SITE SURVEY REPORT
Ericsson

1. GENERAL INFORMATION

Site name:	**Puiesti**
Site number (code):	**BX 351**
Site address (city;street;no.; building; entrance):	**Extravilanul Sat. Puiestii De Jos Com. Puiesti Tarlaua 30 Jud. Buzau**
Site area:	**Buzau**
Site survey team:	**Adrian Parmac**
Checked by:	**Adrian Cristea**
Date of site survey:	**10.04.2017**
Type of Site (urban, rooftop):	**Rural, Grenfield**
Lesser:	**Telekom**
Contact Person:	

Other Remarks:	

2. ROOFTOP (Building information)

GPS coordinates:	**N .....° .....' ....,....."** **E .....° .....' ....,....."**
Building height:	**..... m**
Existent tripod:	**Yes ☐** **NO☐**
Total height:	**..... m**
Use of crane for materials transportation:	**Yes ☐** **NO☐**

Other Remarks:	

3. GREEN FIELD (Specific data information)

GPS coordinates:	**N 45° 24' 45"** **E 27° 13' 56"**
Tower:	**Yes ☒ NO☐**
Tower type:	**☒Heavy Cosmosite tower – 50m** **☐ Polygonal Monopol – 30m (or more)** **☐Monopole lattice tower-30m** **☐Guyed tower on shelter-20m**
Antenna Metallic Structure:	**New "H" Yes ☒ NO☐** **Upgrade existing "H" Yes ☐ NO☒** **Atypical Structure Yes ☐ NO☐**
RRU Metallic Structure:	**New RRU Support Yes ☒ NO☐** **Atypical Structure Yes ☐ NO ☐**
Mini - shelter require:	**Yes ☐ NO☒**
Mini – shelter frame standard adaptor solution:	**Yes ☐ NO☒**
In case Non Standard Mini-shelter frame solution, dimensions are requested:	**…… mm x …… mm x …… mm**
Non standard mini - shelter frame profile	
RRU to Antenna/Combiner Jumper length (type: DIN7/16 Male –N Male):	**12x3m**
Antenna to Combiner -> Jumper length (type: DIN7/16 Male – DIN7/16 Male):	**m**
FO cable length between BB to RRU	**6x10 m**
DC cable length between PP to RRU	
Type and length of DC power for RRU Cu 2x6 mm² (L<30m):	**Type …… / …… m**
Type and length of DC power for RRU Cu 2X10 mm² if needed(30m<L<60m):	**Type …… / …… m**
Type and length of DC power for RRU Cu 2X16 mm² if needed(60m<L<90m):	**Type …… / …… m**
Type and length of DC power for RRU Cu 2X25 mm² if needed(L>90m):	**Type …… / …… m**
Combo Box required:	**Yes ☐ NO☒ ; Length of cable: …… m**
Connection patch length from CB to RRU (FO&DC)	**6x10m**
Outdoor CB existing breakers type	**16A☐ 25A☐ Oth.☐ A spec**
PDU existing breakers availability (63A in PP)	**Yes ☐ NO☒**
DC cable length from PP to new PDU	**N/A**
PP Type / producer plus picture on the bottom	**SUNLIGHT**

4. EXISTING CONTRACT & CHANGES

Indoor space requires contract change	**Yes ☐**	**No ☒**	
Outdoor space requires contract change	**Yes ☐**	**No ☒**	
Cable routing requires contract change	**Yes ☐**	**No ☒**	
Power cabling requires contract change	**Yes ☐**	**No ☒**	
Indoor space requires studies & license change	**Yes ☐**	**No ☒**	
Outdoor space requires studies & license change	**Yes ☐**	**No ☒**	
Cable routing requires studies & license change	**Yes ☐**	**No ☒**	
Power cabling requires studies & license change	**Yes ☐**	**No ☒**	

Other Remarks:	

5. POWER SUPPLY INFORMATION

Power availability:						
Voltage-measurements (PLC display):	**L1(V)**	**232**	**L2(V)**	**230**	**L3(V)**	**243**
Amperage-measurements (PLC display, without A/C):	**I1(A)**	**5.66**	**I2(A)**	**5.52**	**I3(A)**	**1.05**
Amperage-measurements (PLC display, with A/C):	**I1(A)**	**-**	**I2(A)**	**-**	**I3(A)**	**-**
Outdoor mini shelter: 32A available breaker in LDB (5x6 mm² AC Cable)	**N/A**					
1X16A available breakers in indoor Power System	**NO**					
1X32A available breakers in indoor Power System	**NO**					
2X63A available breakers in indoor Power System	**NO**					
Power counter exist:	**YES**					
Main AC board exist:	**YES**					
Breaker value in BMPT:	**63A**					
Surge arrestors existence:	**NO**					
Type and length of power connection cable for BBU	**CU 2x2.5 mm² - 2x2x2m (shielded cables)**					
Type and length of power connection shielded cable Al 6X25 mm² if needed:	**N/A**					
Type and length of power connection shielded cable Al 6X35 mm² if needed:	**N/A**					
Type and length of AC power connection cable 5X6 mm² for mini shelter if needed:	**N/A**					
Type and length of DC power from PSU to PDU Al 2x35 mm² if needed:	**N/A**					
CB/PDU/2 Sections (if needed):	**N/A**					
CB/PDU/3 Sections (if needed):	**N/A**					
PDU indoor (if needed):	**NO**					
Boards grounding - secured:	**YES**					
Boards waterproofed:	**YES**					

Other Remarks:	**Se vor instala 6 RRU-uri noi (800LTE+2100UMTS) pe 1 suport GF2 existent + 2 suporti GF2 noi, orientati la interiorul turnului in spatele antenelor RF. Noile RRU se vor alimenta din CB/PDU/3 Sect. existent pe turn, pe 6 sigurante noi de 25A. In Rack-ul existent se vor instala 2xMU noi ce se vor alimenta din cate o siguranta de 16A noua din PDU indoor existent. Vor fi instalate 6 x cabluri FO 10m de la CB/PDU/3 Sect. la RRU-uri noi si 6 cabluri DC ecranate 2x6 mm² _10m de la RRU-uri noi la CB/PDU/3 Sect. existent.**

