

МЕПСО



:
3 - 2 110 kV
4



EuroPartner GROUP
CONSULTING SERVICES



: " A 2 X
110 KV TC 3-TC 4 "

: 23-

: ' : 02 3217-306
E-MAIL: office@europartnergroup.com

: - , . . .

: (-) ' . . .
()
(-)



РЕПУБЛИКА МАКЕДОНИЈА
МИНИСТЕРСТВО ЗА ЖИВОТНА СРЕДИНА
И ПРОСТОРНО ПЛАНИРАЊЕ
Скопје

Број 02-1038/29
29.07 2009, година

П О Т В Р Д А

за положен стручен испит за стекнување на
статус експерт за оцена на влијанието
на проектите врз животната средина

ПЕЈЧИНОВСКА-АНДОНОВА Петар СЛАВЈАНКА, дипломиран инженер
технолог од Скопје, родена на 15.02.1963 година, во Скопје, Република
Македонија, на ден 01.06.2009 година, го положи **стручниот испит за
стекнување на професионално знаење за оцена на влијанието на
проектите врз животната средина**, пред Комисијата за полагање на
стручен испит за оцена на влијанието на проекти врз животна средина, при
Министерството за животна средина и просторно планирање, и се стекна со
**статус на експерт за оцена на влијанието на проектите врз животната
средина** и ги исполнува условите утврдени во член 85 став 2 од Законот за
животна средина, со тоа се стекнува со право да биде **вклучен** во Листата
на експерти за оцена на влијанието на проектите врз животната средина
што ја води Министерството за животна средина и просторно планирање на
Република Македонија.

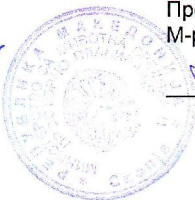
Оваа потврда се издава врз основа на член 85 од Законот за животната
средина ("Службен весник на Република Македонија" број 53/05, 81/05,
24/07 и 159/08).

Министерство за животна средина и
Просторно планирање

Комисија за полагање на стручен
испит за оцена на влијанието на
проекти врз животна средина

Министер,
Др. Неџати Јакупи

Претседател,
М-р Јадранка Иванова



_Тос252356003		
1.	.....	9
1.1	.....	9
1.2	.....	9
1.3	.....	10
1.4	.....	11
2.	.....	13
2.1	.....	13
2.2	.....	14
2.3	.....	15
2.4	.....	17
2.5	.....	20
2.6	.....	28
2.6.1	.....	28
2.6.2	.....	30
2.6.3	.....	30
3	.....	32
3.1	.....	32
3.2	.....	33
3.3	.....	34
3.3.1	.....	34
3.3.2	.....	35
3.3.3	-	36
3.3.4	.....	38
3.3.5	.....	39
3.3.6	.....	41
3.3.7	.....	43
3.4	.....	57
4	.....	68
4.1	.....	68
4.2	.....	88
5	.....	91
5.1	.....	91
5.2	.....	106
5.3	.....	106
6	.....	107

7			. 118
8		.....	119
9		.....	121
10		.....	130
10.1	1:	.....	130
10.2	2:	.....	131
10.3	3:	.....	133
10.4	4:	.....	135

1:	.....	20
2:	.....	21
3:	.....	24
4:	.....	26
5:		
6:	2005	42
7:	2009	42
8:	2009	43
9:	.....	44
10:	.....	52
11:	.....	53
12:	.....	54
13:	-	69
14:	.....	73
15:	.....	77
16:	.....	90
17:	.....	91
	.....	108



1 13

2: 14

3: 15

4: 2005 16

5: 19

6: Zc20 - 23

7: 25

8: LG 65/22/1270, 27

9: 29

10: 29

11: 30

12: 32

13: I (-) II 33

(-) 35

14: 37

15: 38

16: 39

17: " " () 40

18 41

19 44

20 47

21 22: 48

22: 48

23 49

24: 57

25: 58

26: 59

27: 61

28: 62

29: 65

30: 70

31: 73

32: 75

33: 75

34: 110 kV 76

35: 150 kV



-
-
-
-
-
-
-
-

PEHD (polyethylene high density) -
RIMSYS (River Monitoring System) -

SO₂ -

CO -

NO_x -

TSP -

NO₂ -

NMVOC - ()

WHO (World Health Organization) -

INIRC (International Non-Ionizing Radiation Committee) -

IEEE (Institute of Electrical and Electronics Engineers) -

CITES (Convention on International Trade in Endangered Species) -

IUCN (International Union for Conservation of Nature) -

2 x 110 V

3 -

4^e

81/2005, 24/2007 159/08)

(. . 53/2005,

(. . .74/2005),
2 - , 3 - , ()
1).

400m

110 kV

12km

)
)
)
)
)

1.3

2 X 110 kV TC

3 - TC

4

2 x 110 V

3 -

4^e

4

5

6

7

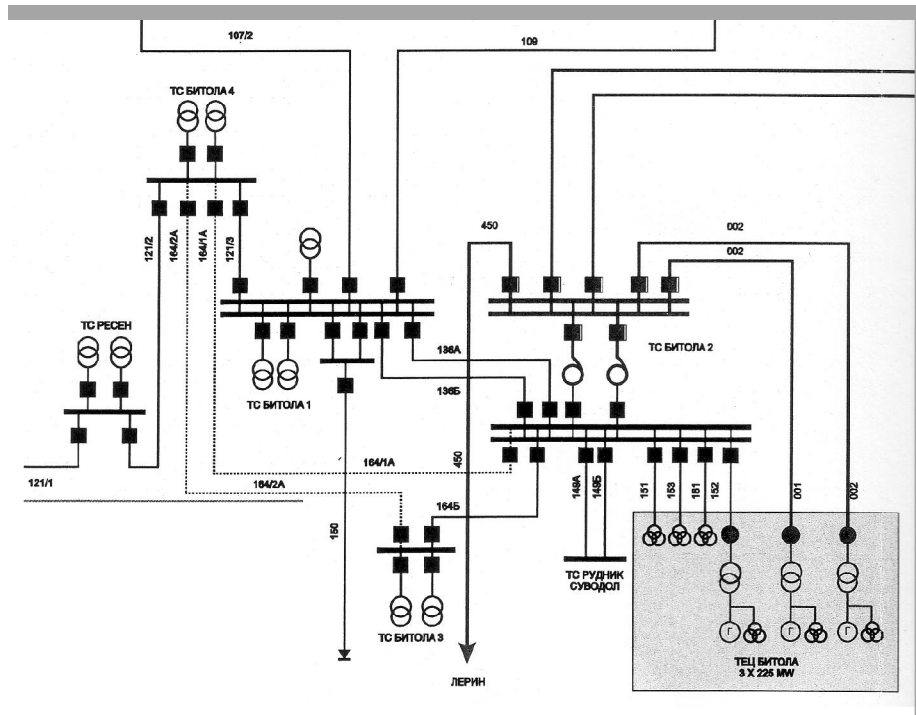
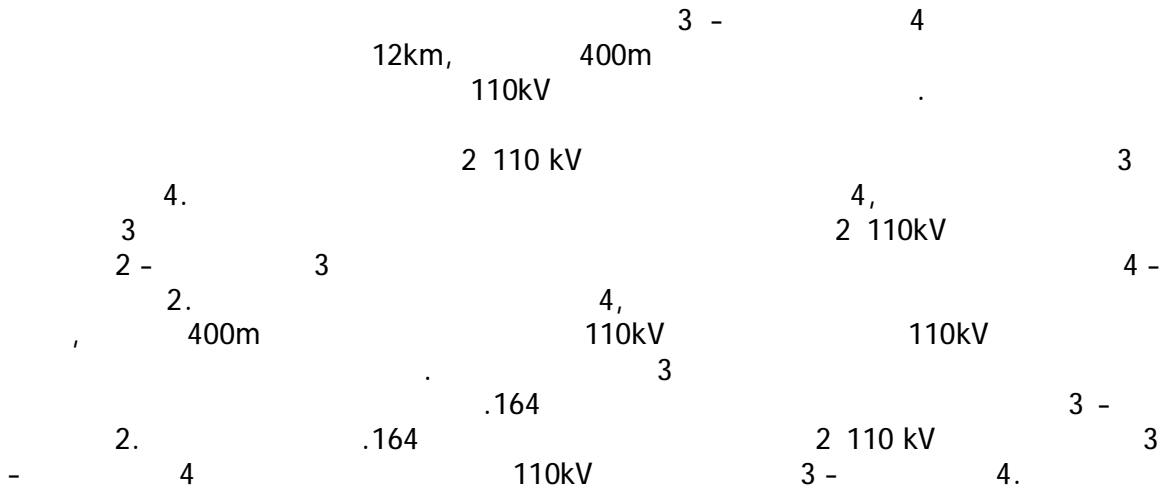
8

9

10

2.

2.1



1

2.2

1. (), 96 %

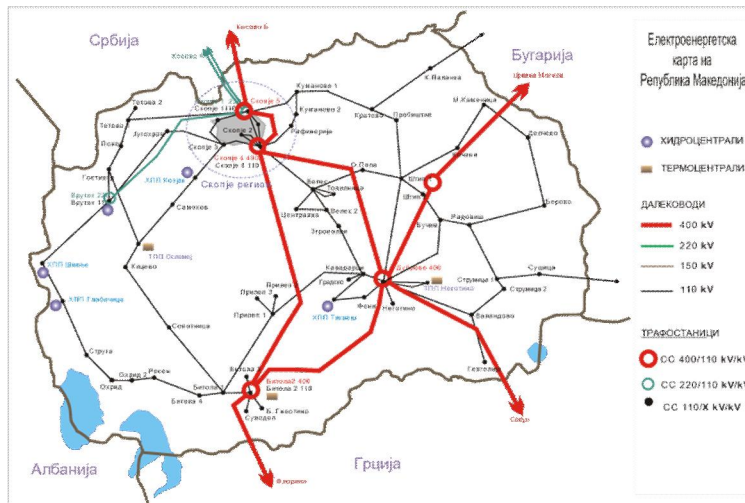
2. EVN

3. (),

E N

125 MW (675 MW) ()
150 MW, ()
400 kV (- - -)
110 kV - - -

-
2.

