



EPS
60xPE

1.47/2.04/2.62

2021-2023

2022

3.23/4.48/5.75

120

2022

S1010513110001

+

CO₂

1

2025

60

2

1.05-1.1
2030

20

1/3

2030

PLA

PLA
340

16

PLA

PLA+PBAT

PBAT

BDO

2050

CCUS
Seplite-CT

3300

/

CCUS

300487

96.19

120.00

220

128

211

333

52 /

110.0/38.0

1

2

3

2021-2023

3.23/4.48/5.75

EPS

1.47/2.04/2.62

2022

1

12.02%

120

2022

60xPE

6

16.27%

12

114.64%

<i>I</i>	2019	2020	2021E	2022E	2023E
()	1,012	923	1,211	1,539	1,958
YoY	60.1%	-8.8%	31.2%	27.1%	27.3%
()	251	202	323	448	575
YoY	75.4%	-19.6%	59.8%	38.8%	28.4%
EPS()()	1.14	0.92	1.47	2.04	2.62
	49.8%	46.6%	47.4%	48.3%	48.8%
ROE	19.9%	12.2%	15.1%	17.8%	19.2%
	5.74	7.51	9.73	11.46	13.65
PE	84.4	104.6	65.4	47.2	36.7
PB	16.8	12.8	9.9	8.4	7.0
PS	20.9	22.9	17.5	13.7	10.8
EV/EBITDA	65.9	60.3	49.6	37.3	29.7

Wind

2022 1 27

	.....	1
21	.....	1
	.....	1
	.....	2
+	.....	2
	.....	8
	.....	10
	.....	10
	.....	12
	.....	13
	.....	15
	.....	15
	.....	17
	.....	22
CO2	.....	23
	.....	26
	.....	27
	.....	27
	.....	27
	.....	28

1	1880-2020	.....	1
2		.....	2
3		.....	2
4		.....	3
5		.....	3
6		.....	3
7	2016-2020	.....	4
8	2019	.....	4
9	2019	LCE	4
10		.....	8
11	iPad Pro	mini-LED	9
12	** ** *	.....	10
13		.....	11
14		.....	11
15		.....	12
16		.....	12
17	2020	.....	13
18		.....	14
19		GDP	15
20		GDP	15
21	PLA	.....	18
22	PLA	.....	19
23		/	20
24	2018-2024	.....	22
25	2017-2024	.....	22
26		.....	22
27		.....	24
28		.....	24
29		.....	24
30	CCUS	.....	25
31	CO2	.....	25
32	2016	PE(TTM)	29
1		.....

6					7
7					7
8					9
9					10
10					12
11					13
12					15
13					16
14					17
15					17
16					19
17	PBAT	2021	11		20
18	BDO		2021	12	21
19					23
20					26
21	2019~2023				27
22	2019-2023				28
23					
.....					28

