21. 3000

22.

23. 2018 6 19.2%

24. 80%

25. 7%

1. “ ”

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3. 2018

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5. 2018

6. 2018

1. Opteon XL41

2. “ ”

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4. 5 60

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6. 2019 " "

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13. 2018 “ ”

14. .

15. Busch Pfeiffer Vacuum Technology

16.

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18. ” “

19. 30 2018 531

20. 166 400W

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23. 13.5

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26. LG

27. 40

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4. “ ”

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2020

12 1 G20

1 2000 10% 1 1 25% 2

90

3

225 1% 1.5%

1% ASX200 1.5% A 2654.80

2.57% 7938.47 3.34%

3

10

IMF

NFI

http://news.ehvacr.com/news/2018/1204/105789.html

2

2018 500

2018

2019 10

10

https://www.hvacrhome.com/news/show.php?itemid=41588

3 8% “ ”

“ ” “

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8% “ ”

“ ”

10 4000 11 12

3600 8 21 4320

3800

“ ”

“ ‘ ’

”“

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“ ”

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8-9

‘ ’ ”

1-9 88665 9.9% 1-8

0.2 10 204.68 0.66% 12.99%

1-9 3.3%

19.8%

2015

2016

2015 1500 8 4000

166%

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2500m3 4 40m3/min 3

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11 15

9

VRFs VRF

VRF

2018 1

VRF

2018 3 4 5 5

6

2019

上海汉钟精机股份有限公司

25%

http://cac.chinaiol.com/s/1127/43204467.html

7 35

2019 1 21

200

12 35

2019

https://www.hvacrhome.com/news/show.php?itemid=41639

8 2030 20

2018

2018

2018

http://news.ehvacr.com/news/2019/0129/106235.html

10

30 11 20

20

800 “

” 12.6 30

“ ” 2020

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-60

100

50

“

”

50 150 “

”

http://news.ehvacr.com/news/2018/1123/105710.html

11 :

2018-2019

12 15

http://cac.chinaiol.com/s/1218/39205512.html

12

10 29

14

2018 12 1

4 12 1 4

4

4

24

1

“ ” 2018 35

2018 12 1

“ ”

“ ”

2018 12

010-82262225

2018 10 16

http://www.compressoronline.cn/index.php?m=content&c=index&a=show&catid=5&id=8283

13 “ ”

1-9

11 14 1-9

4.9% 9.59 14.8% 7121.0 45.2%

2.46 ( ) 1.4% 2.2%

21.2% 5.8%

1-9

1.7%

5.4% 1-8

“ ” “ ”

2015

( ) ( )

2019-2020 / /

7400/3400/2000 / 2019

2018

“ ”

“ ” “ ”

6000 “ ”

“

”

76

2018

2018

“ ”

033001-2018	2018	10	1		2019	1	1

2017 2050

20%

11.7%

28.6%

http://www.compressoronline.cn/index.php?m=content&c=index&a=show&catid=108&id=8291

16 2030 3100

“ ”

