power Espana	Spain	A	
		I	Flow serve (Edward Valve)	USA	DR	Edward Valves are offered thro M/S Flowserve
		I	CRIS	France	DR	
		I	TYCO (Ramondi, Dewrance)	Chennai	A	(Ramondi & Dewrance are now with M/S Tyco)AS PER NTPC APPROVED RATING & SIZE
		I	Xomax Sanmar	Viralimalai	A	AS PER NTPC APPROVED RATING & SIZE
		I	L&T (Audco)	Chennai,Coimbatore	A	AS PER NTPC APPROVED RATING & SIZE
		I	Leader Valves	Jalandar	A	AS PER NTPC APPROVED RATING & SIZE
		I	Fouress	Aurangabad	A	AS PER NTPC APPROVED RATING & SIZE
		I	Niton Valve	Mumbai,Aurangabad	A	AS PER NTPC APPROVED RATING & SIZE
4	CRH-7,8,9 - DEAERATOR PEGGING VALVES	I	BHEL	Trichy	A	
		I	Babcock power Espana	Spain	A	
		I	Petrol Valve	Italy	A	
		I	L&T (Audco)	Chennai	DR	
		I	Leader	Jalandar	DR	
		I	Niton Valve	Mumbai	DR	
5	Extraction QCNRV's & CRHNRV's	I	BHEL	Trichy	DR	
6	Angle Valves / Angle Drain Valves	I	BHEL	Trichy	DR	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

Amit Yadav Mgr. PS-MKTG BHEL

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
1	BFP-PUMP CASING (OUTER) / BFP DISCHARGE COVER/ CASING COVER/ DISCHARGE NOZZLE	I	QVM-Q-301			PYUNG SAN METAL	KOREA	N			
		I				UMETOKU CO., LTD.,	JAPAN	N			
		I				MURABAYASHI	JAPAN	N			
		I				CFFP,	HARDWAR	N			
		I				RING MILL SPA,	ITALY	N			
		I				FOMAS	I TALY	N			
		I				HYUNJIN MATERIALS	JAPAN	N			
		I				HYUNJIN MATERIALS	KOREA	N			
		I				MYSCO	KOREA	N			
2	BFP PUMP CASING (INNER)	I	QVM-Q-301			HIMET	KOREA	N			
		I				WON KANG Material	KOREA	N			
		I				KOMATSU CASTEX	JAPAN	N			
		I				SIMPLEX CASTING Ltd	BHILAI	N			
		I				VOIST ALPINE	AUSTRIA	N			
		I				UP STEEL	MUZAFFAR NAGAR	N			
3	BFP SHAFT	I	QVM-Q-301			UMETOKU CO, LTD	JAPAN	N			
		I				DAIDO STEEL	JAPAN	N			
		I				KUSAKAWA TEKKOU	JAPAN	N			
		I				CFFP	HARDWAR	N			
		I				NISHO IWAI	JAPAN	N			
		I				FOMAS	ITALY	N			
		I				FORGIA RAPIDA	ITALY	N			
		I				MURABAYASHI(MIYAZAKI TEKKOU)	JAPAN	N			
4	BFP BALANCE DRUM SPRING DISC	I	QVM-Q-301			FIRTH VICKERS	UK	N			
		I				TAYLOR FORGING	UK	N			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt Deptt-Ramgarh(Jha

01.04.17

(Chittaranjan Sarr BHEL HYD

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: **BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator**	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
		I				FIRTH RIXON RINGS LTD(FORMERLY AURORA FORGINGS)	UK	N			
		I				BHEL	HYDERABAD	N			
5	BFP IMPELLERS/DIFFUSERS	I	QVM-Q-301			YPC LTD.,	KOREA	N			
		I				EBARA METAL	JAPAN	N			
		I				Jingsung (formerly komatsu)	JAPAN	N			
6	BFP SUCTION BRANCH/RING SECTION/SUCTION	I	QVM-Q-301			UP STEEL	MUZAFFARNAGAR	N			
		I				WEIR PUMPS LTD	UK	N			
		I				HINDUSTAN UDYOG LTD	KOLKATA	N			
		I				PTC	LUCKNOW	N			
7	BFP SPUN CAST / FORGED TUBES (IMPELLER & CASING WEAR RINGS) ***	I	QVM-Q-301			FIRTH VICKERS	UK	N			
		I				PAHLADRAI STEEL FORGINGS	KANPUR	N			
		I				FIRTH RIXON RINGS LTD(FORMERLY AURORA FORGINGS)	UK	N			
		I				RELY METPRO	S AFRICA	N			
		I				TAYLOR FORGING	UK	N			
8	BOILER FEED PUMP	I	QVM-Q-301			MHI	JAPAN	A			SUB-QR ITEM
		I	QVM-Q-301			BHEL	HYDERABAD	DR			SUB-QR ITEM
9	BP PUMP CASING	I	QVM-Q-302			HIMET	KOREA	N			
		I				EBARA METAL	JAPAN	N			
		I				KOMATSU CASTEX	JAPAN	N			
		I				WON KANG Material	KOREA	N			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Ramgarh(Jharkhand)

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
		I				SIMPLEX CASTING LTD	BHILAI	N			
		I				VOIST ALPINE,	AUSTRIA	N			
		I				UP STEEL	MUZAFFAR NAGAR	N			
		I				SUNG-SHIN M-TECH	KOREA	N			
		I				ISGEC	MUZAFFAR NAGAR	N			
		I				SUNG-SHIN M-TECH	KOREA	N			
		I				SIMPLEX CASTING	BHILAI/RAIPUR	N			
10	BP IMPELLER	I	QVM-Q-302			YPC LTD.,	JAPAN	N			
		I				*EBARA METAL	JAPAN	N			
		I				Jingsung (formely komatsu)	JAPAN	N			
11	BP SHAFT (FORGING)	I	QVM-Q-302			MURABAYASHI (MIYAZAKI TEKKOU)	JAPAN	N			
		I				UMETOKU CO., LTD.	JAPAN	N			
		I				DIADO STEEL	JAPAN	N			
		I				KUSAKAWA TEKKOU	JAPAN	N			
		I				FOMAS	ITALY	N			
		I				VISHNU FORGE	BANGALORE	N			
		I				NISSOIWAI	JAPAN	N			
		I				FORGIA RAPIDA	ITALY	N			
		I				KUSAKAWA IRON WORKS	JAPAN	N			
12	BP WEAR RINGS(FORGED TUBES)	I	QVM-Q-302			FIRTH VICKERS	UK	N			
						PAHLADRAI STEEL FORGINGS	KANPUR	N			
						FIRTH RIXON RINGS LTD(FORMERLY	UK	N			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

एनटीपीसी NTPC Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	**LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL** SUB SYSTEM: **BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator**	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

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						AURORA FORGINGS)					
						RELY METPRO	S AFRICA	N			
13	BOOSTER PUMP(TD)	I	QVM-Q-302			MHI	JAPAN	A			
						BHEL	HYDERABAD	A			MHI DESIGN
14	CEP PUMP CASING	I	QVM-Q-303			FIRTH VICKERS		N			
		I	QVM-Q303			WAKATSUKI KOUSAKUSYO	JAPAN	N			
		I	QVM-Q-303			ABB-ABL-LTD	SHAHBAD	N			
		I				SIMPLEX	BHILAI	N			
		I				UPPAL FERROCAST	HYDERABAD	N			
		I				HYUSONG IND	KOREA	N			
						KIMURA CASTINGS	JAPAN	N			
						EBARA METAL	JAPAN	N			
						FUJIMOTO	JAPAN	N			
						CHUZOU					
15	BELL MOUTH (SUCTION BELL)	I	QVM-Q-303			HYOSUNG INDUSTREIS CO.	KOREA	N			
		I				KIMURA CASTING	JAPAN	N			
		I				EBARA METAL	JAPAN	N			
		I				WAKATSUKI KOUSAKUSYO	JAPAN	N			
		I				ABB-ABL-LTD	SHAHBAD	N			
		I				SIMPLEX	BHILAI	N			
		I				UPPAL FERROCAST	HYDERABAD	N			
16	STAGE (DELIVERY) BOWL	I	QVM-Q-303			HIMET	KOREA	N			
		I				WON KANG Mat.	KOREA	N			
		I				EBARA METAL	JAPAN	N			
		I				ABB-ABL-LTD	SHAHBAD	N			

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

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		I				SIMPLEX	BHILAI	N			
		I				UPPAL FERROCAST	HYDERABAD	N			
						SUNG-SHIN M-TECH	KOREA	N			
						YPC LTD	KORA	N			
17	CEP IMPELLR	I	QVM-Q-303			YPC LTD.,	JAPAN	N			
		I				JINGSUNG (formerly komatsu)	JAPAN	N			
		I				EBARA METAL	JAPAN	N			
		I				KOMASTSU METAL ENGG.	JAPAN	N			
18	CEP SHAFT (FORGING)	I	QVM-Q-303			UMETOKU CO. LTD.,	JAPAN	N			
		I				MURABAYASHI	JAPAN	N			
		I				SANDVIK	SWEDEN	N			
		I				VISHNU FORGE	BANGALORE	A			
		I				CFFP	HARDWAR	N			
		I				FORGIA RAPIDA	ITALY	N			
		I				FOMAS	ITALY	N			
19	CEP WEAR RINGS	I	QVM-Q-303			FIRTH VICKERS	UK	N			
						PAHLADRAI STEEL FORGINGS	KANPUR	N			
						FIRTH RIXON RINGS LTD (FORMERLY AURORA FORGINGS)	UK	N			
						RELY METPRO	S AFRICA	N			
						TAYLOR FORGING	UK	N			
20	CONDENSATE EXTRACTION PUMP	I	QVM-Q-303			MHI	JAPAN	A			SUB-QR ITEM
						BHEL	HYDERABAD	DR			SUB-QR ITEM
21	JOURNAL BEARING(BFP	III				YAMATO METAL	JAPAN	N			

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Patratu-Ramgarh (Jharkhand)

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	AND BP)	III				KONGO COLMET MFG. CO. LTD.	JAPAN	N			
		III				OSAKA ASAHI METAL MFG. CO. LTD.,	JAPAN	N			
		III				GLYCO METAL LTD.	UK	N			
		III				COLHERENE	UK	N			
		III				MITCHEL,	UK	N			
		III				WAUKESHAH (GLACIER)	UK	N			
		I				MITCHEL	BANGALORE	DR			
						DAE DONG METAL IND.	KOREA	DR			
22	JOURNAL BEARING CUM THRUST BEARING FOR CEP	III				HARADA (JAPAN)	JAPAN	N			
		III				KINGSBURY	USA	N			
		III				MITCHEL	UK	N			
		III				WAUKESHAH (GLACIER)	UK	N			
		I				MITCHEL INDIA	BANGLORE	DR			
23	HYDRAULIC COUPLING	I	QVM-Q-304			VOITH	GERMANY	A			
		I				VOITH	HYDERABAD	DR			
24	CONNECTING COUPLING between Motor & HC BFP BP & CEP.	I	QVM-Q-305			SEISA	JAPAN	N			
		I				DIADO PRECISION INDUSTRIES	JAPAN	N			
		I				NIPPON PILLAR	JAPAN	N			
		I				EAGLE INDUSTRY	JAPAN	N			
		I				FLEXIBOX,	UK	N			
		I				EUROFLEX TRANSMISSION,	HYDERABAD	N			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited (Distt-Ramgarh, Jharkhand) C & M Deptt.

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एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

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		I				EUROFLEX LTD.	UK	N			
		I				BIBBY TRANSMISSION (TURBOFLEX)	UK	N			
25	SUCTION STRAINERS FOR CEP, BP & BFP	I	QVM-Q-307			GUJRAT OTTOFIT	AHMEDABAD	A			
		I				MULTITEX	DELHI/NOIDA	A			
26	THRUST BEARING (BFP, BP & CEP)	III				DAIDO METAL	JAPAN	N			
		III				ROLLS ROYCE MARINE JAPAN (MITCHEL BRGS)	UK	N			
		III				WAUKESHAH (GLACIER)	UK	N			
		III				KINGSBURY	USA	N			
		III				MITCHELL BRGS	UK	N			
		I				MITCHEL BRGS	BANGLORE	DR			
						DAE DONG METAL IND.	KOREA	DR			
27	MECHANICAL SEALS (BFP, BP & CEP)	III				NIPPON PILLAR	JAPAN	N			
		III				FLOWSERVE	USA	N			
		III				FLOW SERVE SANMAR	CHENNAI	N			FOR BP & CEP ONLY
		III				EAGLE BURMANN INDIA	MUMBAI	N			-DO-
		III				EAGLE BURUGMAN	JAPAN/GERMANY	N			
28	TURBINE OUTER CASING & STOP VALVE BODY CASING	I	QVM-Q-308			VOIST ALPINE	AUSTRIA	A			
		I				SANDE-STAHL	GERMANY	A			
		I				CFFP,	HARDWAR	A			
		I				UP STEELS	MUJAFARNAGAR	A			
		I				STAR WIRES	BALLABGARH	A			

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

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						KOLHAPUR STEELS	KOLHAPUR	DR			
						JSC ENERGOMASH	UKRAIN	DR			
29	INTERMEDIATE PIECE VALVE COVER & CHAMBER	I	QVM-Q-308			SANDE-STAHL	GERMANY	A			
						VOIST ALPINE	AUSTRIA	A			
						CFFP	HARDWAR	A			
						UP STEELS	MUZAFFARNAGAR	A			
						STARWIRE	BALLABGARH	A			
						KOLHAPUR STEELS	KOLHAPUR	A			
						PRAKASH SPECTRO	VIJAYAWADA	DR			
30	GUIDE BLADE CARRIER										
		I	QVM-Q-308			VOIST ALPINE	AUSTRIA	A			
		I				SANDE STAHLGUSS GMBH,	GERMANY	A			
		I				STAR WIRES	BALLABGARH	A			
		I				KOLHAPUR STEEL	KOLHAPUR	A			
		I				KCP	CHENNAI	A			
		I				PRAKASH SPECTRO	VIJAYAWADA	DR			
		I				UP STEELS	MUJAFARNAGAR	A			
31	STEAM CHAMBER	I	QVM-Q-308			VOIST ALPINE	AUSTRIA	A			
		I				CFFP	HARDWAR	A			
		I				KOLHAPUR STEEL	KOLHAPUR	DR			
		I				SANDESTAHI	GERMANY	A			
		I				UP STEELS	MUJAFARNAGAR	A			
		I				UTOSTROJ STEEL	GERMANY	A			
32	ROTOR FORGINGS (TURBINE)	I	QVM-Q-308			CFFP	HARDWAR	A			
		I				SAAR SCHMIED	GERMANY				
		I				SDF	ITALY	A			

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		I				EDELSTAHLWERKE	GERMANY	A			
		I				GROEDITZ	GERMANY	DR			
		I				PILSON STEEL (VHS,SKODA)	CZECKSLOVAKIA	A			
		I				JCFC	JAPAN	A			
		I				JSC ENERGOMASH	UKRAIN	DR			
		I				JSW	JAPAN	A			
		I				KOBE STEEL	JAPAN	A			
		I				CRUIST FORGE	FRANCE	A			
33	PRECISION BLADE FORGINGS	I	QVM-Q-308			PETRO ROSA	GERMANY	A			
		I				FINE FORGE	HYDERABAD	A			
		I				C BLADE	ITALY	A			
		I				WUXI	CHINA	A			AS PER NTPC APPROVAL CONDITIONS
		I				AZAD ENGG	HYDERABAD	A			FOR MACHINING ONLY
34	BAR STOCK FOR BLADES	I	QVM-Q-308			WALZWERK EINSL	GERMANY	A			
		I				BOEHLER	AUSTRIA	A			
		I				BGH	GERMANY	A			
		I				BREITENFIELD	AUSTRALIA	A			
		I				STARWIRE	BALLABHGARH	A			
35	DRAWN PROFILE FOR GUIDE BLADES (DRIVE TURBINE)	I	QVM-Q-308			FIAV	ITALY	A			
		I				LEISTRITZ	GERMANY	A			
		I				BOEHLER	AUSTRIA	A			
36	GEAR BOX	I	QVM-Q-308			TRIVENI ENGG	MYSORE	A#			
		I				FLENDER GRAFFENSTADEN	FRANCE	A#			

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt. Ramgarh (Jharkhand)

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एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

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		I				LUFKIN	USA/FRANCE	A#			
		I				RENK TACKE GMBH	GERMANY	A#			
		I				WALCHANDNAGAR	PUNE	A#			
						WINENERGY	CHENNAI	DR			
37	DRIVE TURBINE	I	QVM-Q-308			BHEL	HYDERABAD	A			
38	CONNECTING COUPLING (GEAR TYPE) CONNECTING COUPLING (MEMBRANE)	I	QVM-Q-308			RENK TACKE GMBH	GERMANY	A			
		I				LUFKIN	USA/FRANCE	A			
		I				FLENDER	GERMANY	A			
		I				WALCHANDNAGAR	WALCHANDNAGAR	A			
		I	QVM-Q-308			EUROFLEX LTD.,	HYDERABAD	A			
		I				JOHN CRANE	UK	A			
		I				AMERDRIVES	USA	A			
						RATHI TURBOFLEX	PUNE	A			
39	AUX. CONTROL VALVE BODY & COVER	I	QVM-Q-309			CFFP	HARDWAR	A			
		I				KOLHAPUR STEELS	KOLHAPUR	A			
		I				UP STEELS	MUJAFARNAGAR	A			
		I				STAR WIRES	BALLABGARH	A			
						PRAKASH SPECTRO	VUAYAWADA	DR			
40	LUBE OIL CENTRIFUGAL PUMP	II	QVM-Q-310			KSB	PUNE	A			
		II				KIRLSOKAR EBARA	KIRLOSKARWADI	A			
		II				SULZER	MUMBAI	A			
41	LUBE OIL PUMP (SCREW PUMP)	II	QVM-Q-311			ALLWEILER	GERMANY	A			
		II				TUSHACO PUMP	DAMAN	A			
		II				LEISTRITZ	GERMANY	A			
		II				IMOPUMP	USA	A			
42	DISCONNECTING COUPLING	II	QVM-Q-312			AMER DRIVES	USA	A			
43	CENTRIFUGE	I	QVM-Q-313			ALFALAVAL	PUNE/SWEDEN	A			

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		I				WEST FALIA INDIA	BANGALORE	A			
44	JOP	II				TUSHACO PUMP	DAMAN	A			
		II				DYNAMIC TECHNOLOGIES	BANGALORE	DR			
		II				ALLWEILER	GERMANY	A			
45	FOUNDATION FRAME FOR BFP, BP & DRIVE TURBINE & MOTOR	I				BHEL	HYDERABAD	A			
46	LUBE OIL SYSTEM	I				BHEL	HYDERABAD	A			
47	OIL COOLERS	I				BHEL	HYDERABAD	A			
48	TUBE SHEET FORGING (HP HEATER)	I				M/s RINGMILL S.P.A.,	ITALY	A			
		I				M/s FORGIATURA MORANDINI SRL,	ITALY	A			
		I				M/s FORGE MONCHIERI S.R.L.	ITALY	A			
		I				M/s TAEWOONG COMPANY LIIMITED	KOREA	A			
		I				M/s BAY-FORGE LIMITED,	CHENNAI	DR			
		I				M/s CFFP	HARDWAR	A			
49	STEEL FORGING (OTHER THAN H.P HEATER TUBE SHEETS)	II				M/s GOLDEN IRON & STEEL WKS.	DELHI	A			
		II				M/s THE PUNJAB STEEL WORKS,	DELHI	A			
		II				M/s ACME FORGINGS PVT LTD.,	RAJKOT	A			
		II				M/s CHAUDHRY HAMMER WORKS (P)	GHAZIABAD	A			

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						LTD.					
		II				*M/s GHAZIABAD ISPAT UDYOG LTD.,*	*GHAZIABAD*	*A*			
		II				*METAL FORGING*	*DELHI*	*DR*			
		II				*SANGHVI FORGING & ENGINEERING*	*BARODA*	*DR*			
		II				*C.D.Industries*	*GHAZIABAD*	*DR*			
		II				*KISSAN DIE-TECH*	*GHAZIABAD*	*DR*			
		II				*CHW Forge Private Limited*	*GHAZIABAD*	*DR*			
50	HEMI HEAD	I				M/s VOEST ALPINE GIESSEREI LINZ GMBH,LTD.,	GERMANY	A			
		I				M/s EDMONTON EXCHANGER & MFG.LTD.,	CANADA	A			
		I				M/s DILLING-GTS VENTES,	GERMANY	A			
		I				M/s CEREC,	FRANCE	A			
		I				M/s CEREC,	VADODARA	DR			
		I				M/s KONIG & CO. GMBH,	GERMANY	A			
		I				M/s ANTONIUS VESSEL HEADS B.V.,	FRANCE	DR			
		I				M/s RICHARDSON & CRUDDAS (1972) LTD.,	MUMBAI	A			
		I				M/s J BOWN & CO.(DUKINFIELD) LIMITED	U.K				

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Chhattisgarh Vidyut Utpadan Nigam Limited ★ Distt. Ramgarh ★ C&M Deptt.

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						STEEL FORCE	BELGIUM	DR			
						MAHENDRA DISHED ENDS	*THANE*	*DR*			
						ICEM ENGINEERING PVT LTD	*THANE*	*DR*			
						GEUM CHANG HEAD CO	*KOREA*	*DR*			
51	DISHED ENDS	I				M/s DYNAMIC DISH INDIA (PVT) LTD.,	HYDERABAD	DR			
		I				M/s METAL ENGINEERS,	HYDERABAD	A			
		I				M/s SATYA FABRICATORS PVT LTD.,	HYDERABAD	A			
		I				MAHENDRA DISH ENDS	THANE	DR			
		I				M/s CEREC,	FRANCE	A			
		I				M/s CEREC,	VADODARA	DR			
		I				M/s THE ANUP ENGINEERING LTD	INDIA	A			
		I				M/s KONIG & CO. GMBH,	GERMANY	A			
		I				M/s ICEM ENGEENING COMPANY LTD.	THANE	DR			
52	SMALL FORGING	II				M/s GOLDEN IRON & STEEL WKS.	DELHI	A			
		II				M/s THE PUNJAB STEEL WORKS,	DELHI				
		II				M/s ACME FORGINGS	RAJKOT				

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Kamgar Bhawan Jharkhand

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
						PVT LTD.,					
		II				M/s CHAUDHRY HAMMER WORKS (P) LTD.	GHAZIABAD	A			
		II				M/s GHAZIABAD ISPAT UDYOG LTD.,	GHAZIABAD	A			
		II				METAL FORGING	DELHI	DR			
		II				*SANGHVI FORGING & ENGINEERING*	*BARODA*	DR			
		II				*C.D.Industries*	*GHAZIABAD*	DR			
		II				*KISSAN DIE-TECH*	*GHAZIABAD*	DR			
		II				*CHW Forge Private Limited*	*GHAZIABAD*	DR			
53	STAINLESS STEEL TUBE (STRAIGHT) WELDED	*I*				*M/s. Neotiss Limited (formerly VALLOUREC HEAT EXCHANGER TUBES LTD.,)*	*HYDERABAD*	*A*			FOR LP HEATER ONLY
		I				*M/s RATNADEEP METAL&TUBES P.LTD*	*AHMEDABAD*	*A*			FOR LP HEATER ONLY
		I				*M/s RATNAMANI METALS & TUBES LTD.,*	*AHMEDABAD/ KUTCH*	*A*			
		I				*M/s HEAVY METAL & TUBES LIMITED,*	*AHMEDABAD*	*A*			
		I				*M/s REMI*	*TARAPUR*	*A*			FOR LP HEATER ONLY
		I				*M/s PLYMOUTH TUBE COMPANY,*	*USA*	*A*			
54	STAINLESS STEEL TUBE (U TUBE) WELDED (ABOVE 17	I				M/s RATNAMANI METALS & TUBES	AHMEDABAD/ KUTCH				

Bharat Heavy Electricals Limited ★ PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited ★ Patratu ★ Distt. Ramgarh (Jharkhand) C & M Deptt.