21

1880

1

NOAA

2050

3

1 1880-2020

NOAA

1992

1997

2050

0.02-0.28

2015

178

2

2021

11

1

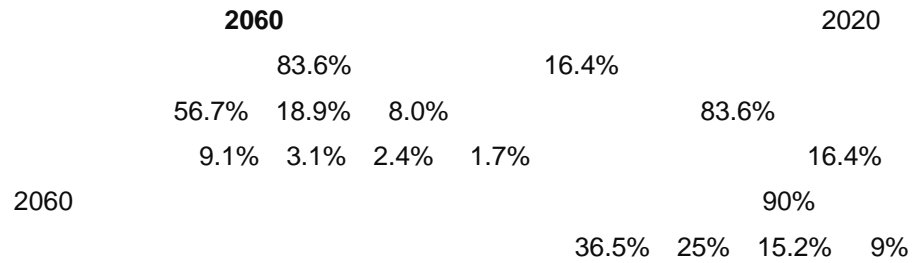
26

CPOP26

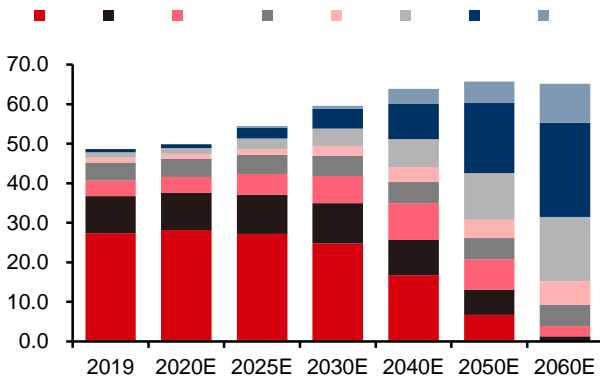
1.5

PLA

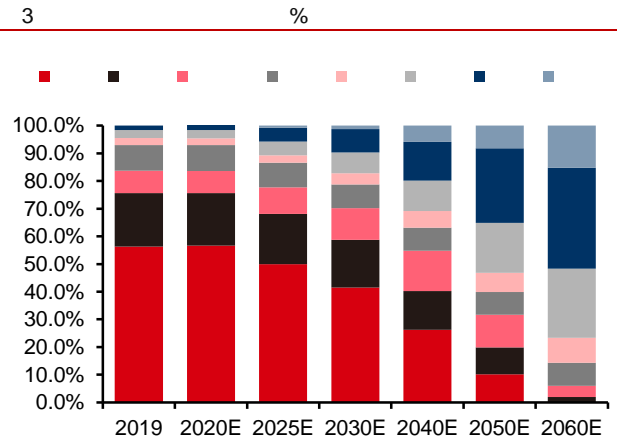
+



2



3



90%

15%

2030

18.9%

7 2016-2020

8 2019

%

68% 50%

USGS

USGS

Roskill

2019

2-4 /

2 /

4 /

1

CO2 2.7-3.1t CO2/t
30000-36000 MJ/t
15.5-32.8 m3/t

CO2 20.4t CO2/t
218000 MJ/t
77 m3/t

CO2 6.9-7.3t CO2/t
76600-82900 MJ/t
31-50 m3/t

CO2 15.7t CO2/t
187200 MJ/t
69 m3/t

Resources, Conservation & Recycling Ming Xu

9 2019

/ LCE

Roskill

43.4% 31.1% 10.6%

20 40

1577.4

2

	Li %	Mg %	Mg/Li
Uyuni	0.032	0.65	20.3
Atacama	0.157	0.97	6.4
DongTajinaier	0.085	2.99	35.2
XiTajinaier	0.022	1.99	90.5
Chaerhan	0.0031	4.89	157.7
Yiliping	0.021	1.28	60.9
Zabuye	0.08	0.002	0.025
Silver Peak	0.016	0.019	1.2
Hombre Muerto	0.076	0.12	1.6
Tincon	0.037	0.37	10
Olaroz	0.066	0.19	2.9
Cauchari	0.051	0.15	2.9
mariana	0.026	0.359	14.1
Sal de Vida	0.063	0.14	2.2

