



**Bharat Heavy Electricals Limited**  
**Material Management Division,**  
**Transmission Business Group,**  
**5<sup>th</sup> Floor, Advant Navis IT Business Park,**  
**Plot No. 7, Sector-142, Expressway Noida, Noida-201305**  
**Distt. Gautam Budh Nagar (U.P.)**  
**Phones: 0120-6748487**  
**Email ID: bkumawat@bhel.in**

**Subject- Corrigendum-2 to NIT No.27931**

**DATE 06.07.2016**


Project	PGCIL BANASKANTHA AND SANKHARI
Equipment / Item	CCTV/VMS
Enquiry No. / Date	276E057 Date: 08-06-2016
Extension of due date	Due date of submission and opening of tender has been extended up 15-07-2016

With reference to the above tenders, kindly note the following;

Clarification along with following ~~arg and~~ documents

- 1) Annexure-A agreed make
- 2) Annexure- B Agreed make
- 3) Technical clarification
- 4) Schedule of technical Devaiton

All other terms and conditions remain same.

  
06/07/16  
**Bhagchand Kumawat**  
**Mgr (TBMM)**

Sl. No.	PERTICULARS OF CALL	CLARIFICATION
1	Makes for CAMARA like SONY & PELCO are applicable, but can we provide other compatible make ? INFINOVA, AMERICAN DYNAMICS .	As on now cameras of Sony & PELCO makes are only approved make.
2	4. Can we provide FIX CAMERA in place of PTZ camera ? which will also fulfill all required criteria.	Please follow technical specification.
3	Please Confirm that Control Room, Vedio Recording Server, Controlling Device(Joystick), Ethernet Switch for all Cameras will be same for Banskantha(Main) and Extaintion Project.	Main recording system / server is part of main package only. System of Banaskantha extension need to be integrated with the same.
4	If any LM's present in swithyard then please provide exact location of the LM's.	One number LM is planned between 765kV Bus Reactor and 400kV Bus Reactor. Located at grid code (G -11) in PLAN Layout Drawing TB-384-510-002
5	Please provide exact location of mounting structure and cameras where BHEL consider 4 cameras(As per BOQ of Bansakantha Extn Project) for cable calculation.	Location to be engineered by Bidder. Please follow coverage requirement.
6	(1) Camera Make- Sony and Pelco, Other items - Powergrid approved Make.. Please Confirm That We have to quote other items rest of cameras as per PGCIL Approved make list. If Yes then please provide PGCIL Approved make list of other items.	Please refer "Annexure-A" & "Annexure-B" <b>as reference</b> for list of other accessories previously approved by powergrid for typical projects. Bidder may offer equivalent item during detailed engineering stage and the same is subject to approval of Powergrid. Further Technical specification TB-384-510-115 shall supersede these documents in case of conflict.

Sl. No.	PERTICULARS OF CALL	CLARIFICATION
7	Please Confirm that Switch yard Panel Room is also cover in VMS and we have to place a camera inside SPR or not. IF yes then Please show exact location of SPR and Dimentions of SPR.	<p>Area within the SPR is not covered, Please refer technical specifications - The number of cameras and their locations shall be decided in such a way that any location covered in the area can be scanned. The cameras shall be located in such a way to monitor at least:</p> <ol style="list-style-type: none"> <li>1. The operation of each and every isolator pole of the complete yard in case of AIS Sub-station.</li> <li>2. <del>The Operation of each bay bays of GIS Hall as Applicable.</del> - Not Applicable</li> <li>3. All the Transformer and Reactors All the <b>Entrance doors</b> of Control Room Building and Fire-fighting Pump House, GIS Hall and Switchyard Panel room as applicable.</li> <li>4. All the gates of switchyard.</li> <li>5. Main entrance Gate</li> <li>6. All other Major AIS Equipment (such as CB, CT, CVT, SA etc. as applicable)</li> </ol> <p><b>The cameras can be mounted on existing structures, existing buildings or at any other suitable mounting arrangement to be</b></p>
8	Guaranteed Technical Particulars as per Section – 4 enclosed.Please provide Section Project-4	Not applicable
9	Conduit to be used for Cable laying – HDPE/GI (Please check Powergrid section project )	<p>GI pipe (light grade) of suitable size (minimum 25 mm) along with required bends, joints etc. shall be used for special cables such as cables for visual monitoring system (VMS), substation automation system (SAS). Further, single pipe can be used for laying multiple cables. <b>(Supply of GI Pipe (light grade) is under scope of bidder)</b></p>
10	Deviation Statement	Enclosed - Bidder to submit the same alongwith technical offer.
11	Electric Power Supply	Power supply (Non UPS supply) shall be provided at Control Room Building. Further distribution under contractor's scope. <b>The available power supply is 415V AC &amp; 220V DC</b>