2018 2030

4 9275 3042 2017

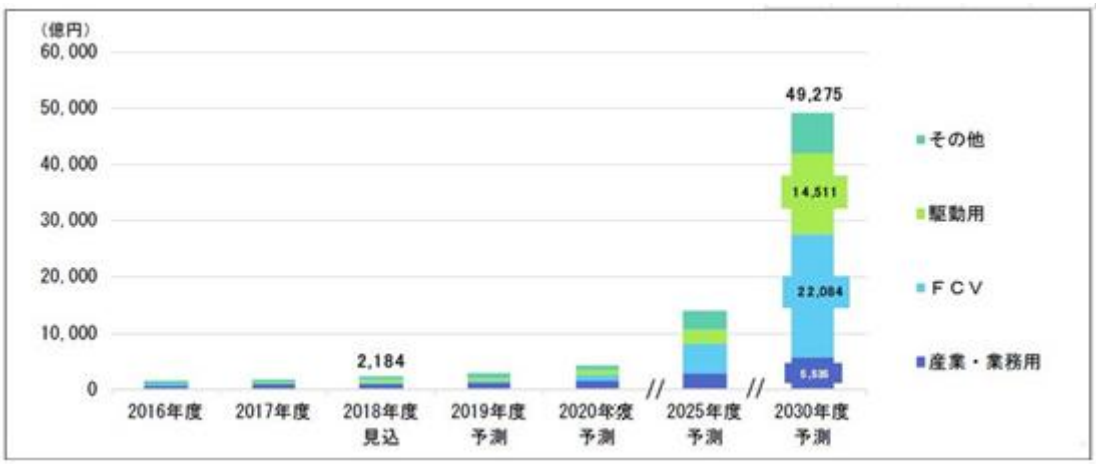
28 2 1301 1317 2017

49 8

2017 1757

2025 1

618 2030 4 9275 3042



2018

2018 “ NEXO ”

2030

PEFC

SOFC

“ ”

https://libattery.ofweek.com/2019-01/ART-36008-8420-30301262.html

17 2018 44.26GW

2018

4426 2017

2018

2018—2020

20	1775	50	906	14
	691	2017		95
	277			

3000

2 30

2018 2012

20% 2020

32%

4

2019 2017

2.3

Lightsource BP

300 2019

40 / 51 /

2019

2-3

5

56% 2018

13% 15% ERCOT PJM , 2018

25% PPA 2.9

PPA 30% ITC 2019

2019

2018

12 (Renewable Energy Directive)

6

2019 2018

2100 38%—

SunPower 470

;

47% 2018 ITC

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上海漢鏡精機股份有限公司

∫ ;

LCOE

2019 +

8 Mono PERC Bi-facial

2019 2019 41%

Mono Perc 2018 36%

2019 2019

0.25 /Wdc 0.95 /Wdc—

— 0.80

/Wdc

9

2018 :

(SECI) 1000 ; 2

2019 (RFP)

(500) 6300 84%

2019 1000

(

14.7 2019

10

( )

Wood

Mackenzie 50 ( )

CSP

1

2019

https://solar.ofweek.com/2019-01/ART-260006-8420-30301884_2.html

20 2019

2019 2019

2018 11 12 2

2019 1 10% 15%

2019

2018

22% 15% 7%

2019

2019 1% 5%

2018

PC

2019

4

2019

2009 2018

2018 621

2019 1

1 0.5 2

60% 50~53%

50%

12

90

10% 25%

90

25%

http://www.semi.org.cn/news/news_show.aspx?ID=54980&classid=117

23 2018 6 19.2%

2018 1990 2808.06

2.76%

2018 61.7% 125.6

100

247811 123.9%

2018 12 46,650 55.1%

247,811 118% 20

62,078

5 59,799

225,395 2018 84,327 2018

65,871 35,699 SUV

EV360 35,699

158,012 105.3%

2018 158,012

53.11% 15

EC EC

2018 90,637 16.6% 57.36%

2019 22

9.6 96%

2018 9.6

10 96%

5

2018

eRX5 ei6 Ei5

FCV80 3 300

2019 Ei5

12.88 -15.88 2018 Ei5 5000

90,537 90.5%

2018

2018 90,537 146% 10

90.5%

3xe eQ1 400 5e 450

SUV eQ

50% eQ1 4.4 123%

5e 3xe

42,410 53%

2018 42,410 38.3%

8 53%

2019 2018

2019

GS4 PHEV 10,922 486%

2019

11,348 113.5%

2018 11,348 ES8

A00 2018

2019

2019

160

https://www.d1ev.com/news/shichang/86274

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“ ”

https://libattery.ofweek.com/2018-12/ART-36001-8420-30294068.html

25 7%

11 21 21 1 11 44 11GWh

79 87

5 109GWh ¸! Ü½V 23 18 76 23

60 69 3 072GWh

63 01 16 05

11 27 03GWh 61 36

133

10 27 63 28

17 24 19 49

NCA 10 7 6MWh 11

92 5MWh

2 29

NCA

E100 142Wh kg

NCA NCA

302Wh kg

OLO 11 852 5KWh

12 9

1

5—6

2

2018 7 19 —— 500

120 5 126

120 53

500

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2007 2017 300

2007 15.6%

2017 7% 7.8% 2.8%

2017 300 10 10

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2012 6 CPRS

589 468 121

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1985 1989 4

1985

2000 2000 10

10 2001 2005 2004

23 2006 2011 2011

136

1998 3 1999-2005

2005-2011

1989 1993-1994

1996 1 1997-2005 2006

21 2007 4

2006

1997 2000

2006

100% 0

73.5% 25.5%

3 /

468

54.55%

50%

19.83%

13.57%

4

21 3.47%

19 3.14% 2

24.30%

3.47%

3.14%

13 9

7

20

5

2000 2011

100% 0 73.5%

25.5%

3.40%

http://www.compressoronline.cn/index.php?m=content&c=index&a=show&catid=6&id=8277