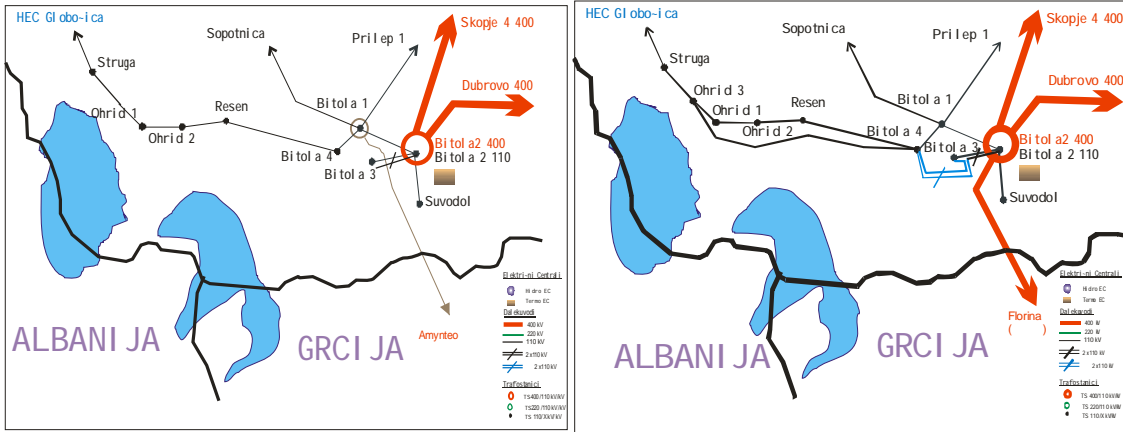


2:

110 kV 4 (1, 2, 3

3a

3



3:

3

2

10 kV

4

1

3.

1.

()

110 kV

4

3

2.3

3

4

4

(, ,)

2 x 110 V

3 -

4^e

.) 2 (4 (10 kV 4) 4

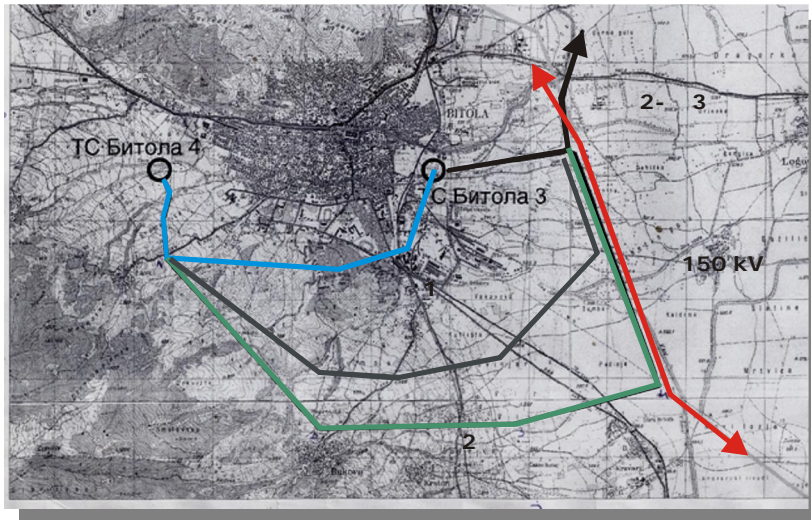
2005

1. 4 > > / >

2. 4 > > 717 > >

2 110 kV 2 - 3.

2005



4:

2005

()

4

400m

2 x 110 V

3 -

4^e

2.4.2 (1)

20

2.4.3 1 (2)

2.4.4 (3)

- 20 110 kV e ;

- ;

- ;

2 x 110 V

3 -

4^e

2.4.5

- 2

400 m

4

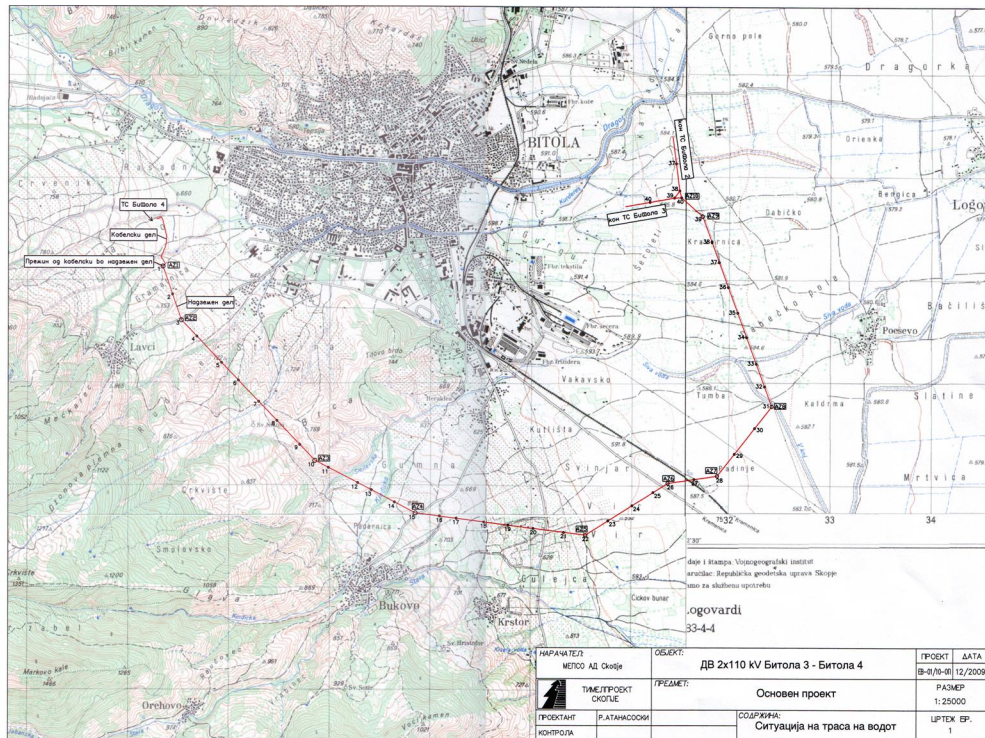
IV

150 kV

35

5

10.5.



5:

2 x 110 V

3 -

4^e

2.5

3 4
110 kV
400 m.

12 km

12 28 m, 24

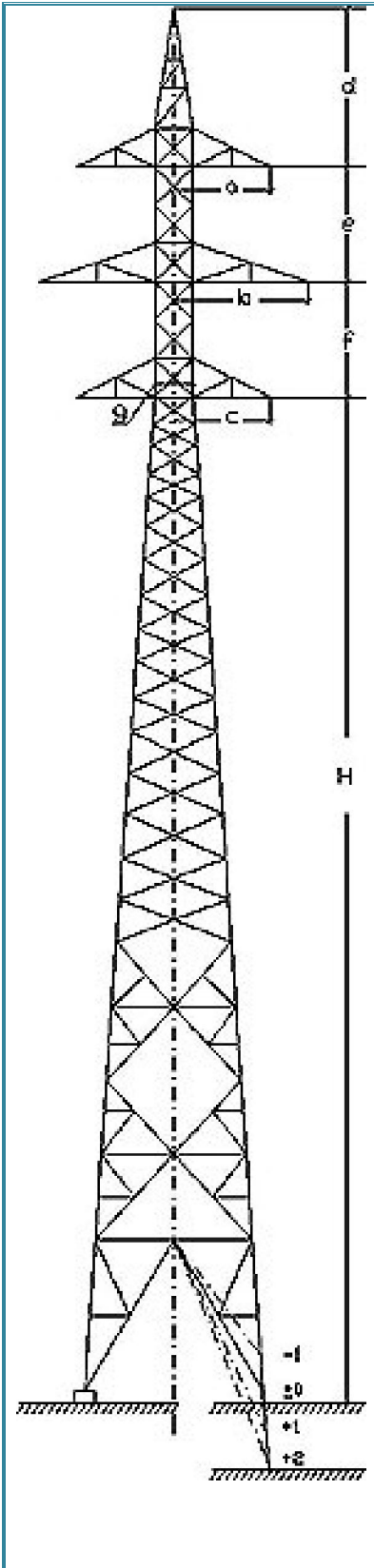
40 m.

:

1:

	110kV
	110 kV 4 2 110 kV 3, . 164 , (38 2 - 39 3)
(I)	4
(I , II)	() 4 400m)
	.38 39 (10kV) 110 kV . 164 , - 2 - " 3 " 110 kV 2 - 3, 4, : 2 - - 4
	I 400m II 12km
	12m 28m
	24m 40m

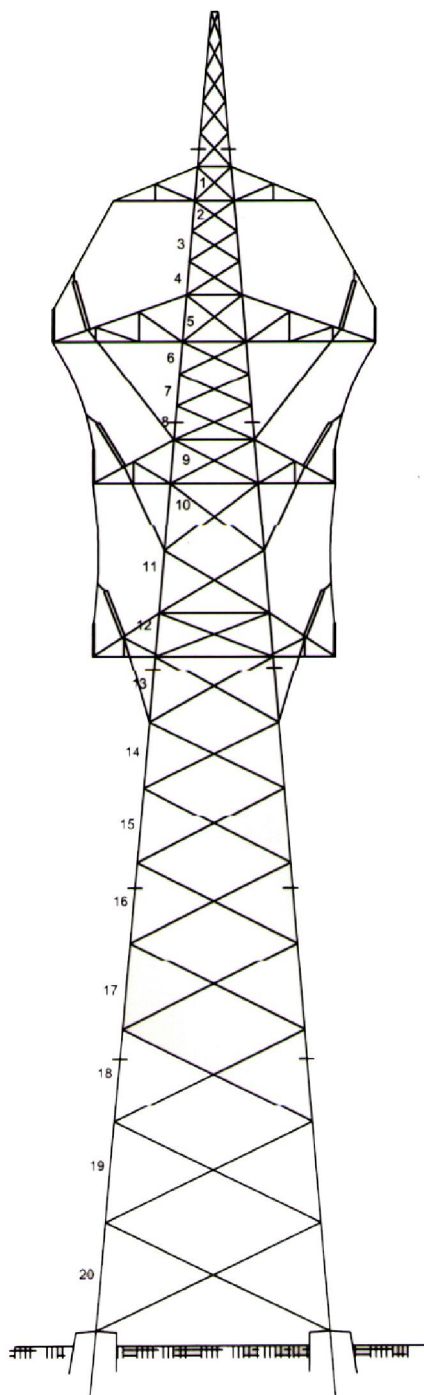
2:



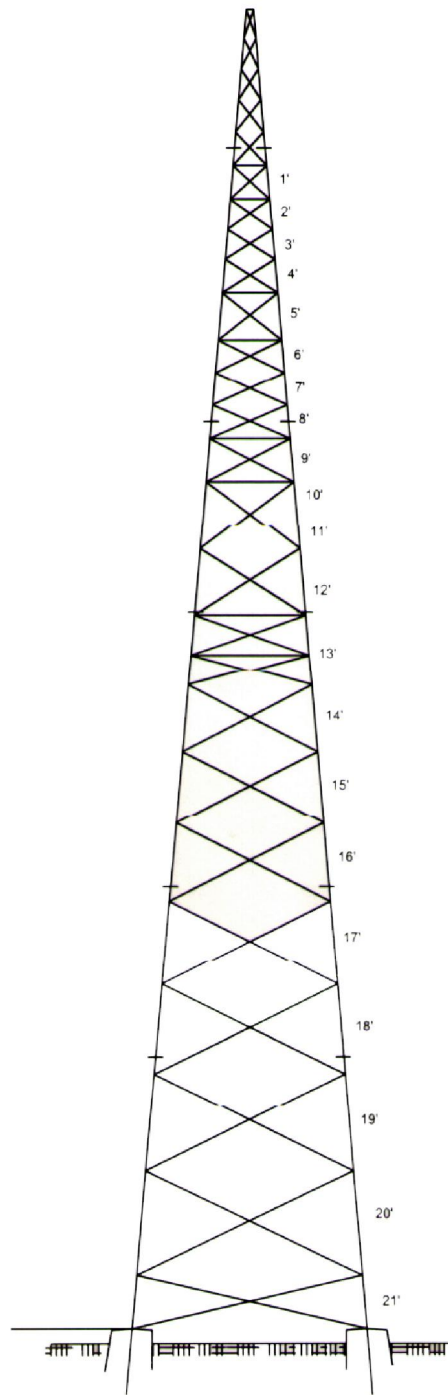
		-		
		AD-120	AD-150	SD
		5		
		50		50
		2 3 ACSR 240/40 ²		
		AlFe		
		240/40 ²		

		9.00 daN/mm ²
		- 24 (AlFe 95/55 ²)
		: , LG 65/22/1270 LG 65/22/1270 : U-120
		Ø10
		1 :

страница X



страница у



6:

Zc20 -

-

3:

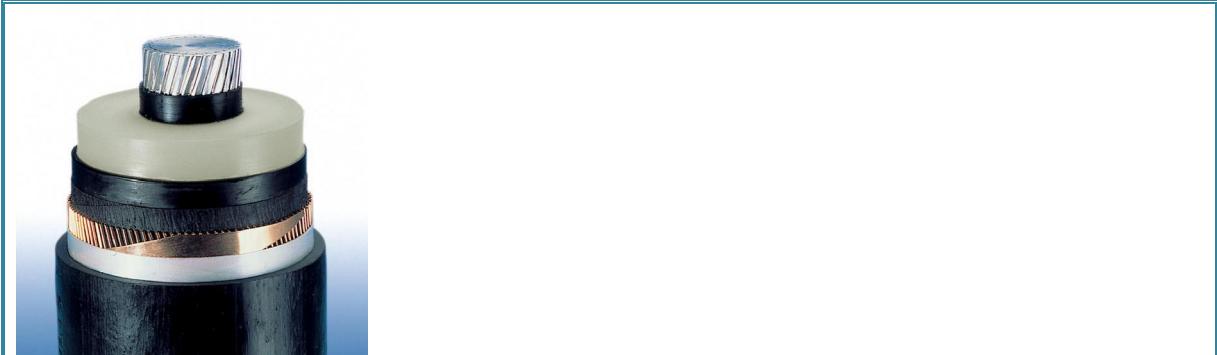
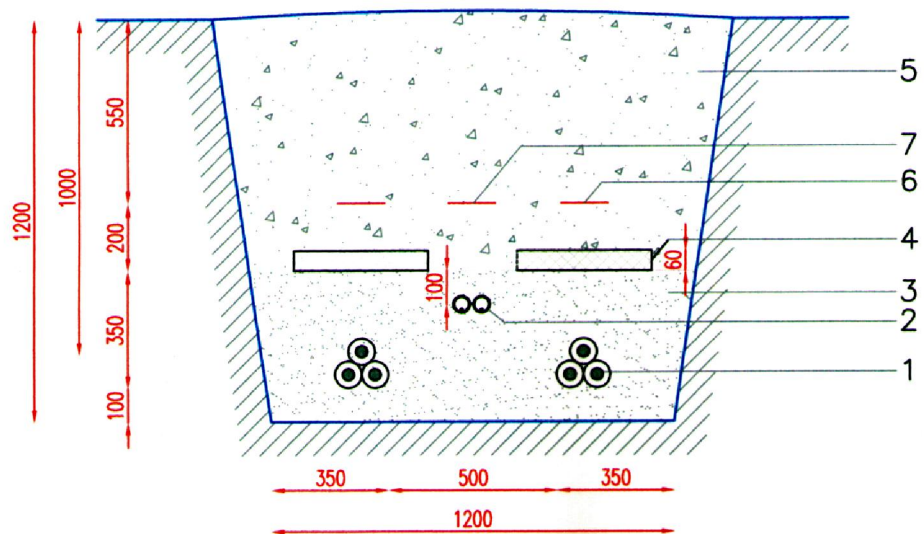


		ABB
		AXLJ 1 1000/95 ² 110kV
		110 kV
		123 kV
	(BIL)	550kV
		1000 ²
		XLPE
		13
		95 ²
		" "
		Pe-Al-Pe
		HDPE
		3,6
		82

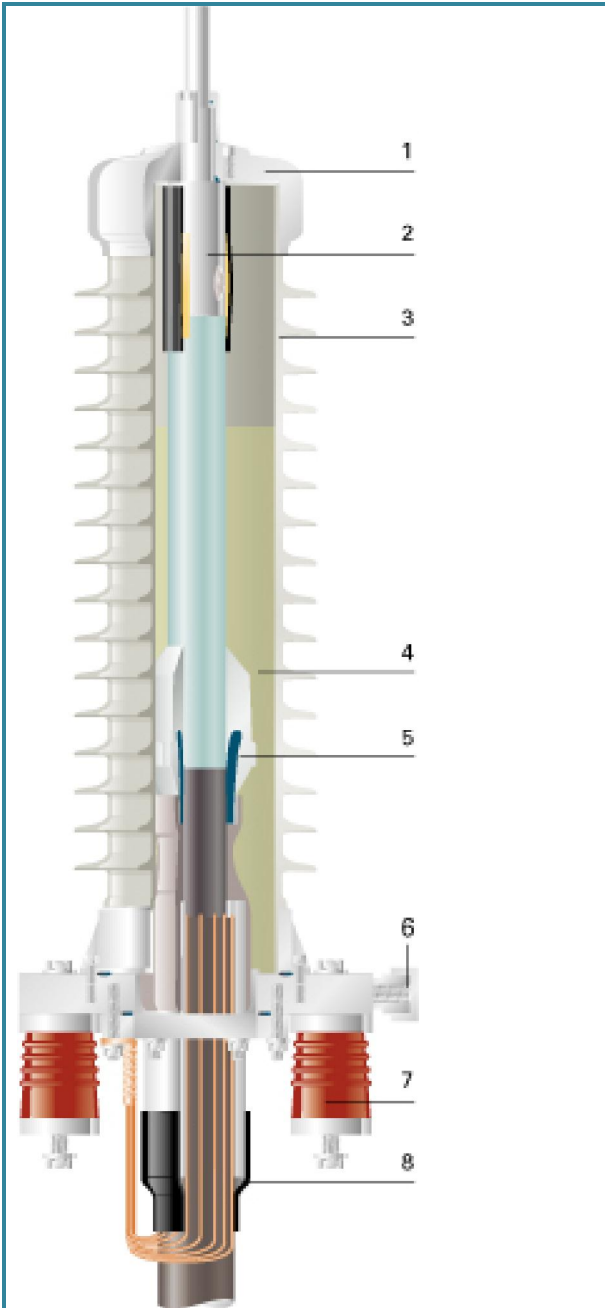


ЛЕГЕНДА:

1. Високонапонски едножилен кабел 110kv
2. РЕНД цевка 2 x 50мм за оптички кабел
3. Кабелска постелка
4. Заштитни бетонски плочи
5. Земја од ископот
6. Опоменска лента (ВН кабел)
7. Опоменска лента (ТК оптички кабел)

7:

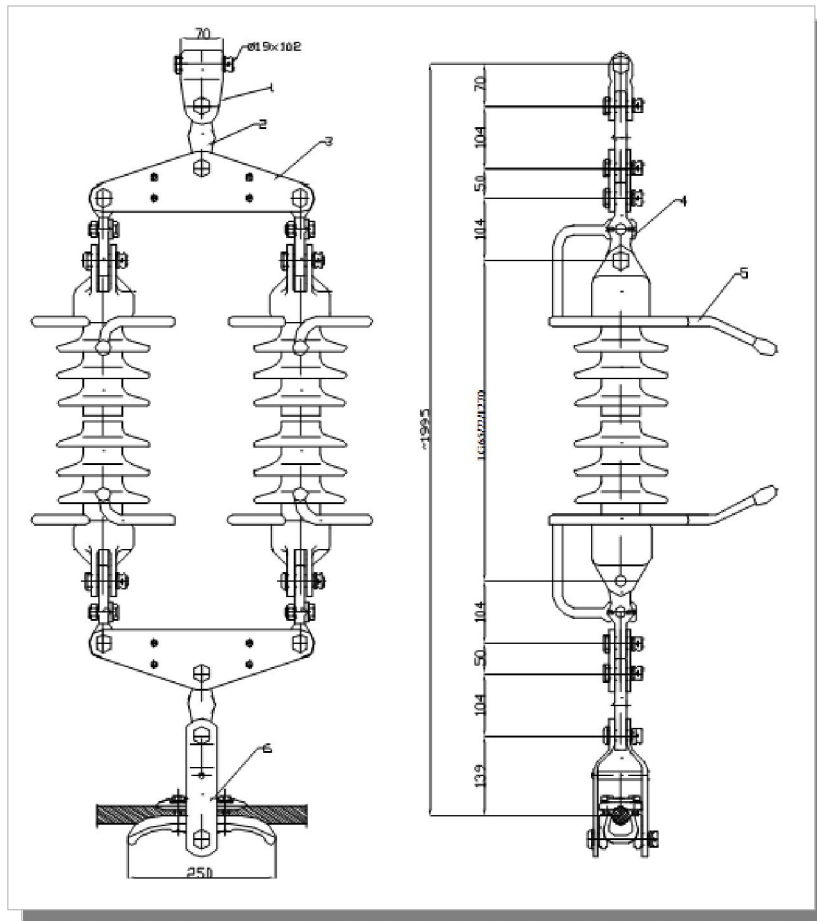
4:



- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

:

2500²



8:

LG 65/22/1270,

2.6

2.6.1

2.6.1.1

2.6.1.2

()

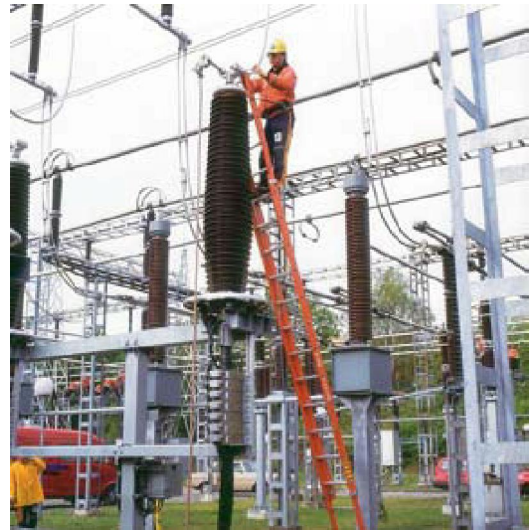
3m.

400m,

2.6.1.3



9:



10:

20

3km,

DIN 48208.

4

(. . . 31/81).

2.6.1.4

1,2m.

0,45m.

10 cm



11:

2.6.2

50

2.6.3

3

3.1

14 km

794,53²

576 m.



12:

2 x 110 V

3 -

4^e

3.2

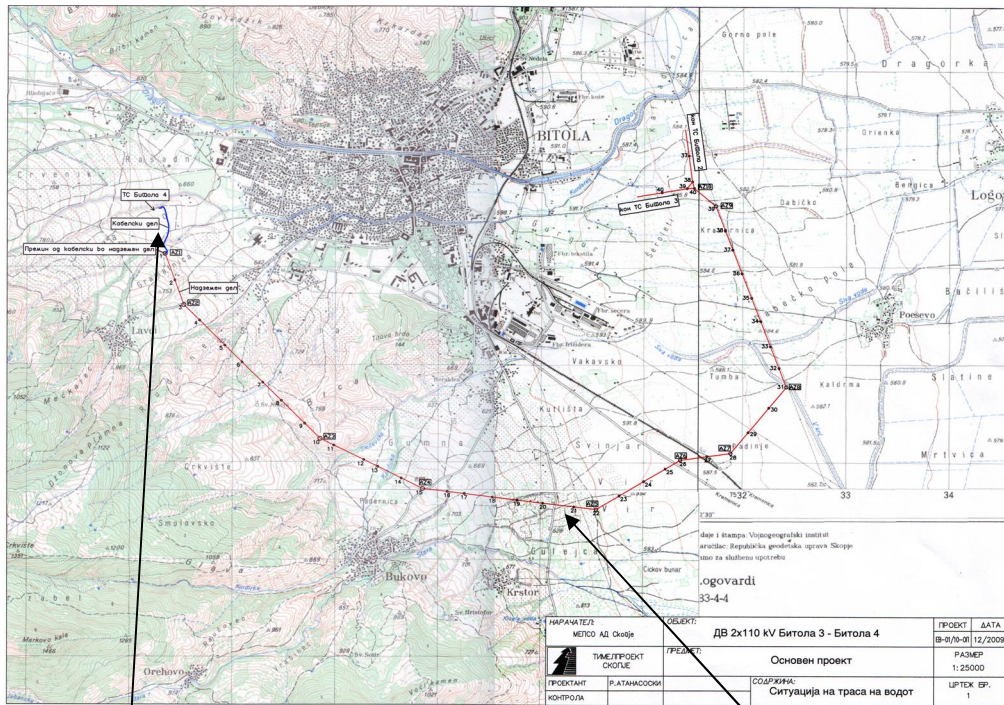
4, 4, 2 110kV, 3 -, 4, 2 110 kV, o 400 m.

40°

7

150 kV " 1 - " 150kV

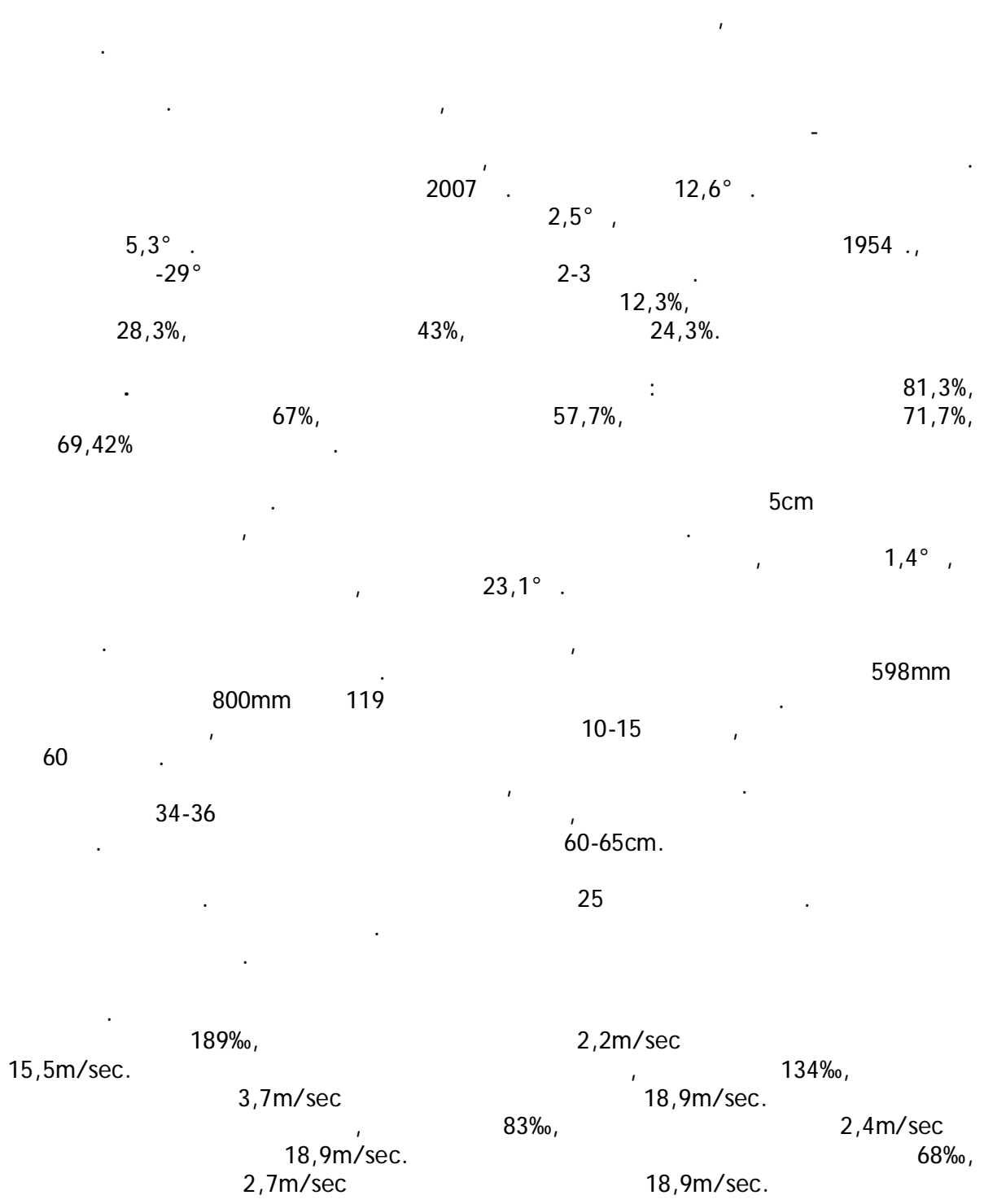
19 20, 2 110kV " 2 - 3".



13: I (-) II (-)

3.3

3.3.1

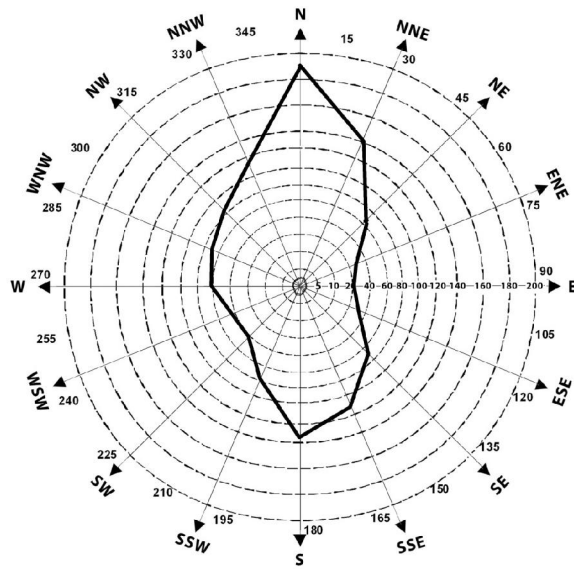


18,9m/sec.
2,2m/sec
61‰,
15,5m/sec.
1,7m/sec

63‰,
3,5m/sec
41‰,
15,5m/sec.

2,7m/sec
63‰,
22,6m/sec.
2,4m/sec
22‰,
15,5m/sec.

8551 m².



14:

3.3.2

3 4,

15.

(

) :

2 x 110 V

3 -

4^e

10+426,50

AZ3

769m

585m km
km 3+034,10.

3.3.3

= 4 - 5,5.