6. POWER PLANTand BATTERY INFORMATION

Number of units	☒	**Unit 2** ☐
Type	**300A** ☐ **600A** ☐ **Other** ☒	**300A** ☐ **600A** ☐ **Other** ☐
Nr./capacity[A] of rectifier modules	**4xSMR3000**	
DC Load Amperage(displayed) [A]	**36**	
Battery capacity [Ah]	**150**	
Battery type/number	**12V155FS/8**	

Other Remarks:	

7.AIR CONDITIONING INFORMATION

Temperature [°C]	**Internal:21.4**	**External:11,0**
Number of units	**Unit 1** ☒	**Unit 2** ☐
Type	**Free Cooling** ☐ **Duct** ☒ **Split** ☐	**Free Cooling** ☐ **Duct** ☐ **Split** ☐
Technical specifications from external unit label		
Cooling capacity [BTU]	**9.000** ☐ **12.000** ☐ **18.000** ☐ **24.000** ☒ **Other** ☐	**9.000** ☐ **12.000** ☐ **18.000** ☐ **24.000** ☐ **Other** ☐
Start meter	**Compressor:0** **Evap. Fan:0** **Heather:4683**	**Compressor:-** **Evap. Fan:-** **Heather:-**
Work time meter [h]	**Compressor:226241.8 h** **Evap. Fan: 33111.0 h** **Heather: 204.2 h**	**Compressor:-** **Evap. Fan:-** **Heather:-**
Alarms outputs	**Very high temp** ☐ **Very low temp** ☐	**Very high temp** ☐ **Very low temp** ☐

Other Remarks:	

8.NEW INSTALLATION INFORMATION

Common: number of buss with free holes	**N/A**
Common: Available space on the existing cable tray	**YES**
Indoor equipment: Existing space for ILP mounting	**N/A**
Indoor equipment: Existing space for Radio Indoor equipment mounting	**Yes**
Indoor equipment: Existing space for Indoor Concentrator equipment mounting	**N/A**
Indoor equipment: Existing space for DC PDU mounting	**Yes**
Indoor equipment: Available holes in FIMO	**YES**
Outdoor equipment: Existing space on the existing base frame for mini shelter mounting	**N/A**
Outdoor equipment: Existing outdoor transmission cabinet	**N/A**
Outdoor equipment: Existing space for outdoor Concentrator mounting (proposal)	**N/A**
Outdoor equipment: Existing space for RRU mounting (proposal)	**YES, on 1 x GF2 existing support; on 2 x GF2 new support.**

Other Remarks:	**FO – 6x10m (CB-RRU-uri);** **CU shielded 2x6mm²(RRU-CB) 6x10m;** **Jumperi ½" – 12x3m**

9. EXISTING TELECOM EQUIPMENT & INFRASTRUCTURE

a. General information

Equipment type:	**Indoor** ☒	**Outdoor** ☐	
Number of RF antennas:	**1x741 785, 3xDBXLH-6565C-VTM**		
Number of MW links	**1xØ0.3m, 3xØ1.2m, 2xØ2.4m**		
Nr. of existing RBS cabinets	**1xRBS6601**		
MW existing RL cabinet	**Indoor** ☒	**Outdoor** ☐	
Power cabinet exist (BBS):	**Yes** ☒	**No** ☐	

Existing cable ladder availability:	**Yes ☒**	**No ☐**	
Existing cable entry availability:	**Yes ☒**	**No ☐**	
Air condition existence & operation	**Yes ☒**	**No ☐**	
Grounding protection existence:	**Yes ☒**	**No ☐**	
Lightning protection existence:	**Yes ☒**	**No ☐**	
Installation of RF & IF cables requires special machinery (e.g. crane)	**Yes ☐**	**No ☒**	

b. Existing Masts

	Height	Length	poles/mast	Cell_id on the mast	installation readiness
1	50,0m	-	1	A/U	Already installed
2	50,0m	-	2	B/V	Already installed
3	50,0m	-	3	C/W Z	Already installed

c. Existing Antenna Poles

	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1	50,0m	1x3m Ofsset type	A/U	0°	No	Already installed
2	50,0m	1x3m Ofsset type	B/V	75°	No	Already installed
3	50,0m	1x3m H type	C/W Z	230° 295°	No	Already installed

d. Existing MW Poles

	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1							
2							
3							
4							

Remarks:	