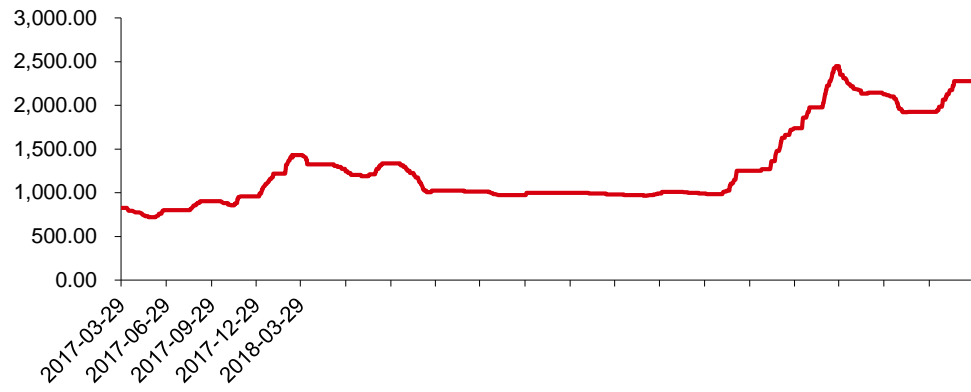
+

3

SQM ALB
Orocobre

8

12 99.99% /



Wind

9

4000

2022

TOC

2019

18MQ

TOC<1-5ppb

ppt

DOW

purolite

90%

2%

1.2
1.06-1.08 1.05-1.1

10

AmberTec™UP6040		Monojet®6040U	
H	OH	H	OH

2020-6-4
1.6
3.84
2030
4

2021
10%
1

2030
1/4

mini-LED
micro-LED

11

	2017	2018	2019	2020	2021E	2022E	2025E	2030E
	11810	12732	11810	12407	14350	15758	21174	33837
	0.1013	0.1013	0.1013	0.1013	0.1013	0.1013	0.1013	0.1013
	1196.35	1289.75	1196.35	1256.83	1453.66	1599.02	2144.93	3427.64
10-6	7.716	7.716	7.716	7.716	7.716	7.716	7.716	7.716
/	9231.06	9951.72	9231.06	9697.69	11216.40	12338.04	16550.25	26447.69
/	1.35	1.45	1.35	1.41	1.63	1.79	2.41	3.84

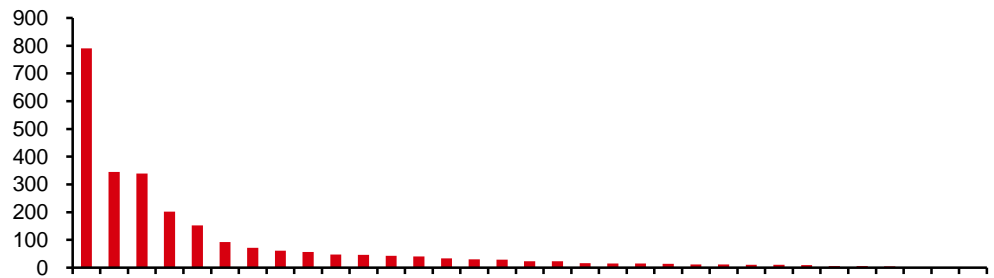
SEMI SUMCO

15.3%

2020

8000

17 2020



Wind

	2020	2020	2020	2011-2020	2020	2020
	5103	16	1738	3	49	361
			5800	3000		8800

1.1

18

12

12

	2018	2019	2020	2030E
	45	47	51	110

10⁸ W

Wind

Wind

2020 2022 2025

0.025

0.01

2022 2025

13

0.01

2030

700

-
2025 2030
324.6 682.1

2020-11-26
50% 80%

14

	2017	2018	2019	2020		2021E	2025E	2030E
/	143.7	140.9	137.9	140	0%	140	140	140
/	198	308	402	450	10%	495	724	1167
/g	25	25	25	25	-	25	25	25
/	49.5	77	100.5	112.5	-	123.75	181	291.75
/	-	160	170	180	6%	190	240	322
/	-	-	-	30	5%	31.5	38.3	48.9
/	50	50	50	50	-	50	50	50
/	-	-	-	512.5	-	535.2	649.3	852.6
	-	-	-	3%	-	5%	50%	80%
/	-	-	-	15.4	-	26.8	324.6	682.1

PLA

PLA

PLA

CO2

15

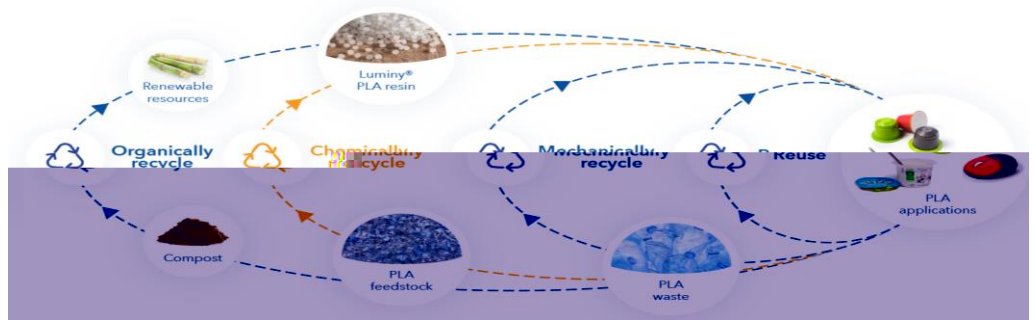
PLA

PHAs

-

PBS	
-	PBS
PBSA	
-	
PBAT	
PCL	

21 PLA



Total-Corbion

12 3

PLA	1/3	Ana Morao	Francois de Bie	
PLA	0.5		PLA	
1.833	CO ₂		PC	5
	PP	PE	2	PLA
PLA				