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
	BWG)					LTD.,					
		I				*M/s. Neotiss Limited (formerly VALLOUREC HEAT EXCHANGER TUBES LTD.,)*	*Patancheru, Hyderabad*	*DR*			
		I				*M/s. REMI*	*Tarapur*	*DR*			
		I				*M/s. Shinhan Metal*	*South Korea*	*DR*			
		I				M/s PLYMOUTH TUBE COMPANY,	USA	A			
55	STAINLESS STEEL TUBE (U TUBE) WELDED (UP TO 17 BWG)	I				M/s RATNAMANI METALS & TUBES LTD.,	AHMEDABAD/ KUTCH	A			
		I				M/s PLYMOUTH TUBE COMPANY,	USA	A			
		I				M/s VALLOUREC HEAT EXCHANGER TUBES LTD. (FORMERLY CST VALINOX)	HYDERABAD	A			
		I				REMI	TARAPUR	DR			
		I				SHINHAN	KOREA	DR			
56	SAFETY RELIEF VALVE (TUBE SIDE AND SHELL SIDE)	I				M/s TYCO	USA	A			
		I				M/s DRESSER	USA	A			
		I				*M/FAINGER LESSER*	*GERMANY*	*A*			
		I				*BHEL-HPBP-TRICHY*	*TRICHY*	*DR*			
		I				*PENTAIR VALVES & CONTROLS*	*VADODARA*	*DR*			
		I				*KSB MIL CONTROL LIMITED*	*CHENNAI*	*DR*			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited Dist-Ramgarh (Jharkhand) C & M Deptt.

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
		I				ASIAN INDUSTRIAL VALVES AND INSTRUMENTS	CHENNAI	DR			
57	LP HEATER	I				BHEL	HYDERBAD	A			SUB-QR ITEM
58	HP HEATER	I				BHEL	HYDERBAD	DR			SUB-QR ITEM
		I				SPX	USA	A			SUB-QR ITEM
		I				BHI	SOUTH KOREA	A			SUB-QR ITEM
		I				TEI	USA	A			SUB-QR ITEM
		I				SHANGHAI	CHINA	A			SUB-QR ITEM
		I				HOLTEC	USA	A			SUB-QR ITEM
59	DRAIN COOLER	I				BHEL	HYDERBAD	A			
60	VALVES GATE, GLOBE, CHECK ½ TO 10" (UPTO 2500 CL)	II				TOA VALVES	JAPAN	A			
		II				DEUTSCHE BABCOCK	GERMANY	A			
		II				DRESSER	USA	A			
		I				BHEL	TRICHY	A			
		I				FLOSTEER ENGINEERS PVT. LTD.,	AHMEDABAD	DR			
		I				JOSHUAMPALA ENGINEERING PRIVATE LI	SATARA	DR			
		I				SKILT FABRICATORS PVT.LTD,	MUMBAI	DR			
		I				VALVE TECH INDUSTRIES	NAVI MUMBAI	DR			
		I				CHEMTECH INDUSTRIAL VALVES	THANE	DR			
61	VALVES (GATE, GLOBE, NRV) ½ TO 10" FOR LP	I				L&T	CHENNAI/COIMBATORE				

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited Dist-Ramgarh(Jharkhand) C & M Deptt.

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
	APPLICATIONS	I				BHEL	TRICHY	A			
		I				FOURESS	AURANGABAD	A			Up to 2"x800# Upto 10x600#
		I				WEIR BDK	HUBLI	A			Up to 2"x800# Upto 10x600#
		I				*FLOSTEER ENGINEERS PVT. LTD.,*	*AHMEDABAD*	DR			
		I				*JOSHIJAMPALA ENGINEERING PRIVATE LI*	*SATARA*	DR			
		I				*SKILT FABRICATORS PVT.LTD,*	*MUMBAI*	DR			
		I				*VALVE TECH INDUSTRIES*	*NAVI MUMBAI*	DR			
		I				*CHEMTECH INDUSTRIAL VALVES*	*THANE*	DR			
62	CCS GLOBE VALVES UPTO 300 NB AND 150 CLASS	I				KBL	KONDAPURI	A			
		I				FOURESS ENGG	AURANGABAD	A			
		I				WEIR BDK	HUBLI	A			
		I				KSB	COIMBATORE	A			
		I				LEADER ENGG	JALLANDHAR	A			
		I				SKILT	MUMBAI	DR			
		I				BHEL	TRICHY	A			
		I				*FLOSTEER ENGINEERS PVT. LTD.,*	*AHMEDABAD*	DR			
		I				*JOSHIJAMPALA ENGINEERING PRIVATE LI*	*SATARA*	DR			
		I				*VALVE TECH*	*NAVI MUMBAI*	DR			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited G & M Deptt.

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
						INDUSTRIES					
		I				*CHEMTECH INDUSTRIAL VALVES*	*THANE*	DR			
63	DEARATOR	I				BHEL	HYDERABAD	A			SUB-QR ITEM
	# FABRICATOR BASED ON BHEL HYD DESIGN					#BHEL	VISHAKAPATNAM	DR			
						#VRK	HYDERABAD	DR			
						#Thandav Lakshmi Engineering works	VISHAKAPATNAM	DR			
						# Jay Engg	Trichy	DR			
						# Sai Sarag	Hyderabad	DR			
						# Premier Engg	Hyderabad	DR			
64	DEARATOR SPRAY VALVES	III				NEWTERA (COCHRANE ENVIRONMENTAL SYSTEM (CRANE))	USA	A			
		III				STERLING	USA	A			
		III				KCD	USA	DR			
		I				VALUE TREK ENGINEERS	HYDERABAD	DR			
		I				VIJAYA TOOLING ENGINEERS	HYDERABAD	DR			
65	DEARATOR TRAY ASSEMBLY	III				NEWTERA (COCHRANE ENVIRONMENTAL SYSTEM (CRANE))	USA	A			
		III				STERLING	USA	A			
		III				KCD	USA	DR			
		I				VRK INDUSTRIES	HYDERABAD	DR			
		I				PREMIER ENGG	HYDERABAD	DR			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand) C & M Deptt.

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS
		I				VALUE TREK	HYDERABAD	DR			
		I				Pavan Engg	Hyderabad	DR			
		I				VIJAY TOOLING	HYDERABAD	DR			
66	LT MOTORS UPTO 200 KW(REFER NOTE-1)	I				BHARAT BIJLEE	MUMBAI	A			UPTO 160KW
		I				KEC	BANGALORE/ HUBLI*	A			* UPTO 90 KW
		I				MARATHON	KOLKATA	A			
		I				CGL	AHMEDNAGAR	A			
		I				ABB	FARIDABAD*/ BANGALORE	A			* UPTO 55 KW
						LAXMI HYDRAULICS	SOLAPUR	A			* UPTO 120 KW
						SIEMENS INDIA	*INDIA*	DR			
67	SAFETY RELIEF VALVE	I				*BHEL,*	*TIRICHY*	A			
						PENTAIR VALVES & CONTROLS	*VADODARA*	DR			
						KSB MIL CONTROL LIMITED	*CHENNAI*	DR			
						ASIAN INDUSTRIAL VALVES AND INSTRUMENTS	*CHENNAI*	DR			

A- Proposed vendor is acceptable to NTPC, N: BHEL/ MHI approved vendors indicated as "N" are accepted in NOTED category by NTPC for this project based on BHEL/MHI experience with the vendor for the items & DR – "Details required" for NTPC review.

2 QP/INSPECTION CATEGORY:

CAT – I : For those items the Quality Plans are approved by NTPC and final acceptance will be on physical inspection witness by NTPC.

CAT – II : For those items the Quality Plans are approved by NTPC. However no physical inspection shall be done by NTPC. The final acceptance by NTPC shall be on the basis of review of documents as per QP.

CAT-III : For those items main supplier approves Quality Plan. The final acceptance by NTPC shall on the basis of Certificate of Conformance by main supplier.

Bharat Heavy Electricals Limited PS-MKTG Delhi
Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

एनटीपीसी NTPC	Project : PATRATU STPP(3X800MW) Package : EPC Contractor : BHEL, Hyderabad Contract No.:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: BFP, Drive Turbine, Heaters (HP, LP) Drain Cooler and Deaerator	Ref No.: 9585-001-02 Revision No.: 00 Date: 05.04.2017

SN	ITEM	QP/ INS-PN CAT *	QP No. xxxx-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SC APPL SCHEDULE	REMARKS

NOTE 1: a) Less than 30 KW

Acceptance of Motor less than 30 KW is based on COC of the manufacturer & the contractor confirming as follows:

It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage & frequency variation, hot starts, pull out torque, starting KVA/KW, temp. rise, distance between centre of stud & gland plate and tested in accordance with approved drawing /data sheets.

b) 30 KW and above

Acceptance of Motor rating between 30 KW & 50 KW is based on NTPC review of Routine Test inspection report as per IS 325 by main contractor along with COC of the manufacturer & the contractor confirming as follows:

« It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage & frequency variation, hot starts, pull out torque, starting KVA/KW, temp. rise, distance between centre of stud & gland plate, space heater and tested in accordance with approved drawing /data sheets.

FOR HT MOTORS REFER SEPARATE VENDOR LIST FINALIZED FOR BHEL BHOPAL.

NOTE 2 : IF BOOSTER PUMPS SHAFT AND CEP SHAFT ARE MADE FROM ROLLED BARS THEN VENDORS SHALL BE AS PER BHEL APPROVED VENDOR LIST.

NOTE 3 : FOR VALVES OF SIZE ½ INCH AND BELOW SHALL BE PROCURED FROM BHEL APPROVED SOURCES.

Bharat Heavy Electricals Limited ★ PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited ★ Distt.-Ramgarh(Jharkhand) ★ C & M Deptt.

NTPC	PROJECT:	: PATRATU EPC (3X			LIST OF ITEMS REQUIRING QUALITY PLAN		PACKAGE:	EPC
							SUB-PKG.:	
	CONTRACTOR:	BHEL-PEM					REV. NO.	00
	CONTRACT NO.:	9585-001-2					DATE:	12.04.2017
SI. NO.	ITEM	QP_CAT	QP_NO	QP_SCH	PROPOSED SUB_SUPPLIER	PLACE	APPRL_STATUS/ CAT	REMARK
1.00	LUBE OIL PUMP	I			MATZ ENGINEERS	AHEMDABAD	A	
		I			Delta PD Pumps Pvt.Ltd.	Vapi	DR	
		I			Del Pd Pumps & Gears	Surandenagar,Gujarat	DR	
		I			TUSHACO PUMPS	DAMAN	A	
2.00	SELF CLEANING STRAINER	I			MULTITEX	NOIDA	A	
		I			GEA BGR ENERGY SYSTEM	CHENNAI	A	
		I			FILTERATION ENGINEERS (I) PVT.	MUMBAI	DR	Approved upto 800 NB size
3.00	GM VALVES (UPTO 100 NB)	III			BHEL APPROVED SOURCES			VENDOR APPROVAL BY NTPC NOT ENVISAGED.
4.00	METELLIC BELLOWS	I			Qinhuangdao North Metal Hose Co. Ltd.,	CHINA	DR	
		I			FLEXICON BELLOWS & HOSES	BARODA	A*	A* AS PER APPROVAL CONDITIONS
		I			LONESTAR INDUS.	CHENNAI	A*	A* AS PER APPROVAL CONDITIONS
		I			MB METTALIC BELLOWS (I) P LTD	CHENNAI	A*	A* AS PER APPROVAL CONDITIONS
		I			METTALIC BELLOWS (I) P LTD	CHENNAI	A*	A* AS PER APPROVAL CONDITIONS
					FLEXATHERM EXPANLLOW PVT.	VADODARA	DR	
					BD ENGINEERING	AHMEDABAD	DR	
		I			TEDDINTON ENGINEERED	UK	DR	
5.00	THERMAL INSULATION (ROCKWOOL MATRESSES/ P-	I			Minsulate Manufacturing Co.	Jamshedpur	DR	
		I			GOENKA Rockwool	RAIPUR	A	
					LLOYD INSULATION (I) LTD	BHILAI,JAMSHEDPUR, AURANGABAD	A	
					ROCKWOOL INDIA	MEDAK , AP	A	
		I			THERMOCARE ROCKWOOL INDIA	RAJNANDGAON	DR	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt.

(NILESH KAMAL) BHEL-PEL

NTPC	PROJECT:	: PATRATU EPC (3X			LIST OF ITEMS REQUIRING QUALITY PLAN		PACKAGE:	EPC
							SUB-PKG.:	
	CONTRACTOR:	BHEL-PEM					REV. NO.	00
	CONTRACT NO.:	9585-001-2					DATE:	12.04.2017
SI. NO.	ITEM	QP_CAT	QP_NO	QP_SCH	PROPOSED SUB_SUPPLIER	PLACE	APPRL_STATUS/ CAT	REMARK
		I			SHREERAM EQUITECH PRIVATE	DURG	DR	
		I			Polybond Insulation Private Limited,	BHILAI	DR	
		I			Dhanbad Rockwool Insulation Pvt.Ltd.	Dhanbad	DR	
		I			Hitec Rockfibre Pvt.Ltd.	RAJNANDGAON	Dr	
6.00	BALL VALVES (NON FIRE SAFE TYPE)	I			MICROFINISH VALVES	HUBLI	A	UPTO 400NB, #300
		I			VAAS AUTOMATION	CHENNAI	DR	
		I			BELGAUM AQUA VALVES PVT. LTD.	BELGAUN	A	50 NB CLASS 800 200NB CLASS 150
		I			A.V. VALVES LTD	AGRA	DR	
		I			ATAM VALVES PVT. LTD.	JALANDHAR	DR	
		I			VALTECH INDUSTRIES	MUMBAI	DR	
		I			M/S GM ENGINEERING	RAJKOT	DR	
		I			INTERVALVE (INDIA) LTD.	PUNE	DR	
		I			DEMBLA VALVES LTD.	THANE	DR	
		I			UNIFLOW	CHENNAI	DR	
		I			WEIR BDK	HUBLI	A	UPTO 400 NBX150#
		I			LEADER	JALANDHAR	A	UPTO50MM-CLASS800, CCS-50TO100MM-CLASS 150
		I			NILON VALVES PRIVATE LTD	AHMEDABAD	DR	
		I			HAWA VALVES (IDIA) PVT. LTD.	NAVI MUMBAI	DR	
		I			HAWA ENGINEERS	AHMEDABAD	DR	
		I			CRESCENT VALVES	AHMEDABAD	DR	
		I			MICON VALVES	MUMBAI	DR	
		I			MEVADA ENGINEERING	MUMBAI	DR	

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

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NTPC	PROJECT:	: PATRATU EPC (3X			LIST OF ITEMS REQUIRING QUALITY PLAN		PACKAGE:	EPC
							SUB-PKG.:	
	CONTRACTOR:	BHEL-PEM					REV. NO.	00
	CONTRACT NO.:	9585-001-2					DATE:	12.04.2017
SI. NO.	ITEM	QP_CAT	QP_NO	QP_SCH	PROPOSED SUB_SUPPLIER	PLACE	APPRL_STATUS/ CAT	REMARK
		I			DELVAL FLOW CONTROLS	SATARA	DR	
7.00	STEAM TRAPS	III			BHEL APPROVED SOURCES			VENDOR APPROVAL BY NTPC NOT ENVISAGED.
8.00	AIR TRAPS	III			BHEL APPROVED SOURCES			VENDOR APPROVAL BY NTPC NOT ENVISAGED.
9.00	BUTTERFLY VALVES (STEAM SERVICES)	I			FOURESS ENGG.	BANGALORE	A	UPTO 2600NB
		I			NENGFA WEIYE TIELING VALVE JOINT STOCK CO. LTD.	CHINA	DR	
		I			IL	PALGHAT	A	UPTO 2200NB
		I			SHENJIANG VALVES CO.	CHINA	DR	
10.00	AIR RELEASE VALVES	III			BHEL APPROVED SOURCES			BHEL APPROVED SOURCES
11.00	CHEMICAL DOSING (LP)	I			TECHNO CONSULTANT	MUMBAI	A	
		I			SWELLORE	AHEMDABAD	A	
		I			VK PUMPS	NASHIK	A	
		I			POWER PIPING COMPANY	Trichy	A	
		I			PSI	CHENNAI	A	

Bharat Heavy Electricals Limited ★ PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited ★ Distt-Ramgarh(Jharkhand) C & M Deptt.

NTPC	PROJECT:	: PATRATU EPC (3X			LIST OF ITEMS REQUIRING QUALITY PLAN		PACKAGE:	EPC
							SUB-PKG.:	
	CONTRACTOR:	BHEL-PEM					REV. NO.	00
	CONTRACT NO.:	9585-001-2					DATE:	12.04.2017
SI. NO.	ITEM	QP_CAT	QP_NO	QP_SCH	PROPOSED SUB_SUPPLIER	PLACE	APPRL_STATUS/ CAT	REMARK
		I			ENPRO INDUSTRIES PVT.LTD.	PUNE	DR	
		I			ROCKWIN FLOWMWTER INDIA PVT LTD	GHAZIABAD	DR	
		I			POSITIVE METERING PUMPS (I) PVT. LTD.	NASIK	A	
		I			TECNO STRENGTH PVT.LT.	HYDERABAD	DR	
		I			MR SYSTEMS	HOWRAH	DR	
12.00	COLTCS(Not Applicable)							
13.00	SPRING LOADED BYPASS VALVE	I			WEIR VALVES & CONTROLS UK LTD.	U.K.	A	UP TO NB 450, 2000#
		I			SEMPELL GmbH	GERMANY	A	UP TO NB 450, 2260#
		I			STRACK GmbH,	GERMANY	A	UP TO NB 450, 4500#
		I			BHEL -Trichy Valves	Trichy	DR	
14.00	ALUMINIUM SHEET /COILS	III			NATIONAL ALUMINIUM COMPANY LTD.	BHUBNESHWAR	N	
		III			BHARAT ALUMINIUM COMPANY LTD	DELHI	N	
		III			HINDALCO INDUSTRIES LTD	MUMBAI	N	
		III			Jindal Aluminium	Bangalore	DR	
		III			CHONGGING LANREN ALUMINIUM CO. LTD.	CHINA	DR	
15.00	THERMAL INSULATION CERAMIC FIBRE	I			LLOYD INSULATIONS (INDIA) LTD.	NALAGARH BADDI	DR	
		I			Simond Fibre Tech Ltd.	Rajkot	DR	
		I			Sri Ceramic Fibre Pvt.Ltd.	Indore	DR	
		I			UNIFRAX INDIA	LAKHTAR	DR	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt.

0	PROJECT: PATRATU (3 X 800 MW)				NTPC DOC NO:	CS-9585-001-2	
NTPC	SUB-PACKAGE:EPC SUB-PACKAGE:		LIST AND STATUS OF ITEM REQUIRING QP AND SUB-SUPPLIER APPROVAL		REV. NO.	0	
	MAIN SUPPLIER: BHEL				DATE	12.04.2017	
	CONTRACT NO.: CS-9585-001-2		SUB SYSTEM: ERECTION CONTRACTORS		ANNEXURE		
SR. NO.	ITEM	QAP / INSP. CAT	QAP NO.	PROPOSED SUB SUPPLIER	PLACE OF MANUFACTURING	APPROVAL STATUS	REMARKS
1	TG & AUX INCLUDING GENERRATOR	I		LARSEN & TOUBRO	MUMBAI	A	NOTE-1
		I		POWER MECH	VIJAYWADA	A	NOTE-1
		I		INDWELL CONSTRUCTIONS LTD	VIJAYWADA	A	NOTE-1
		I		BROTHERS ENGINEERS	CHENNAI	A	NOTE-1
		I		PE ERECTORE	KOLKATA	A	NOTE-1
		I		ALSTOM POWER INDIA LTD	DELHI	A	NOTE-1
		I		TATA PROJECTS LTD	HYDERABAD	A	NOTE-1
		I		UNIVERSAL ERECTORS	MUMBAI	A	NOTE-1
		I		BSES LTD	MUMBAI	A	NOTE-1
		I		ENGINEOUS ERECTORS	CHENNAI	A	NOTE-1
		I		SPIC GEL	CHENNAI	A	NOTE-1
		I		VABSUN ERECTORS	HYDERABAD	DR	NOTE-1
		I		DPC ENGINEERING PROJECTS	CHENNAI	DR	NOTE-1
		I		RELIANCE INFRASTRUCTURE	MUMBAI	DR	NOTE-1
		I		SUNIL HI TECH	NAGPUR	A	NOTE-1
		I		VASAVI POWER SERVICES LTD	HYDERABAD	DR	NOTE-1
		I		TEXCEL	CHENNAI	A	NOTE-1
		I		MACWELL CONSTRUCTIONS	VIJAYWADA	DR	NOTE-1
		I		UNIVERSAL ERECTORS	AHMEDABAD	DR	NOTE-1
		I		EDAC ENGINEERS	CHENNAI	DR	NOTE-1
		I		KARPARA PROJECT ENGG	SURAT	DR	NOTE-1
		I		PCP INTERNATIONAL	CHANDIGARH	DR	NOTE-1
		I		UB ENGINEERING	PUNE	DR	NOTE-1
				MECH ENGINNERS & ERECTORS	TELANGANA	DR	NOTE-1
		I		ALPHA	JAMNIPALI	DR	NOTE-1
		I		ESSAR PROJECTS (I) LTD.	MUMBAI		NOTE-1
2	GENERATOR & AUXLILIARIES	I		SAME AS SL. NO. 1			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt. Ramgarh (Jharkhand)

G.V. Rao 12/04/17

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SR. NO.	ITEM	QAP / INSP. CAT	QAP NO.	PROPOSED SUB SUPPLIER	PLACE OF MANUFACTURING	APPROVAL STATUS	REMARKS
3	C&I OF ST & TG	I		NOTE-2			
4	HP PIPING	I		NOTE-2			
5	LP PIPING	I		NOTE-2			
6	BOILER FEED PUMP	I		NOTE-2			
7	HEATERS, DEAERATORS	I		NOTE-2			
8	CEP	I		NOTE-2			
9	HT MOTORS	I		NOTE-2			
10	CRANES-EOT & MISC	I		NOTE-2			
11	PASSANGER CUM GOODS ELEVATOR	I		NOTE-2			
12	TANKS & VESSELSCABLING	I		NOTE-2			
		I		NOTE-2			
13	DC SYSTEM 220/24 V - BATTERY	I		NOTE-2			
14	BATTERY CHARGER	I		NOTE-2			
15	HYDROGEN GENERATION PLANT	I		NOTE-2			

NOTE-1: Additional sub-contractors may be considered as per MOM provision. Organizational, financial and technical aspects will be taken care by BHEL before award of the jobs to the sub-contractors. Mobilisation of manpower, tools , tackles to suit the requirements of the job schedule shall be tied up by BHEL in consultation with NTPC site before award for which the details of sub-contractors shall be forwarded to GM-Site.

