.....1

1 6

1.1 6

1.2 19

2 .....- 25 -

2.1 .....- 25 -

2.2 .....- 25 -

2.3 .....- 26 -

2.4 .....- 27 -

3 .....- 28 -

3.1 .....- 28 -

3.2 .....- 29 -

3.3 .....- 30 -

3.4 .....- 31 -

3.5 .....- 37 -

4 .....- 42 -

4.1 .....- 42 -

4.2 .....- 43 -

4.3 .....- 46 -

5 .....- 47 -

5.1 .....- 47 -

5.2 .....- 47 -

6 .....- 51 -

6.1 .....- 51 -

6.2 .....- 51 -

1

2

2007 28

3

2011 162

4

2017 63

5

60 t/a

2014 205

6

7

8

9

10

11

12

13

14

1

2

3

4

5

“ ”

2015 10%

“ ”

“ ”

60 /t

“

” 185° 50km

(54) 104°10′00″

104°11′07″ 25°20′30″ 25°22′00″ 80km

60km

7 km 47 km 86 km 240km

2006

30 t/a 3 2006 7

30 t/a 2006

117 2011 1 30 t/a

2011 162

2012 614 “

” 2012 2 60 t/a

2013 9

2013 11

Ż 1

2972 924 2012 2

2013 9 1.67

SL277-2002 16

2005 7 8 24

2017 8

48.07hm^2 1.75hm^2 46.32hm^2

1.75hm^2

1

283m

0.04hm^2 2

3269m^2 58m 2

220m 1200m^2

0.13hm^2 0.04hm^2

0.01hm^2 1800 m^2

SL336-2006

90%

65.68

15.55 2.67 0.80 43

12 0 3.66

98.86% 96.77%

0.95 98% 99%

12.0%

16

GB/T 22490-2008

2017 365

2017 97

1

1.1

1.1.1

185° 50km

(54)

104°10′00″ 104°11′07″ 25°20′30″ 25°22′00″

80km 60km

7 km 47 km 86 km

240km

1.1.2

60 t/a

27

2012 2 ~2013 9

2972 924

1-1

1-1

216 246m 235m 23

46 0.7 35m 2 8m 0.09 6.05m

25 37m 14 16 8 1

2 5 0.13 6.05m 1.2m

1.7m

4219.7 2012 3577.48

2256.00

60 t a 27

+1640m 110801

110802 110802

60 t a

(1640m 1520m) 120m

+1640m C8 +1640m

110802 +1640m 110802 110802

l10804 +1640m 110802

110802

U

1

110802 → SGZ630 264

→SZZ630 90 →110802 DTL 80 20 2~75 →

→ DSJ80 20 2×315 →

2

110804

3

4

12.8m^3 h 35.4m^3 h =

5

35/10kV 6km 2398.78kVA

35/lOkV LGJ-

——120 6km

6

DN80 DN25 DN40

(1640m)

1.1.5

1-4

			m^2		m			
1								
2			10.5	14.6			60	60
3								
4	+1640m		7.3	8.7			200	200
5			15.4	17.5			83	83
6			5.4	6.0			35	35
7			5.4	6.0			40	40
8			7.9	8.7			30	30
9			7.9	8.7			35	35

10

60 t/a

- -

2.28hm^2

0.81hm^2

0.21hm^2

0.21hm^2 0.4hm^2

0.20hm^2

0.29hm^2

0.16hm^2 60 t/a 2011

0.81hm^2 0.82hm^2

1.66hm^2 2011

60 t/a

0.28hm^2 2011

60 t/a

1478m 0.68hm^2

1.

600m 6~8m

0.41hm^2 2011

60 t/a

2.

0.20hm^2

0.08hm^2 2011

60 t/a

3~5m

60 t/a 0.12hm^2

3.