23

/

PBAT

BDO

2020

PBAT

29.3

2021-2023

400

PBAT

PTA

AA

1 4-

BDO

PBAT

BDO

0.5~-0.6

0.55

2021-2023

PBAT

BDO

230

17

PBAT

2021

11

13

/

2020

		/
	12	2023E
	-	2023

2024			30	Markets and Markets
			2018	19.78
	2019	2024	7.16%	2024
29.93				

			1	CPC	7-
7-ACA	2	CBD	3		
LX-MC-dex1			4B		Seplife G50SF
CM Seplife C50		DAEA Seplife A50			

19

7-ACA

2021 7 16

27

/

Wind

43 /

80-100 /

60 /

28

/

29

/

Wind Erustat

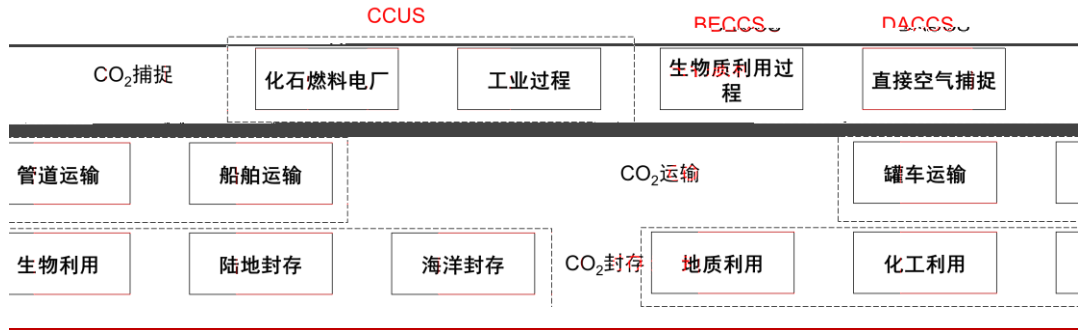
Wind

CCUS

CCUS

IEA	2060	14%	CCUS	CCUS
			CCUS	
		2050	CCUS	
3300	/			