NOTE-2: BHEL approved sub-contractors for erection - would mean NTPC approval not required. However, mobilisation of manpower, tools , tackels to suit the requirements of the job schedule shall be tied up by BHEL in consultation with NTPC site.

NOTE-3: BHEL will follow their standarred procedure, corporate guidelines and shall comply with circulars/ instructions etc. issued by Government/ relevant statutory bodies while tendering. However for new vendor, BHEL shall take approval from NTPC prior to order placement.

Bharat Heavy Electricals Limited ★ PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited ★ Distt-Ramgarh(Jharkhand) C & M Deptt.

G.V. Rajasekhar 12/04/17
(G.V.RAJASEKHAR)
(BHEL-PSWR)

एनटीपीसी NTPC	PROJECT: PATRATU STPP (3X800MW)) PACKAGE : EPC PACKAGE SUPPLIER : BHEL CONT. NO.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB- SUPPLIER APPROVAL	ANNEXURE- DOC. No. CS-9585-001-2 Revision No. : 00 DATE: 05/04/2017 PAGE : 1 OF 7

SL.NO.	ITEM	QP/INSPN CAT	QP NO.	PROPOSED SUBVENDORS BY MAIN CONTRACTOR	PLACE	SUB-SUPPLIER APPROVAL STATUS/ CATEGORY	REMARKS
1	LOW PRESSURE PIPING L1 LEVEL VENDOR (REFER NOTE 2)	I		RAUNAQ INTERNATIONAL	FARIDABAD	A	
		I		BRIDGE & ROOF CO	KOLKATA	A	
		I		TECHNOELECTRIC ENGG	KOLKATA	A	
		I		TECHNO FAB ENGG	NEW DELHI	A	
		I		UNITECH MACHINES LTD	GURGAON	A	
		I		THERMOSYSTEMS	HYDERAABAD	A	
		I		IOTL	MUMBAI	A	
		I		BHEL PIPING CENTRE	CHENNAI	A	
		I		GMW	BARODA	DR	
2	AIR CONDITIONING SYSTEM L1 LEVEL VENDOR (REFER NOTE 1& 2)	I		VOLTAS	MUMBAI	A	
		I		STERLING & WILSON	KOLKATA	A	
		I		ADVANCE VENTILATION	DELHI	A	
		~~I~~		~~ROOTS COOLING SYSTEM~~	~~NOIDA~~	~~A~~	
		I		GEMINI SHREEWAS (ENGRS) PVT LTD	CHENNAI	DR	
		I		INDUSTRIAL PROJECT & PRODUCTS LTD	BAWAL	DR	
3	VENTILATION SYSTEM L1 LEVEL VENDOR (REFER NOTE 1& 2)	I		VOLTAS	MUMBAI	A	
		I		STERLING & WILSON	KOLKATA	A	
		~~I~~		~~ROOTS COOLING SYSTEM~~	~~NOIDA~~	~~A~~	
		I		SK SYSTEMS PVT LTD	DELHI	A	
		I		C DOCTOR	KOLKATA	A	
		I		HYDERABAD POLLUTION	HYDERABAD	A	
		I		ADVANCE VENTILATION	DELHI	A	
		I		PACK PLAST ENGG	KOTA	DR	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Ltd. C & M Deptt. Distt-Ramgarh (Jharkhand)

FORMAT NO.: QS-01-QAI-P-01/F3-R0

ENGG. DIV./QA&I

NTPC	PROJECT: PATRATU STPP (3X800MW)) PACKAGE : EPC PACKAGE SUPPLIER : BHEL CONT. NO.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB- SUPPLIER APPROVAL	ANNEXURE- DOC. No. CS-9585-001-2 Revision No. : 00 DATE: 05/04/2017 PAGE : 2 OF 7

SL.NO.	ITEM	QP/INSPN CAT	QP NO.	PROPOSED SUBVENDORS BY MAIN CONTRACTOR	PLACE	SUB-SUPPLIER APPROVAL STATUS/ CATEGORY	REMARKS
		I		INDUSTRIAL PROJECT & PRODUCTS LTD	BAWAL	DR	
		I		TAP ENGINEERING	CHENNAI	DR	
4	COMPRESSED AIR SYSTEM L1 LEVEL VENDOR (REFER NOTE 1& 2)	I		ELGI EQUIPMENTS	COIMBATORE	A	
		I		ATLAS COPCO	PUNE	A	
		I		INGERSOLL RAND	AHMEDABAD	A	
5	PLATE HEAT EXCHANGER	I		TRANTER INDIA	PUNE	A	HT PLATES &GASKETS FROM TRANTER, SWEDEN/USA. HT PLATES FROM HIKASA, JAPAN
		I		TRANTER INDIA	PUNE	A	ACCEPTABLE FOR INDIGENOUSLY PRESSED HT PLATE SIZE UPTO 2107 MM LENGTH X 940 MM WIDTH X 0.6MM THICKNESS OF SS316 MATERIAL. GASKET AS PER APPROVAL CONDITION.
		I		KELVION INDIA PVT LTD (FORMLY GEA ECOFLEX INDIA)	PUNE	A	HT PLATES &GASKETS FROM GEA ECOFLEX, GERMANY
		I		KELVION INDIA PVT LTD (FORMLY GEA ECOFLEX INDIA)	PUNE	A	ACCEPTABLE FOR INDIGENOUSLY PRESSED HT PLATE SIZE UPTO 1736 MM LENGTH X 745 MM WIDTH X 0.5MM THICKNESS. GASKETS AS PER APPROVAL CONDITION.
		I		ALPHA LAVAL	SATARA	A	HT PLATES &GASKETS FROM ALPHA LAVAL, SWEDEN

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

NTPC	PROJECT: PATRATU STPP (3X800MW)) PACKAGE : EPC PACKAGE SUPPLIER : BHEL CONT. NO.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB- SUPPLIER APPROVAL	ANNEXURE- DOC. No. CS-9585-001-2 Revision No. : 00 DATE: 05/04/2017 PAGE : 3 OF 7

SL.NO.	ITEM	QP/INSPN CAT	QP NO.	PROPOSED SUBVENDORS BY MAIN CONTRACTOR	PLACE	SUB-SUPPLIER APPROVAL STATUS/ CATEGORY	REMARKS
		I		ALPHA LAVAL	SATARA	A	ACCEPTABLE FOR INDIGENOUSLY PRESSED HT PLATES OF SIZE UPTO 2250MM LENGTH X 750MM WIDTH X 0.6MM THICKNESS.
		I		IDMC	ANAND	A	HT PLATES & GASKETS FROM SONDEX, DENMARK
		I		HISAKA	JAPAN	A	
		I		SONDEX INDIA	VADODARA	A	HT PLATES FROM SONDEX, DENMARK
6	HORIZONTAL CENTRIFUGAL PUMP (UP TO 1000 CUM/HR)	I		KIRLOSKAR BROS LTD.	KIRLOSKARWADI	A	
		I		MATHER & PLATT	PUNE	A	
		I		MATHER & PLATT	KOLHAPUR	A	
		I		SAM TURBO	COIMBATORE	A	
		I		FLOWMORE	GHAZIABAD	A	
		I		FLOWMORE	GHAZIABAD	A	
		I		BEST AND CROMPTON	CHENNAI	A	
		I		JYOTI	VADODARA	A	
		I		WPIL	GHAZIABAD	A	
		I		KISHORE PUMPS	PUNE	A	UPTO 500M3/HR
		I		KSB	PUNE	A	
7	FUEL OIL UNLOADING SYSTEM L1 LEVEL VENDOR (REFER NOTE 1 & 2)	I		RAUNAQ INTERNATIONAL LTD	FARIDABAD	A	
		I		GMW	VADODRA	A	
		I		UNITECH MACHINES LTD	GURGAON		
		I		TECHNO ELECTRIC	KOLKATA		

Bharat Heavy Electricals Limited PS-MKTG Delhi

Rajasthan Vidyut Utpadan Nigam Limited C & M Deptt. Distt. Ramgarh (Bokaro)

NTPC	PROJECT: PATRATU STPP (3X800MW)) PACKAGE : EPC PACKAGE SUPPLIER : BHEL CONT. NO.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB- SUPPLIER APPROVAL	ANNEXURE- DOC. No. CS-9585-001-2 Revision No. : 00 DATE: 05/04/2017 PAGE : 4 OF 7

SL.NO.	ITEM	QP/INSPN CAT	QP NO.	PROPOSED SUBVENDORS BY MAIN CONTRACTOR	PLACE	SUB-SUPPLIER APPROVAL STATUS/ CATEGORY	REMARKS
				ENGG			
		I		XICON INTERNATIONAL	THANE	DR	
		I		NEW FIRE ENGINEERS	NEW DELHI	DR	
		I		SHALCOT	NOIDA	A	
		I		THERMOSYSTEMS	HYDERABAD	A	
8	COOLING TOWER- IDCT L1 LEVEL VENDOR (REFER NOTE 1& 2)	I		L&T	CHENNAI	A	
		I		NBCC	NEW DELHI	A	
		I		GEA COOLING TOWER	CHENNAI	A	
		I		HAMMON SHRIRAM	UMBERGAON	A	
		I		PAHARPUR COOLING TOWERS	NEW DELHI	A	
		I		FANS AS	CZECK	A	
		I		PAL TECH COOLING TOWER	GURGAON	A	
9	CW TREATMENT SYSTEM L1 LEVEL VENDOR (REFER NOTE 1 & 2	I		DRIPLEX	NEW DELHI	A	
		I		THERMAX	PUNE	A	
		I		ION EXCHANGE	MUMBAI	A	
		I		TRIVENI ENGG	NOIDA	A	
		I		VASU CHEMICALS	MUMBAI	DR	
		I		CHEMBOND	MUMBAI	DR	
10	CONDENSATE POLISHING PLANT L1 LEVEL VENDOR (REFER NOTE 1 & 2)	I		DRIPLEX	HARIDWAR	A	
		I		ION EXCHANGE	MUMBAI	A	
		I		BGR ENERGY	CHENNAI	A	
		I		THERMAX	PUNE	A	
11	(SUBMERSIBLE TYPE) 50 M3/HR, 20 MWC	I		KISHORE PUMPS	PUNE	A	
		I		KSB	PUNE	A	
		I		KIRLOSKAR BROS LTD.	KIRLOSKARWADI	A	
		I		AQUA MACHINERY	AHMEDABAD	A	
		I		DARLING PUMPS	INDORE	A	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand)

C & M Deptt.

FORMAT NO.: QS-01-QAI-P-01/F3-R0

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ENGG. DIV. QA&I

NTPC	PROJECT: PATRATU STPP (3X800MW)) PACKAGE : EPC PACKAGE SUPPLIER : BHEL CONT. NO.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB- SUPPLIER APPROVAL	ANNEXURE- DOC. No. CS-9585-001-2 Revision No. : 00 DATE: 05/04/2017 PAGE : 5 OF 7

SL.NO.	ITEM	QP/INSPN CAT	QP NO.	PROPOSED SUBVENDORS BY MAIN CONTRACTOR	PLACE	SUB-SUPPLIER APPROVAL STATUS/ CATEGORY	REMARKS
				WPIL	GHAZIABAD	A	
		I		MBH	AHMEDABAD		
13	WATER PRE TREATMENT PLANT & LIQUID EFFLUENT TREATMENT PLANT L1 Level Vendor (Refer Note 1 & 2)	I		DRIPLEX	NEW DELHI	A	
		I		TRIVENI	NOIDA	A	
		I		BRIDGE & ROOF	KOLKATA	A	
		I		GEO MILLER	NEW DELHI	A	
		I		MCNALLY BHARAT	KOLKATA	A	
		I		VA TECH WABAG	PUNE	A	
		I		GANNON DUNKERLEY	NEW DELHI	A	
		I		UEM INDIA	NOIDA	A	
		I		ION EXCHANGE	MUMBAI	A	
		I		PARAMOUNT	VADODARA	DR	
		I		THERMAX	PUNE	DR	
		I		PBI ASSOCIATES	PUNE	DR	
		I		SHRI RAM EPC	CHENNAI	DR	
		I		CLEAR WATER	NEW DELHI	DR	
		I		AQUA DESIGN	CHENNAI	DR	
		I		VEOLIA INDIA PVT LTD	CHENNAI	DR	
14	DM PLANT (CONVENTIONAL ION EXCHANGE BASED) L1 Level Vendor (Refer Note 1 & 2)	I		THERMAX	PUNE	A	
		I		ION EXCHANGE	MUMBAI	A	
		I		DRIPLEX	NEW DELHI	A	
		I		PARAMOUNT	VADODARA	DR	
		I		AQUA DESIGN	CHENNAI	DR	
		I		V A TECH WABAG	PUNE	DR	
		I		AQUA TECH SYSTEMS	PUNE	DR	
		I		DOSHION	AHEMDABAD	DR	

Jatin (Jatin BHEL, PS)

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

NTPC	PROJECT: PATRATU STPP (3X800MW)) PACKAGE : EPC PACKAGE SUPPLIER : BHEL CONT. NO.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB- SUPPLIER APPROVAL	ANNEXURE- DOC. No. CS-9585-001-2 Revision No. : 00 DATE: 05/04/2017 PAGE : 6 OF 7

SL.NO.	ITEM	QP/INSPN CAT	QP NO.	PROPOSED SUBVENDORS BY MAIN CONTRACTOR	PLACE	SUB-SUPPLIER APPROVAL STATUS/ CATEGORY	REMARKS
		I		TRIVENI ENGG	NOIDA	DR	
		I		WIPRO	MUMBAI	DR	
15	DM PLANT (RO+MB PLANT) L1 Level Vendor (Refer Note 1 & 2)	I		TRIVENI	NOIDA	A	
		I		ION EXCHANGE	MUMBAI	A	
		I		DRIPLEX	NEW DELHI	A	
16	SEWAGE TREATMENT PLANT L1 Level Vendor (Refer Note 2)	I		VA TECH WABAG	PUNE	A	
		I		ION EXCHANGE	MUMBAI	A	
		I		TRIVENI	NOIDA	A	
		I		DRIPLEX	NEW DELHI	A	
		I		DECCAN	PUNE	A	
		I		THERMAX	PUNE	A	
		I		GEO MILLER	NEW DELHI	A	
17	CHLORINATION SYSTEM	TO BE PROPOSED AT LATER STAGE				A	

Bharat Heavy Electricals Limited PS-MKTG Delhi

NOTE-1: Subject to Sub-QR clearance by Engg as per Technical Specification

NOTE 2: Comprehensive L-2 list of sub-vendors shall be finalized with the finally selected L-1 vendor but prior to order finalization on L-1 vendor by the Bidder.

Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

NTPC	PROJECT: PATRATU STPP (3X800MW)) PACKAGE : EPC PACKAGE SUPPLIER : BHEL CONT. NO.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB- SUPPLIER APPROVAL	ANNEXURE- DOC. No. CS-9585-001-2 Revision No. : 00 DATE: 05/04/2017 PAGE : 7 OF 7

SL.NO.	ITEM	QP/INSPN CAT	QP NO.	PROPOSED SUBVENDORS BY MAIN CONTRACTOR	PLACE	SUB-SUPPLIER APPROVAL STATUS/ CATEGORY	REMARKS

1. SYSTEM SUPPLIER / SUB-SUPPLIERSTATUS CATEGORY (SHALL BE FILLED BY NTPC).

A – For those items proposed vendor accepted to NTPC. To be indicated with letter "A" in the list along with condition of approval, if any.

DR - for those items " Details Required " for NTPC review.

Noted: For those items accepted by NTPC without specific sub-vendor approval from NTPC and indicated as "NOTED" in the list.

2. INSPECTION CATEGORY:

CAT I : For those items the quality plans are approved by NTPC and final acceptance will be on physical inspection witness by NTPC.

CAT II : For those items the quality plans are approved by NTPC. However no physical inspection will be done by NTPC. The final acceptance by NTPC shall be on the basis of review of documents as per QP.

CAT III: For those items Main Supplier approves quality plans. The final acceptance by NTPC shall be on the basis of certificate of conformance by Main Supplier.

Main Contractor

(Jatin Gahlawat)
BHEL, PSM

NTPC	PROJECT: PATRATU STPP (3 X 800 MW)		LIST AND STATUS OF ITEM REQUIRING QP AND SUB-SUPPLIER APPROVAL		NTPC DOC NO:	CS-9585-001- 2	
	PACKAGE: EPC PACKAGE				REV. NO.	0	
	MAIN SUPPLIER: BHEL				DATE	10-Apr-17	
	CONTRACT NO.: CS-9585-001- 2				ANNEXURE		
SR. NO.	ITEM	QAP / INSP. CAT	QAP NO.	PROPOSED SUB SUPPLIER	PLACE OF MANUFACTURING	APPROVAL STATUS	REMARKS
1	Mill Reject Handling System L1 Level Vendor (Refer Note 1 & 2)	I		Macawber Beekay	Delhi	A	
		I		Xiamen Longking	China	A	
		I		Shanghai Sinofin New Energy Investment Company	China	DR	
		I		H V Equipments	Noida	A	
2	TG Hall EOT Cranes (Refer Note 1) & Lifting Beam	I		Mukand	Thane	A/DR	Approved Upto 300 Tons
		I		WMI Konecranes	Pune	A/DR	Approved Upto 300 Tons
		I		Anupam Industries	V U Nagar	A/DR	Approved Upto 300 Tons
		I		Unique Industries Handlers	Nasik	A/DR	Approved Upto 300 Tons
		I		HEC	Ranchi	A/DR	Approved Upto 265 Tons
3	Misc EOT Cranes (Sub-vendors indicated at Sl no 2 are also acceptable)	I		Tuobro Furguson India Pvt. Ltd	Kolkata	A/DR	Approved Upto 25 Tons
		I		FAFCO	Vadodara/Mumbai	A/DR	Vadodara works approved - upto 150 Tons, Mumbai - Upto 200 Tons
		I		Grip Engineers	Hyderabad	A/DR	Approved Upto 50 Tons
		I		Reva Industries	Faridabad	A/DR	Approved Upto 45 Tons
		I		Cranex	Sahibabad	A/DR	Approved Upto 35 Tons
		I		Electromech	Pune	DR	
		I		Rockwell Hoisto	Bahadurgarh	DR	
		I		Techno	Ahmedabad	DR	
		I		Mangla Hoist	Greater Noida	DR	
		I		Brady & Morris	Ahmedabad	DR	
		I		GMW	Vadodara	DR	
		I		Terex	Pune	DR	
		I		Meeka Machinery	Ahmedabad	DR	
		I		Safex	Ahmedabad	DR	
		I		Unicorn	Noida	DR	
		I		Henan Weihua	China	DR	
		I		Alpha Services	Bhiwadi	A/DR	Approved for Double Girder upto 40 Tons, Single Girder upto 15 Tons
		I		Century Crane Engineers	Ballabhgarh	A/DR	Approved Upto 30 Tons
4	Misc Electric Hoists	I		Brady & Morlis	Ahmedabad	A/DR	Approved Upto 10 Tons
		I		Consolidated Hoist	Pune / Satara	A/DR	Approved Upto 35 Tons at Satara & Upto 15 Tons at Pune works
		I		Tuobro Furguson India Pvt. Ltd	Kolkata	A/DR	Approved Upto 5 Tons
		I		Grip Engineers	Faridabad	A/DR	Approved Upto 20 Tons

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Dept.

		I		Techno	Ahmedabad	DR	
		I		Tractel Tirfor India Pvt. Ltd	Palwal	A/DR	Approved Upto 15 Tons
		I		Rockwell Hoisto	Bahadurgarh	DR	
		I		Universal Hoisto Fabrik	Thane	A/DR	Approved Upto 20 Tons
		I		Global Technologies	Hyderabad	DR	
		I		Mangla Hoist	Greater Noida	A/DR	Approved Upto 10 Tons
		I		Safex	Ahmedabad	DR	
		I		Meeka Machinery	Ahmedabad	DR	
		I		Reva Industries	Faridabad	A/DR	Approved Upto 25 Tons
		I		Eddy Cranes	Pune	A/DR	Approved Upto 14 Tons
		I		Alpha Services	Bhiwadi	A/DR	Approved Upto 15 Tons
		I		Century Crane Engineers	Ballabhgarh	A/DR	Approved Upto 25 Tons
		I		Grip Engineers	Hyderabad	A/DR	Approved Upto 40 Tons
5	Chain Pulley Block	I		Techno	Ahmedabad	DR	
		I		Brady & Morris	Ahmedabad	DR	
		II		Century Crane Engineers	Ballabhgarh	A/DR	Approved Upto 15 Tons
		I		Universal Hoisto Fabrik	Thane	DR	
		II		Tractel Tirfor India Pvt. Ltd	Kalyani	A/DR	Approved Upto 20 Tons
		I		Tuobro Furguson India Pvt. Ltd	Kolkata	DR	
6	Fire Tender	I		Wadia Bodybuilders	Ahmedabad	A	
		I		Ambala Coach	Ambala	A	
		I		Brijbasi Hi Tech	Mathura	DR	
		I		Vijay Fire	Umbergaon	A	

Note 1 : Subject to Sub-QR clearance by Engg as per Technical Specification

Note 2 : Comprehensive L-2 list of sub-vendors shall be finalized alongwith the finally selected L-1 vendor but prior to order finalization on L-1 vendor by the Bidder.

