



启迪环境科技发展股份有限公司

**TUS ENVIRONMENTAL SCIENCE AND TECHNOLOGY
DEVELOPMENT Co., LTD.**

2021

目录

2021

		2021			2020		
1		95,082.03	60,507.09	36.36%	80,802.80	49,091.05	39.25%
2		108,954.57	84,000.31	22.90%	92,854.47	67,414.72	27.40%
3		84,813.68	84,004.86	0.95%	64,262.24	54,194.74	15.67%
4		170,372.00	255,362.92	49.89%	187,465.73	196,018.54	-4.56%
5		363,920.34	341,603.89	6.13%	416,796.57	324,697.81	22.10%

2021

36.36%

2.88%

a

b

c

2021 22.90%
4.49%

a

b

c

2021 0.95% 14.71%

2021 3 22

2021 10

2016 30% 2021

2021

-

49.89%

2021

1

2

3

2020

2020

12,562

4 2020

2020

5,718

2021

		2021			2020			

		418,536.95	218,743.92	47.74%	312,348.92	143,328.23	54.11%	-6.38%
		505,688.94	332,517.32	34.24%	227,761.88	96,767.60	57.51%	-23.27%
		401,523.04	291,165.30	27.48%	331,502.12	218,394.70	34.12%	-6.63%
		296,793.43	187,225.23	36.92%	169,837.69	85,214.34	49.83%	-12.91%
		447,691.44	336,436.05	24.85%	386,924.33	273,024.29	29.44%	-4.59%
		483,362.76	373,821.46	22.66%	431,521.95	303,261.43	29.72%	-7.06%
		346,915.41	261,742.36	24.55%	333,050.54	224,959.08	32.45%	-7.90%

2021

2021

66.96

67.05

2021

		24.80		14.03
10.77				5.50
	8.36		2.86	
19.30		5.67		13.63
				8.36
			5.67	4.40

	56,692.23	193,040.29	-136,348.05	-
	587,739.79	558,846.56	28,893.24	70.63%

2.86

8.41

58.77

5%

1.13%

	2021 12 31	2020 12 31		
	458,126.13	486,381.62	-28,255.48	-5.81%
	94,854.11	339,684.93	-244,830.82	-72.08%
	56,504.53	42,440.12	14,064.42	33.14%
	1,361,145.70	1,524,072.67	-162,926.97	-10.69%
	486,155.42	705,024.06	-218,868.64	-31.04%
	50,863.70	50,872.60	-8.90	-0.02%
	38,644.33	211,912.02	-173,267.69	-81.76%
	775,447.40	1,074,145.99	-298,698.59	-27.81%
	2,136,593.10	2,598,218.66	-461,625.57	-17.77%

46.16

16.29

29.87

81.76%

71.08%

8.74

4.04

2.93

18.86

2022

	2021	
	458,126.13	
	58,210.29	
	56,504.53	
	572,840.96	

2022

57.28

7

1.89

		PPP			826,318,28	
					2.38	
					307,787,77	
					1.74	
					235,466,10	
					8.90	
		-			93,298,225	
					.18	
					88,881,884	
					.20	
					73,077,791	
					.18	
		BOT			58,656,241	
					.98	
					57,650,369	
					.75	
					46,508,686	
					.40	
					44,316,979	
					.39	
					39,122,789	
					.46	
					33,082,186	
					.72	
					32,561,873	
					.89	

-

1		97,351.16	5	0	17.61	
2		5,665.00	1		200.00	
3		1,916.12	1		300.00	
		104,932.28				

2021

10.49

1 97,351.16

EPC

2 5,665.00

2021

2022 4 27

3 1,916.12

2022 1 19

2022 1 27

- 3

1				177,999.74	5		3,826.93
2				17,383.06	4		4,961.08
				195,382.80			8,788.01

3

		3				
1		78,868.33	-			
2		89,108.71	74,583.84	EPC	4 EPC 3.64 1	EPC 3
3		22,628.65	18,909.83			
4		3,844.17	3,458.08			
5		194,449.86	96,951.75			

([2022]1)

2021

85.19

44.07

2021

6.31

-4.03

1.14

	73,242.69	27,568.02	32,820.28	3,765.82
5	21,909.33	0	1,937.42	11.05
	40,475.15	0	88,042.08	29,859.11

2022 6 7

2022-082

1

2

9

3

AAA

A

	5,975.66	2018		
	17,987.66	2017		
	22,669.63	2017	2020	
	31,319.04	2017	2020	
	22,108.90	2017	2020	

