

## Price proposal for B& C town

Bidders are requested to provide cost for each of the Project Area in the subsequent formats. The Bidders should take a note of following points while filling the Price proposal.

- 1) Bidder will be responsible for payment of Taxes (including local entry taxes), duties, cess, charges etc, including taxes, duties, cess, charges etc, to be paid by the Supplier pre- or post- delivery. Such taxes, duties, cess, charges etc, if not explicitly mentioned in the following tables, but applicable under law, should be included in the Quote under “Any other levies” column.
- 2) The Bidder will provide Tax rates assumed for the calculation at the time of proposal for each item in notes to respective table.
- 3) Please refer to GCC Clause 12.2 and the SCC for Price adjustments due to change in Tax rates (including local entry taxes), duties, cess, charges etc.
- 4) Purchaser reserves the right to deduct and pay to the government authorities the taxes at applicable rates from the price payable to the supplier.
- 5) The unit prices mentioned for various components should be the same for all Project Areas. In case of any discrepancy among unit prices of various Project Areas, the lowest unit price of equipment mentioned for any Project Area shall prevail.

### **B & C TOWN SCADA CONTROL CENTRE WISE (SCC)**

**CONTROL CENTRE LOCATION: Mehsana, Ahmedabad (Sabarmati), Palanpur, Himmatnagar**

**DATA RECOVERY LOCATION : Gandhinagar**

**CONTROLLED TOWN/TOWNS :**

	B TYPE			
	Town name	NAME OF S/S	FEEDER NOS.	NON- COMMUNICABLE FPI
B1	Tharad (M)	Tharad SS	17	34
B2	Dhanera (M)	Dhanera SS	17	34
B3	Palanpur (M + OG)	Palanpur SS 1	14	28
	Palanpur (M + OG)	Palanpur SS 2	14	42
B4	Deesa (M)	Deesa SS	15	30
B5	Bhabhar (M)	bhabhar SS	16	32
B6	Thara (M)	thara SS	22	44
B7	Kheralu (M)	kheralu	18	36
B8	Unjha (M)	unjha	16	32
B9	Visnagar (M + OG)	visnagar	19	38
B10	Vadnagar (M)	vadnagar	15	30
B11	Vijapur (M + OG)	vijapur	21	42
B12	Kadi (M + OG)	Kadi SS	16	48
	Kadi (M + OG)	lakshmipura	16	32
B13	Radhanpur (M)	radhanpur	14	28
B14	Sidhpur (M + OG)	sidhpur	13	39
B15	Patan (M + OG)	Patan	17	34
B16	Harij (M)	harij	16	32
B17	Chanasma (M)	chanasam	13	26
		TOTAL		661

	CTYPE			
	Town name	NAME OF S/S	FEEDER NOS.	NON- COMMUNICABLE FPI
C1	Kalol INA (INA)		0	0
C2	Chhatral INA (INA)		0	0
C3	Chhatral (M+OG)	Chhatral	8	16
	Chhatral (M+OG)	GIDC 2	6	12
C4	Kalol (M + OG)	Kalol	16	32
	Kalol (M + OG)	Borisana	13	26
C5	Mansa (M)	Mansa SS	20	40
C6	Pethapur (M)	Randheja	16	32
C7	Dehgam (M)	Dehgam SS	12	24
	Dehgam (M)	Solankipura SS	10	20
C8	Viramgam (M)	FULWADI	19	38
	Viramgam (M)	HANSALPUR	8	16
C9	Sanand (M + OG)	66 KV MADHAVNAGAR SS	10	20
	Sanand (M + OG)	66 kv SANAND SS	22	44
C10	Bareja (M)	BAREJADI	14	28
	Bareja (M)	Navagam	20	40
	Bareja (M)	BIDAJ	10	20
C11	Dholka (M + OG)	Dholka City	11	33
	Dholka (M + OG)	Dholka GIDC	14	28
	Dholka (M + OG)	INGOLI	7	14
C12	Bavla (M + OG)	Bavla SS 1	16	48
	Bavla (M + OG)	JUVAL RUPAVATI SS	13	26
	Bavla (M + OG)	RAMNAGAR SS	6	18
C13	Dhandhuka (M)	JALIYA	12	24
C14	Ahmedabad Cantonment (CB)		0	0
C15	Khedbrahma (M)	Khedbrahma SS	18	36
C16	Vadali (M)	Vadali SS	15	30
C17	Idar (M + OG)	Idar SS	14	28
C18	Himatnagar (M)	Himmat Nagar SS	11	33
	Himatnagar (M)	Agiyol SS	11	22
C19	Prantij (M)	Prantij SS	19	38
C20	Talod (M)	Talod SS	11	22
C21	Modasa (M)	Modasa SS	11	22
	Modasa (M)	Chandtekri	11	22
C22	Bayad (M)	Bayad SS	15	30
		TOTAL		882
		Total B+C	728	1543