LEGENDS

1. SYSTEM SUPPLIER / SUB-SUPPLIER APPROVAL STATUS CATEGORY (SHALL BE FILLED BY NTPC)

A – For these items proposed vendor is acceptable to NTPC. To be indicated with letter "A" in the list alongwith the condition of approval, if any.

DR – For these items "Detailed required" for NTPC review. To be identified with letter "DR" in the list.

NOTED – For these items vendors are approved by Main Supplier and accepted by NTPC without specific vendor approval from NTPC. To be identified with "NOTED."

2. QP/INSPN CATEGORY:

CAT-I : For these items the Quality Plans are approved by NTPC and the final acceptance will be on physical inspection witness by NTPC.

CAT-II : For these items the Quality Plans approved by NTPC. However no physical inspection shall be done by NTPC. The final acceptance by NTPC shall be on the basis review of documents as per approved QP.

CAT-III : For these items Main Supplier approves the Quality Plans. The final acceptance by NTPC shall be on the basis certificate of conformance by the main supplier.

Patratu Vidyut Utpadan Nigam Limited * Distt-Ramgarh (Jharkhand) * C & M Deptt.

Bharat Heavy Electricals Limited * BS-MKTG Delhi

NTPC	PROJECT: PATRATU STPP (3 X 800 MW)		LIST AND STATUS OF ITEM REQUIRING QP AND SUB-SUPPLIER APPROVAL		NTPC DOC NO:	CS-9585-001- 2	
	PACKAGE: EPC PACKAGE				REV. NO.	0	
	MAIN SUPPLIER: BHEL				DATE	05-Apr-17	
	CONTRACT NO.: CS-9585-001- 2				ANNEXURE		
SR. NO.	ITEM	QAP / INSP. CAT	QAP NO.	PROPOSED SUB SUPPLIER	PLACE OF MANUFACTURING	APPROVAL STATUS	REMARKS
1	Coal Handling Plant L1 Level Vendor (Refer Note 1 & 2) & Limestone/ Gypsum Handling Plant L1 Vendor (Refer Note2)	I		BHEL - ISG	Bangalore	A	
2	Ash Handling System L1 Level Vendor (Refer Note 1 & 2)	I		DCIPS	Kolkata	A	
		I		MBE	Kolkata	A	
		I		Macawber Beekay	Delhi	A	
		I		Mcgale Pneumatic	Nagpur	DR	
		I		UCC	USA / India	DR	
		I		BHEL-ISG	Bangalore	DR	
		I		Indure	Delhi	A	
2a	Dry Bottom Ash Handling System L1 Level Vendor (Refer Note 1 & 2)	I		Magaldi System	Italy	DR	
		I		Clyde Bergman	India	DR	
		I		China DatangTechnological & Engineering Co.	China	DR	
		I		Nari Futong Science and Technology Development Co. Ltd.	China	DR	

Note 1 : Subject to Sub-QR clearance by Engg as per Technical Specification

Note 2 : Comprehensive L-2 list of sub-vendors shall be finalized alongwith the finally selected L-1 vendor but prior to order finalization on L-1 vendor by the Bidder.

LEGENDS

1. SYSTEM SUPPLIER / SUB-SUPPLIER APPROVAL STATUS CATEGORY (SHALL BE FILLED BY NTPC)

A – For these items proposed vendor is acceptable to NTPC. To be indicated with letter "A" in the list alongwith the condition of approval, if any.

DR – For these items "Detailed required" for NTPC review. To be identified with letter "DR" in the list.

2. QP/INSPN CATEGORY:

CAT-I : For these items the Quality Plans are approved by NTPC and the final acceptance will be on physical inspection witness by NTPC.

CAT-II : For these items the Quality Plans approved by NTPC. However no physical inspection shall be done by NTPC. The final acceptance by NTPC shall be on the basis review of documents as per approved QP.

CAT-III : For these items Main Supplier approves the Quality Plans. The final acceptance by NTPC shall be on the basis certificate of conformance by the main supplier.

5th April 2017 (INDRAJIT DEY)

Patratu Vidyut Utpadan Nigam Limited * Dist.-Ramgarh (Jharkhand) * C & M Deptt. Page 1 of 1

5/4/17 (ANSHUL JAIN) BHEL-ISG

Bharat Heavy Electricals Limited PS-MKTG Delhi

एनटीपीसी NTPC	PROJECT: PATRATU STPP (3 X 800 MW)		LIST AND STATUS OF ITEM REQUIRING QP AND SUB-SUPPLIER APPROVAL		NTPC DOC NO:	CS-9585-001- 2	
	PACKAGE: EPC PACKAGE				REV. NO.	0	
	MAIN SUPPLIER: BHEL				DATE	05-Apr-17	
	CONTRACT NO.: CS-9585-001- 2				ANNEXURE		
SR. NO.	ITEM	QAP / INSP. CAT	QAP NO.	PROPOSED SUB SUPPLIER	PLACE OF MANUFACTURING	APPROVAL STATUS	REMARKS
1	Fire Protection & Detection System L1 Level Vendor (Refer Note 1 & 2)	I		Lloyd Insulations	Delhi	A	
		I		Minimax GmbH	Germany	A	
		I		Tyco Fire & Security	Bangalore	A	
		I		Hitek Engineering	Mumbai	A	
		I		UTC Fire & Security	Gurgaon	A	
		I		Unitech Machines	Gurgaon	A	
		I		Mehta & Associates	Ahmedabad	A	
		I		Sureland	China	A	
		I		Consilium Middle East	UAE	A	
		I		Sterling & Wilson	Kolkata	A	
		I		Mx Systems International	Mumbai	A	
		I		Agince Fire Protection	Chennai	DR	
		I		Thermosystems	Hyderabad	A	
		I		BHEL - Hyderabad	Hyderabad	A	
		I		Technofab	Faridabad	A	
		I		Mather & Platt	Pune	A	

Note 1 : Subject to Sub-QR clearance by Engg as per Technical Specification

Note 2 : Comprehensive L-2 list of sub-vendors shall be finalized alongwith the finally selected L-1 vendor but prior to order finalization on L-1 vendor by the Bidder.

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Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

(Jatin Gahlawat)
(BHEL, PS-MKTG)

एनटीपीसी NTPC	PROJECT :PATRATU STPP (3X800 MW) PACAKGE : EPC Sub Package: Elevators CONTRACTOR : M/S BHEL CONT. NO. CS-9585-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR CONTRACTOR : M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE: 24TH April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS	PLACE	SUB- SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
1)	ELEVATOR	I				ECE	GHAZIABAD	A		
		I				TECHNO	AHMEDABAD	A		
		I				OTIS	MUMBAI	A		
		I				KONE	CHENNAI	A		
		I				OMEGA	AHMEDABAD	A		
		I				SAMIL ELTEC	KOREA	A		
						JOHNSON	CHENNAI / NAGPUR	DR		
						SCHINDLER	MUMBAI	DR		

Jatin
24/04/17

(JATIN GAHLAWAT)
BHEL

Bharat Heavy Electricals Limited ★ PS-MKTG Delhi

★ Patratu Vidyut Utpadan Nigam Limited ★ Distt-Ramgarh (Jharkhand) C & M Deptt.

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
1	STATOR FRAME FABRICATION	I		BHEL-HEEP	HARDWAR	A	
2	STATOR FRAME MACHINING	I		BHEL-HEEP	HARDWAR	A	
3	SPRING BASKET	I		BHEL-HEEP	HARDWAR	A	
4	CORE BAR	I		BHEL-HEEP	HARDWAR	A	
5	STATOR LAMINATION	I		BHEL-CSU	JAGDISHPUR	A	
6	FLUX TRAP	I		BHEL-HEEP	HARDWAR	A	STAMPINGS FROM CSU JAGDISHPUR
7	RIPPLE SPRING	II		KREMPAL GMBH	GERMANY	A	NO SEP QP
7	RIPPLE SPRING	*		SIEMENS LIMITED	INDIA	DR	
8	TENSION BOLT FOR STATOR CORE (INSULATED)	II		BHEL-HEEP	HARIDWAR	A	
9	STATOR CORE ASSLY	I		BHEL-HEEP	HARDWAR	A	
10	FLAT SPRINGS AND BASKET ASEMBLY	I		BHEL-HEEP	HARDWAR	A	
11	BUS BAR CONNECTION TUBES	II		LUVATA PORI	FINLAND	A	NO SEPARATE QP
11	BUS BAR CONNECTION TUBES	II		BUNT METAL	AUSTRIA	A	
11	BUS BAR CONNECTION TUBES	II		KME GERMANY GMBH & CO. KG	GERMANY	A	
11	BUS BAR CONNECTION TUBES	*		HAEGANG ALLOY CO. LTD.	KOREA	DR	
12	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	I		PEARL INSULATIONS	BANGLORE	A	
12	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	I		MAHENDRA INDUSTRIES	BANGLORE	A	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

05.04.17 (S K Chauhan)

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
12	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	II		VONROLL	SWITZERLAND	A	NO SEP QP
12	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	II		GEBAUER & GRILLER	AUSTRIA	A	NO SEP QP
13	HOLLOW SS CONDUCTOR (STATOR BAR)	II		FINE TUBES LTD.	ENGLAND	A	NO SEP QP
13	HOLLOW SS CONDUCTOR (STATOR BAR)	II		SIEMENS AG	GERMANY	DR	
14	MICA SPLITTING INSULATING TAPE	II		ISOVOLTA (I) PVT. LTD.,	NASIK	A	NO SEP QP
14	MICA SPLITTING INSULATING TAPE	*		LAKSHMANAN ISOLA PVT LTD	BANGLORE	DR	
15	OVER HANG SUPPORT RING	II		ROECHLING ENGINEERING PLASTICS	GERMANY	A	NO SEP QP
15	OVER HANG SUPPORT RING	II		POWER & COMPOSITE TECHNOLOGIES	USA	A	NO SEP QP
15	OVER HANG SUPPORT RING	*		KOMPOZYTY SP.Z.O.O	POLAND	DR	
15	OVER HANG SUPPORT RING	*		NANTONG DAWNTINE ELECTRICAL	CHINA	DR	
16	STATOR SLOT WEDGE (RAW MATERIAL)	II		PERMALI WALLACE PRIVATE	BHOPAL	A	NO SEP QP
16	STATOR SLOT WEDGE (RAW MATERIAL)	II		MICAPLY	BHOPAL	A	NO SEP QP
16	STATOR SLOT WEDGE (RAW MATERIAL)			LAMTUF PLASTICS LTD	HYDERABAD	DR	
16	STATOR SLOT WEDGE (RAW MATERIAL)			THE BOMBAY BURMAH TRADING CORP	RUDRAPUR	DR	
17	WATER SUPPLY HOSE (INSULATED)	II		DR SCHNABEL GMBH & CO KG LIMBURG	GERMANY	A	NO SEP QP

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Ltd. C & M Deptt. Distt-Ramgarh (Jharkhand)

05.04.17

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
17	WATER SUPPLY HOSE (INSULATED)	II		CRANE RESISTOFLEX	USA	A	NO SEP QP
17	WATER SUPPLY HOSE (INSULATED)	I		MIL INDUSTRIES LIMITED	CHENNAI	A	
18	FIELD LEAD CORE BAR	II		KME	GERMANY	DR	NO SEP QP
19	CONTACT BOLT (RAW MATERIAL)	II		SOCIETA METALLURGICA	ITALY	A	NO SEP QP
19	CONTACT BOLT (RAW MATERIAL)	II		BUNT METAL	AUSTRIA	A	NO SEP QP
19	CONTACT BOLT (RAW MATERIAL)	*		KME	GERMANY	DR	
20	HEADER FOR STATOR (ASSEMBLY)	I		BHEL-HEEP	HARDWAR	A	
21	ETS MATERIAL	II		THYSSEN KRUPP ELECTRICAL STEEL	NASIK	A	NO SEP QP
21	ETS MATERIAL	II		ARCELOR MITTAL INTERNATIONAL	LUXAMBOURG	A	NO SEP QP
21	ETS MATERIAL	II		THYSSENKRUPP MATERIAL TRADING	GERMANY	A	NO SEP QP
21	ETS MATERIAL	II		VOESTALPINE	AUSTRIA	DR	
21	ETS MATERIAL	II		ALLOVERZE	GERMANY	A	NO SEP QP
22	BAFFLE RING & BAFFLE RING CARRIER MACHINING	I		BHEL-HEEP	HARDWAR	A	
23	CORE PRESS RING	II		BHEL-HEEP	HARDWAR	A	NO SEP QP
24	HEADER TUBES	II		BHEL APPROVED SOURCE		A	NO SEP QP
25A	SS WATER BOX FOR STATOR BARS (TOP PART)	*		INVESTMENT & PRECISION	BHAVNAGAR (GUJARAT)	DR	
25A	SS WATER BOX FOR STATOR BARS (TOP PART)	II		ZOLLERN GMBH & CO	GERMANY	DR	NO SEP QP
25A	SS WATER BOX FOR STATOR BARS (TOP PART)	II		SIEMENS AG	GERMANY	A	NO SEP QP
25A	SS WATER BOX FOR STATOR BARS (TOP PART)	I		PTC	NORTH GUJRAT	DR	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt.

05.04.17

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
25B	SS WATER BOX FOR STATOR BARS (BOTTOM PART)	II		WERNER GIETZNAUER	GERMANY	A	NO SEP QP
25B	SS WATER BOX FOR STATOR BARS (BOTTOM PART)	*		SIEMENS LIMITED	INDIA	DR	
25B	SS WATER BOX FOR STATOR BARS (BOTTOM PART)	II		SIEMENS AG	GERMANY	A	NO SEP QP
26	STATOR WINDING BAR	I		BHEL-HEEP	HARDWAR	A	
27	STATOR WINDING ASSEMBLY	I		BHEL-HEEP	HARDWAR	A	
28	GENERATOR SHAFT FORGING	II		BUDERUS EDELSTAHL	GERMANY	A	
28	GENERATOR SHAFT FORGING	II		JSW	JAPAN	A	
28	GENERATOR SHAFT FORGING	II		SAARSCHMIEDE	GERMANY	A	
28	GENERATOR SHAFT FORGING	II		JCFC	JAPAN	A	
28	GENERATOR SHAFT FORGING	II		CHINA FIRST HEAVY INDUSTRIES	CHINA	A	
28	GENERATOR SHAFT FORGING	*		CHINA NATIONAL ERZHONG GROUP	CHINA	DR	
28	GENERATOR SHAFT FORGING	*		UMP TRADING (Manufacturer: JSC ENERGOMASHPETSTAL UKRAINE)	SWITZERLAND	DR	
28	GENERATOR SHAFT FORGING	*		SHAANXI SENWELL	CHINA	DR	
28	GENERATOR SHAFT FORGING	*		SHEFFIELD FORGEMASTERS	UK	DR	
28	GENERATOR SHAFT FORGING	II		SDF-TURNI	ITALY	A	
28	GENERATOR SHAFT FORGING	*		S C DOOSAN	KOREA	DR	
29	GENERATOR SHAFT MACHINING	I		BHEL-HEEP	HARDWAR	A	
30	CURRENT CARRYING BOLTS FOR ROTOR	I		BHEL HEEP	HARDWAR	A	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

05-04-17

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
31	ROTOR COIL FORMING	I		BHEL HEEP	HARDWAR	A	
32	ROTOR SLOT ANGLE	I		SAHNEY KIRKWOOD PVT. LTD.	NEW DELHI	A	
32	ROTOR SLOT ANGLE	II		ABB SWITZERLAND LTD.	SWITZERLAND	A	NO SEP QP
32	ROTOR SLOT ANGLE	II		VON ROLL ISOLA	FRANCE	A	NO SEP QP
32	ROTOR SLOT ANGLE	II		POWER & COMPOSITE TECHNOLOGIES	USA	DR	
33	FIELD LEAD CORE BAR MACHINING	I		BHEL-HEEP	HARDWAR	A	
34	RETAINING RING MACHINING	I		BHEL-HEEP	HARDWAR	A	
35	RETAINING RING	II		SAARSCHMIEDE	GERMANY	A	NO SEP QP
35	RETAINING RING	II		ENERGIETECHNIK	GERMANY	A	NO SEP QP
35	RETAINING RING	II		JSW	JAPAN	A	NO SEP QP
35	RETAINING RING	*		AUBERT & DUVAL	FRANCE	DR	
35	RETAINING RING	*		DEYANG WANXIN	CHINA	DR	
36	FAN BLADE FOR COMPRESSOR M/C	I		BHEL-HEEP	HARDWAR	A	
37	FAN BLADE FOR COMPRESSOR (RAW MATERIAL) HW10786 –X20Cr 13	I					Refer ST List for same grade material for blade bars
38	ROTOR WINDING ASSLY.(GEN.)	I		BHEL HEEP	HARDWAR	A	
39	GENERATOR ROTOR -FINAL	I		BHEL-HEEP	HARDWAR	A	
40	BEARING SHELL FORGING (GENERATOR)	I		BHEL-CFFP	HARDWAR	A	
41	BEARING COMPLETE (EXCITER)	*		SIEMENS LIMITED	INDIA	DR	
41	BEARING COMPLETE (EXCITER)	II		RENK AG	GERMANY	A	
41	BEARING COMPLETE (EXCITER)	II		ZOLLERN	BRAZIL	A	
41	BEARING COMPLETE (EXCITER)	II		EURO BEARINGS	ITALY	A	

Bharat Heavy Electricals Limited PS-MKTG Delhi

05.04.17

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
42	HIGH PRESSURE HOSES FOR BEARING PEDESTAL	*		ORIENTAL ENGINEERING WORKS	YAMUNANAGAR	DR	
42	HIGH PRESSURE HOSES FOR BEARING PEDESTAL	II		PARKER HANNIFINE	GERMANY	A	THROUGH PARKER HANNIFINE INDIA. NO SEP QP
42	HIGH PRESSURE HOSES FOR BEARING PEDESTAL	*		HYDRAULIC TECHNIK	GERMANY	DR	THROUGH SMT , HARIDWAR
43	END SHIELD FABRICATION &MACHINING	I		BHEL-HEEP	HARDWAR	A	
44	SHAFT SEAL ASSEMBLY	I		BHEL-HEEP	HARDWAR	A	
45	BEARING ASSEMBLY	I		BHEL-HEEP	HARDWAR	A	
46	COMPRESSOR HUB M/C & ASSEMBLY	I		BHEL-HEEP	HARDWAR	A	
47	HYDROGEN COOLER	I		BHEL-HEEP	HARIDWAR	A	
47	HYDROGEN COOLER	*		LORD VISHWAKARMA HEAT EXCHANGER	KANKHAL (HARIDWAR)	DR	
47	HYDROGEN COOLER	*		LAXMI ENGINEERING INDUSTRIES	BHOPAL	DR	
47	HYDROGEN COOLER	*		FITWELL CORPORATION	BHOPAL	DR	
48	DC LEAD ASSLY	I		BHEL-HEEP	HARDWAR	A	
49	TUBES FOR COOLERS (BRASS / COPPER TUBES)	II		MULTIMETALS	KOTA	A	NO SEP QP
49	TUBES FOR COOLERS (BRASS/ COPPER TUBES)	II		METAL ALLOYS	JAMNAGAR	A	NO SEP QP
49	TUBES FOR COOLERS (BRASS/ COPPER TUBES)	*		MEHTA TUBES	VAPI	DR	
49	TUBES FOR COOLERS (BRASS/ COPPER TUBES)	*		ITM	MUMBAI	DR	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Ltd. C & M Deptt. 05.04.17

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
50	FINNING OF COOLER TUBES	I		LAXMI ENGINEERING INDUSTRIES	BHOPAL	A	
50	FINNING OF COOLER TUBES	I		LORD VISHWAKARMA HEAT EXCHANGE	HARDWAR	A	
50	FINNING OF COOLER TUBES	I		FITWELL CORPORATION	BHOPAL	A	
51	TERMINAL BOX FABRICATION AND MACHING	I		BHEL-HEEP	HARDWAR	A	
52	CONFORMABLE ROPE	II		BIW	GERMANY	A	NO SEP QP
52	CONFORMABLE ROPE	II		TEXPLAS	HARDWAR	A	NO SEP QP
52	CONFORMABLE ROPE	II		SUMICA	HARDWAR	A	NO SEP QP
53	INSULATING BOLTS (RAW MATERIAL)	II		BHEL APPROVED SOURCES		A	NO SEP QP
54	PW FITER, FINE FILTER, OIL FILTER	II		HYDAC (INDIA) PVT. LTD.	INDIA	DR	
54	PW FITER, FINE FILTER, OIL FILTER	II		BOLL & KIRCH FILTERBAU GMBH	GERMANY	A	NO SEP QP
54	PW FITER, FINE FILTER, OIL FILTER	II		L&Z VERFAHRENSTECHNIK GMBH	GERMANY	DR	NO SEP QP
54	PW FITER, FINE FILTER, OIL FILTER	*		SIEMENS LIMITED	INDIA	DR	
55	P W TANK INCLUDING PW PIPING	I		BHEL-HEEP	HARDWAR	A	
56	VAPOUR EXHAUSTER	II		CB DOCTOR	AHEMDABAD	A	
56	VAPOUR EXHAUSTER	II		S.K SYSTEM	DELHI	A	
56	VAPOUR EXHAUSTER	II		AIR LINK	MATHURA	A	
56	VAPOUR EXHAUSTER	II		DUSTECH	FARIDABAD	A	
57	ION EXCHANGER	I		THERMAX LTD.	PUNE	A	
57	ION EXCHANGER	*		SIEMENS LIMITED	INDIA	DR	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt. Ramgarh (Jharkhand)

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
57	ION EXCHANGER	*		CHEM PROCESS	AHMEDABAD	DR	
57	ION EXCHANGER	*		H K ENTERPRISES	AHMEDABAD	DR	
58	PW PUMP & FILTER UNIT PIPING	I		BHEL-HEEP	HARDWAR	A	
59	PW COOLER FOR STATOR	I		BHEL-HEEP	HARDWAR	A	
59	PW COOLER FOR STATOR	I		ALFA LAVAL (INDIA) LIMITED	PUNE	A	
59	PW COOLER FOR STATOR	I		I.D.M.C. LTD	GUJRAT	DR	
59	PW COOLER FOR STATOR	I		TRANTER INDIA PVT. LIMITED	PUNE	A	
59	PW COOLER FOR STATOR	I		KELVION INDIA (GEA)	PUNE	A	
59	PW COOLER FOR STATOR	*		HRS PROCESS SYSTEMS LIMITED	PUNE	DR	
60	TERMINAL BUSHING	*		SIEMENS LIMITED	INDIA	DR	
60	TERMINAL BUSHING	II		TRENCH FRANCE SAS	FRANCE	A	NO SEP QP
60	TERMINAL BUSHING	II		HSP HOCHSPANNUNGSGERAETE GMBH	GERMANY	A	NO SEP QP
60	TERMINAL BUSHING	*		SUZHOU JIU & ZHENG ELECTRIC CO	CHINA	DR	
62	HYDROGEN DRIER (REFRIGERANT TYPE)	I		JINDAL ELECTRONICS	ROORKEE	A	
62	HYDROGEN DRIER (REFRIGERANT TYPE)	I		MELLCON ENGS PVT	NEW DELHI	A	
62	HYDROGEN DRIER (REFRIGERANT TYPE)	I		SPAN	ROORKEE	A	
63	SEAL OIL COOLER	I		ALFA LAVAL (INDIA) LIMITED	PUNE	A	
63	SEAL OIL COOLER	I		BHEL-HEEP	HARDWAR	A	
63	SEAL OIL COOLER	I		TRANTER INDIA PVT. LIMITED	PUNE	A	
63	SEAL OIL COOLER	I		KELVION INDIA (GEA)	PUNE	A	
63	SEAL OIL COOLER	*		I.D.M.C. LTD	GUJRAT	DR	

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt.