6m

0.5km

0.45hm^2

1.1.7

1.1.7.1

1

2 10kV

35kV 10kV

LGJ-70 LGJ-3×120 3.5km 4km

3

1.1.7.2

1.67 2012 2 2013 9

1.1.8

25.39m^3 0.28 m^3

0.07 m^3 0.21 m^3 1.11 m^3

24 m^3

24 m^3 6 t 3

1-9 **hm^2**

	0.81	0.81			
	0.82	0.82			
	0.12		0.22	0.16	0.12
	1.75	**1.63**	**0.22**	**0.16**	**0.12**

1.1.10

1.2

1.2.1

1.2.1.1

1930~2130m

~ ~

2163.4m 1929.5m

233.9m 20°~35°

1.2.1.2

(P21)

C_8 C_{11} C_{15} C_{16} C_{19}

C_{21} C_9

7 F_7

ḿ

8

2 ($P_2$12)

C_{16} C_8 66 82m

76m 9 C_8 C_9 C_{10} C_{11} C_{12} C_{13} C_{14} C_{15}

C_{16} C_8 C_9 C_{11} C_{15} C_{16}

3 (P213)

8 l T1k

73 88m 78m 8 C_1 C_2 C_3 C_4 C_5

C_6 C_{14} C_7 C_8

GB18306-2001

GB50011-2001 7

0.15g 0.45s

1.2.1.3

3km

T_1f^1 T_1f^{2+3} +1950 +1920m

0.05~1.32m^3/s +1920m

900m T_1k

T_1f^2 0.01~0.12m^3/s

3km

1.2.1.4

1100mm 5 10 86.5%

87.5mm 741.6mm 1213.5mm

24 126.78mm 12 87.5 mm 1

66.24mm 1 54.12mm 13.8

34.9 -11 ≥10 4068.9 242

1 5.6 7 19.8 34.9

-10.7 159.1 8.5 1.9

7.6 2312.1mm 15.6mm

100mm 27 5 143.7mm 1983 6

22 1773.9h 75%

3.4m/s 3 5.3 m/s 9 2.8 m/s 12

5

1.2.1.5

33.61%

2000-2500

0.5~2m

1.2.1.6

45 106

49.78% 242.76 49.78% 1468634

60.50% 486 0.02% 822609

33.89% 112996 4.65% 22834.3 0.94%

30%

1.2.2

2013 188 “ מ < א

2

2.1

2006

30 t/a 3 2006 7

30 t/a 2006

117 2011 1 30 t/a

2011 162

2012 614 “

” 2012 2 60 t/a

2013 9

2013 11

2014 37

2014 5

2.2

2017 2

2017 5

2017 5 22 “ 2017 63 ”

2.3

1.75hm^2 4.19hm^2

2.44hm^2 0.12hm^2

0.38hm^2 0.0hm^2

2.06hm^2

1

2

3

0

4

3.88

2.4

3

3.1

3.1.1

60 t/a

5m

0.2hm^2

46.12hm^2

48.07hm^2 **1.75hm^2** **46.32hm^2**

3-1

3-1 **hm^2**

	0.81	0.81			
	0.82	0.82			
	0.12		0.22	0.16	0.12
	1.75	**1.63**	**0.22**	**0.16**	**0.12**
	0.2				
	46.12				
	46.32				
	48.07				

3-5

1		m^3	25.25
2		m^3	20.00
3		m	10
4		m	5
5		(°)	19°
6			1.1
7		m	2000
8		m	10
9		m	35
10			4
11		hm^2	2.06

3.2.2

3.3

0.22hm^2 0.17hm^2 0.04hm^2

0.01hm^2

3-8

		hm^2	0.17	2.15	2017 8 ~11	0.04 hm^2 0.13 hm^2
		hm^2	0.04	0.4	2017 10 ~11	
		m^2	100	0.12	2017 11	