(1987),

1:500 000

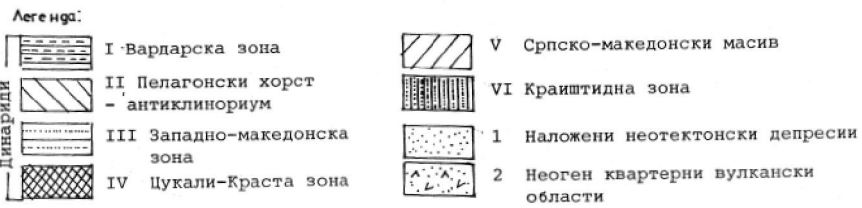
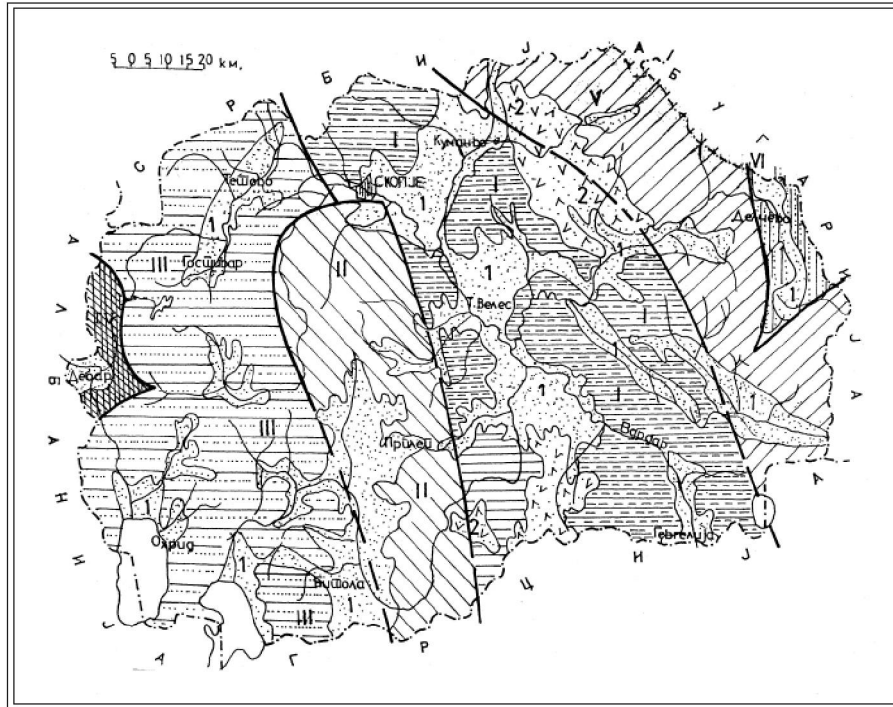
I = VII° MCS.

110km²

160km²

40km

5 10km.

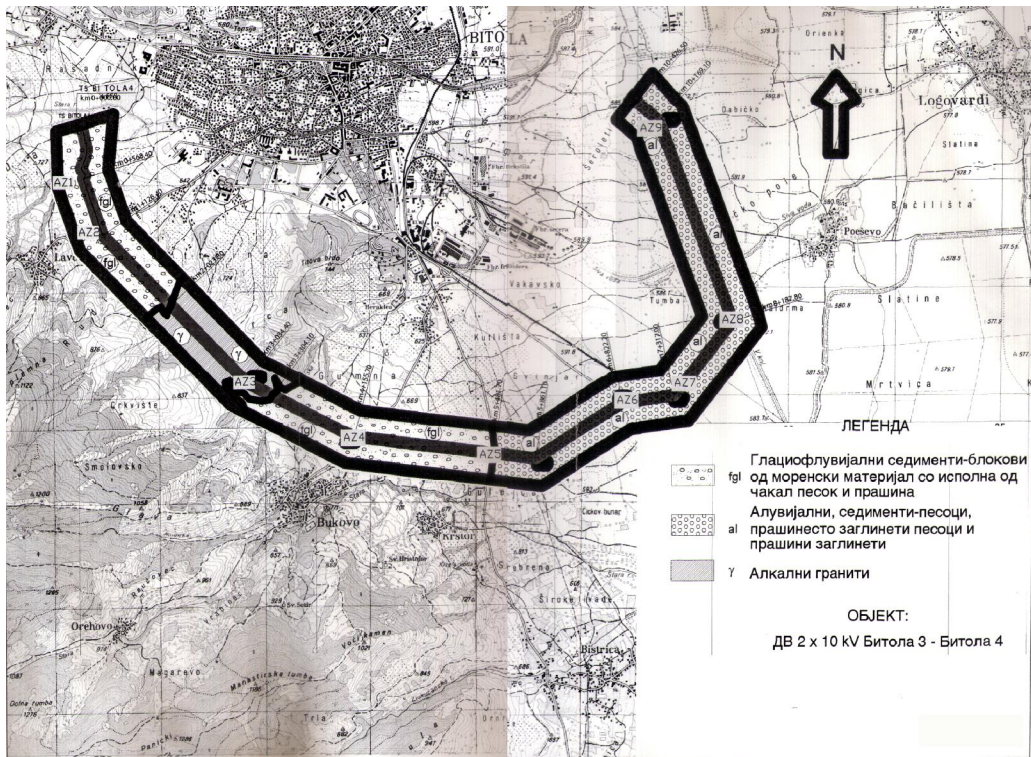


15:

3.3.4

:
 - ()
 - ()
 - ()
 - ()
 - ()
 - ()
 - ()

2500m.



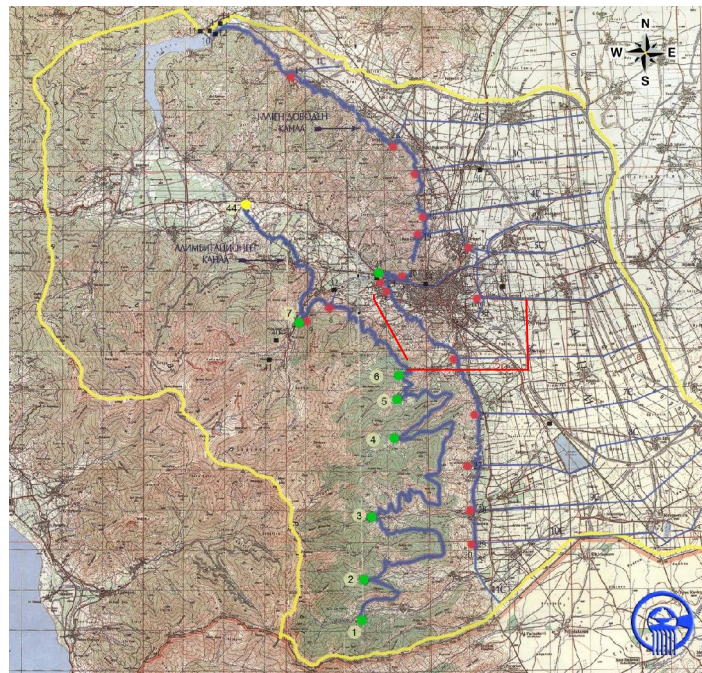
16:

3.3.5

4 110 kV 300m 2 X 110 kV TC 4 3 - TC

" " 715km² 17 ()

20200 ha) ()



17: " " ()

61.5km

5 m³/s.

12,31 m³/s.

39km

534km.

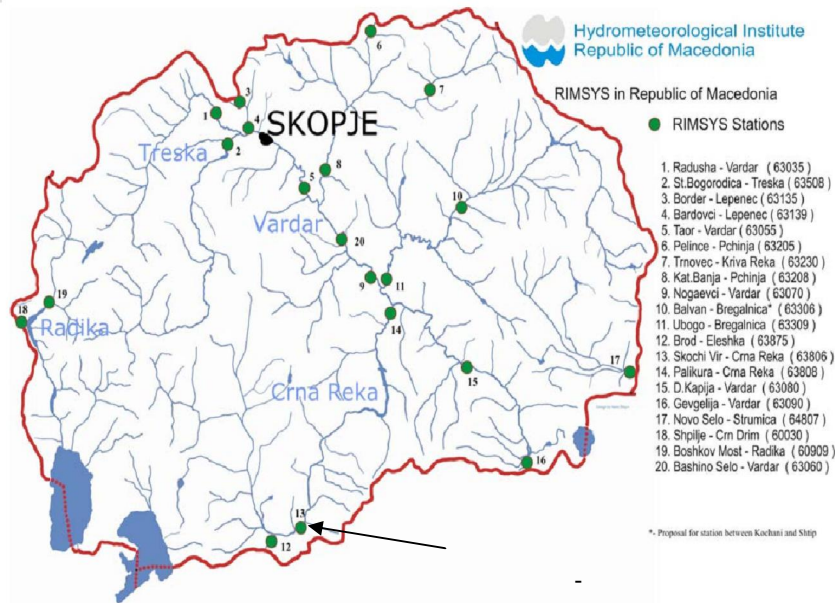
17.

System)

RIMSYS (River Monitoring

(. 18/99 71/99)

188



18

2006

(II

5,

III (

Fe, Mn, Zn, Cd

Ni, Cu, Cr⁶⁺ Pb I

II.

2006

75%

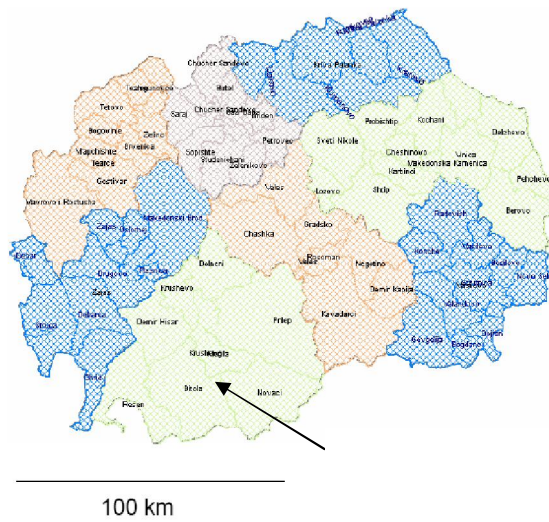
II, 25%

III

3.3.6

2005

19.



19

5.

