

**CORRIGENDUM No: 5  
to the Tender Dossier**

**PUBLICATION REF: EUROPEAID/137100/DH/SUP/RS  
SUBJECT: ELECTRICAL EQUIPMENT FOR THE REACTION IN EMERGENCY SITUATIONS  
LOCATION – SERBIA**

**The following alterations are made to the Tender Dossier:**

Part A - Instructions to Tenderers

**2. Timetable**

**The former text:**

	DATE	TIME*
<b>Clarification meeting</b>	Meeting 18/11/2016	Meeting 14:00 EUD
<b>Site visit Lot 3</b>	14/11/2016-17/11/2016	Visit: 10:00-14:00
<b>Deadline for requesting clarifications from the Contracting Authority</b>	13/04/2017	16:00
<b>Last date on which clarifications are issued by the Contracting Authority</b>	24/04/2017	-
<b>Deadline for submission of tenders</b>	04/05/2017	12:00
<b>Tender opening session</b>	04/05/2017	15:00
<b>Notification of award to the successful tenderer</b>	May 2017	-
<b>Signature of the contract</b>	June 2017	-

\* All times are in the time zone of the country of the Contracting Authority

<sup>3</sup> Provisional date

**Shall read as new text:**

	DATE	TIME*
<b>Clarification meeting</b>	Meeting 18/11/2016	Meeting 14:00 EUD
<b>Site visit Lot 3</b>	14/11/2016-17/11/2016	Visit: 10:00-14:00

<b>Deadline for requesting clarifications from the Contracting Authority</b>	04/05/2017	<b>16:00</b>
<b>Last date on which clarifications are issued by the Contracting Authority</b>	15/05/2017	-
<b>Deadline for submission of tenders</b>	26/05/2017	<b>12:00</b>
<b>Tender opening session</b>	26/05/2017	<b>15:00</b>
<b>Notification of award to the successful tenderer</b>	June 2017	-
<b>Signature of the contract</b>	June 2017	-

\* All times are in the time zone of the country of the Contracting Authority

<sup>3</sup> Provisional date

## 10. Submission of tenders

### The former text:

10.3 All tenders must be received at the above address before the deadline 31/03/2017 at 12:00, by registered letter with acknowledgement of receipt or hand-delivered against receipt signed by the Delegation of the European Union to the Republic of Serbia or its representative.

### Shall read as new text:

10.3 All tenders must be received at the above address before the deadline 26/05/2017 at 12:00, by registered letter with acknowledgement of receipt or hand-delivered against receipt signed by the Delegation of the European Union to the Republic of Serbia or its representative.

## 19. Opening of tenders

### The former text:

19.2 The tenders will be opened in public session on 31/03/2017 at 15:00 in the premises of the Delegation of the European Union to the Republic of Serbia, Vladimira Popovica Street 40, GTC Avenue Building Block 19a, 11070 New Belgrade, Republic of Serbia by the committee appointed for the purpose. The committee will draw up minutes of the meeting, which will be available on request.

### Shall read as new text:

19.2 The tenders will be opened in public session on 26/05/2017 at 15:00 in the premises of the Delegation of the European Union to the Republic of Serbia, Vladimira Popovica Street 40, GTC Avenue Building Block 19a, 11070 New Belgrade, Republic of Serbia by the committee appointed for the purpose. The committee will draw up minutes of the meeting, which will be available on request.

ANNEX II: TECHNICAL SPECIFICATIONS & ANNEX III: TECHNICAL OFFER

SECTION 2: TECHNICAL SPECIFICATIONS

LOT 3: Development of remote supervision and control systems for the medium voltage distribution grid in the area of Elektrosrbija Kraljevo

The technical data schedule (L3\_Techspec\_techoffer.doc) shall include the updated document:

S3\_L3\_18 TDS\_MCU Cabinet      TECHNICAL REQUIREMENTS FOR MAIN  
COMMUNICATION UNIT (MCU) CABINET

The above document is attached to the corrigendum as annex.

**All other terms and conditions of the Tender Dossier remain unchanged.**

**ANNEX II: TECHNICAL SPECIFICATIONS  
& ANNEX III: TECHNICAL OFFER**

**SECTION 3: TECHNICAL DATA SCHEDULE**

**LOT 3: Development of remote supervision and control  
systems for the medium voltage distribution grid in the  
area of Elektrosrbija Kraljevo**