**Form : 1 Project Management Cost (B & C Town):**

	<b>Project Management Cost Including all Taxes &amp; Duties</b>	<b>Unit</b>	
	Installation, Testing and Commissioning Cost to Integrate Entire SCADA & IT (relevant to SCADA) Infrastructure	Rs.	
	Integration with legacy applications & Data Migration	Rs.	
	Training for the Employees	Rs.	<b>Refer form 9</b>
	Sub-Total A1		
	Grand Total A	Rs.	

**\*Project management cost include applicable tax /GST etc.**

**Specific Exclusions**

- Land, Control Centre & various server rooms and other Civil & Structural Works including earthing.
- Infrastructures such as Air conditioning system,
- External & Internal electrification & Lighting,
- Firefighting system
- DG Set for meeting the SCADA/DMS Control Centre critical load requirements
- Any mobile equipment such as Crane, truck, Jeep, filter M/c, etc.
- Any T&P, testing equipments. etc.
- Furniture for the computers required for SCADA/DMS & SCADA system
- Any contract for IT/ Outsourcing of services of revenue expenditure type where there is no capital addition.
- Communication equipments such as mobile phone, telephone etc other than those specified in MTS -SCADA/DMS
- DISCOM Manpower for managing SCADA/DMS system

## SCADA/DMS Control Centre Cost (BoQ)

Form : 2

S.No	Equipment	Unit	Quantity	Per Unit Cost (incl taxes & duties)	Total	FMS cost
				Rs. Lacs	Rs.	Rs.
<b>C1</b>	<b>Server/ workstation Hardware</b>					
	SCADA Server	No.	2			
	FEP server with interface switches	No.	2			
	ISR server	No.	2			
	NMS server	No.	2			
	DTS server	No.	1			
	Developmental server	No.	1			
	Communication Server	No.	2			
	Web/Directory server	No.	2			
	SMS gateway	No.	2			
	Workstation with dual TFT Monitors ( S/S monitoring)	No.	3			
	Workstation with dual TFT Monitors (FPI monitoring)	No.	3			
	Remote VDUs with one TFT Monitors	No.	83			
	Developmental console with one TFT	No.	2			
	DTS/Workstation Console with dual TFTs	No.	2			
	DLP/ LED based Video Projection system with 3x4 Module configuration with each module at least 67" diagonal with common projector	No.	1			
	<b><u>Storage &amp; Backup Devices</u></b>					
	External RAID Mass storage device ( for 24 months online backup)	No.	1			
	Exteranl DAT drive	No.	1			
	<b><u>Switches</u></b>					
	Layer II switch (SCADA/DMS LAN)	No.	2			
	Layer II switch ( Planning & Development system LAN)	No.	2			
	<b><u>Routers</u></b>					
	Router for interfacing IT system & SCADA/DMS DR centre	No.	2			

	Router at remote VDU	No.	83			
	<b><u>Security system (DMZ)</u></b>					
	Web server with load balancing	No.	2			
	Mail server	No.	2			
	Router	No.	2			
	Firewall & network IDS/IPS	No.	2			
	Layer II switch	No.	2			
	<b><u>Other Active Devices</u></b>					
	GPS Time synchronisation system	Set	2			
	Time, day & date digital displays	Set	1			
	<b><u>Printers</u></b>					
	Color inkjet printer	Set	2			
	B/W Laser printer	Set	2			
	<b>Any other items required to meet functional /Performance requirement as per MTS</b>	Lot	1			
	<b>Sub-Total C1 (Hardware)</b>					
<b>C2</b>	<b>Software for Control Centre</b>					
	SCADA software	Lot	1			
	ISR Software	Lot	1			
	DTS software	Lot	1			
	Developmental software	Lot	1			
	Network Management Software	Lot	1			
	WEB /Network security software (INCL IN WEBSERVER)	Lot	1			
	RDBMS package	Lot	1			
	GIS Adaptor/Engine for importing data from GIS system under IT system	Lot	1			
	Any other software to meet functional /performance requirement of MTS	Lot	1			
	<b>Sub-Total -B2 (Software)</b>					
<b>C3</b>	<b>Mandatory spares Max 5% of C1</b>					
	Mandatory spares	L/S	1			
	<b>Sub -Total C3 spares</b>					
	<b>Grand Total C</b>					