75%

54%

SO₂
NO_x

5:
2005

		a ja [t/god]			
		SO ₂	CO	NOx	TSP
		74047	987	12333	4041
	%	75%	6%	54%	16%
		3844	12344	126	357
	%	12%	12%	12%	12%
		NMVOC [t/god]			
		46	45	23	
	%	11%	9%	9%	

(µg/m³), 3(µg/m³), CO(mg/m³), 10²
PM₁₀(µg/m³),

6

6:
2009

	(2009) /	(2009) /
SO ₂	14.0 [µg/m3]/	76.4 [µg/m3]/
PM ₁₀	14.4 [µg/m3]/	136.2 [µg/m3]/
CO	0,7 [mg/m3]/	7.9 [mg/m3]/
O ₃	28.2 [µg/m3]/	146.3 [µg/m3]/
NO ₂	5.87 [µg/m3]/	102.81 [µg/m3]/

(7).

7:
2009 .

	2 µg/m ³	NO ₂ µg/m ³	10 µg/m ³	CO mg/m ³	3 µg/m ³
	500	400			240
1h 2009	440	260	-	-	-
2009 1h	0	0	-	-	-
24h 2009	125	280	59	14	
2009 24h	0	0	101	0	
					120
2009					50

(50 (101 2009), 2009), 10

3.3.7

4 20). 8 - (20



20

2007

40 dB

8

2008

IV

II
IV

8:

	(dBA)		
	L	L	L
	50	50	40
	55	55	45
	60	60	55
	70	70	60

L - (7 19)
 L - (19 23)
 L - (23 7)

3.3.8

(3 kHz 300 GHz). (3 kHz)

50 Hz.

(V/m). (/m) ().

(1,5 m)

(> 7,5 m).

na

(INIRC) (WHO)

IEEE,

0.614 kV/m 205 µT

1999 INIRC

1999/519/EC

004/40/EC 300 GHz, 2004

kV/m 100 µT 5

5 µT 1 µT.

. 06/01-93/178 08.08.1990,
(300

kHz 3 GHz).

50 Hz.

3.3.9

3.3.9.1.

2010.

400

4,

12km

3,

è

()



21



22:

80-1000

1100

(Populus nigra),
angustifolia)

(Platanus orientalis),
Quercus),

(Salix alba),
(Fraxinus

400

4,

4.

(Scripeto - Phragmitetum).

(Salix alba), K

(Rosa canina)
(Phragmites australis),

(Salix fragilis),

Lemna sp.

(ypha latifolia)



23



4

(400)

(Rosa Canina), (Robinia pseudo acacia), (Fraxinus
 angustifolia), (Pyracantha spp.), (Quercus), (Salix alba),
 (Betula verucosa), (Juniperus), (Populus), (Platanus orientalis),
 (Rubus).



24:



(Boletus pinicola, Boletus edulus, Boletus aereus), (Cantharellus cibarius), (Juglans regia), (Prunus domestica), (Prunus avium),



25:



(Zea mays), (Triticum aestivum), (Hordeum vulgare), (Secale cereale), (Avena sativa), (Helianthus annuus), (Beta vulgaris), (Brassica napus), (Nicotiana tabacum), (Brassica oleracea),

(Allium fistulosum) (Prunus domestica) (Prunus
persica), (Prunus avium), (Prunus cerasus)

(ass. Geranio-Sylibetum)

Papaver rhoeas, Rumex
pulcher, Xanthium spinosum, Sambucus ebulus, Hordeum murinum, Balota nigra,
Conyza canadensis

: (Senecio vulgaris), (Lolium tempoletum)
Glebonis segetum, (Papaver rhoeas), (Viola sp), (Sircium
arvense), (T raxacum officinale), (Plantago spp),
(Poa spp.).

BERN convention, IUCN Red list of threatened
Plant species, Corine, EMERALD, CITES - Convention on International Trade in
Endangered Species of Wild Fauna and Flora),

9:.

(AMPHIBIA)	
<i>Pelobates syriacus balcanicus</i>	
<i>Salamandra salamandra</i>	
<i>Bufo bufo</i>	
<i>Rana ridibunda</i>	
(REPTILIA)	
<i>Testudo graeca</i>	
<i>Testudo hermanni</i>	
<i>Lacerta trilineata</i>	
<i>Podarcis erhardi</i>	
<i>Podarcis taurica</i>	
<i>Coluber caspius</i>	
<i>Coluber gemonensis</i>	
(AVES)	
<i>Corvus monedula</i>	
<i>Pica pica</i>	
<i>Garrulus glandarius</i>	
<i>Corvus frugilegus</i>	
<i>Corvus corax</i>	
<i>Passer domesticus</i>	
<i>Passer montanus</i>	
<i>Sturnus vulgaris</i>	
<i>Hirundo rustica</i>	
<i>Delichon urbica</i>	
<i>Upupa epops</i>	
<i>Cuculus canorus</i>	
<i>Bubo bubo</i>	
<i>Coturnix coturnix</i>	
<i>Columba oenas</i>	
<i>Columba livia</i>	
<i>Columba palumbus</i>	
<i>Streptopelia decaocto</i>	
<i>Alectoris graeca</i>	E
<i>Falco subbutec</i>	
<i>Falco tinnunculus</i>	
<i>Falco naumanni</i>	
<i>Perdix perdix</i>	
<i>Ciconia ciconia</i>	
<i>Streptopelia turtur</i>	
(MAMALIA)	
<i>Lepus europaeus</i>	
<i>Sciurus vulgaris</i>	
<i>Microtus rossiaemeridionalis</i>	
<i>Crocidura suaveolens</i>	
<i>Vulpes vulpes</i>	
<i>Talpa europaea</i>	
<i>Mustela nivalis</i>	
<i>Mustela putorius</i>	
<i>Canis lupus</i>	

3.3.9.3. K

- 92/43/
- 92/43/
- :
- IUCN (2007). (CR);
(EN) (VU).

10:

			IUCN
	92/43		
Bufo viridis	IV	II	-
Pelobates syriacus balcanicus	IV	II	-
Testudo hermanni	II/IV	II	LR/NT
Testudo graeca	II/IV	II	VU
Podarcis taurica	IV	II	-
Podarcis erhardii	IV	II	-
Coluber caspius	IV	II	-

(Testudo graeca), (Testudo hermanni)
(Testudo hermanni). (Testudo graeca), IUCN

3.3.9.4.

- 79/409/EEC
- :
- :
- IUCN

11.

IUCN

79/409,

11:

				IUCN
	79/409			
Ciconia ciconia	I	II	II	-
Falco naumanni	I	II	I	VU
Bubo bubo	I	II	-	-
Falco subbuteo	-	II	II	-
Falco tinnunculus	-	II	II	-
Falco peregrinus	I	II	II	-

VU (), IUCN (*Falco naumanni*)

(*Falco naumanni*).

3.3.9.5.



2 x 110 V

3 -

4^e



3.3.9.6.

3-

4,

2 110 V

e

3.4

3.4.1



2 x 110 V

3 -

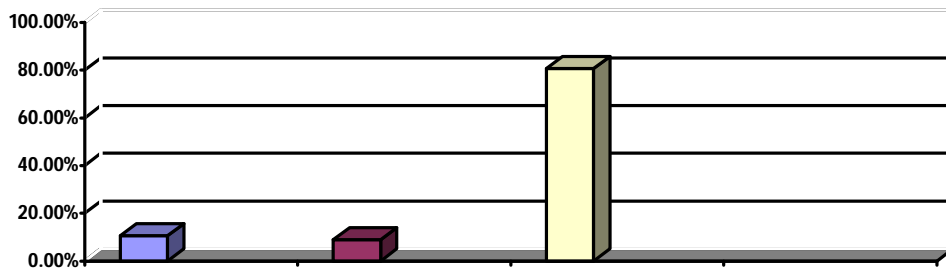
4^e

(40%)
 15
 : 41,8% , 43% 15,2%

3.4.2

168,560 2007
 4 010
 2003-2006
 48%

23.670
 ()
 2006-2008
 2006-2008
 ()



27:

2 x 110 V

3 -

4^e

.)

2008

12
80,6%

3197
, 10,5%

83,6%

, 8,9%

1983

4.2



28:

70.000

12
40%

2008
3800

29 ;

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32,0%

50

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29:

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244
5 km
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3.4.3

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 30:
 : -508 - (



84.2km

100

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20

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3.4.4



31:

20/04, . 115/07),

(45%),

():

- 1. " " ;
- 2. " " ;
- 3. " " ;
- 4. " " ;

500m
Lynkestis,

- Heraclea

2km

3.4.5

21.

10

2 x 110 V

3 -

4^e

54

25

2 110kV

3-

4

4

4.1

2X 110 kV

3 -

4"

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12.

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12:

(12) -



Leopold matrica.doc

4.1.1

) 400m, (10-15 4
15
5
5km.



32:



2 x 110 V

3 -

4^e

500m - 1000m

12m 28m

40m,

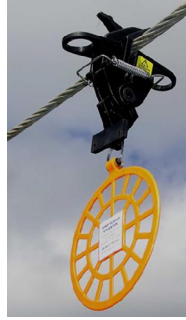
35m

150 kV

2010.

10.4.1

4.1.2



33:

110 kV
:

13:

110 kV	Bernburg - Susigke ()	
		156
	(40)	56
	(20)	1

(60%

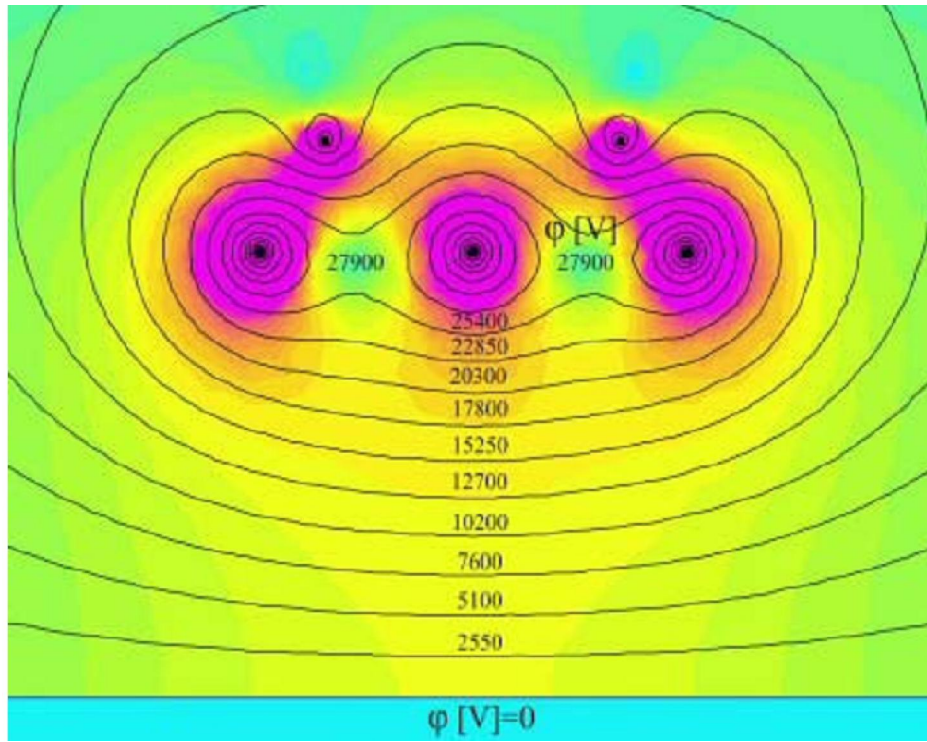
),
10 .