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NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
63	SEAL OIL COOLER	*		HRS PROCESS SYSTEMS UMITED	PUNE	DR	
64	SEAL OIL PUMP	I		TUSHACO PUMPS	DAMAN	A	
64	SEAL OIL PUMP	I		UT PUMPS	FARIDABAD	DR	
64	SEAL OIL PUMP	*		ALEKTON	CHENNAI	DR	
64	SEAL OIL PUMP	*		HUANGSHAN	CHINA	DR	
64	PRIMARY WATER PUMP	I		KSB INDIA	PUNE	A	
64	PRIMARY WATER PUMP	I		SULZER INDIA	NAVI MUMBAI	A	
64	PRIMARY WATER PUMP	*		WPIL LTD.	GHAZIABAD	DR	
65	H2/CO2/N2/ CYLINDER	II		BPCL	ALLAHABAD	A	
65	H2/CO2/N2/ CYLINDER	II		EVEREST KANTO	BOMBAY	A	
65	H2/CO2/N2/ CYLINDER	II		SARJU IMPEX LTD	GUJRAT	A	
65	H2/CO2/N2/ CYLINDER	*		RAMA CYLINDER	GUJRAT	DR	
66	SEAL OIL UNIT & PIPING	I		BHEL-HEEP	HARDWAR	A	
66	SEAL OIL STORAGE TANK	I		BHEL-HEEP	HARDWAR	A	
67	GAS UNIT & PIPING	I		BHEL-HEEP	HARDWAR	A	
68	CO2 VAPOURISER	I		BHEL-HEEP	HARDWAR	A	
69	GENERATOR ASSEMBLY AT WORKS INCLUDING TERMINAL BUSHING	I		BHEL-HEEP	HARDWAR	A	
70	SILVER BEARING COPPER HOLLOW STRIPS (ROTOR COIL)	II		BUNT METAL	AUSTRIA	A	NO SEP QP
70	SILVER BEARING COPPER HOLLOW STRIPS (ROTOR COIL)	II		BOASHIDA SWISS METAL	SWITZERLAND	A	NO SEP QP
71	MULTI CONTACT BAND	III		MULTI CONTACT BAND	GERMANY	A	NO SEPARATE QP
72	WEDGES FOR ROTOR (DAMPER +SLOT)	II		KM EUROPA	GERMANY	A	NO SEP QP
72	WEDGES FOR ROTOR (DAMPER +SLOT)	II		BOASHIDA SWISS METAL	SWITZERLAND	A	NO SEP QP

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05.04.17

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NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
72	WEDGES FOR ROTOR (DAMPER +SLOT)	*		ORIENTAL COPPER	THAILAND	DR	For Damper Wedge Only
72	WEDGES FOR ROTOR (DAMPER +SLOT)	II		LUVATA (OUTO KUMPU PORI)	FINLAND	A	NO SEP QP
72	WEDGES FOR ROTOR (DAMPER +SLOT)	II		BUNT METAL	AUSTRIA	A	NO SEP QP
73	LT MOTORS	II		REFER TO BHEL PEM LIST		A	
74	GENERAOR WORKS RUN TEST	I		BHEL HEEP	HARDWAR	A	
75	RUBBER ITEM	III		BHEL APPROVED SOURCES		A	
76	EXCITER SHAFT MACHINING	I		BHEL-HEEP	HARDWAR	A	
77	EXCITER STATOR MAIN	I		BHEL-HEEP	HARDWAR	A	
78	EXCITER STATOR PILOT	I		BHEL-HEEP	HARDWAR	A	
79	EXCITER ROTOR BALANCING	I		BHEL-HEEP	HARDWAR	A	
80	RECTIFIER WHEEL MACHING & ASSLY	I		BHEL-HEEP	HARDWAR	A	
81	DC LEAD ASSLY FOR EXCITER	I		BHEL-HEEP	HARDWAR	A	
82	EXCITER ASSLY (MAIN & PILOT)	I		BHEL-HEEP	HARDWAR	A	
83	EXCITER AIR COOLER	I		BHEL-HEEP	HARIDWAR	A	
83	EXCITER AIR COOLER	I		LORD VISHWAKARMA HEAT EXCHANGER	KANKHAL (HARIDWAR)	DR	
83	EXCITER AIR COOLER	I		LAXMI ENGINEERING INDUSTRIES	BHOPAL	DR	
83	EXCITER AIR COOLER	I		FITWELL CORPORATION	BHOPAL	DR	
84	EXCITER TEST RUN	I		BHEL-HEEP	HARDWAR	A	
85	FORGING FOR MAGNETIC HUB, CENTERING RING, INTERMEDIATE RING, CARRIER HUB, COMPRESSOR HUB,DIODE WHEEL	II		BHEL-CFFP	HARDWAR	A	

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. 05.04.17 Distt. Ramgarh (Jharkhand)

NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
86	Machining of MAGNETIC HUB, CENTERING RING, INTERMEDIATE RING, CARRIER HUB, DIODE WHEEL	II		BHEL-HEEP	HARDWAR	A	
87	MAGNET (MATERIAL ONLY)	II		THYSEEN KRUPP MAGNETTECHNIC	GERMANY	A	NO SEP QP
87	MAGNET (MATERIAL ONLY)	II		HANGZHOU PERMANENT MAGNET GROU	CHINA	A	NO SEP QP
87	MAGNET (MATERIAL ONLY)	*		SIEMENS LIMITED	INDIA	DR	
87	PERMANENT MAGNET & SHOE ASSLY FOR EXCITER	I		BHEL-HEEP	HARDWAR	A	
88	MAIN EXCITER ARMATURE WINDING	I		BHEL-HEEP	HARDWAR	A	
89	BALANCING RING	II		SCHMOLZ+BICKENBECH	GERMANY	A	NO SEP QP
89	BALANCING RING	II		RV ENGG	BALLABHGARH	A	NO SEP QP
90	BED PLATE FABRICATION	II		BHEL APPROVED SOURCE		A	
91	EXCITER CORE PRESS RING	*		SOUTHERN ALLOY FOUNDERIES PVT LTD	CHENNAI	DR	
91	EXCITER CORE PRESS RING	*		RATAN ENGINEERING	NEW DELHI	DR	
91	EXCITER CORE PRESS RING	II		SCHMOLZ+ BICKENBECH	GERMANY	A	NO SEP QP
91	EXCITER CORE PRESS RING	II		RV ENGG	BALLABHGARH	A	NO SEP QP
92	EXCITER FRAME (MAIN & PILOT)	I		BHEL-HEEP	HARDWAR	A	
93	RC BLOCK	I		ZENTRONICS SYSTEMS	HYDERABAD		
93	RC BLOCK	I		SIEMENS LIMITED	INDIA	DR	
94	EXCITER SHAFT FORGING	II		ALL SUPPLIERIS OF GENERATOR SHAFT FORGING		A	NO SEP QP
94	EXCITER SHAFT FORGING	I		BHEL CFFP	HARIDWAR	A	
94	EXCITER SHAFT FORGING	I		BHARAT FORGE	PUNE	A	

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Vidyut Utpadan Nigam Limited Distt.-Ramgarh (Jharkhand) C&M Dept.

R. Sharma 05.04.17

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NTPC	PROJECT: PATRATU 3X800 MW PACKAGE: TG CONTRACTOR: BHEL HARIDWAR CONTRACT NO.: 9595 001-110	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYSTEM: TG & AUX	REF NO. : REV NO.: DATE 05.04.17

Sl No.	Item	QP Insp.Cat.	NTPC QP No. QVE-Q-	Vendor/ Manufacturer Name	Place	SC_APPL_STATUS	Remarks
94	EXCITER SHAFT FORGING	*		MACKEIL ISPAT	KOLKATA	DR	
94	EXCITER SHAFT FORGING	*		OFAR S.P.A	ITALY	DR	

NOTE 1: IN ADDITION TO ABOVE SOURCES BHEL MAY PROCURE ITEMS FROM SIEMENS, SIEMENS APPROVED SOURCES . BHEL TO SUBMIT DOCUMENTS IN SUPPORT OF SIEMENS APPROVED SOURCE.

NOTE 2: LT MOTORS UPTO 30 KW SHALL BE ACCEPTED BASED ON COC OF MANUFACTURER TC AND CONTRACTOR CONFIRMING AS FOLLOWS: IT IS HEREBY CONFIRMED THAT ABOVE MENTIONED MOTOR/ MOTORS WAS/ WERE MANUFACTURED TAKING CARE OF NTPC SPECIFIC REQUIREMENTS REGARDING ABMIENT TEMP, VOLTAGE FREQUENCY VARIATION , HOT STARTS, PULL OUT TORQUES, STARTING KVA/ KW, TEMP RISE, DISTANCE BETWEEN CENTREOF STUD GLAND PLATE, SPACE HEATER AND TESTED IN ACCORDANCE WITH APPROVED DRAWING/ DATA SHEETS AND LT MOTORS ABOVE 30 KW ACCEPTANCE SHALL BE BASED ON NTPC REVIEW OF ROUTINE TEST INSPECTION REPORT AS PER IS 325 BY MAIN MOTOR/ MOTORS WAS/WERE MANUFACTURED TAKING CARE OF NTPC SPECIFIC REQUIREMENTS REGARDING AMBIENT TEMP, OLTAGE FREQUENCY AND TESTED IN ACCORDANCE WITH APPROVED DRAWINGS/ DATA SHEETS AND LT MOTORS. FOR > 50KW, SEPARATE QP TO BE SUBMITTED

NOTE 3: QP/ INSPECTION CAT-I QP APPROVAL AND INSPECTION BY NTPC: QP/ INSPECTION CAT-II QP APPROVAL BY NTPC, NO PHYSICAL INSPECTION BY NTPC. ACCEPTANCE BASED ON REVIEW OF CONTRACTOR INSPECTION REPORT/ TC. : QP/INSPECTION CAT-III NO QP APL AND INSPECTION BY NTPC, ACCEPTANCE BASED ON REVIEW OF COC BY BHEL.

NOTE 4: A* MEANS SUPPLY EXPERIENCE OF COMPARABLE UNIT TO BE FURNISHED TO NTPC

NOTE 5: * - Inspection category will be decided during vendor evaluation.

** LOCATION TO BE INFORMED LATER

05.04.17

Patratu Vidyut Utpadan Nigam Limited * Distt-Ramgarh (Jharkhand) * C & M Deptt.

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NTPC

PROJECT: Patratu Stage I
Package: STEAM TURBINE GENERATOR
CONTRACTOR: SIEMENS AG
CONT_NO:

LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL

SUB SYST GENERATOR AND AUX

Ref No: IN1141 000
Revision No: 00
Date: ~~12.10.2016~~ 04.04.17

SR - NO	ITEM	QP /INS- -PN CAT *	QP NO. 3530-110	QP SUB-MISSION SCHEDU -LE	QP APPL SCHED ULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHED ULE	SS APPL SCHED ULE	APPROVAL STATUS
1	STATOR FRAME FABRICATION	II				ANDRITZ KFT	UNGARN				A
		II				TURBOCARE	POLAND				A
		II				ENERGY EN	SOUTH KOREA				A*
2	STATOR FRAME MACHINING	I				ANDRITZ KFT	UNGARN				A
		I				TURBO CARE	POLAND				A
3	SPRINGS SPRING BASKET ASSLY	II				GEILTZENAUR	DUISBURG/ GERMANY				A
		II				TURBO CARE	POLAND				A
4	CORE BEAM DOVETAIL FOR STATOR	II				GEILTZENAUR	DUISBURG/ GERMANY				A
5	STATOR LAMINATION	I				SIEMENS AG	ERFURT				A
6	FLUX CAP	II					TBD				A
7	TENSION BOLT FOR STATOR CORE(INSULATED)	II				SIEMENS AG	ERFURT				A
8	STATOR CORE	I				SIEMENS AG	MUELHEIM				A
9	STATOR BARS	I				SIEMENS AG	ERFURT GERMANY				A
10	HEADER TUBES (ASSY)	II				DR SCHNABEL	PFORZHEIM/GERMANY				A
11	HEADER FOR STATOR	II					TBD				A

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

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SIEMENS AG Signature

(BHEL/HARIDWAR)

एनटीपीसी NTPC	PROJECT: Patratu Stage I Package: STEAM TURBINE GENERATOR CONTRACTOR: SIEMENS AG CONT_NO:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYST GENERATOR AND AUX	Ref No: IN1141 000 Revision No: 00 Date: 12-10-2016

SR - NO	ITEM	QP /INS- -PN CAT *	QP NO. 3530-110	QP SUB-MISSION SCHEDU -LE	QP APPL SCHED ULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHED ULE	SS APPL SCHED ULE	APPROVAL STATUS
12	OVER HANG SUPPORT RING	II				ROCHLING	HAREN				A
13	RIPPLE SPRING	II				KREMPEL	WEHINGEN/GERMANY				A
14	STATOR WINDING ASSEMBLY INCL RIPPLE SPRING & O/H SUPPORTS	I				SIEMENS AG	MUELHEIM				A
15	GENERATOR SHAFT FORGING	II				SDF TURNI	ITALIA				A
		II				SAARSCHMIEDE	VOLKINGEN				A
16	GENERATOR SHAFT MACHINING	I				SIEMENS AG	ERFURT				A
17	INSERT RING	II				SIEMENS AG	ERFURT				A
18	RETAINING RING	I				SIEMENS AG	ERFURT				A
19	MICA FLEECE&SPLITTING INSULATION TAPE	II				VON ROLL	OSTERREICH				A
		II				ISOVOLTA	SCHWEIZ				A
20	SILVER BEARING COPPER HOLLOW STRIPS (ROTOR COIL)	II				BUNTMETALL	OSTERREICH				A
21	FIELD LEAD CORE BAR FOR ROTOR AND EXCITOR	II				SIEMENS AG	ERFURT				A
22	TENSION BOLT FOR ROTOR	II				LAUMEN	MULHEIM				A
		II				HELLER	ARNSTADT				A
		II				STAHLBERG	LANGENFELD				A

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R. Sharma

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SIEMENS AG Signature

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited (Distt-Ramgarh Jharkhand) C & M Deptt.

एनटीपीसी NTPC	PROJECT: Patratu Stage I Package: STEAM TURBINE GENERATOR CONTRACTOR: SIEMENS AG CONT_NO:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYST GENERATOR AND AUX	Ref No: IN1141 000 Revision No: 00 Date: 12-10-2016

SR - NO	ITEM	QP /INS- -PN CAT *	QP NO. 3530-110	QP SUB-MISSION SCHEDU -LE	QP APPL SCHED ULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHED ULE	SS APPL SCHED ULE	APPROVAL STATUS
23	CURRENT CARRYING BOLTS FOR ROTOR	II				GEILTZENAUR	DUISBURG/ GERMANY				A
24	ROTOR COIL FORMING	II				SIEMENS AG	MUELHEIM				A
25	WEDGES FOR ROTOR	II				BUNTMETALL KME	OSTERREICH GERMANY				A
26	ROTOR SLOT ANGLE	II				VON ROLL	GERMANY				A
		II				MICAFIL	SCHWEIZ				A
27	ROTOR WINDING ASSLY (GEN) INCL ROTOR SLOT ANGLE	II				SIEMENS AG	MUELHEIM				A
28	GENERATOR ROTOR-FINAL	I				SIEMENS AG	MUELHEIM				A
29	FAN BLADE FOR COMPRESSOR	II				STORK TURBO	HOLLAND				A
		II				MF-ENERGY	TCHECHIEN				A
		II				SET	UNGARN				A
30	COMPRESSOR HUB ASSEMBLY	II				SIEMENS AG	ERFURT				A
31	TERMINAL BUSHING (CONDENSER TYPE)	II				HSP	KOELN				A
32	TERMINAL BOX	II				ENERGY EN	SOUTH KOREA				A*
		II				TURBOCARE	POLAND				A
		II				ANDITZ	UNGARN				A
33	END SHIELD FABRICATION MACHINING	II				TURBOCARE	POLLAND				A

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Dist-Ramgarh (Jharkhand)

SIEMENS AG Signature

NTPC	PROJECT: Patratu Stage I Package: STEAM TURBINE GENERATOR CONTRACTOR: SIEMENS AG CONT_NO:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYST GENERATOR AND AUX	Ref No: IN1141 000 Revision No: 00 Date: 12-10-2016

SR. NO	ITEM	QP /INS-PN CAT *	QP NO. 3530-110	QP SUB-MISSION SCHEDULE	QP APPL SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHEDULE	SS APPL SCHEDULE	APPROVAL STATUS
33	END SHIELD FABRICATION MACHINING	II				ENERGYN EN	SOUTH KOREA				A*
		II				ANDITZ	UNGARN				A
34	BEARING SHELL	II				GLEITLAGER TECHNIK	ESSEN				A
35	SHAFT SEALING AND BEARING SHIELD	II				GLEITLAGER TECHNIK	ESSEN				A
		II				DIETERMANN	VIERSEN				A
36	WATER BOX FOR STATOR BAR	II				SIEMENS AG	ERFURT				A
37	HIGH PRESSURE HOSES FOR BEARING PEDESTAL	II				HTO	OBERHAUSEN				A
38	INSULATING HOSE LINE FOR PRIMARY WATER	II				CRANE RESISTOFLEX	PFORZHEIM				A
		II				DR SCHNABEL	PFORZHEIM/ GERMANY				A
39	P W TANK INCLUDING PW PIPING	II				EICKHOFF	MULHEIM				A
40	CARBON & CARBON BRUSH HOLDER	II				CARLS	ESSEN				A
		II				SCHUNK	WETTERNBERG				A
41	HYDROGEN COOLER	II				GEA	HERNE				A
42	GENERATOR ASSEMBLY	I				SIEMENS AG	MUELHEIM				A

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एनटीपीसी NTPC	PROJECT: Patratu Stage I Package: STEAM TURBINE GENERATOR CONTRACTOR: SIEMENS AG CONT_NO:	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL SUB SYST GENERATOR AND AUX	Ref No: IN1141 000 Revision No: 00 Date: 12-10-2016

SR - NO	ITEM	QP /INS- -PN CAT *	QP NO. 3530-110	QP SUB-MISSION SCHEDU -LE	QP APPL SCHED ULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL STATUS / CAT	SS DETAIL SUB-SCHED ULE	SS APPL SCHED ULE	APPROVAL STATUS
43	GENERAOR TEST FIELD RUN (FINAL)	I				SIEMENS AG	MUELHEIM				A
44	ROTOR FLUX DENSITY MANITORING					SUPPLIER SHALL BE PROPOSED DURING DETAIL EXECUTION PHASE					
45	FLAT SPRING(FRAME)	II				TURBOCARE	POLAND				A
		II				ANDRITZ	UNGARN				A
		II				ENERGYN EN	SOTH KOREA				A

A* DETAIL EXPERIENCE REQUIRED. *- SIEMENS WILL FURNISH THE NAME OF THRE REGULAR SUPPLIER AND LOCATION PRIOR TO AWARD TO SUB VENDOR. A MEANS APPROVED.

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Patratu Vidyut Utpadan Nigam Limited
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एनटीपीसी NTPC	PROJECT: PATRATU STPP (3X800 MW)	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL PACKAGE	REF. NO.: CS-9585-001-02
	PACKAGE: STEAM GENERATOR ISLAND (ESP)		REV. NO.: 00
	CONTRACTOR: BHEL	SUB-SYSTEM: BHEL RANIPET, ISG	
	CONTRACT NO.: CS-9585-001-02		DATE: 04.04.2017

SL. NO.	ITEM	QP/ INSP. CAT.	QP. NO.	QP. SUBMISSION SCHEDULE	QP APPL. SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL/ STATUS/ CAT	SS DETAIL SUB SCHEDULE	SC APPL. SCHEDULE	REMARKS
1	HVR TRANSFORMER AND EC PANEL	I				BHEL	JHANSI/ BHOPAL	A			SUB-QR ITEM
2	BUSHING INSULATOR	II				BHEL EPD	BANGALORE	A			
3	SHAFT INSULATOR	II				BHEL EPD	BANGALORE	A			
4	SUPPORT INSULATOR	II				BHEL EPD	BANGALORE	A			
5	ASH LEVEL INDICATOR	II				FLOWSTAR	FARIDABAD	A			
		II				NIVO CONTROLS	INDORE	A			
		II				EIP ENVIROLEVEL	NOIDA	A			
		@				BHEL	RANIPET	DR			
6	ESP CONTROLLER (ARECA, INTELLIR AP, STATCON)	III				ADVANCED ELECTRONICS (ALS)	BANGALORE	A			
		III				SYSTEM AIDS	BANGALORE	A			
		III				VASANTHA ADVANCED SYSTEM	COIMBATORE	A			
		III				EM ELECTRONICS	BANGALORE	A			
7	INTELLIRAP STATCON & IOS PANEL	I				CHEMIN CONTROLS	PONDICHERY	A			
		I				BHEL EPD	BANGALORE	A			
		I				CONTROL AND SCHEMATICS	HYDERABAD	A			
		I				PRAMEEN INDUSTRIES	PUDUKOTT	A			
		I				CONTROL AND SWITCHGEAR	HYDERABAD	A			
		I				INDUSTRIAL CONTROL AND APPLIANCES	MUMBAI	A			
		@				SAJAS ELECTRICAL	TRICHY	DR			
		@				SHIBSHA INSTRUMENTS	CHENNAI	DR			
		@				COMPUTER CONTROL OPERATIONS	PONDICHERRY	DR			
		@				KEAS CONTROL SYSTEMS INDIA PVT. LTD.	COIMBATORE	DR			
8	OPACITY MONITOR	III				SICK	GERMANY	A			Minor items like canopy etc will be manufactured in India and supplied by Indian Representatives
		III				DURAG	GERMANY	A			Minor items like canopy etc will be

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand) C & M Deptt.