## SCADA/ Disaster Recovery Control Cost (BoQ)

Form : 3

S.No.	Equipment	Unit	Quantity	Per Unit Cost (incl taxes & duties)	Total	FMS cost
				Rs.	Rs.	Rs.
<b>D1</b>	<b>Server/ workstation Hardware</b>					
	DR server	No.	2			
	Commnuication Server	No.	2			
	Workstation with one TFT Monitors	No.	2			
	<b><u>Storage &amp; Backup Devices</u></b>	No.				
	External storage device	No.	1			
	External DAT drive	No.	1			
	<b><u>Switches</u></b>	No.				
	Layer II switch (DR LAN)		2			
	<b><u>Routers</u></b>	No.				
	Router for interfacing at SCADA DMS centre	No.	2			
	<b><u>Printers</u></b>	No.				
	Color inkjet printer	No.	1			
	B/w Laser printer	No.	1			
	<b>Any other items required to meet functional /Performance requirement as per UMTS</b>	No.				
	<b>Sub-Total D1 Hardware</b>					
<b>D2</b>	<b>Software for Control Centre</b>					
	RDBMS package	Lot	1			

	Any other items required to meet functional /Performance requirement as per UMTS	Lot	0			
	<b>Sub-Total D1 Software</b>		0			
D3	Mandatory spares Max 5% of D1	L/S	0			
	<b>Sub -Total D3 spares</b>		0			
	<b>Grand Total-D</b>					

S.No.	Equipment	Unit	Quantity	Total (per unit)	Total	FMS cost
				Rs.	Rs.	Rs.
<b>E1</b>	<b>RTUs</b>					
	RTU base equipment comprising panels, racks, sub-racks, Power Supply modules, CPU, interfacing equipment, required converters & all other required items/accessories including complete wiring for all modules for locations mentioned at Vol Vi	Set	51.00			
	Multifunctional transducers	No.	1,450.00			
	Contact Multiplying Relays (CMRs)	No.	27,353.00			
	Heavy duty relays for Control	No.	1,193.00			
	Dummy Breaker Latching Relays	No.	51.00			
	Transformer Transducers	No.	245			
	Single TFT PC for LDMS	No.	51			
	Any other hardware to meet functional /performance requirement of MTS	Lot				
	<b>Sub - Total (Hardware) -E1</b>					
<b>E2</b>	<b>Software for LDMS</b>					
	LDMS software	No.	51.00			
	Any other software to meet functional /performance requirement of MTS	Lot				
	<b>Sub - Total (test equipment) -E2</b>					
<b>E3</b>	<b>TEST EQUIPMENTS for RTU</b>					
	RTU Database Configuration & Maintenance Software tool	No.	1			
	Master Station cum RTU Simulator & Protocol analyser software tool	No.	1			
	Laptop PC for above software tools along with interfacing hardware including Hub	No.	1			
	<b>Sub - Total (test equipment) -E3</b>					
<b>E4</b>	<b>MANDATORY SPARES FOR RTU</b>					
	5% of E1					
	<b>Sub - Total (mandatory spare) -D4</b>					
	<b>Grand total E</b>					



S.No.	Equipment	Unit	Quantity	Total (per unit)	Total	FMS cost
				Rs.	Rs.	Rs.
<b>F1</b>	<b>FRTUs</b>					
	Mini pole mounted FRTU base equipment along with enclosure suitable to work in open environment (Adequate protection from water & dust) , racks, sub-racks, Power Supply modules with power backup , I/o modules, CPU, interfacing equipment, required converters & all other required items/accessories including complete wiring for all modules for locations mentioned at Vol Vi	No.				
	Contact Multiplying Relays (CMRs)	No.				
	Heavy duty relays for Control	No.				
	Multifunction trnasducer	No.				
	Any other hardware to meet functional /performance requirement of MTS	Lot	-			
	<b>Sub-Total (Hardware) F1</b>					
<b>F2</b>	<b>Test Equipments for FRTU</b>					
	FRTU Database Configuration & Maintenance Software tool	No.				
	Master Station cum FRTU Simulator & Protocol analyser software tool	No.				
	Laptop PC for above software tools along with interfacing hardware including Hub	No.				
	<b>Sub-Total (Test equipment) F2</b>					
<b>F3</b>	<b>MANDATORY SPARES FOR FRTU</b>					
	5% of E1					
	<b>Sub-Total (Spares) F3</b>					
	<b>Grand Total F</b>					