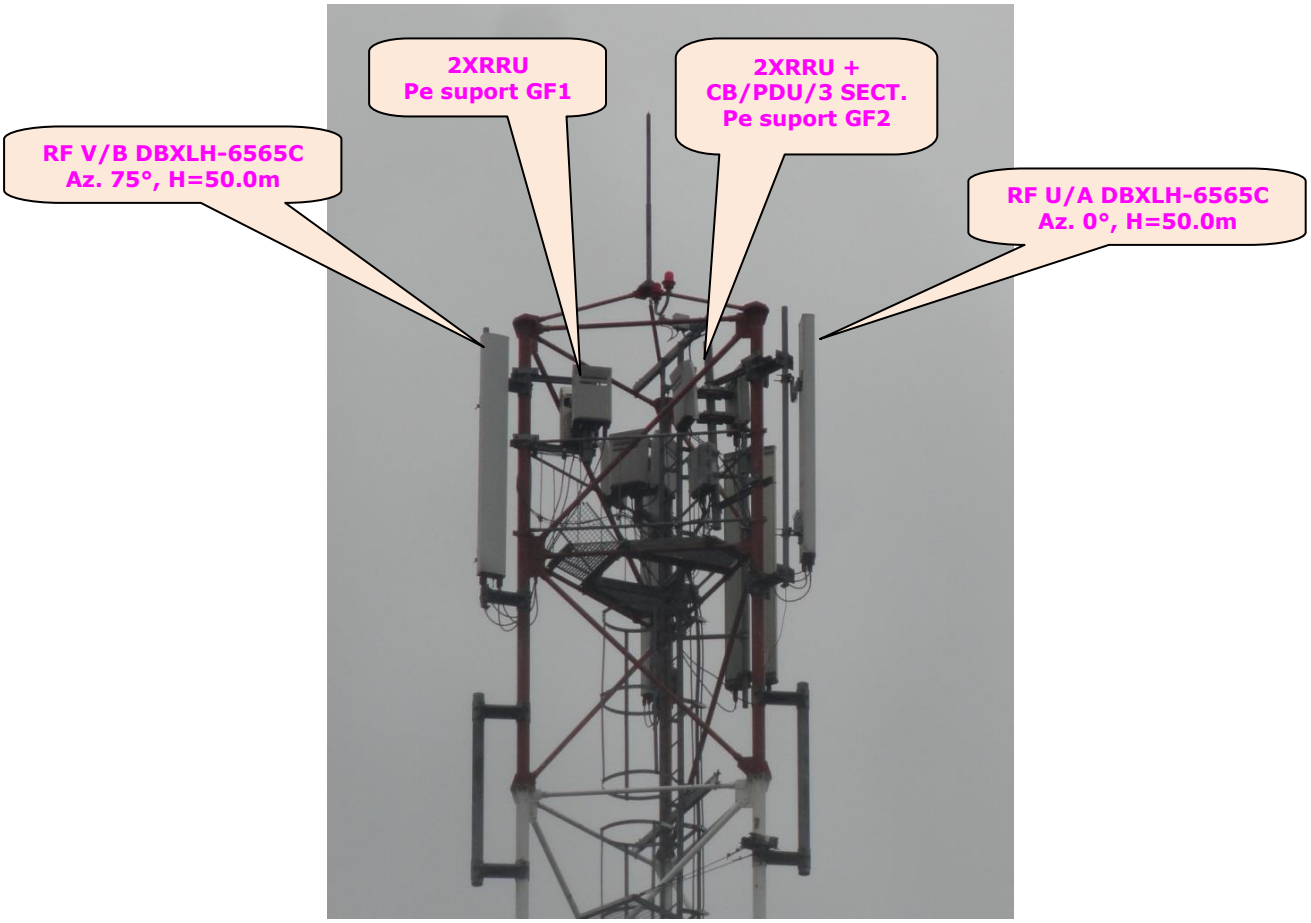
10. ANALYSIS LOADING DATA

LOAD TYPE	DIAMETER (mm)	POSITION (m)	NUMBER
M/W LINK	300	24,0	MW1
	1200	34.50	MW2
	2400	41.50	MW3
	1200	28.5	MW4
	2400	36.0	MW5
	1200	16.50	MW6

11. EXISTING LAYOUT(S):

Vedere Generala site

Antene si echipamente existente:



Shelter

Intrare cabluri in shelter la exterior

Traseu pat cabluri

Aer conditionat outdoor unit

Tablouri electrice

Intrare cabluri in shelter la interior

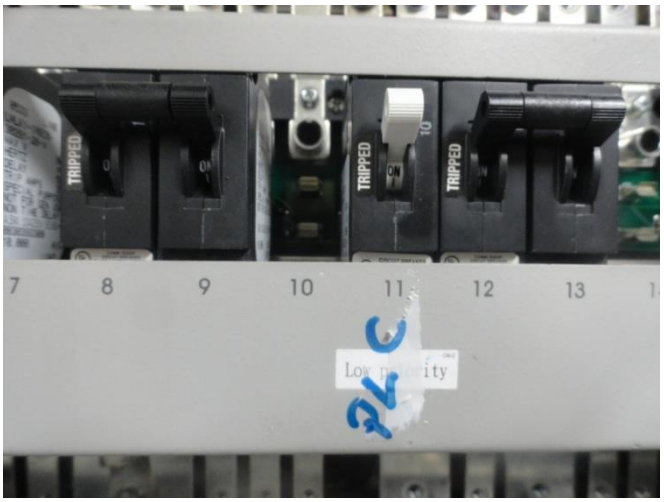
Aer conditionat indoor unit

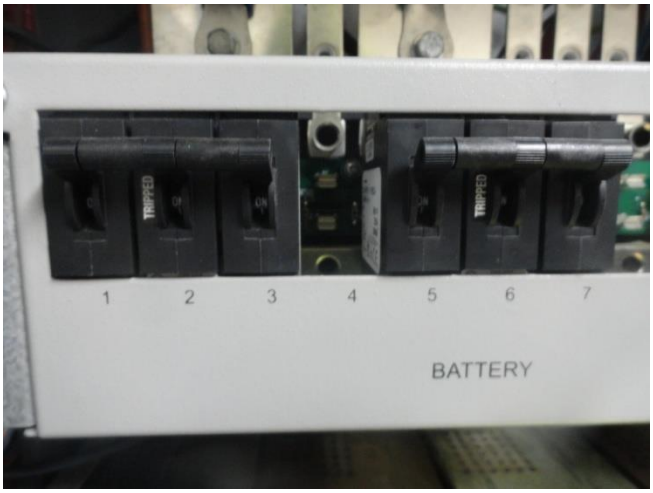
PP Sunlight


54.3 U
224
MAJ ALM
MIN ALM
EQU
FL
NEW
PARM EVENT ALARM


TO-225E
ON
TECO


TRIPPED
ALM 40A
3
4
5
6
7


TRIPPED
7
8
9
10
11
12
13


TRIPPED
1 2 3 4 5 6 7
BATTERY

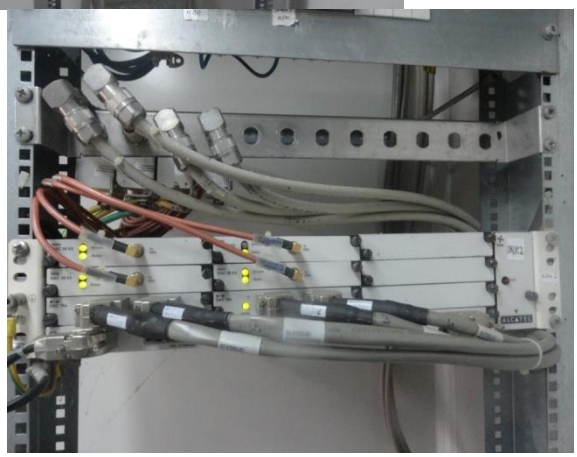

TRIPPED
TRIPPED
2 4 5 6 7
High-Priority


TRIPPED
TRIPPED
7 8 9 12
-Priority

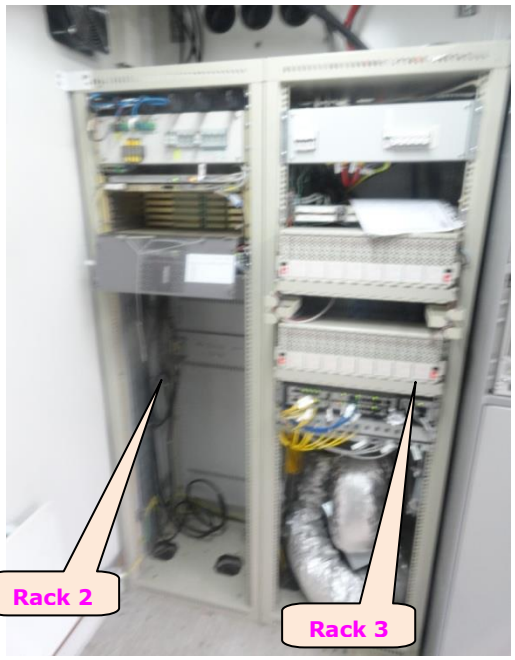

8xBaterii

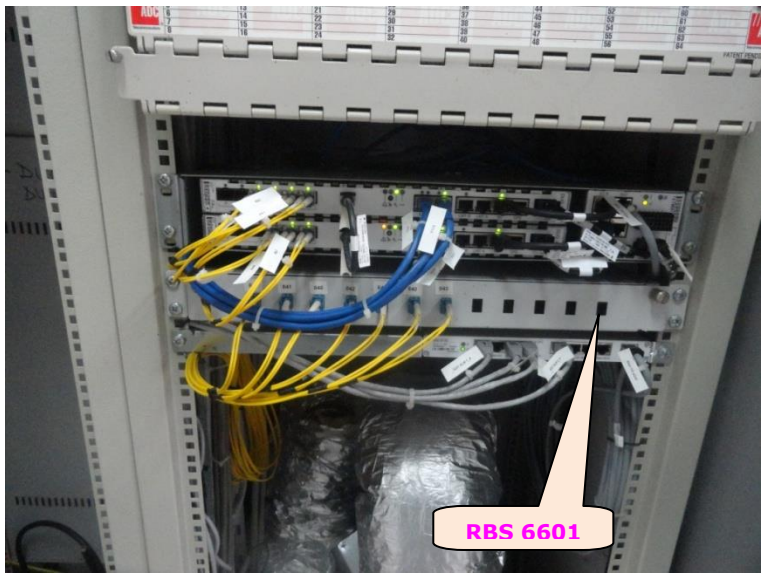

PowerSafe
12V155FS
Nominal capacity / Capacité nominale
Float voltage / Tension de floating
Connection torque / Couple de serrage
Typical weight / Poids moyen
Non-Spillable Battery
Made in EU
EnerSys
www.enersys.com