4/4/17 R. ARUMUGAM

एनटीपीसी NTPC	PROJECT: PATRATU STPP (3X800 MW)	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL PACKAGE	REF. NO.: CS-9585-001-02
	PACKAGE: STEAM GENERATOR ISLAND		REV. NO.: 00
	CONTRACTOR: BHEL	SUB-SYSTEM: BHEL RANIPET, ISG	
	CONTRACT NO.: CS-9585-001-02		DATE: 04.04.2017

SL. NO.	ITEM	QP/ INSP. CAT.	QP. NO.	QP. SUBMISSION SCHEDULE	QP APPL. SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL/ STATUS/ CAT	SS DETAIL SUB SCHEDULE	SC APPL. SCHEDULE	REMARKS
											manufactured in India and supplied by Indian Representatives
		III				CODEL	UK	A			THROUGH FORBES MARSHALL –PUNE Minor items like canopy etc will be manufactured in India and supplied by Indian Representatives
		III				LAND COMBUSTION	UK	A			Minor items like canopy etc will be manufactured in India and supplied by Indian Representatives
						DURAG INDIA INSTRUMENTATION PVT. LTD.	BENGALURU	DR			
9	HEATER (PANEL TYPE HOPPER HEATERS)	I				HTD HEAT TRACE INDIA	HYDERABAD	A			
		II				HOT FOIL EHS INC	USA	A			
		II				HTD HEAT TRACE	USA	A			For panel type hopper heaters, the mounting accessories will be manufactured in India and will be supplied by the Indian representatives
		II				THERMON	USA	A			
		I				THERMOPADS	HYDERABAD	A*			*APPROVED SUBJECT TO SUCCESFUL EXECUTION OF TRIAL ORDER
		I				THERMON	PUNE	A			
10	ELEVATOR	I				ECE	GHAZIABAD	A			
		I				TECHNO	AHMEDABAD	A			
		I				OTIS	MUMBAI	A			
		I				KONE	CHENNAI	A			
		I				OMEGA	AHMEDABAD	A			
		I				SAMIL ELTEC	KOREA	A			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Vikas Nigam Limited C & M Deptt. Distt. Ramgarh Jharkhand

एनटीपीसी NTPC	PROJECT: PATRATU STPP (3X800 MW)	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL PACKAGE	REF. NO.: CS-9585-001-02
	PACKAGE: STEAM GENERATOR ISLAND		REV. NO.: 00
	CONTRACTOR: BHEL	SUB-SYSTEM: BHEL RANIPET, ISG	
	CONTRACT NO.: CS-9585-001-02		DATE: 04.04.2017

SL. NO.	ITEM	QP/ INSP. CAT.	QP. NO.	QP. SUBMISSION SCHEDULE	QP APPL. SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL/ STATUS/ CAT	SS DETAIL SUB SCHEDULE	SC APPL. SCHEDULE	REMARKS
11	LT MOTORS (REFER NOTE 1)	I				KEC	BANGALORE/HUBLI	A			HUBLI UPTO 90 KW, RQP
		I				SIEMENS	MUMBAI	A			RQP
		I				CGL	AHMEDNAGAR	A			RQP
		I				MARATHON	KOLKATA	A			RQP
		I				BBL	MUMBAI	A			RQP
		I				ABB	FARIDABAD/ BANGALORE	A			FARIDABAD UPTO 55 KW, BANGALORE ABOVE 55 KW, RQP
		I				JYOTI	VADODARA	A			
		I				LHP	SOLAPUR	A			
						NGEF	HUBLI	A			UPTO 15 KW
11	XLPE/ PVC INSULATED LT POWER CABLES					REFER SEPARATE LIST					
12	PVC INSULATED LT CONTROL CABLES					REFER SEPARATE LIST					
13	SCREENED (INSTRUMENT) CABLES	I				POLYCAB	DAMAN	A			
		I				ELKAY TELELINKS	FARIDABAD	A			
		I				ADVANCE CABLES	BANGALOR E	DR			
		I				PARAMOUNT	KHUSKHERA	A			
		I				UNIVERSAL	SATNA	A			
		I				NICCO	KOLKATA	A			
		I				DELTON	FARIDABAD	A			
		I				INCAB	PUNE	A			

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

R. 4/4/17

एनटीपीसी NTPC	PROJECT: PATRATU STPP (3X800 MW)	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL PACKAGE	REF. NO.: CS-9585-001-02
	PACKAGE: STEAM GENERATOR ISLAND		REV. NO.: 00
	CONTRACTOR: BHEL	SUB-SYSTEM: BHEL RANIPET, ISG	
	CONTRACT NO.: CS-9585-001-02		DATE: 04.04.2017

SL. NO.	ITEM	QP/ INSP. CAT.	QP. NO.	QP. SUBMISSION SCHEDULE	QP APPL. SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL/ STATUS/ CAT	SS DETAIL SUB SCHEDULE	SC APPL. SCHEDULE	REMARKS
		I				THERMO CABLES	HYDERABAD	A			
		I				KEI	BHIWADI	A			
		I				CORDS	BHIWADI	A			
		I				GUPTA POWER INFRASTRUCTURE LTD.	KHURDA	A			
		@				CMI	BHIWADI	DR			
		@				SPECIAL CABLES	RUDRAPUR	DR			
		@				KEC	MYSORE	DR			
14	RTD AND THERMOCOUPLE ALONG WITH THERMOWELL	II				THERMAL INSTRUMENT INDIA PVT. LTD	MUMBAI/ SAVANTWADI	A			
		II				TEMPSENS INSTRUMENT (I) PVT. LTD.	UDAIPUR	A			
		II				DETRIV INST & ELEC LTD	MUMBAI	A			
		II				PYRO ELECTRIC INSTRUMENT (GOA) PVT. LTD.	GOA	A			
		II				TECHNO INSTRUMENT	AHMEDABAD	A			
		@				GOA INSTRUMENT PVT. LTD.	GOA	DR			
		@				TOSHNIWAL INDUSTRIAL PVT. LTD.	AJMER	DR			
		@				BAUMER TECHNOLOGIES INDIA PVT. LTD.	VAPI	DR			
15	AUXILIARY CONTROL PANEL/ LTMSB					REFER SEPARATE LIST					
16	ELECTRICAL ACTUATOR (WITH GEAR BOX	II				DREHMO	GERMANY				

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

4/4/17

एनटीपीसी NTPC	PROJECT: PATRATU STPP (3X800 MW)	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL PACKAGE	REF. NO.: CS-9585-001-02
	PACKAGE: STEAM GENERATOR ISLAND		REV. NO.: 00
	CONTRACTOR: BHEL	SUB-SYSTEM: BHEL RANIPET, ISG	
	CONTRACT NO.: CS-9585-001-02		DATE: 04.04.2017

SL. NO.	ITEM	QP/ INSP. CAT.	QP. NO.	QP. SUBMISSION SCHEDULE	QP APPL. SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL/ STATUS/ CAT	SS DETAIL SUB SCHEDULE	SC APPL. SCHEDULE	REMARKS
	ALSO)										
		II				AUMA	GERMANY	A			
		II				ROTORK	CHENNAI/ BANGALORE	A			
		II				ROTORK	UK	A			
		II				LIMITORQUE	FARIDABAD	A			
		II				AUMA INDIA	BANGALORE	A			
17	CABLE TRAYS AND ACCESSORIES					REFER SEPARATE LIST					
18	FLEXIBLE CABLE TRAY SUPPORT					REFER SEPARATE LIST					
19	CABLE GLANDS					REFER SEPARATE LIST					
20	CABLE LUGS					REFER SEPARATE LIST					
21	GEARED MOTOR	III				SHANTI GEARS LTD	COIMBATORE	A			
		III				NEW ALLENBERY WORKS	KOLKATA	A			
		III				LAXMI HYDRAULIC PVT. LTD.	SHOLAPUR	A			
		III				POWERBUILD	VV NAGAR	A			
22	DISCONNECTING SWITCH FOR ESP	III				BHEL APPROVED VENDORS					INSULATOR MAKE SHALL BE BHEL/ WSI/ JSI/ UCE/ ADITYA BIRLA
23	HEATING ELEMENT (TUBULAR) FOR ESP	III				BHEL APPROVED VENDORS					
24	JUNCTION BOXES (GALVANISED) FOR ESP					REFER SEPARATE LIST					
25	INTERLOCKS FOR ESP	III				BHEL APPROVED VENDORS					
26	EARTHING MATERIALS (GI FLATS) FOR ESP					REFER SEPARATE LIST					
27	PERSONNEL COMPUTER FOR ESP	III				BHEL APPROVED VENDORS					

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

एनटीपीसी NTPC	PROJECT: PATRATU STPP (3X800 MW)	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUBCONTRACTOR APPROVAL PACKAGE	REF. NO.: CS-9585-001-02
	PACKAGE: STEAM GENERATOR ISLAND		REV. NO.: 00
	CONTRACTOR: BHEL	SUB-SYSTEM: BHEL RANIPET, ISG	
	CONTRACT NO.: CS-9585-001-02		DATE: 04.04.2017

SL. NO.	ITEM	QP/ INSP. CAT.	QP. NO.	QP. SUBMISSION SCHEDULE	QP APPL. SCHEDULE	PROPOSED SUB SUPPLIER	PLACE	SS APPL/ STATUS/ CAT	SS DETAIL SUB SCHEDULE	SC APPL. SCHEDULE	REMARKS
28	PRINTER FOR ESP	III				BHEL APPROVED VENDORS					
29	THERMOSTAT FOR ESP	III				BHEL APPROVED VENDORS					
30	LOCAL START/ STOP PUSH BUTTON STATION FOR ESP					REFER SEPARATE LIST					
31	LIMIT SWITCH WITH LEVER FOR GATES & DAMPERS	III				BHEL APPROVED VENDORS					
32	JUNCTION BOXES FOR GATES & AMPERS	III				BHEL APPROVED VENDORS					
33	OTHER ITEMS LIKE PC TERMINATION BOX, PC ADD ON CARD SIMULATOR FOR ARECA, COMCON INTERFACE MODULE, PC	III				BHEL APPROVED VENDORS					
34	FQP FOR ELECTRICAL ITEMS	I				BHEL	RANIPET				

Note 1 : a) Acceptance of Motor less than 30 KW is based on COC of the manufacturer and the contractor confirming as follows: It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage and frequency variation, hot starts, pull out torque, starting KVA/KW, temp. rise, distance between centre of stud and gland plate and tested in accordance with approved drawing /data sheets b) 30 KW and above Acceptance of Motor rating between 30 KW 50 KW is based on NTPC review of Routine Test inspection report as per IS 325 witnessed by main contractor along with COC of the manufacturer and the contractor confirming as follows: It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage and frequency variation, hot starts, pull out torque, starting KVA/KW, temp. rise, distance between centre of stud and gland plate, space heater and tested in accordance with approved drawing /data sheets. Above 50 KW up to 200 KW NTPC inspection as per approved QP.

Note 3: Misc items like name plate, cable laying accessories, cable tags, cable dressing, material, wire, marker, clamps and pads for thermocouple adaptor, union, cross, socket and plug, pneumatic fittings tubes shall be as per BHEL system.

Note 4: NTPC Approval conditions for all approved vendors shall be complied.

Note 5: @ - Inspection category will be decided during vendor evaluation.

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

4/4/18

एनटीपीसी NTPC

Project : 3x800 MW PATRATU STPP (Phase-I)
Package : EPC Pkg- Oil Filled Transformers (GT, Reactor, ST, SBT, UT, Auxiliary Transformer, Maintenance Equip), GCB, Dry Type Transformer, IPBD, SPBD, .)
Supplier : BHEL
Contract No.: CS-9585-001-2

LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL

Doc.No 9585-001-QOE-R-00
REV.NO. : 0
DATE : 27.04.2017
PAGE : 1 OF 5

S.N.	Item Description	QP/ Insp. Cat	QP # 9585-001-QVE-	QP Sub. Schedule	QP Approval Schedule	Proposed sub-supplier	Place	Sub-supplier approval status / cat	Sub-supplier Details submission schedule	Remark
1	OIL FILLED POWER TRANSFORMER (Above 72.5 kV & UP TO 400 kV Class) L1 Level Vendor (Refer Note 4 & 5)	I	Q-001			ALSTOM	ALLAHABAD	A		
						ABB	VADODARA	A		
						SIEMENS	NAVI MUMBAI	A		
						EMCO	THANE	A		
						BHEL	BHOPAL	A		
						BHEL	JHANSI	A*		*Upto 220kV class only
						CGL	KANJUR MARG	A		
						GE T&D	VADODARA	DR		
						TELK	AGNAMALLY	A		
2	DRY TYPE TRANSFORMER L1 Level Vendor (Refer Note 4)	I	Q-002			ABB	Savli	A		up to 8 MVA, 24 kV Class
						Raychem	Pune	A		Up to 3.5 MVA, 33 kV Class
						Toshiba	Hyderabad	A		Up to 2.0 MVA, 33 kV Class
						BHEL	Jhansi	A		Up to 6.3 MVA, 33 kV Class
						Kirloskar	Pune	A		Up to 4.0 MVA, 33 kV Class
						Voltamp	Savli	A		Up to 3.25 MVA, 33 kV Class
3	OIL FILLED SERVICE / AUX TRANSFORMER (≤72.5 kV Class) L1 Level Vendor (Refer Note 4 & 5)	I	Q-003			MARSONS LTD	KOLKATA	DR		
						UNIVERSAL POWER TRF	BANGALORE	DR		
						BHEL	JHANSI	A		
						Kirloskar	Mysore	A		up to 16 MVA, 33 kV Class
						KRYFS POWER COMPONENT	SILVASA	A		Up to 2.5 MVA, 33 kV Class
						SCHNEIDER	VADODARA	A		Up to 50MVA, 132 kV Class
						SOUTHERN POWER	BANGALORE	DR		
						EMCO	JALGAON	A		Up to 16 MVA, 33 kV Class
						DANISH PVT LTD	JAIPUR	DR		
						ESENNAR TRFSFORMERS	MEDAK	A		Up to 16 MVA, 33 kV Class
						T & R (INDIA) LTD.	AHMEDABAD	A		Up to 16 MVA, 132 kV Class
						VOLTAMP TRANSFORMERS	SAVLI	A		UPTO 3.5 MVA, 33KV
						TESLA TRANSFORMERS (U-2)	BHOPAL	A		UP TO 5 MVA, 33 KV
						KANOHAR ELECTRICALS LTD.	MEERUT	A		Upto 16 MVA, 33 kV Class
4	NEUTRAL GROUNDING REACTOR L1 Level Vendor (Refer Note 4)	I	Q-004			QUALITY POWER	SANGLI	A		
						BHEL	BHOPAL	A		
						SHRIHANS ELECTRICAL	RAIGAD	DR		
5	SHUNT REACTOR (400 kV Class) L1 Level Vendor (Refer Note 4 & 5)	I	Q-005			ABB Ltd. (MPT/LPT)	Vadodara	A		
						BHEL	Bhopal	A		
						SIEMENS	NAVI MUMBAI	A		
						TBEA	VADODARA	DR		
						GE T&D	Naini	A		
						CGL	Kanjurmarg	A		
6	NEUTRAL GROUNDING RESISTOR L1 Level Vendor (Refer Note 4)	I	Q-006			RSI SWITCHGEAR PVT. LTD.	KOLKATA	A		
						S.R.NARKHEDE	PUNE	A		
						LACHHMAN ELECTRONICS	NEW DELHI	A		
						RESITECH ELECTRICALs	KOLKATA	A		
						AMPCONTROL EQUIPMENTS	PUNE	A		

Bharat Heavy Electricals Limited PS-MKTG Delhi

Amarin 27/04/17 (Aman Pandey) NTPC

Patratu Vidyut Utpadan Nigam Limited (Jharkhand) C & M Deptt.

Yadav, Amit Yadav mgr/ PS-MKTG. BHEL

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FORMAT NO:QS-01-QAI-P-1/F3-R0 1/1

NTPC

Project : 3x800 MW PATRATU STPP (Phase-I)
Package : EPC Pkg- Oil Filled Transformers (GT, Reactor, ST, SBT, UT, Auxiliary Transformer, Maintenance Equip), GCB, Dry Type Transformer, IPBD, SPBD, .)
Supplier : BHEL
Contract No.: CS-9585-001-2

LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL

Doc.No:9585-001-QOE-R-00
REV.NO. : 0
DATE : 27.04.2017
PAGE : 2 OF 5

S.N.	Item Description	QP/ Insp. Cat	QP # 9585-001-QVE-	QP Sub. Schedule	QP Approval Schedule	Proposed sub-supplier	Place	Sub-supplier approval status / cat	Sub-supplier Details submission schedule	Remark
7	NEUTRAL GROUNDING TRANSFORMER L1 Level Vendor (Refer Note 4)	I	Q-007			PRAGATI ELECTRICALS	THANE	A		
						PRAYOG ELECTRICALS	PUNE	A		
						PETE	HYDERABAD	A		
						VOLTAMP	SAVLI	A		
						KANOHAR ELECTRICALS LTD.	MERRUT	A		
						CGL	MALANPUR	A		
						TESLA TRANSFORMERS (U-2)	BHOPAL	A		
						TOSHIBA	HYDERABAD	A		
						T & R (INDIA) LTD.	AHMEDABAD	A		
						PS ELECTRICALS	CHENNAI	DR		
8	MV Busduct (IPBD & SPBD) L1 Level Vendor (Refer Note 4 & 5)	I	Q-008			BHEL	RUDRAPUR	A		
						C&S	NOIDA/HARDWAR	A		
						POWERGEAR	CHENNAI/HINDUPUR	A		
9	ON LINE DGA ANALYZER	III	*			GE Kelman Ltd	UK	A		
						Serveron	USA	A		
						DOBLE	USA	DR		
						GE SYPROTECH	Canada	DR		
						Hydran	Canada	DR		
						MTE	SwitzerLand	DR		
						NLGOM	China	A		
						A-eberle (EMH EncRGIE)	Germany	A		
						Morgan Scehalfer	Canada	A		
10	OIL BDV MEASUREMENT KIT	III	*			Tettex	SwitzerLand	A		Main Contractor to obtain prior approval from NTPC for the Model of equipment they intent to supply, before placing order
						Vollkommen	Germany	DR		
						Hasfely Test AG	SwitzerLand	DR		
						H Tinsley	UK	DR		
						Megger	USA / UK	A		
						HVDSA	SwitzerLand	DR		
						Shivananda	Nashik	A		
11	OIL TAN DELTA AND RESISTIVITY MEASURMENT KIT	III	*			Megger	USA/UK	A		
						Eltel Industries	Bangalore	A		
						Hafely	USA	A		
						Doble	USA	DR		
						Appareils Vettiner	France	DR		
						Vollkommen	Germany	DR		
						Tinsley	UK	A		
						AVO	UK	A		
12	DEW POINT MEASURMENT INSTRUMENT	III	*			Alpha Moisture	UK	A		
						Vaisala	Finland	A		
						Doble	USA	A		
						Cryo Industries	USA	A		

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

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NTPC	Project : 3x800 MW PATRATU STPP (Phase-I) Package : EPC Pkg- Oil Filled Transformers (GT, Reactor, ST, SBT, UT, Auxiliary Transformer, Maintenance Equip), GCB, Dry Type Transformer, IPBD, SPBD, .) Supplier : BHEL Contract No.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL

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S.N.	Item Description	QP/ Insp. Cat	QP # 9585-001-QVE-	QP Sub. Schedule	QP Approval Schedule	Proposed sub-supplier	Place	Sub-supplier approval status / cat	Sub-supplier Details submission schedule	Remark
13	FRA TEST KIT	III	•			Doble	USA	A		
						Haefely	SwitzerLand	DR		
						Omicron	Hongkong	DR		
						HP (Allient)	USA	A		
						Tettex	USA	A		
						Megger	Sweden	A		
14	CAPCITANCE & TAN DELTA MEASUREMENT KIT	III	•			Megger	USA	A		
						Andeen Hagerling	USA	A		
						Doble	USA	A		
						Hafely	France/Switzerland	A		
						Tettex	USA	A		
15	TRANSFORMER TURNS RATIO (TTR) MEASUREMENT KIT	III	•			Tinsley	UK	A		
						Tettex	SwitzerLand	A		
						Haefely	SwitzerLand	DR		
						Sivananda Electronis	Nashik	DR		
						Megger	USA / UK	A		
						DV Power	Sweden	A		
16	WINDING RESISTANCE MEASURMENT KIT	III	•			Eltel	Bangalore	A		
						Megger	USA	A		
						Shivananda	Nashik	DR		
						IBEKO	Sweden	A		
						DV Power	Sweden	A		Main Contractor to obtain prior approval from NTPC for the Model of equipment they intent to supply, before placing order
						Scope T&M	Pune	A		
17	OFF LINE LABORATORY MODEL OIL DGA KIT	III	•			GE Kelmen Ltd	UK	A		
						Perkin Elmer	Germany	DR		
						GE SYPROTECH	Canada	DR		
						Hydran	Canada	DR		
						CIC	Vadodara	A		
						Agilent	USA	DR		
						Brucker	USA	A		
18	HYDRAULIC JACKING SYSTEM	III	•			Enerpack Hydraulic	Vassi, Mumbai	A		
						Bemco Jackas & Allied Products	Belgaon	A		
						Ketco	Japan	A		
						Hydro Pack	Belgaon	A		
						Oriental Engg Works	Yamunanagar	A		
						Venkos & Co	Patna	A		
19	ON LINE MOITURE REMOVAL SYSTEM	III	•			Transec	UK	A		
						Dry Keep	USA	DR		
						Velcon	USA	DR		
						Ravin Infra	Pune	A	Conditions Apply	
						CEE DEE VACUUM EQUIPMENTS PVT LTD	PUNE	A	Conditions Apply	
						PTSS	Combaitore	A		
						Dry Keep	South Africa	A		

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

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NTPC	Project : 3x800 MW PATRATU STPP (Phase-I) Package : EPC Pkg- Oil Filled Transformers (GT, Reactor, ST, SBT, UT, Auxiliary Transformer, Maintenance Equip), GCB, Dry Type Transformer, IPBD, SPBD, .) Supplier : BHEL Contract No.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL Doc.No.9585-001-QOE-R-00 REV.NO. : 0 DATE : 27.04.2017 PAGE : 4 OF 5