2021

2020

50%–70%

10%–30%

2021

	114,576.72	22,915.34	72,280.96
	17,706.40	792.36	1,770.64
	132,283.12	23,707.70	74,051.60

50%–70%

	114,576.72	50%-70%	22,915.34
	114,576.72		22,915.34

	70%	3,597.53	
	50% 70%	4,533.93	
	50% 70%	6,263.81	
	50% 70%	4,421.78	
	70%	432.00	
	70%	3,666.29	

2021

2021

5,975.66

90%

2021

963.57

9.05

1.25

2014 12

1,881.27

470.32

1

2022

2022

2026

	/	2022	2023	2024	2025	2026	
		405.43	282.12	282.12	282.12	282.12	282.12
		2.84	4.10	4.46	4.84	5.26	5.26
		1,152.49	1,157.99	1,258.57	1,366.75	1,483.12	1,483.12
		2.26	2.26	2.26	2.26	2.26	2.26
		76.00	76.00	76.00	76.00	76.00	76.00
		171.43	171.43	171.43	171.43	171.43	171.43
		1,323.92	1,329.42	1,430.00	1,538.18	1,654.55	1,654.55
		-52.00	0.00	8.00	8.00	8.00	0.00

2

	/	2022	2023	2024	2025	2026	
		16.28	16.35	17.59	18.92	20.35	20.35
		833.78	842.12	850.54	859.05	867.64	867.64
		229.76	229.76	229.76	229.76	229.76	229.76
		32.34	17.40	11.98	0.00	0.00	0.00
		0.35	0.35	0.38	0.41	0.44	0.44
		0.09	0.09	0.10	0.10	0.11	0.11
		9.75	9.79	10.53	11.33	12.19	12.19
		0.84	0.84	0.91	0.97	1.05	1.05
		1.24	1.24	1.33	1.44	1.54	1.54
		1.77	1.77	1.91	2.05	2.21	2.21
		81.69	82.03	88.23	94.91	102.09	102.09
		15.00	15.07	16.21	17.43	18.75	18.75
		73.17	73.47	79.03	85.01	91.44	91.44
		91.67	0.00	0.00	0.00	0.00	0.00
		1,387.73	1,290.28	1,308.50	1,321.38	1,347.57	1,347.57
	%	-4.82	2.94	8.50	14.09	18.55	18.55

3

	2022	2023	2024	2025	2026	
	0.53	0.53	0.53	0.53	0.53	0.53
	47.39	47.87	48.35	48.83	49.32	49.32
	1.85	1.86	2.00	2.15	2.32	2.32
	2.12	2.13	2.29	2.46	2.65	2.65
	0.66	0.66	0.71	0.77	0.83	0.83
	9.93	9.97	10.72	11.54	12.41	12.41
	3.84	3.86	4.15	4.46	4.80	4.80
	0.86	0.00	0.00	0.00	0.00	0.00
	1.37	1.40	1.43	1.46	1.48	1.48
	0.52	0.53	0.54	0.55	0.56	0.56
	0.83	0.84	0.86	0.88	0.89	0.89
	0.09	0.09	0.09	0.09	0.09	0.09
	0.13	0.13	0.14	0.15	0.17	0.17
	1.15	1.15	1.15	1.15	1.15	1.15
	71.27	71.01	72.96	75.01	77.19	77.19

	2022	2023	2024	2025	2026	
	291.93	291.93	291.93	291.93	291.93	291.93
	32.34	17.40	11.98	0.00	0.00	0.00
	324.27	309.32	303.91	291.93	291.93	291.93

5

2026

	2022	2023	2024	2025	2026	
	100.28	93.46	95.65	97.96	100.39	100.39
	327.19	328.46	351.61	376.52	403.31	403.31
	9.92	9.26	9.38	9.47	9.65	9.65
	12.25	12.29	13.16	14.09	15.10	15.10
	449.64	443.47	469.80	498.04	528.44	528.44
	187.63	175.01	177.37	179.04	182.43	182.43
	54.50	50.84	51.52	52.01	52.99	52.99
	4.68	4.70	5.03	5.38	5.77	5.77
	35.72	33.32	33.77	34.08	34.73	34.73
	282.53	263.86	267.69	270.51	275.92	275.92
	167.11	179.60	202.11	227.53	252.52	252.52
	167.11	12.49	22.51	25.41	24.99	0.00

6

8

WACC D+E D+E 1 T

WACC Ke Kd

T E D

Ke CAPM

Ke Rf+ Rm Rf +Rc

Rf 10 10

Rm Rf

		%	Beta [2021]	[2020]	BETA
601200. SH		60.22	0.52	25.00	0.36
600323. SH		62.79	0.63	25.00	0.43
000035. SZ		152.72	0.59	25.00	0.28
603588. SH		41.17	0.69	15.00	0.51
		79.22			0.40