**Form 6**

S.No	Equipment	Unit	Quantity	Total (per unit)	Total	FMS cost
				Rs.	Rs.	Rs.
<b>G1</b>	<b>MPLS</b>					
	Annual charges for 100MBps Links with RTUs	No.	134			
	MPLS Router	No.	51			
	Any other hardware to meet functional /performance requirement of MTS					
	<b>Sub - Total g1</b>					
<b>G2</b>	<b>GPRS</b>					
	Annual charges for 2MBps Links with FRTUs /FPI	No.	1543			
	Modems	No.	1543			
	Any other hardware to meet functional /performance requirement of MTS					
	<b>Sub - Total g2</b>					
	<b>Mandatory spares 5% of g1,g2</b>					
<b>Grand Total G</b>						

**Form 7**

S.No	Survey	Type	Unit	Quantity	Total (per unit)	Total	FMS Cost
					Rs.	Rs.	Rs.
<b>H1</b>	<b>Main Equipments - Control centre</b>						
	UPS with suitable rating running in parallel redundant mode*		Set	1			
	VRLA type Battery banks for above UPS for minimum 30 min. backup duration	incl above	Set	1			
	<b>Sub- Total H1</b>						
<b>H2</b>	<b>Main Equipments - DR Centre</b>						
	<b>Main Equipments</b>			-			
	UPS with suitable rating running in parallel redundant mode*						
	VRLA type Battery banks for above UPS for minimum 30 min. backup duration	incl above					
	<b>Sub-Total H2</b>						
<b>H3</b>	<b>II For RTU / Data Concentrator / Communication Eqpts.</b>						
	DC Power Supply (DCPS) system based on SMPS			51			
	Battery bank for above DCPS (VRLA Type) for minimum 4 hrs backup	incl above		-			
	<b>Sub-Total H3</b>						
<b>H4</b>	<b>For FRTU</b>						
	48V DC Power Supply (DCPS) system based on SMPS						
	Battery bank for above DCPS (VRLA Type) for minimum 4 hrs backup	incl above		-			
	<b>Sub-Total H4</b>						
<b>H5</b>	<b>Remote VDU location</b>			58			
	UPS (2 kVA )			-			
	<b>Sub-Total H5</b>						
<b>H6</b>	<b>Mandatory Spares for UPS</b>						
	5% of above H1 TO H5			-			
	<b>Sub-Total H6</b>						
	<b>Grand Total (H)</b>						

**Form 8**

S.No.	Survey	Type	Unit	Quantity	Total (per unit)	Total	FMS cost
					Rs.	Rs.	Rs.
<b>J1</b>	<b>RMU (WAY requirement)</b>	<b>No of WAYS</b>					
	RMU		No	0			
	<b>Sub- Total J1</b>						
<b>J2</b>	<b>SECTIONLIZER /RECLOSER</b>						
	Sectionlizer		No	-			
	Recloser		No				
	<b>Sub-Total J2</b>						
<b>J3</b>	<b>FPI</b>						
	Non- Communicable		No	1543			
	<b>Sub-Total J3</b>						
<b>J4</b>	<b>RECONDUTORING (Specify type of each conductor existing &amp; reconductoring )</b>						
			Km	-			
			Km	-			
	<b>Sub-Total J4</b>						
<b>J5</b>	<b>Control/power cable for RTUs from outdoor switchgear,if any at S/S and numerical relays</b>						
	control /power cable		Km	0			
	Numerical relay /BCPU		Nos	-			
	<b>Sub-Total J5</b>						
<b>J6</b>	<b>Mandatory Spares</b>						
	5% of above J1 TO J5			-			
	<b>Sub-Total J6</b>						
	<b>Grand Total (J)</b>						

**Form 9 : Training**

Sr. No.	Description	Duration in days	Total cost (rs.)
<b>A</b>	<b>Operator's Training</b>		
1.	Operator for SCADA/DMS Control Centre	5	
2.	Instructor for DTS	10	
<b>B.</b>	<b>Maintenance Training</b>		
1.	Computer Hardware & System Software	10	
2.	Application Software (SCADA/DMS)	10	
3.	RTU & FRTU	5	
4.	Database & display development	5	
5.	Auxiliary Power Supply	3	
6.	Communication System including NMS	5	

**Form10 : FMS**

S.No.	Description	Duration	Per Year cost	FOR 2YEARS	FOR 7YEARS
1	FMS charges for SCADA/DMS system (maintaining overall system availability as per TS)	Per year			
2	FMS charges for SCADA/DMS system (maintaining availability individual hardware & non –critical functions as per TS)	Five Year			
3	Total FMS charges	Five Year			

- Cost of FMS for 7 years shall not be less than 35% of total project cost and per year unit rate shall be same
- Cost of FMS for overall cost system availability shall not be less than 40% or not more than 60% of total FMS cost
- The necessary spares required for maintenance of the system during FMS shall be provided by the contractor. However, the consumables shall be provided by the owner.