S.N.	Item Description	QP/ Insp. Cat	QP # 9585-001-QVE-	QP Sub. Schedule	QP Approval Schedule	Proposed sub-supplier	Place	Sub-supplier approval status / cat	Sub-supplier Details submission schedule	Remark
20	VACUUM PUMP WITH MOTOR	III	*			Vacuunair	Ahmedabad	A		Main Contractor to obtain prior approval from NTPC for the Model of equipment they intent to supply, before placing order
						Tuthill Pneumatics Group	USA	A		
						Shinko Seiki	Japan	A		
						Orlikon	Germany	A		
						Kakati	Hyderabad	A		
						Gardner Denver Nash	China	A		
21	OIL TANKER, WHEEL MOUNTED	II	Q-009			VPI	Pune	A		
						CEEDEE Vacuum	Pune	A		
						Satyam Industries	Bhopal	A		
						Mechman	Bhopal	A		
						Jyoti Fab	ALLAHABAD	A		
						Electromech (U-2)	Bhopal	A		
						Jagdamba Tools	Vadodara	DR		
						Fowler Westrup (India) Pvt Ltd	Bangalore	A		
22	Dielectric Response Analyzer	III	*			Iris Power (Qualitrol)	Canada	DR		
						Megger	Sweden	DR		
						Omicron	Austria	DR		
23	OIL PURIFYING EQUIPMENT	I	Q-010			VPI	Pune	A		
						CEEDEE Vacuum	Pune	A		
						Fowler Westrup	Bangalore	A		
24	OFAF COOLER	II	Q-011			LUVATA	Sweden	A		
						Unifin	Canada	DR		
						Serk Heat Transfer	UK	DR		
						ABB	Sweden	A		
						GEA	China	A		
						BHEL	Bhopal	A		
						Asha Bhanu Tech Services	Hyderabad	A		
						Fitwell	Bhopal	A		
25	COMPOSITE MONITORING SYSTEM	III	*			Dyanamic Ratings	USA	A		1) Main Contractor to obtain prior approval from NTPC for the Model of equipment they intent to supply, before placing order. 2) As per approval conditions.
						A-eberle	Germany	A		
						BHEL	Bhopal	A		
						MR	Germany	DR		
						GE Grid	Germany	DR		
						Siemens	Navi Mumbai	A		
26	Enclosure for CMS System	II	Q-.012			BHEL	Bhopal	A		
						Rittal	Bangalore	A		
						Pyrotech	Udaipur	A		
						Maktel	Vadodara	A		
27	GENERATOR CIRCUIT BREAKER L1 Level Vendor (Refer Note 4 & 5)	I	Q-140			GRID Solutions SAS	FRANCE	DR		
						ABB SWITZERLAND LTD..	SWITZERLAND	A		

Amarin 27/04/17

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

A Yadav

एनटीपीसी NTPC	Project : 3x800 MW PATRATU STPP (Phase-I) Package : EPC Pkg- Oil Filled Transformers (GT, Reactor, ST, SBT, UT, Auxiliary Transformer, Maintenance Equip), GCB, Dry Type Transformer, IPBD, SPBD, .) Supplier : BHEL Contract No.: CS-9585-001-2	LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL Doc.No:9585-001-QOE-R-00 REV.NO. : 0 DATE : 27.04.2017 PAGE : 5 OF 5

S.N.	Item Description	QP/ Insp. Cat	QP # 9585-001-QVE-	QP Sub. Schedule	QP Approval Schedule	Proposed sub-supplier	Place	Sub-supplier approval status / cat	Sub-supplier Details submission schedule	Remark
28	FQP FOR OIL FILLED TRFs	I	G-001			BHEL		A		
29	FQP FOR GCB	I	G-002					A		
30	FQP FOR SHUNT REACTOR	I	G-003					A		
31	FQP FOR NGT	I	G-004					A		
32	FQP FOR DRY TYPE TRF	I	G-005					A		
33	FQP FOR MV BUSDUCT	I	G-006					A		
34	WPS FOR TRF TANK	I	W-001					A		
35	WPS FOR BUSDUCT	I	W-002					A		

NOTE:

1. SYSTEM SUPPLIERS/SUB-SUPPLIERS APPROVAL STATUS CATEGORY(SHALL BE FILLED BY NTPC)
   A-For this items proposed vendor is acceptable to NTPC.To be indicated with letter "A" in the list along with condition of approval,if any
   DR-For these items "Detailed required for NTPC review.To be identified with letter "DR" in the list.
   NOTED- For these items vendors are approved by Main Supplier & accepted by NTPC without specific vendor approval from NTPC.To be identified with "NOTED".
2. QP / INSPN CATEGORY
   CAT-I :For these items the Quality Plans approved by NTPC & final acceptance will be on physical inspection witness by NTPC
   CAT-II :For these items the Quality Plans approved by NTPC.However no physical inspection shall be done by NTPC.The final acceptance by NTPC shall be on basis of documents as per approved QP
   CAT-III :For these items Main supplier approves the Quality Plans.The final acceptance by NTPC shall be on basis of certificate of conformance by the main supplier.
   * :Control measure of item covered in quality plan of main item.
3. UNITS/WORKS : Place of manufacturing/ Place of Main Supplier of multi units/works.
4. Comprehensive L-2 list of sub-vendors shall be finalized with the finally selected L-1 vendor, but prior to order finalization on L-1 vendor by the Bidder.
5. Item Subjected to Sub-QR clearance

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

एनटीपीसी NTPC	PROJECT: Patratu Super Thermal Power Station Expansion Phase-I (3x800MW) PACAKGE : EPC Sub Package : Solar roof top dedicated items CONTRACTOR : M/S BHEL CONT. NO.; CS-9585-001-02	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE 26.04.2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS PROPOSED BY M/S L&T	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	SC DETAIL SUB SCH	REMARKS
1.	SPV module	I	Q-01			BHEL	Bangalore	A@			@- Subject to Sub-QR clearance from NTPC Engg.
						Warree	Surat	A@			
						Emmvee	Bangalore	A@			
						Vikram Solar	Parganas	A@			
						Lanco Solar	Chattisgarh	A@			
						Tata Power Solar	Bangalore	A@			
						Alpex	Solan	A@			
						Synergy	Durgapur	A@			
						Photonix	Satara	A@			
						HHV Solar	Bangalore	A@			
						Moserbaer	Greater Noida	A@			
						REIL	Jaipur	DR			
2.	String Inverter	II	Q-01			Delta	China	A			Model- RPI-M10A, RPI-M15A, RPI-M20A, RPI-M30A, RPI-M50A
						Huawei	China	A			SUN2000 Series String Inverter
						Kaco	Germany	DR			
						Schneider	Bangalore	DR			
						ABB	Bangalore	DR			
3.	DC Cable (Interconnecting	II	Q-01			Siechem	Pondicherry	A			

Bharat Heavy Electricals Limited * PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited * Distt-Ramgarh (Jharkhand) C & M Deptt.

(NTPC) (Bidder) Page 1 of 3

एनटीपीसी NTPC	PROJECT: Patratu Super Thermal Power Station Expansion Phase-I (3x800MW) PACAKGE : EPC Sub Package : Solar roof top dedicated Items CONTRACTOR : M/S BHEL CONT. NO.; CS-9585-001-02	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE 26.04.2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S L&T	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHED ULE	SC DETAIL SUB SCH	REMARKS
	SPV Modules, SPV Module to AJB) As per TUV specification 2 Pfg 1169/08.2007: subject to acceptance by Engg										
						Lapp	Korea	A			
						Leoni	Switzerland	A			
						Apar	Khatalwada	A			Conditions apply
4.	FQP for SPV Moddules	G-01									

Abbreviations

A – For these items proposed vendor is acceptable to NTPC. To be indicated with letter "A" in the list along with the condition of approval, if any.

DR – For these items "Detailed required" for NTPC review. To be identified with letter "DR" in the list.

QP/INSPECTION CATEGORY:

CAT-I : For these items the Quality Plans are approved by NTPC and the final acceptance will be on physical inspection witness by NTPC.

CAT-II : For these items the Quality Plans approved by NTPC. However no physical inspection shall be done by NTPC. The final acceptance by NTPC shall be on the basis review of documents as per approved QP.

CAT-III : For these Items Main Supplier approves the Quality Plans. The final acceptance by NTPC shall be on the basis certificate of conformance by the main supplier.

General Notes:

1-Vendor list & category of the mandatory spares shall be as mentioned above.

2- For items not covered above, main contractor shall seek NTPC-QA's clearance before placing the order.

(NTPC) (Bidder)

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

एनटीपीसी NTPC	PROJECT: Patratu Super Thermal Power Station Expansion Phase-I (3x800MW) PACAKGE : EPC Sub Package : Solar roof top dedicated items CONTRACTOR : M/S BHEL CONT. NO.; CS-9585-001-02	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE 26.04.2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S L&T	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHED ULE	SC DETAIL SUB SCH	REMARKS

3- NTPC Approval conditions to above identified vendors shall be adhered to. Vendor's approval conditions will be informed on specific request of Main Contractor

Amit Yadav
Amit Yadav
Mgr./MKTG.
BHEL

Bharat Heavy Electricals Limited
PS-MKTG
Delhi

Patratu Vidyut Utpadan Nigam Limited
C & M
Deptt.
Distt-Ramgarh(Jharkhand)

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(NTPC) (Bidder) Page 3 of 3

एनटीपीसी NTPC	PROJECT: Patratu Super Thermal Power Station Expansion Phase-I (3x800MW) PACAKGE : EPC Sub Package : HT Switchgear dedicated Items CONTRACTOR : M/S BHEL CONT. NO.; CS-9585-001-02	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE: 26.04.2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S L&T	PLACE	SUB- SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHED ULE	SC DETAIL SUB SCH	REMARKS
1.	HT Switchgear Panel up to 33KV with Vacuum type circuit breaker (BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.)	I	Q-01			Siemens	Mumbai	A@			@- Subject to Sub-QR clearance from NTPC Engg.
						Megawin	Salem	A@			
						BHEL	Bhopal	A@			
						Jyoti	Vadodara	A@			
						ABB	Nasik	A@			
						L&T	Ahmednagar	A@			
						Schneider	Kolkata	A@			Upto 11KV -Salt lake works -Vg series Interrupter made at Salt Lake Works.
2.	Numerical Relay Network system Integration	I	Q-02			Main Contractor approved sources					@- Subject to Sub-QR clearance from NTPC Engg
3.	IEC 61850 Complaint Numerical Relays	(part of Swgr MQP				SEL	Pullman, USA	A@			@- Subject to Sub-QR clearance from NTPC Engg
						ALSTOM T&D	Stafford, UK	A@			P14X, P34X, P44X, P64X, P74X models only.

(NTPC) (Bidder)

Bharat Heavy Electricals Limited PS-MKTG Delhi

Patratu Vidyut Utpadan Nigam Limited C & M Dept. Dist-Ramgarh (Jharkhand)

Page 1 of

एनटीपीसी NTPC	PROJECT: Patratu Super Thermal Power Station Expansion Phase-I (3x800MW) PACAKGE : EPC Sub Package : HT Switchgear dedicated Items CONTRACTOR : M/S BHEL CONT. NO.; CS-9585-001-02	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE: 26.04.2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S L&T	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHED ULE	SC DETAIL SUB SCH	REMARKS
						ALSTOM T&D	Chennai	A@			P14X, P24X, P34X, P44X, P64X, P74X models only.
						ABB	Finland	A@			
						ABB	Baroda	A@			For 6XX Series
						GE Multilin	Zamudio, Vizcaya, Spain/ Markham, Ontario, Canada	A@			F-650 only
						Schneider	Stone, UK	A@			PX30, PX40, VAMP 5X and VAMP 2XX models only.
						Siemens	Germany	A@			7SX Series only
						Siemens	Goa	A@			7SR2X series only
4.	MV Vacuum Contactor up to 6.6 KV	(part of Swgr MQP				ABB SACE	Italy	A			
						Jyoti	Vadodara	A			With Toshiba, Japan vacuum contactor bottle
						Megawin	Salem	A			-For 6.6KV, 400A

(NTPC) (Bidder)

Bharat Heavy Electricals Limited PS-MKTG Delhi

C & M Dept. Patratu Vidyut Utpadan Nigam Limited Patratu Distt-Ramgarh (Jharkhand)

एनटीपीसी NTPC	PROJECT: Patratu Super Thermal Power Station Expansion Phase-I (3x800MW) PACAKGE : EPC Sub Package : HT Switchgear dedicated Items CONTRACTOR : M/S BHEL CONT. NO.; CS-9585-001-02	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE: 26.04.2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S L&T	PLACE	SUB- SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHED ULE	SC DETAIL SUB SCH	REMARKS
											- With Toshiba Vacuum Bottle
						Siemens	Kalwa	DR			
5.	Fast Bus Transfer Panel	I	Q-03			Aartech	Parwanoo	A			FBT device Model-BTS-2000 from Cooper Power, USA
						ABB	Vadodara	A			FBT Device Model-SUE-3000 from ABB, Finland
						SEL	Delhi	A			FBT device Model-SEL-451 from SEL, USA
6.	FQP for HT switchgear	I	G-01								

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Abbreviations

A – For these items proposed vendor is acceptable to NTPC. To be indicated with letter "A" in the list along with the condition of approval, if any.

DR – For these items "Detailed required" for NTPC review. To be identified with letter "DR" in the list.

QP/INSPECTION CATEGORY:

CAT-I : For these items the Quality Plans are approved by NTPC and the final acceptance will be on physical inspection witness by NTPC.

CAT-II : For these items the Quality Plans approved by NTPC. However no physical inspection shall be done by NTPC. The final acceptance by NTPC shall be on the basis review of documents as per approved QP.

CAT-III : For these items Main Supplier approves the Quality Plans. The final acceptance by NTPC shall be on the basis certificate of conformance by the main supplier.

General Notes:

1-Vendor list & category of the mandatory spares shall be as mentioned above.

2- For items not covered above, main contractor shall seek NTPC-QA's clearance before placing the order.

3- NTPC Approval conditions to above identified vendors shall be adhered to. Vendor's approval conditions will be informed on specific request of Main Contractor

4. Comprehensive L-2 list of sub-vendors shall be finalized with the finally selected L-1 vendor but prior to order finalization on L-1 vendor by the Bidder.

Yadav Amit Yadav Mgr./MKTG. BHEL

(NTPC) (Bidder)

Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand) C & M Deptt.

एनटीपीसी NTPC	PROJECT :PATRATU STPS (3X800 MW) PACAKGE : EPC Sub Package: MOTORS & VVF Drive Panels CONTRACTOR : M/S BHEL CONT. NO. CS-9585-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR ; CONTRACTOR-M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE 20th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
1)	L T (415 V) Motors	Refer Note 1				ABB	FARIDABAD	A		UPTO 55KW
						ABB	BANGALORE	A		55KW – 200KW
						BHARAT BIJLEE	MUMBAI	A		RQP, FOR FLAME PROOF ALSO
						CGL	AHMEDNAGAR	A		FOR FLAME PROOF ALSO
						JYOTI	BARODA	A		
						KEC	BANGALORE	A		FOR FLAMEVPROOF ALSO
						KEC	HUBLI	A		UPTO 90KW; FOR FLAME PROOF ALSO
						LHP	SOLAPUR	A		UPTO 200KW
						MARATHON	KOLKATA	A		FOR FLAME PROOF ALSO
						NGEF	BANGALORE	A		UPTO 15KW
						SIEMENS	MUMBAI	A		
2)	HT MOTOR	1				BHEL	BHOPAL	A		
3)	DC MOTOR	Refer Note 1				BHEL	HARIDWAR	A		
						CGL	AHMEDNAGAR	A		
						KEC	BANGLORE / HUBLI	DR		
4)	VARIABLE FREQUENCY DRIVES PANELS	1				L&T-YASHKAWA	INDIA	A		DR for HT
						DANFOSS	CHENNAI	A		
						SCHNEIDER	NASHIK	A		
						ROCKWELL ALLEN BRADLEY	DELHI-SHAHIBABAD	A		
						ABB	BANGALORE	A		
						SIEMENS	NASHIK	A		
						GE		DR		

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand) C & M Deptt.

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एनटीपीसी NTPC	PROJECT :PATRATU STPS (3X800 MW) PACAKGE : EPC Sub Package: MOTORS & VVF Drive Panels CONTRACTOR : M/S BHEL CONT. NO. CS-9585-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR ; CONTRACTOR-M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE 20th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9585-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
						HITACHI-HIREL	GANDHINAGAR/ SANAND	DR		
						INGETEAM TECHNOLOGIES	SPAIN	DR		
						NIDEC(ANSALDO)	ITALY	DR		
						FUJI ELECTRIC SYSTEMS	JAPAN	DR		
						TMEIC	BANGALORE	DR		
						L&T	MUMBAI	DR		

NOTE 1 : FOR LT MOTORS

a) Less than 30 KW

Acceptance of Motor less than 30 KW is based on COC of the manufacturer & the contractor confirming as follows:
It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage & frequency variation, hot starts, pull out torque, starting KVA/KW, temp. rise, distance between centre of stud & gland plate and tested in accordance with approved drawing /data sheets.

b) 30 KW -50KW

Acceptance of Motor rating between 30 KW & 50 KW is based on NTPC review of Routine Test inspection report as per IS 325 witnessed by main contractor along with COC of the manufacturer & the contractor confirming as follows:
It is hereby confirmed that the above mentioned motor /motors was/ were manufactured taking care of NTPC specific requirements regarding ambient temp., voltage & frequency variation, hot starts, pull out torque, starting KVA/KW, temp. rise, distance between centre of stud & gland plate, space heater and tested in accordance with approved drawing /data sheets.

c) Above 50 KW as per NTPC approved quality plan

Approval Conditions attached to above vendors-as applicable shall prevail.

General Notes:

1) Vendor list & category of the mandatory spares shall be as mentioned above.
2) For item not appearing in the above list, main contractor to approach NTPC for acceptable vendors & inspection categorization of the same.
3) NTPC Approval conditions to above identified vendors shall be adhered to. Vendor's approval conditions will be informed on specific request of Main Contractor.

Bharat Heavy Electricals Limited PS-MKTG Delhi

(JATIN GAHLAWAT)
BHEL

Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand) C&M Deptt.

NTPC

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एनटीपीसी NTPC	PROJECT :PATRATU STPP (2X660 MW) PACAKGE : EPC Sub Package: HT Power cables, LT power cables, Control cables, CONTRACTOR : M/S BHEL CONT. NO. CS-9578-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL

REF NO : 9578-001-QOE-R-01
REVISION NO. 00

DATE 10th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
1	HT Cable upto 33KV	I	Q-01			Universal Cable Ltd.	Satna	A@		@- Subject to Sub-QR clearance from NTPC Engg
						Torrent Cable Ltd	Nadiad	A@		
						Polycab Wires Pvt. Ltd	Daman	A@		
						KEI Industries	Bhiwadi	A@		
						Havells India Ltd.	Alwar	A@		
						Finolex	Pune	A@		
						Apar	Valsad	A@		
						NICCO	Shamnagar , Kolkata	A@		Upto 11KV only
						Incab	Pune	A@		Upto 11KV only
						Sri ram Cables	Bhiwadi	A@		Upto 11KV only
						Krishna Electrical Indsutries Ltd	Gwalior	A@		Upto 11KV only
						KEC International	Vadodara	A@		
						Paramount	Bhiwadi	A@		
						Diamond Power	Vadodara	DR@		
						Crystal Cable	Kolkata	DR@		
						Gemscab	Bhiwadi	A@		
						CCI	Nasik	DR@		
						Tirupati Plastomatics	Jaipur	DR@		
						Dynamic Cables	Jaipur	DR@		
						Sterlite Technologies	Haridwar	DR@		
						Ravin Cables	Mumbai	DR@		
						Gupta Power	Bhubneshwar	DR@		
						GEMS CABLES	MEDAK ,TELANGA	DR@		
2	1.1 KV Power cable	I	Q-02			Universal Cable Ltd.	Satna	A@		@- Subject to Sub-QR clearance

Bharat Heavy Electricals Limited PS-MKTG Delhi

C & M 4/24/2017

एनटीपीसी NTPC	PROJECT :PATRATU STPP (2X660 MW) PACAKGE : EPC Sub Package: HT Power cables, LT power cables, Control cables, CONTRACTOR : M/S BHEL CONT. NO. CS-9578-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9578-001-QOE-R-01 REVISION NO. 00 DATE 10th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
	(PVC & XLPE)									from NTPC Engg
						NICCO	Shamnagar , Kolkata	A@		
						Torrent Cable Ltd	Nadiad	A@		
						Incab	Pune	A@		
						Hindustan Vidyut Products Ltd	Faridabad	A@		
						KEI Industries	Bhiwadi	A@		
						Delton Cable Ltd	Faridabad	A@		A)Unarmoured cable all sizes. B) Armoured cable up to 3.5 x 240 sq. Mm with GI strip armour and 1CX70 sq mm with al strip armour
						Paramount Cable	Khushkhera	A@		
						Polycab Wires Pvt. Ltd	Daman	A@		
						Gemscabs Industries	Bhiwadi	A@		
						Cords Cables	Bhiwadi	A@		
						Havells India Ltd.	Alwar	A@		
						Sri ram Cables	Bhiwadi	A@		
						Ravin Cables	Pune	A@		
						Thermocables	Hyderabad	A@		
						Sbee Cables	Bangalore	A@		
						Suyog Cables	Vadodara	A@		
						Gupta Power Cables	Bhubaneswar	A@		
						Finolex	Pune	A@		
						Scot Innovation wires & cables	Baddi	A@		
						Anhui Hualing	China	A@		
						LS Cable	Korea	A@		
						Radiant Cables	Hyderabad	A@		

Bharat Heavy Electricals Limited PS-MKTG Delhi

C & M Deptt.