30 CCUS



CCUS 2021

150 / CCUS CCUS CO2 CCUS

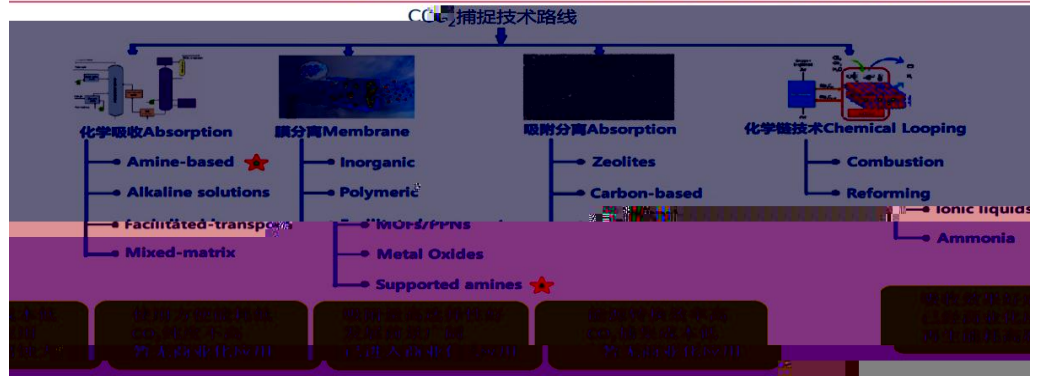
Spelite-CT

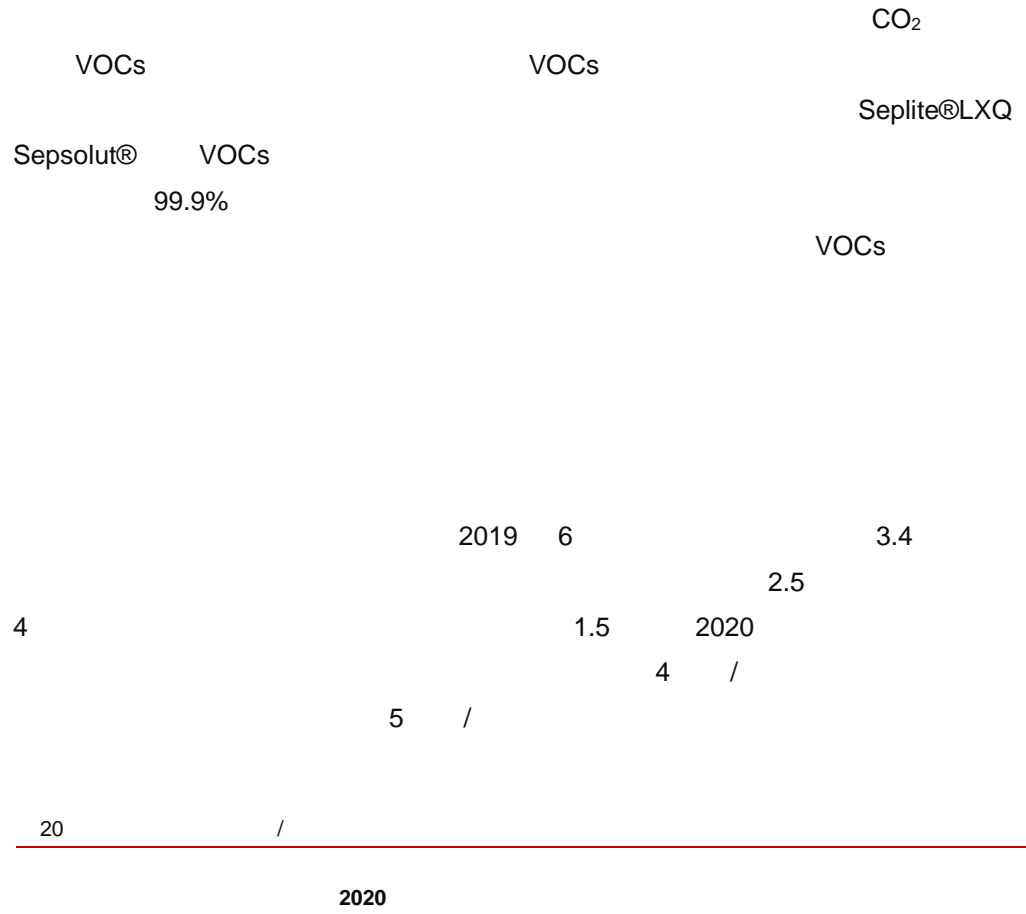
CO2

Seplite-CT

31 CO2

ION EXCHANGE RESIN & ADSORBENTS EXPERT





22 2019-2023

/	2019	2020	2021E	2022E	2023E
()	1,012	923	1,211	1,539	1,958
YoY	60.1%	-8.8%	31.2%	27.1%	27.3%
()	251	202	323	448	575
YoY	75.4%	-19.6%	59.8%	38.8%	28.4%
EPS	1.14	0.92	1.47	2.04	2.62
() ()	49.8%	46.6%	47.4%	48.3%	48.8%
ROE	19.9%	12.2%	15.1%	17.8%	19.2%
	5.74	7.51	9.73	11.46	13.65
PE	94.5	104.6	65.4	47.2	36.7
PB	18.8	12.8	9.9	8.4	7.0

