



## SCADA Clarifications Letter Tender No. (SELCo. 04/2019)

Kindly find below following questions received from companies and kindly find below our clarifications are in red:

- 1- In the PLC specifications you require Bit 0.08  $\mu$ s, Word 0.1  $\mu$ s, Float-point 1.2 $\mu$ s , are these numbers obligatory or we can offer slightly slower speeds such as the following (still very fast for the required application)?

CPU processing times	
for bit operations, typ.	0.08 $\mu$ s
for word operations, typ.	1.7 $\mu$ s
for floating point arithmetic, typ.	2.3 $\mu$ s

As according to the mentioned specification at the tender page 6 point 5 and you can offer as another option.

- 2- In the BOQ the required software for SCADA is Control Maestro, is that obligatory or we can offer alternative solution for SCADA software such as WinCC from Siemens?

You can offer Maestro brand or an equivalent brand, we are not fixed at certain type of brand.

- 3- Do you need all these interfaces with the PLC? Or they can be added externally later on (not in tender scope)?

Internal interfaces:
- COM1: RS485, Sub-D connection, Programming, Modbus-RTU, ASCII, CS31.
- Ethernet: RJ45, Ethernet functions: Programming, Modbus TCP/IP, UDP/IP, integrated Web server, DHCP, FTP server, SNTp client.

These types are mentioned as an example, you can offer different types or a subset of these types BUT you must be well known and a work according national standard so we will not be stuck at certain type of hardware or software.



4- All your sites that will require an RTU have already internet connection with VPN? If not, whose scope is it?

- Please advise the two-way communication requirements; is that over GPRS network, radio, fiber, etc....?

- We have to clarify the communication between all sites and SCADA system. The communication can be many type as GSM modem, DSL modem, Fiber optik etc. To prepare the correct offer, we need to know it.

**We the proposed solution must support connection using a secure channel.**

**The better way is GSM modem in each site and your offer must support other mentioned communication methods at the tender through a secure channel.**

5- What type of field works is required besides installation of panel? (distances, location of reclosers ...etc) can you provide us with an example.

- The responsibity of Panels mounting on the pole.

**SELCo team could support your team during installation time that under your supervision.**

6- For optional item (Server), can we offer cheaper server which is still fully performant for the required application?

**The mentioned specification is the minimum, you can offer either the same or higher.**

7- Please advise for the types of Autoreclosers that you use in your network and the quantities of each type that you want to control it via SCADA?

- We need the technical details about each site to define the signal lists, to see the number of switchgears and number of it?

- Type of each relay in each site?

No.	Site Name	Location	Switch Gear (S.G) Type Autorecloser (A.R) Type	Relay Type
1	Yatta connection point	Yatta	S.G/Schneider SM6-36	SEPAM T42
2	Yatta Al mahajer	Yatta	A.R/GVR	POLARR
3	Yatta Al Namaa	Yatta	A.R/GVR	POLARR
4	Yatta Al Balad	Yatta	A.R/GVR	POLARR
5	Mnizel Connection Point	Yatta	S.G/Ulusoy	SEPAM T42

6	AL Dhaheria connection point	Dhaheria	A.R/Entec	EVRC2A-NT
7	AL Dhaheria Al Merzab	Dhaheria	A.R/GVR	POLARR
8	AL Dhaheria Ishbilia	Dhaheria	A.R/GVR	POLARR
9	Dura connection point	Dura	A.R/Entec	EVRC2A-NT
10	Dura Sinjer	Dura	A.R/GVR	POLARR
11	Dura basatin	Dura	A.R/GVR	POLARR
12	Sekka Connection Point	West Dura	S.G/Schneider SM6-36	SEPAM T20
13	Bait mersem Connection Point	West Dura	S.G/Normafix	ISEG- MRI3
14	Ramadin Connection Point	Ramadin	A.R/GVR	POLARR
15	Abda-Imreish Connection Point	Dura	A.R/GVR	POLARR

**-Pictures:**

- **S.G/Schneider-Relay :SEPAM T42:**



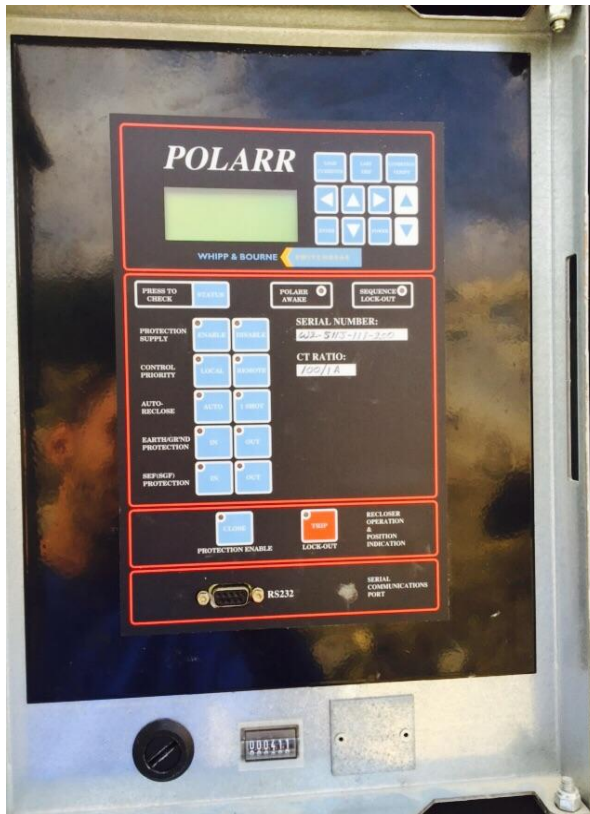
- **S.G/Schneider-Relay :SEPAM T20:**



- S.G/Normafix-Relay: ISEG MRI3:

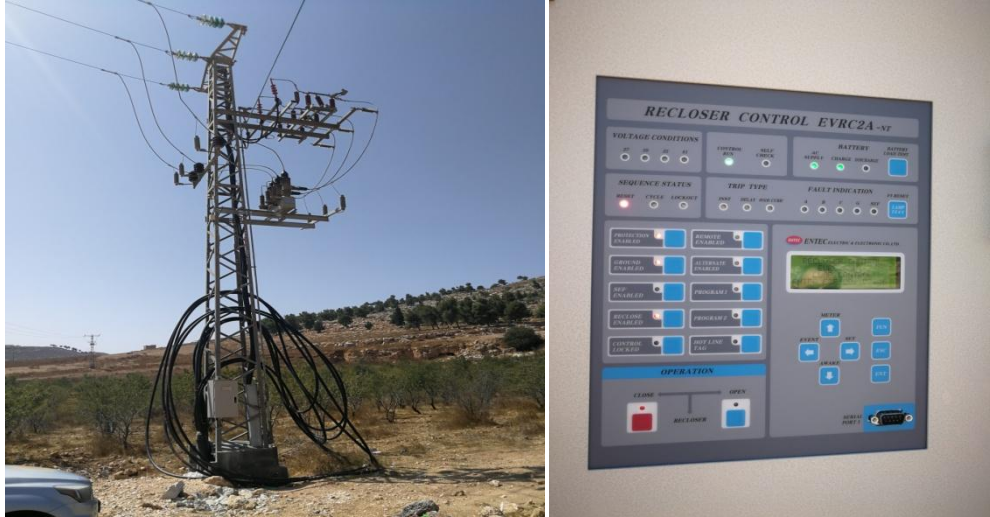


- A.R/GVR-Relay: POLARR:





- A.R/Entec-Relay: EVRC2A-NT:



- 8- Please advise if there is any preference for the brand of PLC, RTU, and Communication hardware.

**You can offer according to the mentioned specification at the tender.**

- 9- Please advise if SCADA software package other than Elusion Control Maestro will be accepted (example: Siemens/Schneider Electric/ETAP, etc....)

-In the specification, SCADA system will be “Control Maestro CM-FULL-500”. Can be suggest another SCADA system brand or not?

**You can offer Maestro brand or an equivalent brand, we are not fixed at certain type of brand.**

- 10- Please confirm that one operator workstation is required (item 3 in the BOQ)

**One operator at SELCo Head Quarter (HQ) with mobile application for on-field employee also the functions for the on-field employee managed by a group of permissions with all operator functions.**

- 11- Please confirm the number of IO points for each RTU to be 8DI/6DO as per item 1 in the BOQ an no expansion IO modules will be required.

**You can offer the expansion as another option.**



12- Please clarify the SCADA servers that is mentioned in the specification “Existing Server”. Or, they want us to put an new server for SCADA system to control and monitoring.

**You can offer the SCADA server.**

13- We need the single line diagrams of all sites.

**Only have one Incoming & one Outgoing feeder for all above mentioned sites.**

14- We need more detail about SCADA system. Number of servers / workstations, Redundancy etc.

**The proposed server will be used for scada only ,the needed server must support redundancy.**

15- For each pole, it is requierd to have 220 V AC single phase voltage sourece for SCADA components and service such as (charging laptop, mobile phone , using drill....ets).

**It's available.**

16- The type of IP67 Panels needed (Local made , type tested ...ets ) .

**You can offer as an two options.**

17- Specifiyng the number of users and type of authirity.

**Number of users is unlimited, and for mobile apps as mentioned at tender but your offer must support the addition of more, it MUST not be limited under certain number of user.**

**Responsibility: must be handled using groups, then we assign user to certain group, number of groups is not limited.**

**We can assign responsibilities (functions, reports ...) to each group.**

18- Training matirals and number of trainees .

**Offical training materials and the number of trainees is 10.**

19- Warranty and after sale services.

**2 years, as mentioned in instructions to bidders at the tender.**

20- For the propsted PLC , we are recommending a little bigger PLC for future functions if needed .

**You can do that as an option.**



21- In case the power is fail , a UPS is needed for monitoring , we are proposing an Online type Ups to be a power back up and smooth AC sine wave provider in the same device

**At page 12 ,related to two-way conventional ,notice that the backup time must equal 12 hours instead of 3 hours.**

**4. RTU two-way communication**

Utility to show status of connection with each RTU.

Remote browsing, data reading, sends control command to device through secure connection.

**Two-way conventional**

Allow on site management through easy, quick, run and play connection for on field team.

Backup utility to be included in case of power source failed (for example UPS), the utility must be online, and backup time equal 3 hours.

**Old backup time**

**4. RTU two-way communication**

Utility to show status of connection with each RTU.

Remote browsing, data reading, sends control command to device through secure connection.

**Two-way conventional**

Allow on site management through easy, quick, run and play connection for on field team.

Backup utility to be included in case of power source failed (for example UPS), the utility must be online, and backup time equal 12 hours.

**New backup time**