**TECHNICAL REQUIREMENTS FOR MAIN COMMUNICATION UNIT (MCU)  
CABINET**

## SECTION 3: TECHNICAL DATA SCHEDULE 18

## MAIN COMMUNICATION UNIT (MCU) CABINET

Item	Description	Unit	Required	Guaranteed
<b>1</b>	<b>GENERAL</b>			
1.1	Manufacturer			
1.2	Type			
1.3	Model			
1.4	Country of origin			
1.5	QMS		ISO 9001	
1.6	Mount location (indoor/outdoor)		Indoor	
<b>2</b>	<b>CASING</b>			
2.1	Material		Steel	
2.2	Wall mounting		Yes	
2.3	Protection class	IP	IP55	
<b>3</b>	<b>COMMUNICATION UNIT (Data Concentrator)</b>			
3.1	Ethernet ports		4 x RJ45	
3.2	Serial ports RS232		2	
3.3	GPS receiver port		yes	
3.4	Two (2) independent power supply inputs (24-48V)		yes	
3.5	Temperature range	°C	0° C to + 55 °C	
3.6	Embedded hardware design		yes	
3.7	No moving parts		yes	
3.8	Standards		IEC 61000-6-4 IEC 61000-6-2 IEC/TS 61000-6-5	
3.9	Can be used as an independent data concentrator		yes	
3.10	Multiple simultaneous master & slave protocol support		yes	
3.11	Supported DNP3.0 slave protocol		yes	
3.12	Supported DNP3.0 master protocol		yes	
3.13	Supported IEC60870-5-101 master protocol (optional)			

## SECTION 3: TECHNICAL DATA SCHEDULE 18

## MAIN COMMUNICATION UNIT (MCU) CABINET

Item	Description	Unit	Required	Guaranteed
3.14	Supported IEC60870-5-101 slave protocol (optional)			
3.15	Supported IEC60870-5-104 master protocol (optional)			
3.16	Supported IEC60870-5-104 slave protocol (optional)			
3.17	Memorizing chronology of events occurrence			
3.18	Time synchronisation		GPS through SCADA protocol	
3.19	Radio traffic prioritising, routing and bandwidth usage optimisation			
<b>4</b>	<b>TOUCH SCREEN</b>			
4.1	System overview		yes	
4.2	System control		yes	
4.3	Event log view		yes	
4.4	Resolution		min 1024 x 768	
4.5	Ports		Audio, USB	
4.6	Number of slave devices		Min 100	
4.7	Local/Remote control		yes	
<b>5</b>	<b>DIGITAL COMMUNICATION RADIO MODULE</b>			
5.1	Standards		UHF HIGH 300-113 LVD72/23/EEC (93/68/EEC)	
5.2	Electricity consumption	A	up to 0,14 A DC (stand-by)	
5.3	Frequency range		430 – 470 MHz	
5.4	Output power		10 mW – 5 W	
5.5	Temperature range		-25°C to + 60°C	
5.6	Receiver sensitivity		-110 dBm@ BER 10 <sup>-6</sup>	
5.7	Power supply	VDC	12V DC	
5.8	Supported protocols		DNP 3.0 IEC 60870-5-101 IEC 60870-5-104	
5.9	Operation modes: Half Duplex, Simplex		yes	
5.10	Interface for configuration			

Item	Description	Unit	Required	Guaranteed
5.11	Software for configuration: standard terminal program for Windows operating system		yes	
5.12	Radio transmission			
5.12.1	Data rates: 4800...19200 bps		yes	
5.12.2	Modulation - 4 level FSK		yes	
5.12.3	Forward error correction with interleaving functionality		yes	
5.12.4	Buffering		yes	
5.12.5	Collision Avoidance		yes	
5.12.6	Multiple repeating - up to 6 repeaters in one radio transmission		yes	
5.12.7	Encryption: XTEA, 128 bit key		yes	
5.13	"Store and forward" functionality installed		yes	
5.14	The possibility of communication "point to point", "point to multipoint" and "peer to peer" ("mesh" technology with "multirepeating" functionality);		yes	
5.15	The command and communication modules need to have implemented communication link quality (comm test) and data transmission quality testing (Bit Error Rate test) functions.		yes	
5.16	Option of software adjustment of output power within the range of 10 mW to 5,0 W.		yes	
5.17	It is required to have a clear indication of signal reception, signal sending, indication if the message is being sent via a serial port, indication if receiving from another radio; presence of 2 radio ports, indication when in configuration mode.		yes	
5.18	Option of remote frequency change		yes	

Item	Description	Unit	Required	Guaranteed
<b>6</b>	<b>POWER SUPPLY</b>			
6.1	Power supply source voltage	V AC	230 VAC	
6.2	Power supply source frequency	Hz	50	
6.3	Internal power supply voltage	V DC	12 / 24 VDC	
<b>7</b>	<b>CERTIFICATE OF COMPLIANCE AND TESTING DOCUMENTATION</b>			
7.1	The device shall be delivered with complete certificate of compliance documentation: factory test sheets in accordance with IEC standards		yes	
OVERALL COMPLIANCE WITH THE REQUIREMENTS (YES/NO)				