Wind 2022 1 27

1 PE

2022

57xPE

Wind

2022

PE

57

23

		EPS				PE			
		2020	2021E	2022E	2023E	2020	2021E	2022E	2023E
301092	34.00	1.27	1.00	1.21	1.58	-	34.0	28.1	21.5
300631	33.56	0.76	0.70	1.02	1.36	22.74	49.0	33.7	25.4
688690	63.55	0.20	0.35	0.57	0.85	-	174.3	110.0	73.7
							85.8	57.3	40.2
300487	96.19	0.94	1.47	2.04	2.62	92.9	65.4	47.2	36.7

Wind 2021 1 27 EPS Wind

2 PE

5 PE

50

2016

PE TTM

50x

±1

PE 34~67x

2-3

PE +1

2022 67xPE

32 2016 PE(TTM)



Wind

PE 57x-67x

	PE	60x	2021-2023	3.23/4.48/5.75
EPS	1.47/2.04/2.62		2022 120	2022 60xPE

	2019	2020	2021E	2022E	2023E		2019	2020	2021E	2022E	2023E
	1,012	923	1,211	1,539	1,958		401	605	952	1,318	1,657
	508	493	637	796	1,002		316	332	412	515	657
	49.8%	46.6%	47.4%	48.3%	48.8%		233	286	323	413	551
	9	12	12	14	18		118	160	218	196	231
	29	24	29	34	39		1,068	1,383	1,905	2,442	3,096
	2.9%	2.6%	2.4%	2.2%	2.0%		672	673	649	619	584
	84	83	97	123	157		2	3	3	3	3
	8.3%	9.0%	8.0%	8.0%	8.0%		172	167	164	161	158
	4	41	2	1	0		341	327	329	331	333
	0.4%	4.4%	0.1%	0.1%	0.0%		1,186	1,170	1,144	1,114	1,078
	62	55	70	86	110		2,253	2,553	3,049	3,556	4,174
	6.2%	5.9%	5.8%	5.6%	5.6%		0	71	0	0	0
	1	1	1	1	1		302	200	339	407	484
EBITDA	324	354	430	573	719		288	423	370	437	510
	28.09%	23.28%	29.00%	31.56%	31.74%		590	695	709	844	994
	284	215	351	486	622		50	23	23	23	23
	0	3	1	1	2		333	163	163	163	163
	1	1	1	1	1		383	186	186	186	186
	284	217	351	486	622		973	880	894	1,030	1,180
	36	21	34	48	61		207	215	220	220	220
	12.6%	9.8%	9.8%	9.8%	9.8%		366	615	817	817	817
	(3)	(7)	(6)	(10)	(14)		1,261	1,650	2,138	2,519	3,001
	251	202	323	448	575		19	22	16	7	-7
	24.8%	21.9%	26.7%	29.1%	29.4%		1,280	1,673	2,155	2,526	2,994
							2,253	2,553	3,049	3,556	4,174

	2019	2020	2021E	2022E	2023E		2019	2020	2021E	2022E	2023E
	248	196	317	439	561						
	33	90	71	76	82	%					
	-393	-104	-110	-44	-186		60.1%	-8.8%	31.2%	27.1%	27.3%
	65	79	21	7	19		73.0%	-24.4%	63.4%	38.3%	28.0%
	-47	260	298	478	477		75.4%	-19.6%	59.8%	38.8%	28.4%
	-236	-53	-43	-43	-43	%					
	1	1	1	1	1		49.8%	46.6%	47.4%	48.3%	48.8%
	-31	-6	-1	-1	-2	EBITDA Margin	32.0%	38.4%	35.5%	37.3%	36.7%
	-265	-58	-43	-44	-44		24.8%	21.9%	26.7%	29.1%	29.4%
	54	1	208	0	0	%					
	32	41	-71	0	0		19.9%	12.2%	15.1%	17.8%	19.2%
	-30	-52	-43	-67	-94		11.2%	7.9%	10.6%	12.6%	13.8%
	242	-40	-2	-1	0	%					
	298	-50	92	-69	-94		43.2%	34.5%	29.3%	29.0%	28.3%
	-14	152	347	366	339		12.6%	9.8%	9.8%	9.8%	9.8%
							20.6%	21.2%	20.9%	20.9%	21.0%