Rack 1

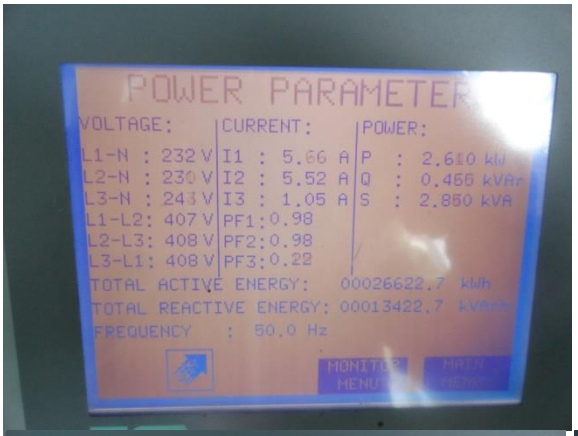


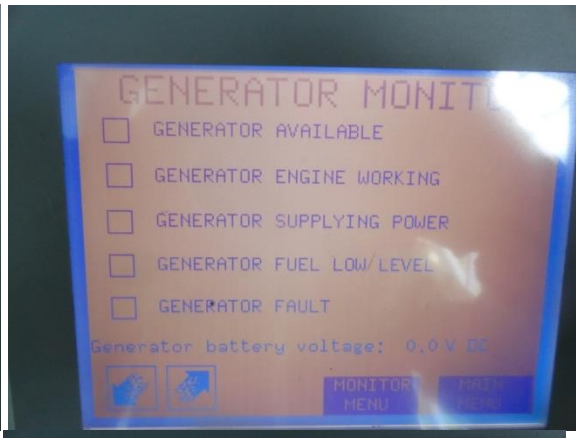
Rack 2 +Rack 3

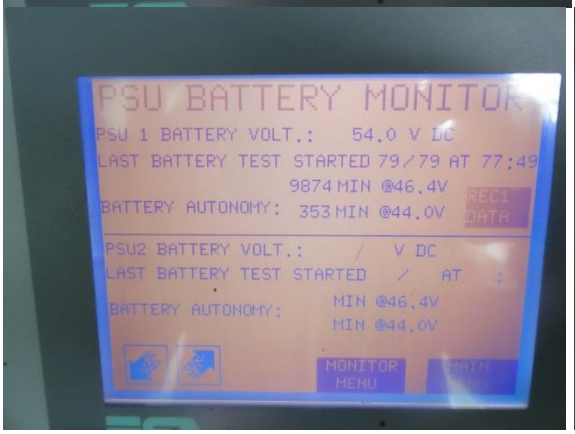


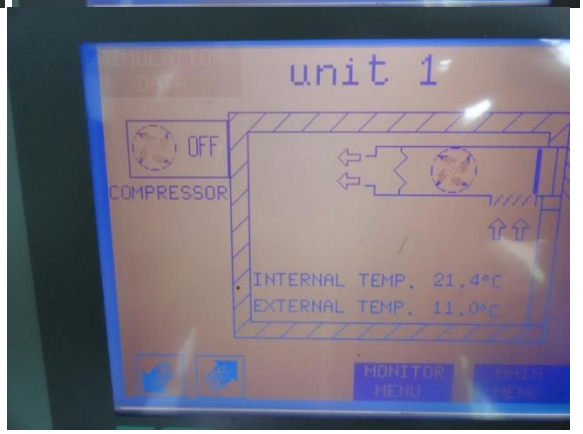


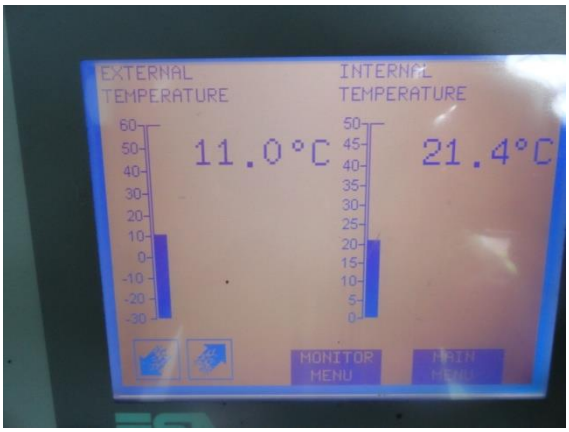
PLC

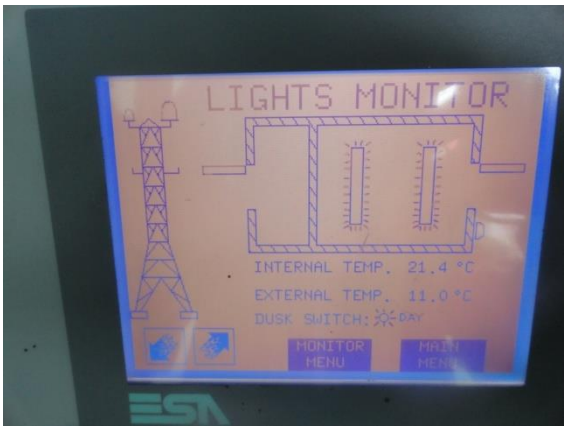

POWER PARAMETER
VOLTAGE:
CURRENT:
POWER:
L1-N : 232 V
L2-N : 230 V
L3-N : 243 V
L1-L2: 407 V
L2-L3: 408 V
L3-L1: 408 V
I1 : 5.66 A
I2 : 5.52 A
I3 : 1.05 A
PF1:0.98
PF2:0.98
PF3:0.22
P : 2.610 kW
Q : 0.456 kVAr
S : 2.860 kVA
TOTAL ACTIVE ENERGY: 00026622.7 kWh
TOTAL REACTIVE ENERGY: 00013422.7 kVArh
FREQUENCY : 50.0 Hz
MONITOR MENU
MAIN MENU


GENERATOR MONITOR
GENERATOR AVAILABLE
GENERATOR ENGINE WORKING
GENERATOR SUPPLYING POWER
GENERATOR FUEL LOW LEVEL
GENERATOR FAULT
Generator battery voltage: 0.0 V DC
MONITOR MENU
MAIN MENU


PSU BATTERY MONITOR
PSU 1 BATTERY VOLT.: 54.0 V DC
LAST BATTERY TEST STARTED 79/79 AT 77:49
9874 MIN @46.4V
BATTERY AUTONOMY: 353 MIN @44.0V
RECI DATA
PSU2 BATTERY VOLT.: / V DC
LAST BATTERY TEST STARTED / AT :
BATTERY AUTONOMY: MIN @46.4V
MIN @44.0V
MONITOR MENU
MAIN MENU