**Annexure -B For Reference Only**

Sr. No.	Description	Make
<b>A.</b>	<b>Cameras quoted</b>	
1	SNC-ER 550	Sony
2	SNC-EB632R With IP66 Housing	Sony
<b>B.</b>	<b>Video Monitoring Software (NVR)</b>	
1	Video Monitoring Software	Milestone/Videonetics
<b>C.</b>	<b>Housings &amp; Others</b>	
1	PTZ Camera Housing	Sony
2	Gooseneck Stand -Wall mount bracket -WMB2	Sony
3	Power Injectors for EB632R	TP-Link
4	Power Supply for PTZ Camera	Guru/Protek/Powerpulse/Omron
5	PTZ Controller	Sony
<b>D.</b>	<b>Cabinets &amp; Junction Boxes</b>	
1	27 U Networking Rack	MTS/APW
2	Junction Box	Hulasi/Pyrotech/MTS/Jasper
<b>E.</b>	<b>Networking Components</b>	
1	Media Converter ( Box Type )	San-Telequip/Comnet/TP-Link
2	Media Converter ( Card Type )	San-Telequip/Comnet/TP-Link
3	14/16 Slot Chasis for the media converter	San-Telequip/Comnet/TP-Link
4	LIU - FO Patch Panel - 06 Port (Loaded)	Digilink/D-Link/UL/TYCO/Lightline
5	LIU FO Patch Panel - 24 Port (Loaded)	Digilink/D-Link/UL/TYCO/Lightline
6	10/100 , 24 port Switch	D-Link
<b>F.</b>	<b>Servers &amp; Storage</b>	
1	NVR Server - Latest Intel Core i3 , Intel® Xeon® E3-1200 product family 12MB L3 , Memory - 4GB , Internal Storage - 1TB , Microsoft Windows 8 with Service pack & Norton Antivirus	HP/ Dell
2	Monitoring storage server, network based with 8TB storage box	Imega/ D-Link/HP/Netgear
<b>H.</b>	<b>Display devices</b>	
1	Samsung 22" LCD/TFT	Samsung
<b>I.</b>	<b>UPS</b>	
1	UPS for Control Room - 2 KVA	APC/Luminious/Microtek
2	UPS for Cameras - 600VA	APC/Luminious/Microtek

**VMS BOQ - Loose Supply**

Sr. No.	Description	Make
<b>A.</b>	<b>Cameras quoted</b>	
1	SNC-ER 550 (CP-16,09,05)	Sony
<b>B.</b>	<b>Housings &amp; Others</b>	
1	PTZ Camera Housing	Sony
2	Gooseneck Stand -Wall mount bracket -WMB2	Sony
3	Power Supply for PTZ Camera	Guru/Protek/Powerpulse/Omron
<b>C.</b>	<b>Cabinets &amp; Junction Boxes</b>	
2	Junction Box	Hulasi/Pyrotech/MTS/Jasper
<b>D.</b>	<b>Networking Components</b>	
1	Media Converter ( Box Type )	San-Telequip/Comnet/TP-Link
2	Media Converter ( Card Type )	San-Telequip/Comnet/TP-Link
3	LIU - FO Patch Panel - 06 Port (Loaded)	Digilink/D-Link/UL/TYCO/Lightline
4	LIU FO Patch Panel - 24 Port (Loaded)	Digilink/D-Link/UL/TYCO/Lightline
<b>E.</b>	<b>UPS</b>	
2	UPS for Cameras - 600VA	APC/Luminious/Microtek

Annexure - A (For Reference only)

S. No	Item	Agreed Make (24.04.14)
1	PTZ Camera (IP Based)	Sony (Model no SNCRS86P) & Pelco -SD4E36 (outdoor), Pelco - SD4E29 (indoor)
2	Analogue Camera Models	Sony (SSC-SD36P) & Pelco SD4-29
2	PTZ Controller	Sony & Pelco (PTZ controller to be of the same make as of PTZ Camera)
3	IP66 Housing for PTZ Camera	Sony & Pelco (Same Make as of Camera)
4	Main Server	HP/IBM/DELL/SAMSUNG
5	Desktop PC	HP/DELL/SONY
6	22" TFT	HP/DELL/SONY
7	Monitoring storage server, network based	Sony/HP/IBM
8	Media converter (Industrial grade)	Ruggedcom/ Garrcom/ OSD Australic /San-Telequip
9	Optical fibre	Finolex/ Aksh Bhiwadi / AMP
10	LIU (24 PORT)	Tyco/ Digilink
11	Connector and cable for LIU	Tyco/ TP- Link
12	Connector and coupler for Fibre Splicing	AMP (Should be of Same make as of the Fibre)
13	27U networking Rack	HCL,APW PRESIDENT
14	Premier Control Panel	Rittal/ APW president/ Pyrotech
15	Quad beam detector	Optex/Enforcer/Bosch/ Honeywell

		Honeywell
16	Sound System	Bose/Sony
17	Panic Switch	Honeywell
18	22AWG 14/38-8 Core twisted copper cable for panel to beam detector	Paramount/ Cords/ KEI/ Havells/ Polycab
19	Analogue Camera	Sony/ Pelco
20	Digital Video recorder system (DVR)	Sony/ Pelco /Bosch
21	Video Matrix Switcher	Extron/AMX/CRESTRON
22	Video Matrix Switcher with VGA	Extron/AMX/CRESTRON
23	Digital keyboard	HP/IBM/Dell/Samsung
24	BNC for Video	Setmi/KRAMER/BELDEN
25	10/100,48 port Port switch	Cisco/ Ruggedcom
26	Network video recorder	Sony/HP/Dell/Samsung
27	Video management software	Sony/ Pelco (Video management software of the same make as of Camera)

**ANNEXURE - A**  
**SCHEDULE OF TECHNICAL DEVIATIONS**

Bidder shall list below all technical deviation clause wise w.r.t. tender specifications:

<u>S.No.</u>	<u>Page No.</u>	<u>Clause No.</u>	<u>Deviation</u>	<u>Reason / Justification</u>
--------------	-----------------	-------------------	------------------	-------------------------------

---

Any deviation not specifically brought out in this section shall not be admissible for any commercial implication at later stage. Except to the technical deviations listed in this schedule, bidder's offer shall be considered in full compliance to the tender specifications irrespective of any such deviation indicated / taken elsewhere in the submitted offer.

Date:

Tenderer's Stamp & Signature