3

D/E

79.22%

D/ E

25%

4

25%

0.630

3

1991

2021 12 31

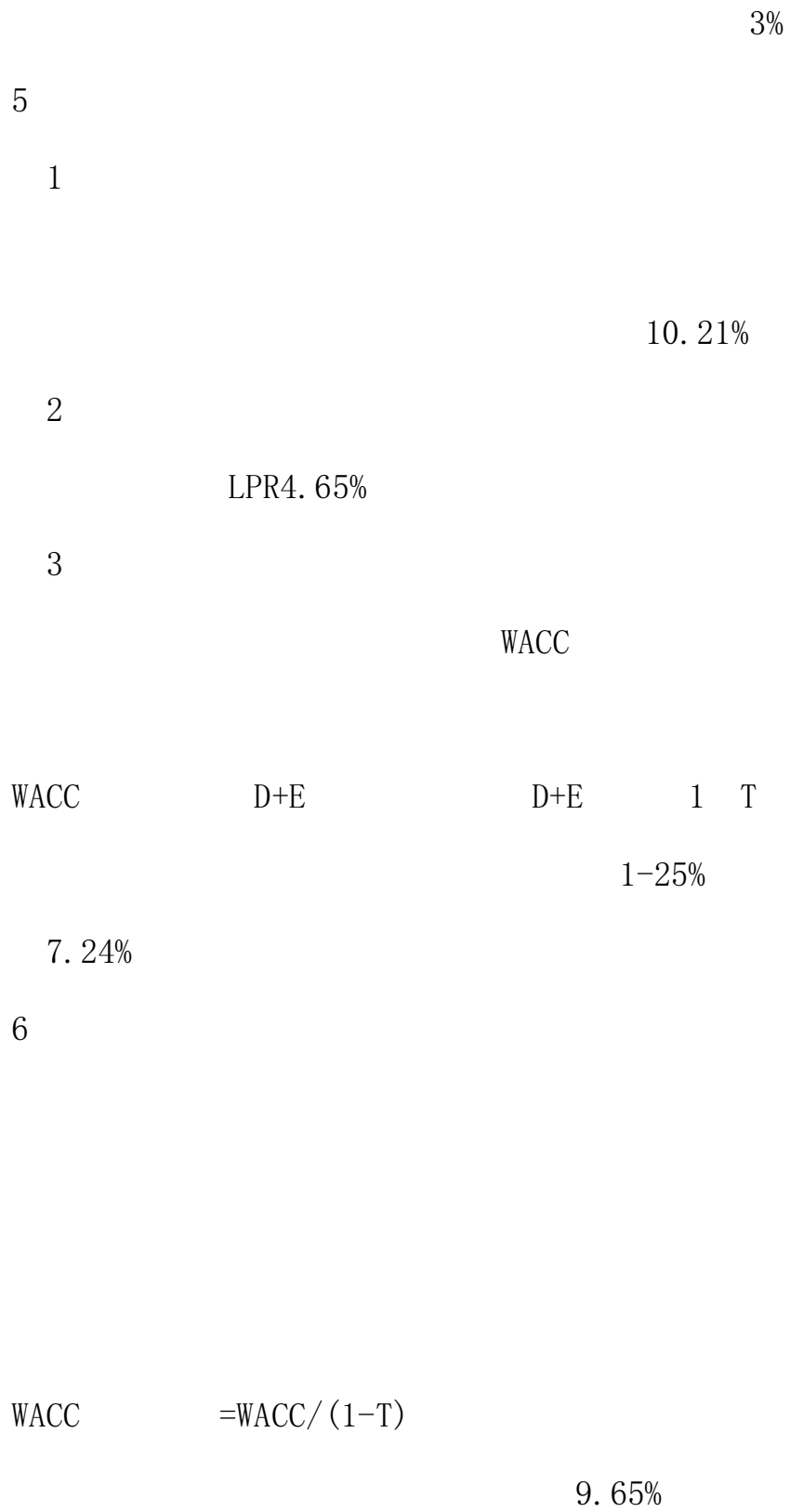
Rm=9.10%

=

-

= Rm -Rf=5.1%

4



	2020	2021	
	4.08%	4.00%	
	0.93	0.63	
	76.36%	79.22%	
	6.33%	5.10%	
	3%	3%	
	4.65%	4.65%	LPR
	25%	25%	
WACC	8.86%	7.24%	
WACC	11.82%	9.65%	