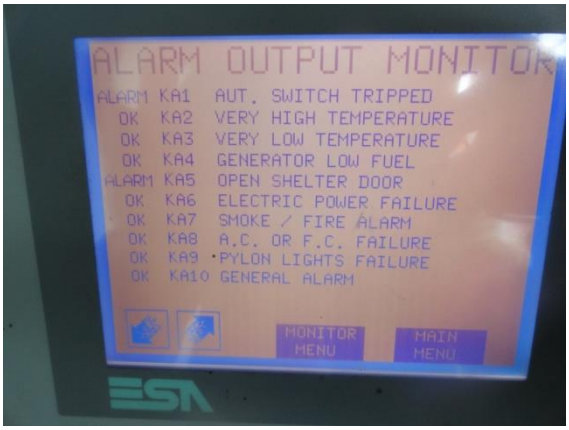

unit 1
OFF
COMPRESSOR
INTERNAL TEMP. 21.4°C
EXTERNAL TEMP. 11.0°C
MONITOR MENU
MAIN MENU

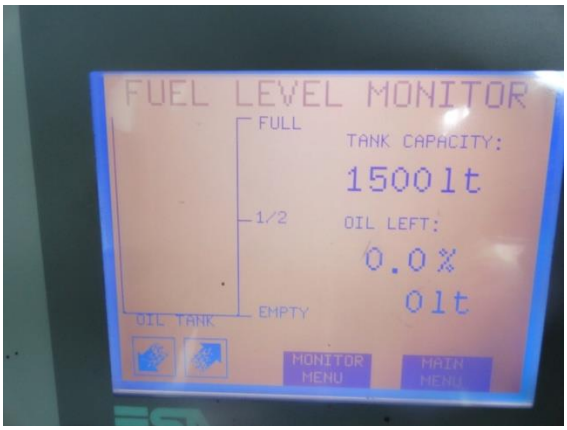

EXTERNAL TEMPERATURE
INTERNAL TEMPERATURE
11.0°C
21.4°C
MONITOR MENU
MAIN MENU

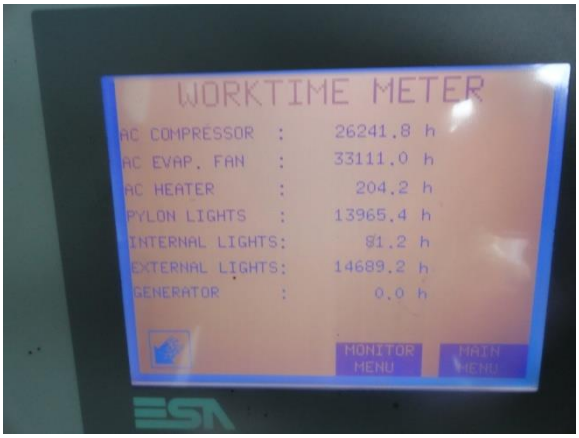

LIGHTS MONITOR
INTERNAL TEMP. 21.4 °C
EXTERNAL TEMP. 11.0 °C
DUSK SWITCH: DAY
MONITOR MENU
MAIN MENU


EVENT HISTORY
DATE: 93/!!!/9393 93:93:93
ALARM MESSAGE:
No: 393
-10
PREVIOYS EVENT
LAST EVENT
NEXT EVENT
+10
MONITOR MENU
MAIN MENU


DATALOGGER MONITOR
DATE: 06/!!!/0001 14:00:00
Ti: 00 °C
Te: *** °C
Vmax: 007 V
Vmin: 752 V
Freq: 00.8 Hz
Energy: 75.2 kWh
I1 max: 52 A
I2 max: 52 A
I3 max: 08 A
Fuel: 9095 lt
-10
PREVIOYS
LAST
NEXT
+10
MONITOR MENU
MAIN MENU







12. PROPOSED INFRASTRUCTURE & EQUIPMENT SOLUTION

a. Indoor cabinets

Dimensions of existing room:	**3040x2300**
Space availability for indoor equipment:	**Yes**
Expansion of existing equipment room:	**No**
Shelter needed:	**No**
Shelter concrete base needed:	**No**
Space availability for new shelter positioning:	**N/A**
AC power extension/change:	**N/A**
Main grounding bus bar existence:	**Yes**
Water proofing of the room needs restoration:	**N/A**
Internal Lighting restoration:	**N/A**
Wall painting needed:	**N/A**
Antistatic floor addition:	**N/A**
Fire alarm system expansion:	**N/A**
Air Conditioning (A/C) expansion/replacement:	**N/A**
Nr./capacity[A] of rectifier modules	**4**
Security Lights board:	**Yes**
Plastic trays for cables expansion :	**Yes**
Internal ladder for the feeders availability:	**Yes**
Cable entry expansion:	**No**
Other Remarks:	

b. Outdoor cabinets

New metal base needed:	**N/A**
Dimensions of new metal base:	**N/A**
Secure of metal base on floor:	**N/A**
Grounding of base/Earthing for equipments:	**N/A**
AC power supply availability:	**N/A**
Needed properly holes on base:	**N/A**

Clearances around cabinets:	**N/A**
Other Remarks:	

c. Proposed New Masts

	Height	Length	poles/mast	Cell_id on the mast	Position
1	N/A	N/A	N/A	N/A	N/A

d. New Antenna Poles

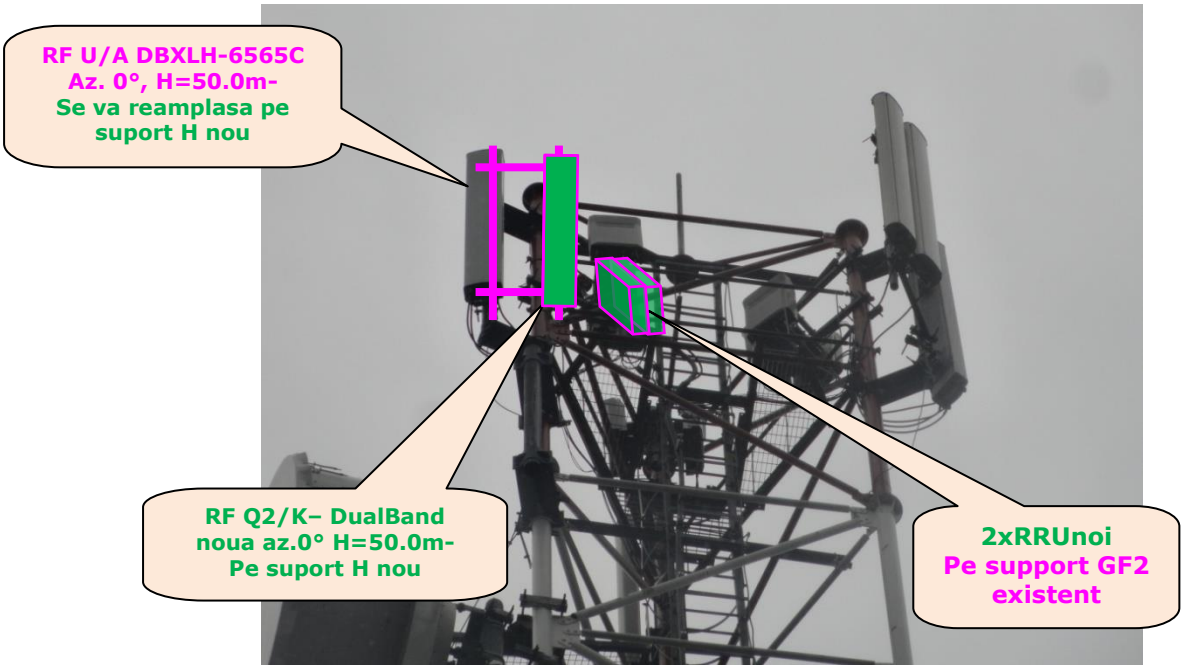
	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1	N/A	N/A	N/A	N/A	N/A	N/A