- Endangered Wildlife Trust - EWT.

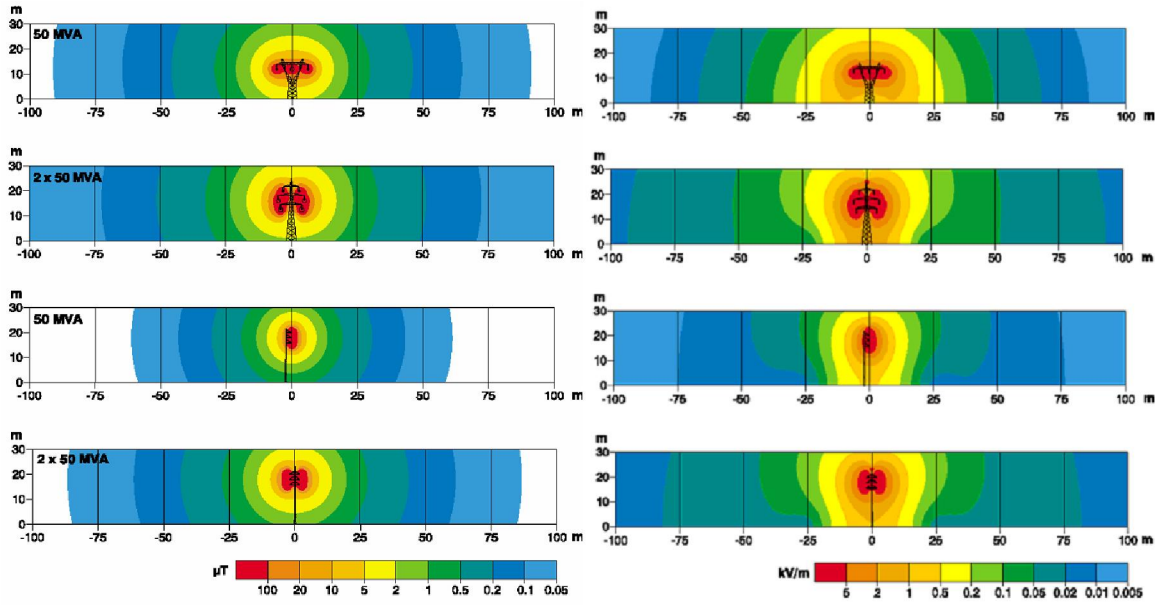
4.1.3

4.

34. 33
110 kV.



150kV 34



35:

150 kV

2,673 μT .

110 kV
1783,1 V/m

1,5 μT .

5m

110 kV

100m

()

2 x 110 V

3 -

4^e

()

()

4.1.4

max. 100 dB.,

()

11.

14:

	(dBA)		
	L	L	L
	55	55	45
	70	70	60

L - (7 19)

L - (19 23)

L - (23 7)

dB). (40 dB 50dB), (50 dB 60
 80%),
 110 kV

4.1.5

10 kV

2 x 110 V

3 -

4^e

- 10 kV;
- 110 kV ;
- ;
(),

4.1.6

400m.

NO_x, CO, PM₁₀,

2 x 110 V

3 -

4^e

200m.

3.3.6.

()

4.1.7

: a)

2 x 110 V

3 -

4^e

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V

AZ8.

AZ 2 AZ 4)

2.2m,

(4m 5m,

4.1.8

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(. . . 100/05):

12 01 05	
12 01 13	
13 07	
15 01	
17 01	
17 02	
17 04	
17 05 04	
17 06 04	
17 09 04	()
20 03 01	

(, , () , ,) ,

4.1.9

3.4.4.

4.1.10

VII⁰

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4.1.11

a)

)

150 kV

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4.1.12

3

4

110 kV

((,) , (, , .) , (/ ,) . (

. 33/95, 20/98, 40/99, 31/2003, 46/2005

2008 ()

a)

)

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4.2

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14
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14 .

14a:

	(+)	(-)
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14 .

(-) (-) /

(16).

(15)

14 :

:

2X110 kV

3 -

4

	(/ / /)			
/ .	(-)		(-)	(-)
	(-)	(-)	(-)	(+)
	(-)	(-)	(-)	(+)
	(-)	(-)	(-)	(+)
	(-)	(-)	(+)	(+)
	(-)		(-)	(-)
	(-)		(-)	(-)
	(-)		(-)	(-)
	(-)		(-)	(-)
	(-)	(-)	(-)	(-)
		(-)		
	(-)			
		B (-)	(+)	(+)
	(+)	(+)	(+)	(+)
	(+)	(+)	(+)	(+)
	(+)	(+)	(+)	(+)
	(+)			
		(+)	(-)	(-)
/ /		(+)	(-)	(-)
	(-)			
	(+)	(+)	(+)	(+)
			(+)	(+)

(.....): , -

15:

(15)



Leopold Matrix.xls

5

5.1

16:

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		;)		
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	A (-)	-		(/
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		-			

e

2 x 110 V

3 -

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		-			
		-	()
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		-			
		-)	(

	(-)	<p>- ; (</p> <p>-) , ;</p> <p>- , ;</p> <p>- ; (.</p> <p>- . 67/04 . 84/07)</p> <p>- ,</p>			
	(-)	<p>- (55 dB 45 dB</p> <p>-) ,</p> <p>- ,</p> <p>- (70 dB</p> <p>- 60 dB)</p> <p>-</p> <p>-</p>	(/ <p>)</p> <p>10 000</p>		

		-			
/	(-)	-	5 000	/	/
		a)	:		
		/	/		
)	,		
		-	,		
		-	.		

	(-)	- ; ' ;		/	
	(-)	- ; ' ;	2 000	/	
	(-)	- ; ' ;	25 000	/	
	(-)	Birds Flight Diverters ¹ ; ' ;	5 000	/	

¹ Birds Flight Diverters ()

	e	2 x 110 V	3 -	4
		- /		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
	(-)	-	2 000	/
	(-)	-	(/
		-		
		-)	
	(-)	-	(/
		-		

e

2 x 110 V

3 -

4

		-)	
	(-)	-		5 000	/
		-	('	/
		-)	'	/
		-		10 000	
		-	(/ /)	'	
		-	/		
		-		(
		-)		
		-	'	'	
		-			
		-			
		-			
		-	'	'	

		e	2 x 110 V	3 -	4
		- - .)	(,		
		- - - - ,	'	/	
		-	.		
	(-)	- - (60 dB - - - -)	' (70 dB)	/	
			10 000		

		e	2 x 110 V	3 -	4
		-			
		-	/		
		-			
	(-)	-	5 000	/	
		-		/	
		(,	/	
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		-			
		-	10 000		
		-			
		(/ /)	,		
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		e	2 x 110 V	3 -	4
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	(-)	-			

5.2

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5.3

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6



17:

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				5			
				5			
			-		5 000		
		(1 000	/	
)					
		/		(

e

2 x 110 V

3 -

4

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		500		(/)	1 000	/	
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	(/ /)						
	-						
	-						

e

2 x 110 V

3 -

4

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e

2 x 110 V

3 -

4

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	(

e

2 x 110 V

3 -

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			3				
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e

2 x 110 V

3 -

4

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	-						

e

2 x 110 V

3 -

4

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	(/) / /)		/			/	
	- -		/			/	

e

2 x 110 V

3 -

4

	(,)		/				,
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	-	/			/	/	

e

2 x 110 V

3 -

4

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	-		/	/			
					1 000	/	
		(
)					
		/		(
)			

e

2 x 110 V

3 -

4

			-		5 000		
	(/	/		/		/	
)	/				,	
	-						

7

(- ')

(4),

1.