12

10

1

1

717.97

	8,394.71	3,500.00	717.97
	-	160.00	

= -	8,394.71	3,340.00	717.97
	932.75	-	239.32
= +	9,327.46	3,340.00	957.29
	6,382.38	6,489.43	5,009.64
+ =	15,709.84	9,829.43	5,966.93
	16,515.20	10,043.45	6,555.67
= - 0			

1

	3,617.00	759.22	1,624.65
	1,400.00	-	-
= -	2,217.00	759.22	1,624.65
	391.24	506.15	-
= +	2,608.24	1,265.36	1,624.65
	496.81	5,548.10	5,815.35
= +	3,105.04	6,813.47	7,440.00
	3,447.77	8,015.57	7,609.98
= - 0			

2

	8,802.04	13,324.30	5,090.66
	2,938.62	2,850.00	2,650.00
= -	5,863.42	10,474.30	2,440.66
	-	2,618.57	610.17
= +	5,863.42	13,092.87	3,050.83
	7,402.43	6,287.89	3,636.25
+ =	13,265.86	19,380.76	6,687.07
	13,355.04	19,486.61	6,800.23
= - 0			

3

	13,353.48	2,235.18	2,262.47

	-	-	200.00
= -	13,353.48	2,235.18	2,062.47
	-	-	883.92
= +	13,353.48	2,235.18	2,946.39
	10,170.06	539.66	2,805.94
	=		
+ =	23,523.55	2,774.85	5,752.33
	23,673.13	2,833.31	5,831.17

0

= -

	11,086.65	12,903.69	15,610.71	17,805.29	19,158.93
	17.72%	18.66%	19.78%	20.44%	20.67%
	206.79	228.17	259.63	285.09	300.69
	1.53%	1.44%	1.33%	1.27%	1.24%
	65.19	71.09	79.49	86.42	90.83
	0.48%	0.45%	0.41%	0.39%	0.38%
	825.39	871.95	899.94	920.93	938.36
	6.13%	5.50%	4.62%	4.12%	3.89%
	404.25	475.91	583.77	671.37	724.57
	3.00%	3.00%	3.00%	3.00%	3.00%
	2,322.81	2,322.81	2,322.81	2,322.81	2,322.81
	678.86	652.46	652.46	652.46	652.46
	-8,422.09	-6,161.02	564.22	-2,665.13	640.14
	0.1078	0.1078	0.1078	0.1078	