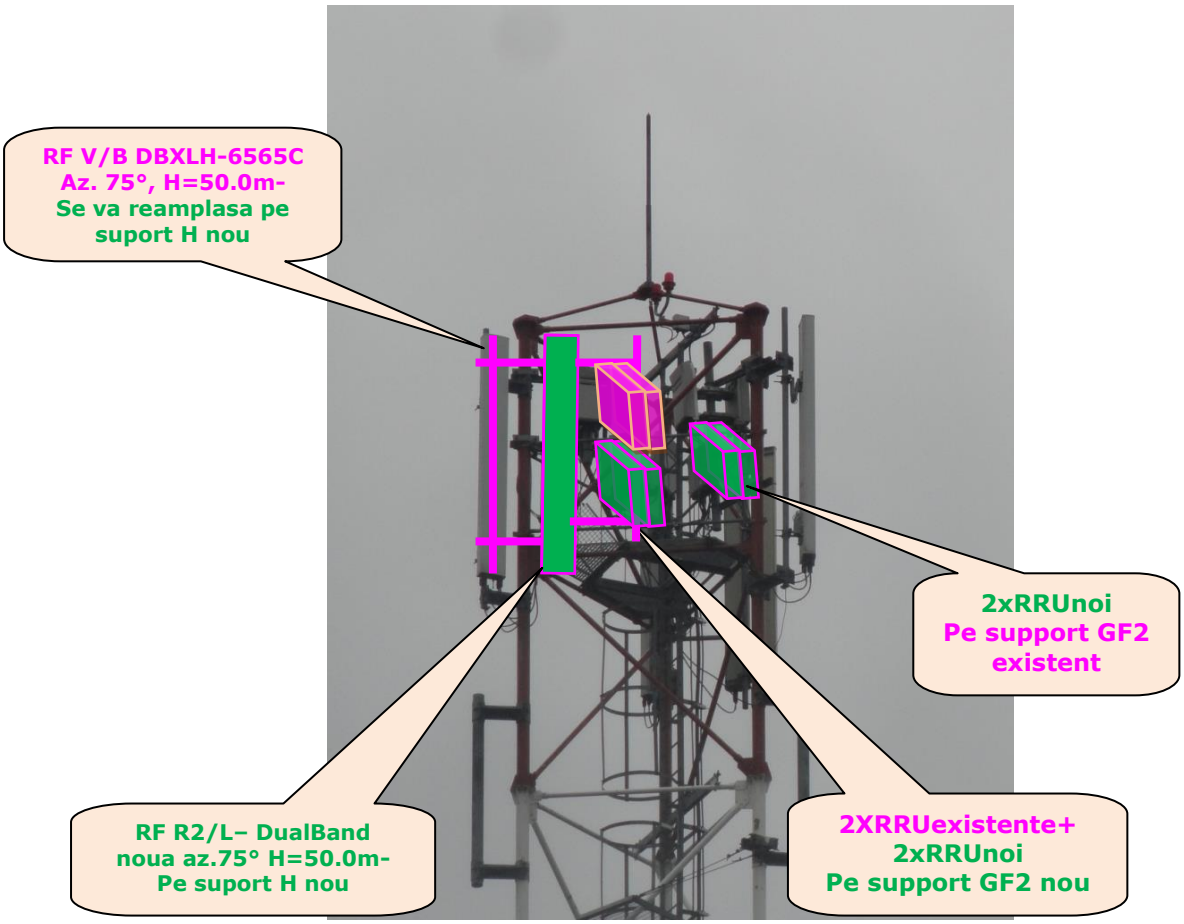
e. New MW Poles

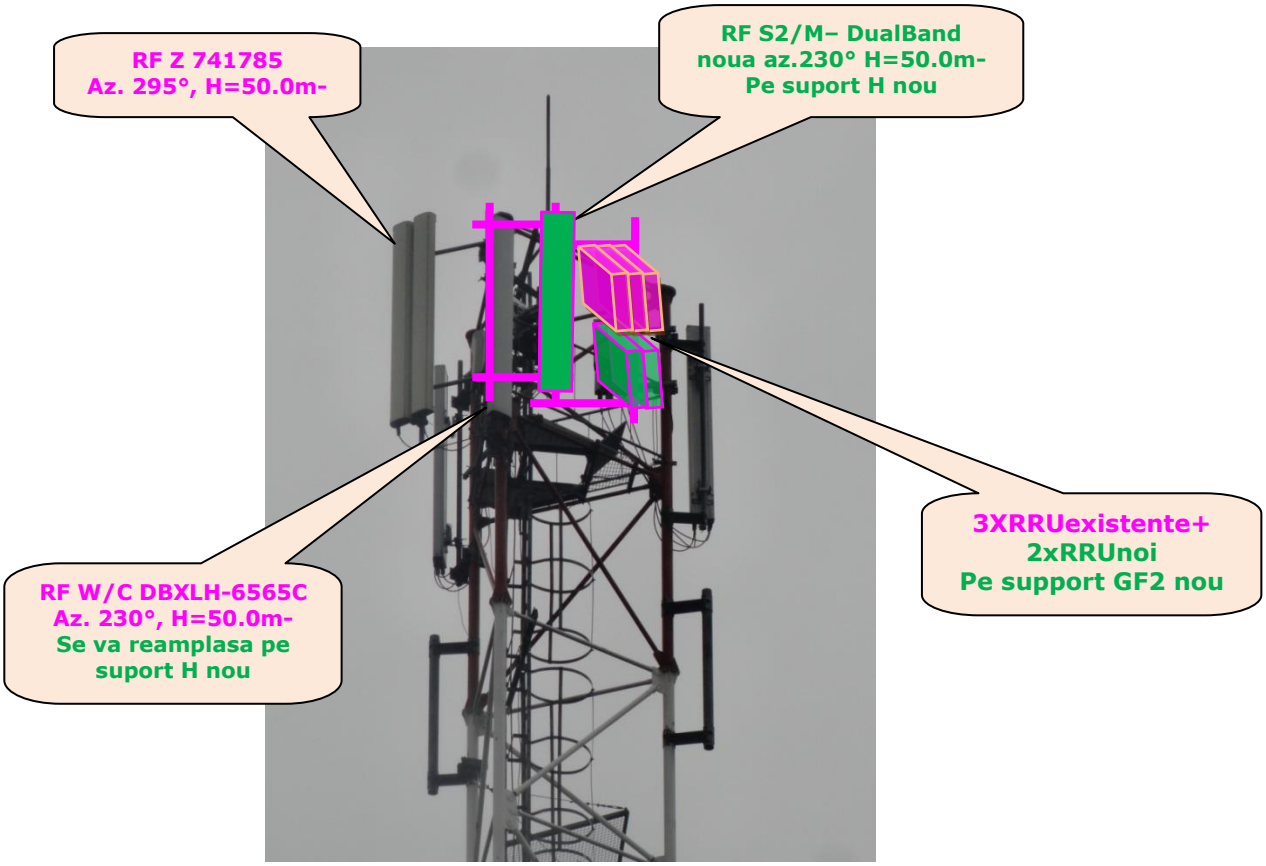
	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

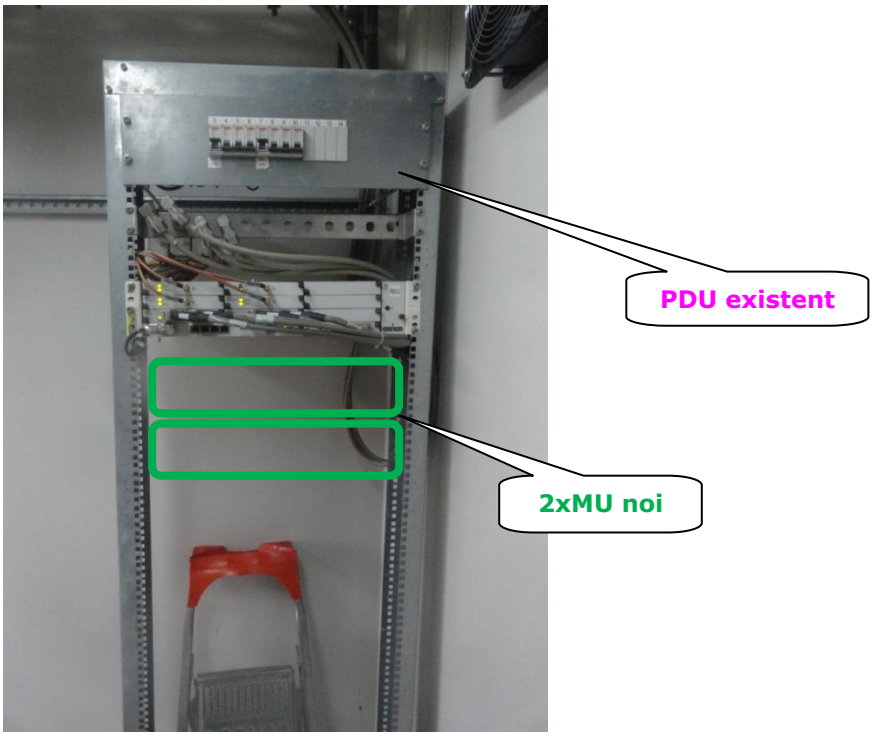
Proposed corrective works:	**Situatia propusa pentru site-ul BX 351 este urmatoarea:** **Antenele existente si echipamentele RRU existente pe site se vor pastra;** **Se vor instala 3 suporti H noi la varful turnului, in locul suportilor offset existenti;** **Se vor instala 3 antene DualBand (800LTE-2100UMTS) noi, montate pe noii suporti H, impreuna cu cele existente;** **Se vor instala 6 RRU-uri noi (800LTE+2100UMTS) pe 1 suport GF2 existent + 2 suporti GF2 noi, orientati la interiorul turnului in spatele antenelor RF. Noile RRU se vor alimenta din CB/PDU/3 Sect. existent pe turn, pe 6 sigurante noi de 25A.** **In Rack-ul existent se vor instala 2xMU noi ce se vor alimenta din cate o siguranta de 16A noua din PDU indoor existent.** **Vor fi instalate 6 x cabluri FO 10m de la CB/PDU/3 Sect. la RRU-uri noi si 6 cabluri DC ecranate 2x6 mm^2 _10m de la RRU-uri noi la CB/PDU/3 Sect. existent.** **Se vor folosi:** **FO – 6x10m (CB-RRU-uri);** **CU shielded 2x6mm^2(RRU-CB) 6x10m;** **Jumperi ½” – 12x3m;**

13. PROPOSED SOLUTION LAYOUT(S): PICTURES AND COMMENTS:






RF Z 741785
Az. 295°, H=50.0m-
RF S2/M– DualBand
noua az.230° H=50.0m-
Pe suport H nou
3XRRUexistente+
2xRRUnoi
Pe support GF2 nou
RF W/C DBXLH-6565C
Az. 230°, H=50.0m-
Se va reamplasa pe
suport H nou


PDU existent
2xMU noi