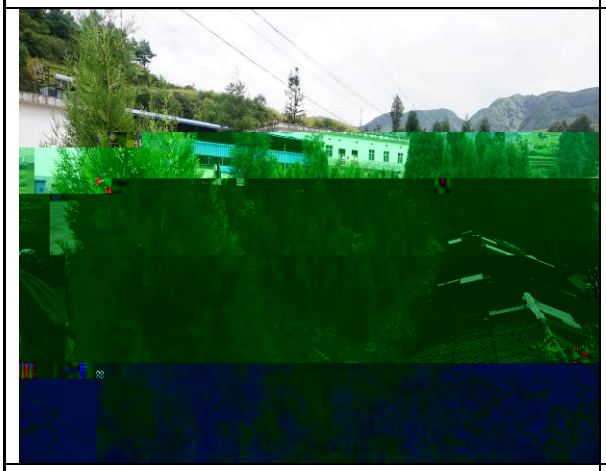
3-9

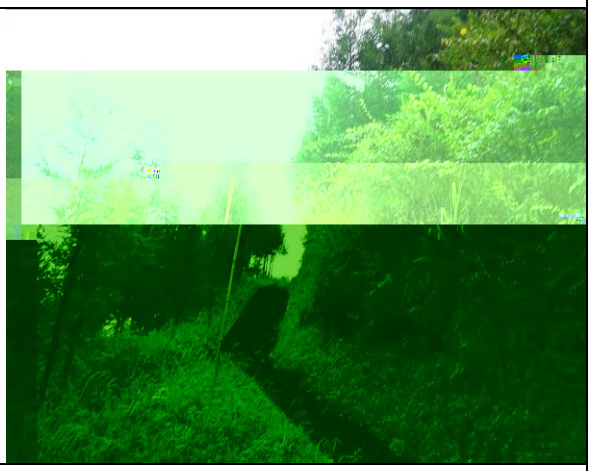
		hm^2	0.17	0.17	0	0.04 hm^2 0.13 hm^2
		hm^2	0.10	0	-0.10	
		hm^2	0	0.04	+0.04	
		hm^2	0.01	0.01	+0.01	

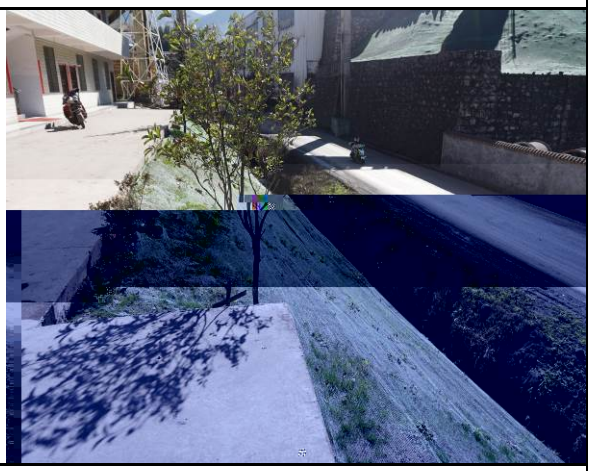
1

2

2017 8 ~2017 11







3.4.3

2018 1 1800m^2

3-10

		m^2	1300	2017 8 ~11	
		m^2	400	2017 10 ~11	
		m^2	100	2017 11	

2017 8 ~2017 10

3.5

3.5.1

2017 63

142.69

5.89 136.80

86.75 1.73 1.77 39.01

4.00 6.70 3.88 3.66

3-11

3-11

		86.75						**92.64**
		3.26					**0.8**	**4.06**
		4.79				**5.09**		**9.88**
		66.61						**66.61**
		12.09						**12.09**
			1.73					**1.73**
			0.99					**0.99**
			0.74					**0.74**
				1.77				**1.77**
				1.77				1.77
					39.01			**39.01**
1					1.8			1.8
2					14.51			14.51
3					4			4
4					12			12
5					6.7			6.7
								135.15
								3.88
								3.66
								142.69
™								**5.89**
™								**136.80**
™								**142.69**