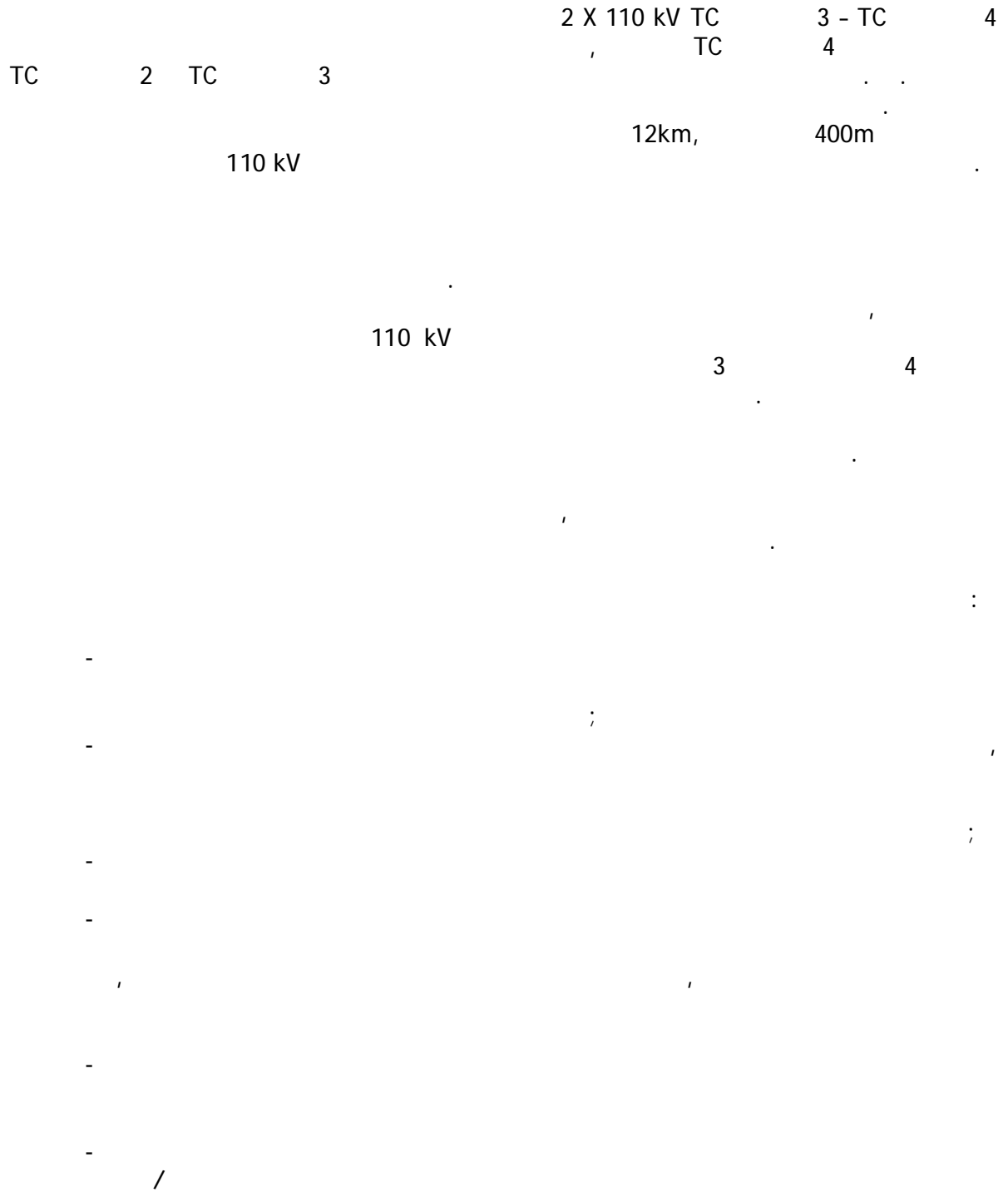
2.

2 x 110 V

3 -

4^e

8



2 x 110 V

3 -

4^e

2 x 110 V

3 -

4^e

9

2X110kV TC

3 - TC

4,

" (ECSEE APL 3)

)
)
)
)
)

2 X 110 kV TC

3 - TC

4

110 kV

2,

3

4),

4'

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1,

2

3

10 kV.

3.

4

1

1.

2 x 110 V

3 -

4^e

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110 kV

3

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3

717 -

2 110 kV

2 -

3.

()

400 m

4

IV

35

150

kV

12 km,
110kV

400m

3 -

4

2 110kV

3 -

4

4,
4

2 110 kV

2 x 110 V

3 -

4^e

" " " " " "

1 - 150kV " " " " " "

3" " " " " "

19 20, 2 110kV " " " " " "

12 km " " " " " "

40 " " " " " "

12 28 m, " " " " " "

7,5 m, " " " " " "

24 40 m. " " " " " "

300m. " " " " " "

50 " " " " " "

800mm 119 " " " " " "

10-15 " " " " " "

598mm " " " " " "

60 " " " " " "

25 " " " " " "

189‰, " " " " " "

2,2m/sec " " " " " "

15,5 m/sec. " " " " " "

2 x 110 V

3 -

4^e

3

4,

MCS.

1:500 000

I = VII°

54%

SO₂
NO_x

75%

4

II

2 x 110 V

3 -

4^e

IV

50 Hz.

(V/m).

(/m)

().

12

400

4,

è

3,

(*Canus lupus*)

2 110 V

3-

4,

e

2 x 110 V

3 -

4^e

20.835
1,48

65

2004

95.385,

2002
74.550
2008

2003-2006

).

(

(

):

Lynkestis;

- Heraclea

25
2 110kV

3- 4

4.

)

(

(

).

10 kV

2 x 110 V

3 -

4^e

10 kV

()

400

NO_x, CO, PM₁₀,

10

10.1 1:

2X110kV TC

3 - TC

4



10.2 2:

- (. . . .52/91, : 1/92;
31/98; 91/01; 84/03; 107/05) (. . . .)
- . . .52/91, : 4/92);
(. . . .53/05, 81/05 24/07,
159/08 83/09);
- o (. . . .74/05);
- o (. . . .33/06)
- (. . . .51/05;
137/07 24/08- , 91/09);
- o (. . . .69/99);
- o (. . . .78/06
140/07)
- (. . . .130/09);
- (. . . .67/04;
92/07);
- o (. . . .67/04);
- o (. . . .22.06.2005)
19/00; 42/05; 46/06);
- (. . . .4/98;
(. . . .87/08 06/09);
o (. . . .18/99 .);
- o (. . . .18/1999, 71/99);
- (. . . .68/04; 71/04; 107/07, 102/08
134/08);
- o (. . . .100/05);
- (. . . .79/2007);
- (. . . .64/93);
- (. . . .113/07);
- (. . . .20/04;
115/07);
- (. . . .67/04; 14/06;
84/07);
- (. . . .113/07);

- (.25/98; 06/00);
- (.25/98; 06/00);
- (.13/98; 33/00;29/02);
- (.63/06; 36/07);
- (.33/95, 20/98, 40/99,
- 31/03, 46/05 10/08).
-
- 1 kV 400 kV, (
-), 65/1988
- , (, 19/1968)
- (, 1971), 1977 ;
- 1972), 1974 ; (,
- (, 1973), 1999 ;
- 1999 ; (, 1979),
- (, 1979), 1997 ;
- 1999 ((2002 , 1991),
- 1995), 1999 ; (,
- (, 1995), 1997;
- 1998; (, 1992),
-
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10.3

3:

- . 86/2009 , 2009 .
- 2 110kV 3 - 4 , 2009 .
- 2 110kV 3
- 4, , 2009 . 2 110kV 3 -
- 4, , 2009 .
- 2 110kV 3 - 4, , 2009 .
- 2 110kV 3 - 4, , 2009 .
- , 2009 .
- , 2005 .
- 2 110kV 3 - 4, , 2009 .
- 2009-2014, , 2009 .
- , 2002 .
- , 2008 .
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- , , , elf , 6 , , , 2009
- , , , 110 kV , 6 , , , 2009
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10.4 4:

10.4.1



2 x 110 V

3 -

4^e



10.4.2







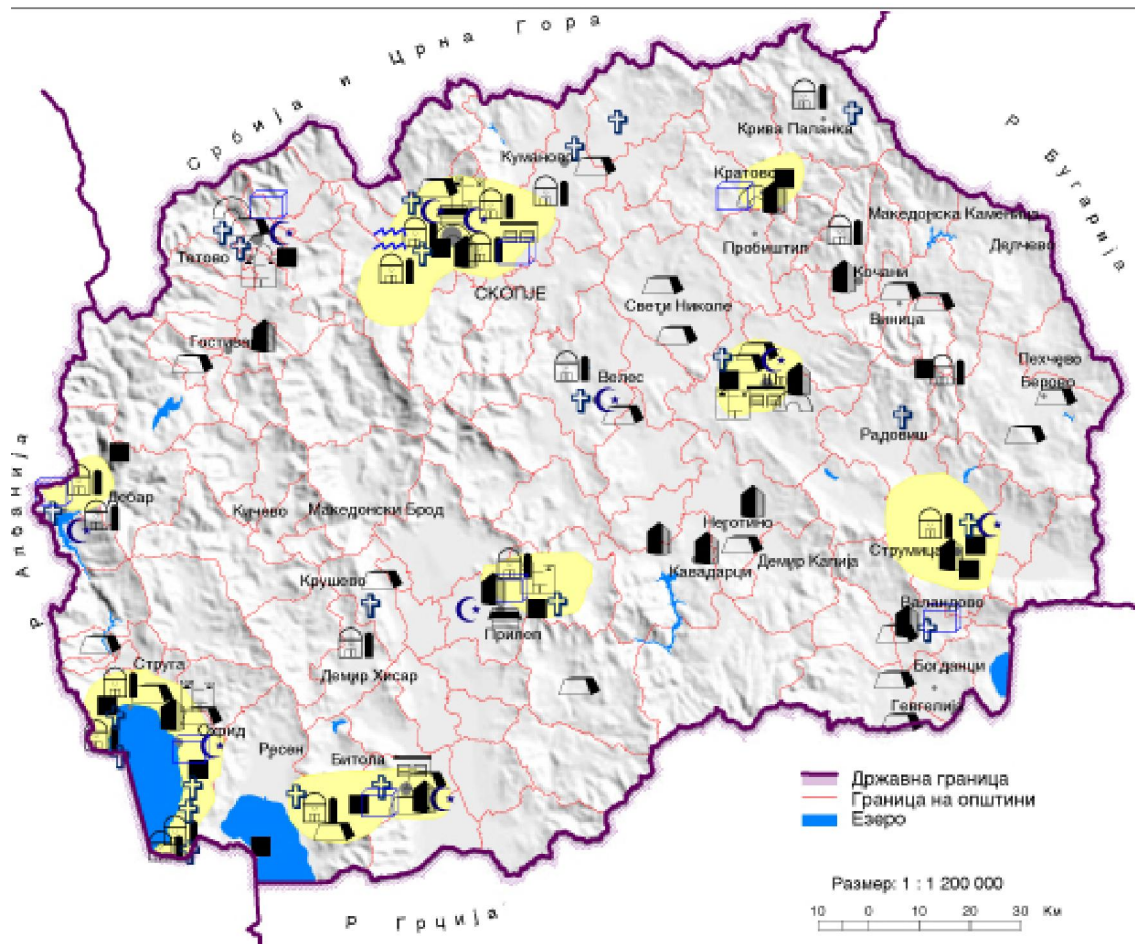


10.4.3

**Разместеност на археолошки локалитети и
културно-историски споменици**

Легенда:

	аквадукт		црква		археолошки локалитети
	јан		џамија		манастир
	бања		кула		споменички целини
	базистен		мост		тврдини
					Споменичко подрачје


















(, , ,) , , ,

10.4.4

Легенда:

	шуми и шумско земјиште		акumulации		патна мрежа
	површини за пошумување		зони за експлоат. на минерали		железничка мрежа
	земјоделско земјиште		туристички простори		воздухопловно пристаниште
	наводнувани површини		транзитни коридори		
	високопланински пасишта		туристички центри		