2

8

5

5 2022

2026

3

109

500

2000

2015

2020 2020

5.8 5.0 4.7

6.0 2.7

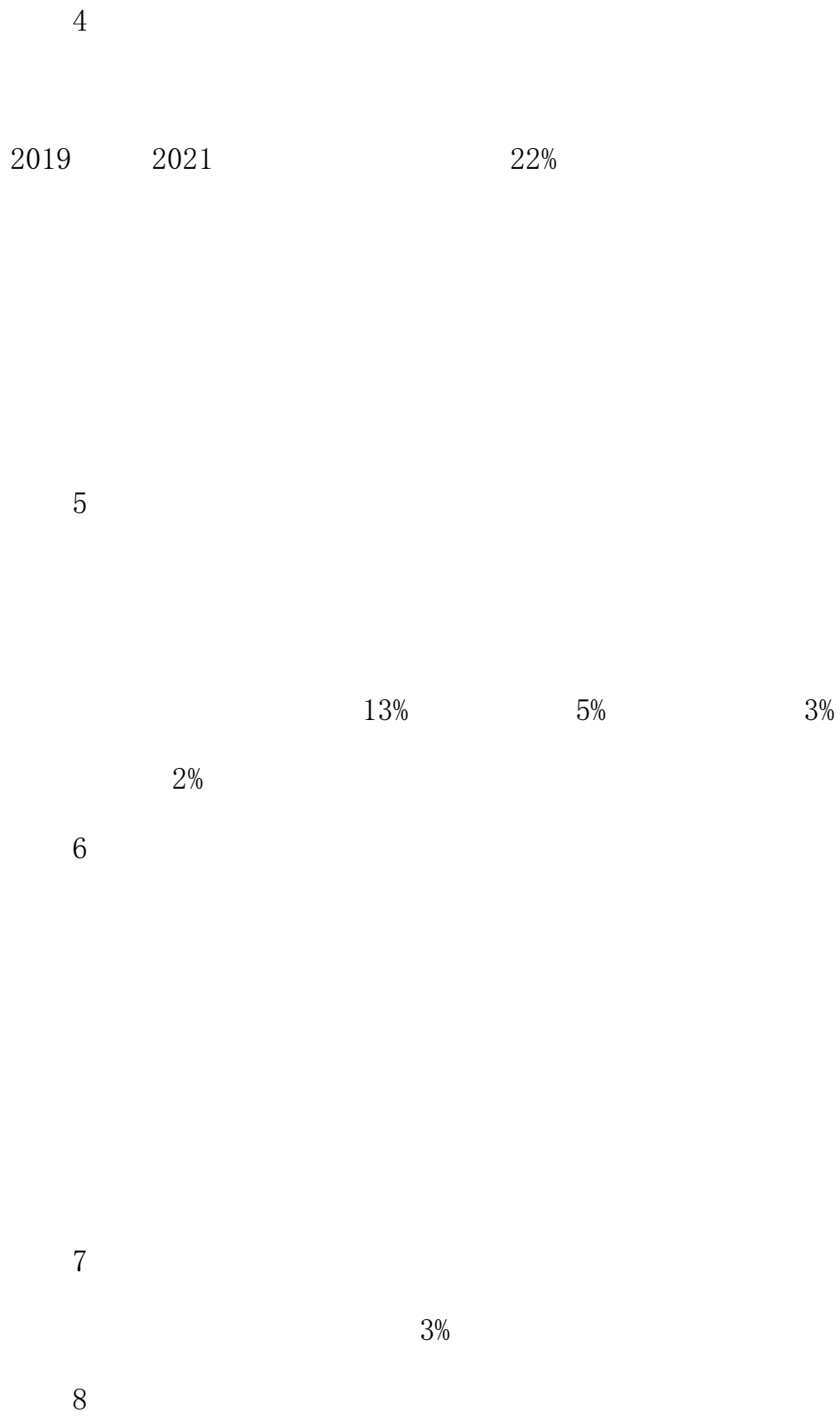
1 1.2

20%

94% 40%

2020 77%

2021 10



$$\begin{aligned}
 & \frac{1}{r} - \frac{1}{WACC} \\
 & = \frac{1}{r} + \frac{1}{WACC} - \frac{1}{WACC} \\
 & = \frac{1}{r} - \frac{1}{WACC}
 \end{aligned}$$

$$w_d = \frac{D}{(E + D)}$$

$$w_e = \frac{E}{(E + D)}$$

re CAPM

$$r_e = r_f + \beta_e (r_m - r_f)$$

rm

e

$$\beta_e = \beta_u \left(1 + (1 - t) \frac{D}{E}\right)$$

u

D E

A. rf

10

wind

rf=3.80%

B. rm

300

300

Wind

9.08%

rm=9.08%

C. e

u

wind

6

2019 1

2021 12

u=0.4080

$$\beta_e = \beta_u \times (1 + (1 - t) \times \frac{D}{E})$$

e= 0.5432

D. re

=2.87%

$$re = rf + e \times (rm - rf) +$$

re

re=9.92%

E. 25%

$$w_d = \frac{D}{(E + D)} \quad w_e = \frac{E}{(E + D)}$$

F.

$Wd=0.7140$

$We=0.2860$

G.

LPR

	2021	2022	2023	2024	2025	2026	
2021	12,987.69	15,585.22	17,923.01	19,715.31	20,701.07		20,701.07
2022	7,307.48	13,474.98	15,863.80	19,458.92	22,379.11	24,152.33	24,152.33
2021	8,862.89	10,520.44	12,012.23	13,155.94	13,784.98		13,784.98
2022	6,652.47	11,086.65	12,903.69	15,610.71	17,805.29	19,158.93	19,158.93
2021	31.76%	32.50%	32.98%	33.27%	33.41%		33.41%
2022	8.96%	17.72%	18.66%	19.78%	20.44%	20.67%	20.67%
2021	17.05%	20.36%	21.97%	22.87%	23.14%		23.14%
2022	-31.46%	6.58%	8.28%	10.41%	11.66%	12.17%	12.17%
2021	11.46%	11.46%	11.46%	11.46%	11.46%		11.46%
2022	10.78%	10.78%	10.78%	10.78%	10.78%	10.78%	10.78%

2020 2021
2021

	-	28.41
	18,696.63	13,544.45

2021

-

-	2021	2020
	7,299.44	2,573.78
	3,916.08	161.49
	1,229.43	508.87
	609.50	625.54
	515.36	-
	484.71	396.21
	263.94	385.43
	213.21	300.69
	157.15	238.00
	127.67	77.25
	124.59	202.15
	838.24	589.72
	15,774.32	6,059.13

2021

2021

2021

10.42

2.1

25.29%

2021