3.5.2

65.68 5.95

59.73 10.40

1.87 0.80 43.00 0.0

12.00 3.66 3-12

3-12

		10.40				**5.15**		**15.55**
		3.43						**3.43**
		2.25				**5.15**		**7.40**
		4.71						**4.71**
			1.87				**0.80**	**2.67**
			1.35				**0.80**	**2.15**
			0.40					**0.40**
			0.12					**0.12**
				0.80				**0.80**
				0.80				0.80
					43.00			**43.00**
1					4.00			4.00
2					12.00			12.00
3					0.00			0.00
4					15.00			15.00
5					12.00			12.00
								62.02
								0.00
								3.66
								65.68
™								**5.95**
™								**59.73**
™								**65.68**

3.5.3

65.68

142.69 77.01

3-13

3-13

		92.64	15.55	-77.09
		4.06	3.43	-0.63
		9.88	7.40	-2.48
		66.61	4.71	-61.90
		12.09		-12.09
		1.73	2.67	0.94
		0.99	2.15	1.16
		0.74	0.40	-0.34
			0.12	0.12
		1.77	0.80	-0.97
		1.77	0.80	-0.97
		39.01	43.00	3.99
1		1.8	4.00	2.20
2		14.51	12.00	-2.51
3		4	0.00	-4.00
4		12	15.00	3.00
5		6.7	12.00	5.30
		135.15	62.02	-73.13
		3.88	0.00	-3.88
		3.66	3.66	0.00
		142.69	65.68	-77.01

1

2

3

0

4

3.88

4

4.1

4.1.1

“

”

4.1.2

4.1.3

“

”

4.2

4-1

4-1

		50%
		50%
		50%

1 2

4.2.1

SL336-2006

3

5 39

4-2 4-3

4-2

		50 100m	SL336-2006
		0.1hm^2 1hm^2 1hm^2	
		50m 100m 50m 100m	
		10m^3 30m^3 10m^3 30m^3	
		100m^2 1000m^2 100m^2 1000m^2	

4-3

			10
			22
			1
			2
			4
			7
			39

4.2.2

1

10

4-4

4-4

					%		%			
			10	10	99.4	4	39.8			

2

4-5

4-5

					%		%			
			22	22	100	9	40.91			

22

3

SL336-2006

7

4-6

4-6

					%		%			
			1	1	100	1	100			
			2	2	100	1	50			
			4	4	100	1	25			
			7	7	100	3	42.9			

4.3

5

5.1

2013 9

5.2

5.2.1

4.19hm^2 2018 1 1.75hm^2

0.31hm^2 0.82hm^2 0.65hm^2

1.75hm^2 98.86%

95% 5-1

5-1

				hm^2				
		hm^2	hm^2				= + +	%
1		0.81	0.81	0.48	0.31		0.79	97.53
2		0.82	0.82			0.82	0.82	99.9
3		0.12	0.12	0.12			0.12	99.9
		1.75	1.75	0.60	0.31	0.82	1.73	98.86

1.75hm^2

1.13hm^2 0.62hm^2

0.60hm^2

96.77% 92% 5-2

5-2

			hm^2					
		hm^2				= - -	hm^2	%
1		0.81	0.81	0.31	0	0.5	0.48	96.00
2		0.82	0.82	0	0.82			
3		0.12	0.12	0	0	0.12	0.12	99.90
		1.75	1.75	0.31	0.82	0.62	0.60	96.77

3.75 m^3 2.25 m^3 1.5 m^3

2.25 m^3 1.5 m^3

98% 98%

500t/km^2.a

523t/km^2.a 0.95

0.8

5.2.2

1.75hm^2

0.21hm^2 0.21hm^2 99%

97%

5-3

		hm^2	hm^2	hm^2	%
1		0.81	0.17	0.17	99
2		0.82			
3		0.12	0.04	0.04	99
		1.75	0.21	0.21	99

1.75hm^2

1.75hm^2 0.21hm^2

12.0%

5.2.3

40

6

6.1

“ ”

6.2

6.3

“ ”

6.4

2017 8

2017 8 9 10 12 2018 1

5 2017 9

2017 2017 12

2017

2018 1

6.5

2017 5

6.6

2018 1 1

2 3

4

5

“ ” 6

2018 1

6.7

3.66

2017 11 10

6.8

16 2002 10

2005 7 24

7

7.1

”

7

“ ”