एनटीपीसी NTPC	PROJECT :PATRATU STPP (2X660 MW) PACAKGE : EPC Sub Package: HT Power cables, LT power cables, Control cables, CONTRACTOR : M/S BHEL CONT. NO. CS-9578-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9578-001-QOE-R-01 REVISION NO. 00 DATE 10th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
						KEC International	Vadodara	DR@		
						Manisfield cables	G.Noida	DR@		
						Diamond Power	Vadodara	DR@		
						Crystal Cable	Kolkata	DR@		
						Apar Industries	Umbergaon	A@		
						Krishna Electricals	Gwalior	DR@		
						Special Cables	Rudrapur	A@		
						Dynamic Cables	Jaupiur	DR@		
						Tirupati Plastomatics	Jaipur	DR@		
						Govind Cables	Kolkata	DR@		
						Goyolene Fibre	Daman	DR@		
						Chandresh Cables	Gandhinagar	DR@		
3	1.1 KV Control cable	I	Q-03			NICCO	Shamnagar , Kolkata	A@		@- Subject to Sub-QR clearance from NTPC Engg
						Torrent Cable Ltd	Nadiad	A@		
						Incab	Pune	A@		
						Polycab WiresPvt. Ltd	Daman	A@		
						Hindustan Vidyut Products Ltd	Faridabad	A@		
						KEI Industries	Bhiwadi	A@		
						Delton Cable Ltd	Faridabad	A@		
						Paramount Cable	Khushkhera	A@		
						Gemscabs Industries	Bhiwadi	A@		
						Cords Cables	Bhiwadi	A@		
						SPM Cables	Hyderabad	A@		
						Elkay Telelink	Faridabad	A@		
						Havells India Ltd.	Alwar	A@		

Bharat Heavy Electricals Limited PS-MKTG Delhi

C & M Deptt.

NTPC 3 OF 5 ENGINEERING DIV / QAI CONTRACTOR 4/24/2017

एनटीपीसी NTPC	PROJECT :PATRATU STPP (2X660 MW) PACAKGE : EPC Sub Package: HT Power cables, LT power cables, Control cables, CONTRACTOR : M/S BHEL CONT. NO. CS-9578-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9578-001-QOE-R-01 REVISION NO. 00 DATE 10th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
						R.R. Kabel	Silvasa	A@		
						Ravin Cables	Pune	A@		
						Gupta Power cable	Bhubaneswar	A@		
						Thermocables	Hyderabad	A@		
						Finolex	Pune	A@		
						Sbee Cables	Bangalore	A@		
						Suyog Cables	Vadodara	A@		
						Universal Cables	Satna	A@		
						Scot Innovation wires & cables	Baddi	A@		
						Anhui Hualing	China	A@		
						LS Cable	Korea	A@		
						Radiant Cables	Hyderabad	A@		
						KEC International	Vadodara	DR@		Out of the identified "DR"vendors , BHEL shall propose maximum 5 no. of vendors for NTPC review
						Manisfield cables	G.Noida	DR@		
						Diamond Power	Vadodara	DR@		
						Crystal Cable	Kolkata	DR@		
						Apar Industries	Vadodara	DR@		
						Krishna Electricals	Gwalior	DR@		
						Special Cables	Rudrapur	A@		
						Govind Cables	Kolkata	DR@		
						Incom	Delhi	DR@		
						Sam Cables	Rudrapur	DR@		
						Advance Cables	Bangalore	DR@		
						Tirupati Plastomatics	JAipur	DR@		
						CMI	Faridabad	A@		
						Sarval India	Nimrana	DR@		
						Advance Cable	BAngalore	DR@		
						Goyolene Fibre	Daman	DR@		
						Sriram Cables	Alwar	DR@		
						Dynamic Cables	Jaipur	DR@		

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एनटीपीसी NTPC	PROJECT :PATRATU STPP (2X660 MW) PACAKGE : EPC Sub Package: HT Power cables, LT power cables, Control cables, CONTRACTOR : M/S BHEL CONT. NO. CS-9578-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : 9578-001-QOE-R-01 REVISION NO. 00 DATE 10th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
4	FQP of Cables & Accessories	I	G-01							SFQP no. -000-999-QOE-I-004 will be applicable

Note 1 : Approval conditions attached to sub- vendors shall be adhered to.

Note 2 : Abbreviations

A – For these items proposed vendor is acceptable to NTPC. To be indicated with letter "A" in the list alongwith the condition of approval, if any.

DR – For these items "Detailed required" for NTPC review. To be identified with letter "DR" in the list.

NOTED – For these items vendors are approved by Main Supplier and accepted by NTPC without specific vendor approval from NTPC. To be identified with "NOTED.'

1. QP/INSPN CATEGORY:

CAT-I : For these items the Quality Plans are approved by NTPC and the final acceptance will be on physical inspection witness by NTPC.

CAT-II : For these items the Quality Plans approved by NTPC. However no physical inspection shall be done by NTPC. The final acceptance by NTPC shall be on the basis review of documents as per approved QP.

CAT-III : For these items Main Supplier approves the Quality Plans.The final acceptance by NTPC shall be on the basis certificate of conformance by the main supplier.

NTPC

Jatin 24/04/17
(Jatin Gahlawat)
BHEL

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt.

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : ----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										pg. 1
1	Floor mounted Draw out type indoor LT Switchgear Panel (MCC panels etc.)	1	1			L&T	Mumbai / Coimbatore/ Ahmednagar	A@		@- Subject to Sub-QR clearance from NTPC Engg. BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						GE	Bangalore	A@		@- Subject to Sub-QR clearance from NTPC Engg BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Siemens	Mumbai	A@		@- Subject to Sub-QR clearance from NTPC Engg. BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						C&S Electric	Noida /	A@		@- Subject to Sub-QR clearance from

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C & M Deptt. Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand)

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : ----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										pg. 2
							Hardwar			NTPC Engg. BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Schneider	Nasik	A@		ACB from Schneider, France. @- Subject to Sub-QR clearance from NTPC Engg. BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Unilec	Gurgaon	A@		@- Subject to Sub-QR clearance from NTPC Engg. BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						ABB	Bangalore	DR@		@- Subject to Sub-QR clearance from NTPC Engg.

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										pg. 3
2.	Floor mounted Fixed type indoor LT Switchgear Panel (ACDB / DCDB / Lighting DB / Solenoid valve distribution boards) (subject to sub-QR)	1	2			L&T	Mumbai / Coimbatore/ Ahmednagar	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						GE	Bangalore	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Siemens	Mumbai	A*		*- DR for Fixed type outdoor LT

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										pg. 4
										Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						C&S Electric	Noida / Hardwar	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Schneider	Nasik	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Unilec	Gurgaon	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Switching Circuits	Kolkata	A*		*- DR for Fixed type outdoor LT

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LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- ---- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : ----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										pg. 5
										Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Tricolite	Sahibabad / Manesar	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Hindustan Control & equipment Ltd	Kolkata	A*		With fabrication & painting at unit II & MP Electrical Narendrapur *- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Maktel	Vadodara	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid

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Patratu Vidyut Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

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LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- ---- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										CML no.
						Jakson	Greater Noida	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Vidyut Control	Gaziabad	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Adlec Power	Rohad (Jhajjar)	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Pyrotech	Udaipur	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
						Anand Power Ltd.	Noida	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Control & Schematics	Hyderabad	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						Positronics	Vadodara	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid CML no.
						ABB	Bangalore	DR		
						Nitya Electrocontrols	Noida	A*		*- DR for Fixed type outdoor LT Switchgear Panel BOIs preferably with VDE/CE/UL/CSA marked or BIS approved with valid

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C & M Deptt. Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh (Jharkhand)

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LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										CML no.
3	Wall mounted fixed type indoor / outdoor LT Switchgear non compartmentalized Panel (Lighting panels / AC / DC Fuse boards / MCB boxes)	I	3			L&T	Mumbai / Coimbatore/ Ahmednagar	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						GE	Bangalore	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Siemens	Mumbai	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						C&S Electric	Noida / Hardwar	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Schneider	Nasik	A		BOIs preferably with CE/VDE/UL/CSA

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

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LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										pg. 9
										marked or BIS approved with valid CML no.
						Unilec	Gurgaon	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Switching Circuits	Kolkata	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Tricolite	Sahibabad / Manesar	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Hindustan Control & equipment Ltd	Kolkata	A		With fabrication & painting at unit II & MP Electrical Narendrapur BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Maktel	Vadodara	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Jakson	Greater Noida	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Vidyut Control	Gaziabad	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh(Jharkhand)

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										CML no.
						Adlec Power	Rohad (Jhajjar)	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Pyrotech	Udaipur	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Anand Power Ltd.	Noida	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Control & Schematics	Hyderabad	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Positronics	Vadodara	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Control Devices	Kolkata	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Jasper	Noida	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Havells	Faridabad	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										CML no.
						Novateur Electrical & distribution systems	Murthal	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
						Avaid Technovator	Manesar	A		BOIs preferably with CE/VDE/UL/CSA marked or BIS approved with valid CML no.
4	ACB	(part of LT Swgr MQP)	4			C&S Electric	Noida	A		
						L&T	Mumbai	A		
						GE	Bangalore	A		
						Siemens	Germany	A		
						Schneider	France	A		
5	LT Busduct (air insulated non phase segregated type)	1	5			C&S Electric	G.Noida	A		
						C&S Electric	Hardwar	A		
						Unilec	Gurgaon	A		Upto 3200 A
						KGS Engg Ltd	Chennai	A		
						Spaceage Swgr Ltd	Bawal	A		
						REEP	Chennai	A		
						Enpro	Chennai	A		
						Jasper Engg Ltd	Noida	A		

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

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LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
6	LT Buct (insulated sandwitched type)	1	6			C&S Electric	Hardwar	A		
						Jasper Engg Ltd	Noida	DR		
						Schneider	Baroda	DR		
						Henikwon	Malaysia	A		
7	IEC 61850 Compliant Numerical Relays	(part of Swgr MQP)				SEL	Pullman, USA	A@		A@- Subject to Sub-QR clearance form NTPC Engg
						ALSTOM T&D	Stafford, UK	A@		P14X, P34X, P44X, P64X, P74X models only. A@- Subject to Sub-QR clearance form NTPC Engg
						ALSTOM T&D	Chennai	A@		P14X, P34X, P44X, P64X, P74X models only. A@- Subject to Sub-QR clearance form NTPC Engg
						GE Multilin	Zamudio, Vizcaya, Spain/ Markham, Ontario, Canada	A@		F 650 only A@- Subject to Sub-QR clearance form NTPC Engg

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Ramgarh (Jharkhand)

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- ---- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
										pg. 13
						Schneider	Stone, UK	A@		PX30 & PX40 models only. A@- Subject to Sub-QR clearance form NTPC Engg
						ABB	Finland	A@		A@- Subject to Sub-QR clearance form NTPC Engg
						ABB	Baroda	A@		For 6XX Series A@- Subject to Sub-QR clearance form NTPC Engg
						Siemens	Goa	A@		7SR2X series only A@- Subject to Sub-QR clearance form NTPC Engg
						Siemens	Germany	A@		7SX Series only A@- Subject to Sub-QR clearance form NTPC Engg
8	Local Push Button Station	III				Main contractor approved sources for the box (with push button with CE/VDE/UL/CSA marked or BIS approved with valid CML no.)		Noted		
9	FQP for LT	I	G-01							

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LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- ---- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : ----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
	Switchgear									
10	FQP for LT Busduct	I	G-02							

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NB:
Under Sub Supplier approval status as per NTPC column:
A: mean that vendor for this item is acceptable to NTPC.
Under QP / INSPN CATEGORY column:
CAT-I : For these items the Quality Plans approved by NTPC & final acceptance will be on physical inspection & witness by NTPC
CAT-II : For these items the Quality Plans approved by NTPC. However no physical inspection shall be done by NTPC. The final acceptance by NTPC shall be on basis of verification of documents as per approved QP
CAT-III : For these items Main supplier approves the Quality Plans. The final acceptance by NTPC shall be on basis of certificate of conformance by the main supplier.
General Notes:
Vendor list & category of the mandatory spares shall be as mentioned above.
For item not appearing in the above list, main contractor to approach NTPC for acceptable vendors & inspection categorization of the same.
NTPC Approval conditions to above identified vendors shall be adhered to. Vendor's approval conditions will be informed on specific request of Main Contractor.

Note-1- VDE / CE / UL / CSA MARKING CERTIFICATION PREFERABLY FROM THIRD PARTY AGENCY OR BIS APPROVAL LETTER SHALL BE SUBMITTED FOR NTPC's VERIFICATION /INFORMATION

NTPC

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Patratu Vidyut Utpadan Nigam Limited C & M Deptt. Distt-Ramgarh (Jharkhand)

Amit Yadav
Manager / PS-MKTG.
BHEL

LT SWITCHGEAR panels' sub-vendors are subject to sub-QR clearance from NTPC-Engg

एनटीपीसी NTPC	PROJECT : PATRATU STPP, PACAKGE : Sub Package: LT Switchgear & LT Busduct CONTRACTOR : M/S BHEL CONT. NO. CS- --- -001C-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR AS PROPOSED BY M/S BHEL	REF NO : -----001-QOE-R-01 REVISION NO. 00 DATE -

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9591-001-QVE-	QP SUB. SCH.	QP APPL SCHE DULE	SUB-SUPPLIERS PROPOSED BY M/S BHEL	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHE DULE	REMARKS
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एनटीपीसी NTPC PROJECT :Patratu STPP (2X660 MW) PACAKGE :EPC Sub Package: Electrical Equipment Supply & Erection CONTRACTOR : M/S BHEL CONT. NO. CS-9585-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR Contractor-M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE 24th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SCAPPL SCHEDULE	REMARKS
1.	Alternator	I	I			M/s Kirloskar Electric	Bangalore	A		415 V alternators
						M/s Cummins Generator Technology (Stamford)	U.K	A		415 V & 11kV alternators
						M/s Leroy Somer	France	A		Up to 11kV alternator 3500 kW
						M/s Marathan	USA	A		Alternators for up to 415 V, 1500 KVA DG SET
						M/s Cummins Generator Technology (Stamford)	Ahmednagar	A		415 V Alternators up to 1600 KVA
						Toshiba	Chennai	DR		
2.	Diesel engine	I	2			M/s Cummins	Pune	A		
						M/s Cater Pillar	USA	A		
						M/s Mitsubishi	Japan	A		Diesel engine for up to 1500 KVA DG SET
						M/s MTU	Germany	A		Diesel engine for up to 1500 KVA DG SET
						M/s Perkins	UK	A		Diesel Engine for upto 2000KVA DG SET
3.	D G set (assembly testing) @ subject to sub-QR clearance	I	3			M/s TIL	Ghaziabad	A@		up to 1500 KVA
						M/s. Kohler	Singapore	A@		Up to 1500 kVA ,11kV
						M/s CLLS	Singapore	A@		Up to 1250 kVA, 415 V,
						M/s Powerica	Silvasa	A@		Up to 2000 KVA, 415 V & 1500 KVA, 11 KV
						M/s Jakson	Kathua	A@		Up to 415 V, 2000 KVA
						M/s Sterling Generators Pvt Ltd	Silvasa	A@		For up to 415 V 1500 KVA
						M/s Supernova	Rajpur	A@		
4.	DG Set acoustic enclosure	II				DG Set supplier approved sources		Noted		

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Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
5.	Battery charger (110V/220V) @ subject to sub-QR clearance	1	4			M/s Amararaja	Tirupati	A@		
						M/s HBL- Power System	Hyderabad	A@		
						M/s Chhabi electrical	Jalgaon	A@		
						M/s. Chloride Power	Kolkatta	A@		
						M/s Statcon	Hapur	A@		Approved Up to 220, V 850 A subject to Sub-QR clearance, higher rating in DR
						M/s Dubas	Bangalore	A@		Approved upto 220 V, 850 A subject to Sub-QR clearance , higher rating in DR
						M/s Saft Nife Power Systems	Singapore	A@		
						Massteck	Jalgaon	A@		
						Emerson Network	Thane	DR@		
						Jema Energy	Spain	DR@		
6.	Battery (Ni-Cd)	1	5			M/S HBL-Power System	Hyderabad	A @		Up to 990 Ah with conditions(Pocket plate type)
						M/S Amcosaft	Bangalore	A @		8Ah to 990Ah- KPH type 10Ah to 1365 Ah- KPM type 11Ah to 1550Ah – KPL type (Pocket plate type)
						Hoppekke	Germany	A@		
						Exide	Kolkata	DR@		
7.	Battery Plante	1	6			M/s Exide	Kolkata	A@		
						Hoppekke	Germany	DR@		

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Patratu Vidyut Utpadan Nigam Limited Distt-Ramgarh(Jharkhand) C & M Deptt.

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SL No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS	PLACE	SUB-SUPPLIER APPL. STATUS AS PER NTPC	SC APPL SCHEDULE	REMARKS
8.	Battery Health Monitoring System	I	7			Elteek	Gurgaon	DR		
						Emerson	Mumbai	DR		
						Hitachi Hirel	Gandhinagar	DR		
						HBL Power System	Hyderabad	A		
						Statcon	Hapur	DR		
						Hoppekke	Germany	DR		
9.	Fire Sealing System i) Type – A material supplier	III				M/s 3M India	Bangalore	A		
						M/s GE Silicon	USA	A		
						M/s Dow Corning	USA	A		
	ii) Type – B Material supplier	III				M/s Lloyds	Delhi	A		
						M/s Signum	Nagpur	A		
						M/s Vijay System Engineers Pvt. Ltd.	Mumbai	A		
						M/s Multikil Fire	Vadodara	DR		
						Murugapa Morgan	Ranipet	DR		
						Unifrax India	AHMEDABAD	DR		
	iii) Execution Agency for above					Same as 9 (ii) & 3 M India	Same as 9 (ii) & 3 M India	A		
10.	GI cable trays, fitting	I	8			Inar Profiles Ltd	Enkapalli	A		

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एनटीपीसी NTPC	PROJECT :Patratu STPP (2X660 MW) PACAKGE :EPC Sub Package: Electrical Equipment Supply & Erection CONTRACTOR : M/S BHEL CONT. NO. CS-9585-001-2	LIST OF ITEMS REQUIRING QP APPROVAL & ACCEPTABLE VENDOR Contractor-M/S BHEL	REF NO : 9585-001-QOE-R-01 REVISION NO. 00 DATE 24th April 2017

Sl. No.	ITEM	QP / INS CAT.	QP No:- 9578-001-QVE-	QP SUB. SCH.	QP APPL SCHEDULE	SUB-SUPPLIERS	PLACE	SUB-SUPPLIER APPL STATUS AS PER NTPC	SCAPPL SCHEDULE	REMARKS
	& accessories including bends					Vatco	Mumbai	A		Galvanization at Sigma Mumbai
						Indiana cable trays	Mumbai	A		Galvanization at Karamtara galvaniser
						Industrial Perforation	Kolkata	A		
						Ratan Engineering	Kolkata	A		Galvanization at B.P. Projects
						India Electric Syndicate	Kolkata	A		Galvanization at BMW Industries/B.P Projects
						Steelite engg.	Mumbai	A		
						Premier Power Products	Kolkata	A		Galvanising at Neha Galvaniser
						Indiana Gratings	Pune	A		Galvanization at Poona Galvanizer/ Anand Yeknow Aids Engg
						M.J. Engineering	Okhla/ Bhiwadi	A		
						Jamna Metal	Delhi/ Kundli	A		
						T.R.G	Chennai	A		Galvanization at TM Radhakrishna Chetty & Co
						Amtech	Pune	A		Galvanization at B.G. Shirke - Pune
						Kannade Anand Udyog	Mumbai	A		Fabrication at their units: Plot No. 42, Moriv District Thane & Plot No.: D-35 Anand Nagar MIDC, Addl. Ambernath , Dist.Thane Galvanization and offer the galvanized cable trays for inspection at D-34 Anand Nagar MIDC, Addl. Ambernath, Dist.Thane.
						Rukmani	Raipur	A		Ladder type cable trays only
						Passive Infra	Hasangarh (Rohtak)	A		
						Unitech Fabricators &	Howrah/	A		

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						Engineers	Hoogly (Kolkata)			
						Patny System	Hyderabad	A		Galvanisation at Gurpreet galvaniser - Hyderabad
						Rabi Engg	Kolkata	A		Galvanizing from NTPC approved sources
						Advance Power Products	Howrah	A		
						Maheswari Electricals	Noida	DR		
						Saral Industries	Raibareli	DR		
						Parmar Metal	Rajkot	DR		
						Pentax	Mumbai	DR		
						Eros metal	Nagpur	DR		
						Vinfab	Thane	DR		
						Namdhari	Ludhiana	DR		
						Indmark Formtech	PUNE	DR		
11.	Cable tray flexible support system (GI)	I	9			Vatco	Mumbai	A		Galvanising at Sigma Mumbai
						Inar profiles	Enkapalli	A		
						Industrial perforations	Kolkata	A		
						Premier power products	Kolkata	A		Galvanising at Neha Galvaniser
						Steelite engg.	Mumbai	A		
						Indiana gratings	Pune	A		Galvanising at Poona Galvaniser
						Amtech	Pune	A		Galvanising at B.G. Shirke
						Ratan Projects	Kolkata	A		Galvanization at NTPC approved sources
						Indmark Formtech	PUNE	DR		
12.	Lead coated steel flexible conduits	III				M/s PLICA	Ghaziabad	A		
						M/s Lapp	Germany	DR		
						M/s Bansal Labs	Bhopal	A		

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13.	Junction boxes / Link Boxes/ Test Link Box/ Adopter box, Switch Boxes, Pull Boxes (Hot Dip Galvanized)	III				Main contractor approved sources with galvanization from NTPC approved sources (Note-2)		Noted		
14.	FRP Junction boxes	II	10			Main Contractor approved sources		Noted		
15.	Cable termination kits & straight through jointing kit upto 33KV	I	11			M/s 3M Electro & Communication	Pune	A		up to 33 KV
						Raychem	Mumbai	A		Heat shrinkable type up to 33 KV
						Yamuna Cable Accessories	Yamunanagar	DR		
						Hari Consolidated Pvt Ltd	Delhi	A		Heat shrinkable type Upto 11 KV with conditions, above rating DR
16.	Cable glands	III				Main contractor approved sources		Noted		
17.	Cable lugs	III				M/s Dowell	Mumbai	A		
						M/s Billets Elektro Werke Ltd.	Umbergaon	A		

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						(3 D)				
						M/s Chetna	Nasik	A		
						Additionally Any make's model with VDE or CE or UL or CSA marking or BIS approved with CML no. Refer Note-3		Noted		
18.	Lighting fixtures with accessories	I	12			M/s Crompton	Mumbai	A#		#- "A"- for filament type and " DR" for LED Type
						M/s Bajaj Electricals	Mumbai	A		
						M/s Philips	Noida	A#		
						M/s Wipro	Mumbai	A		
						M/s Surya Rosini	Kashipur	A		
						M/s Goldwyn	Noida	A		
19.	Lamps	III				M/s Crompton	Mumbai	A#		#- "A"- for filament type and " DR" for LED Type
						M/s Bajaj Electricals	Mumbai	A		
						M/s Philips	Noida	A#		
						M/ s Wipro	Mumbai	A		
						M/s Surya Rosini	Kashipur	A		
						Goldwyn	Noida	A		
20.	Lighting Panels	I				Please refer seriel no- 3 as identified in LT Switchgear & LT Busduct sub package list				

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