3 2018

2018

2018

5 2018 3

6 2018 1

7 2018 1

8 2018 2

9 2018 4

6 1

10 2018 4

4

“

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28 10

2016 6 5

http://www.compressoronline.cn/index.php?m=content&c=index&a=show&catid=106&id=8195

5 2018

2018

2019

43GW 18%

170GW 23GW 31% 20GW 5%

531

2020

SMM

https://libattery.ofweek.com/2019-01/ART-36001-8420-30294755.html

1 Opteon XL41

2019 1 10

CC

OpteonTM XL41 R-454B Sindelfingen

BITZER ORBIT ORBIT

R-410A GWP

ORBIT ORBIT ORBIT + ORBIT FIT

OpteonTM

www.opteon.com ORBIT

www.bitzer.de

1997 21

http://news.xjtu.edu.cn/info/1007/103781.htm

3

12 19

2016

4 5 60

12 18

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5 60

32.03%

7.18%

-35

-25

60

IH

2013

2013 1

2018 5

2011 114

2018 222

https://www.hvacrhome.com/news/show.php?itemid=41613

2018

IPD PDT SQE

- - - -

2019 2019

2019

140

25 2018

2019

http://cac.chinaiol.com/s/1220/27205627.html

9

www.hvacrhome.com

700

ICU 1500kW 1550kW

https://www.hvacrhome.com/news/show.php?itemid=41426

10

www.hvacrhome.com 1 15

AHR

The Air-Conditioning, Heating, and Refrigeration Institute , AHRI Mr. Bill Tritsis

AHR

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-20 -35

Ultra Heat GMV Ulrra Heat Heat Pump Water Heater

AHRI Mr. Bill Tritsi AHRI

Mr. Bill Tritsis AHRI

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2018 Wyndham

http://www.compressor.cn/News/qyzc/2019/0121/109140.html

12

1 16 15

13 2018 “ ”

2018 “ ” ( )

2018 402 2018

“ ”

707 “ ”

“ ” “ ” “

” “ ”

72

http://www.compressor.cn/News/qyzc/2019/0125/109207.html

14 ·

. IPV

Varisco

IPV 2017

5000 5 20

IPV “

” Andrew Walker

“ ”

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http://www.compressor.cn/c.php?id=555

15 Busch Pfeiffer Vacuum Technology

Busch Pfeiffer Vacuum Technology Pfeiffer Vacuum

IT Busch SE Pangea

GmbH Pfeiffer Vacuum 50%

"Pfeiffer Vacuum

Eric

Taberlet " 1.5

"

http://www.comvac.cn/qydt/qykx/2018/1203/53594.html

16

2015 Edwards

Edwards 15,000

22,000

Edwards

Edwards

. Geert Follens Paul

Rawlings Edwards Edwards Bram Claes

Edwards

. Geert Follens

Paul Rawlings Edwards

Edwards

Sarah Goodwin

Geert Follens

Edwards Bram Claes Edwards

. Geert Follens

Geert Edwards

Edwards

Edwards

http://www.comvac.cn/qydt/qykx/2018/1030/53495.html

17 .

. a10 25 70

Division

2018

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2018 Koen

Lauwers

. LRP VSD+

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10 26 2018 ·

Koen Lauwers

2017

31

18

DHS DZS Ex LRP VSD+

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10 26

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34 34

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9 12

2015 “ ”

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2018 1 12 8 8 5

17 22

2018

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1 UPS IDC

2018

2 2018 16 000

2018 22 65 41 99

2018 15 000 20 000

41 99 22 65

1

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TOPCon IBC

3 6 654 51

2018 2017

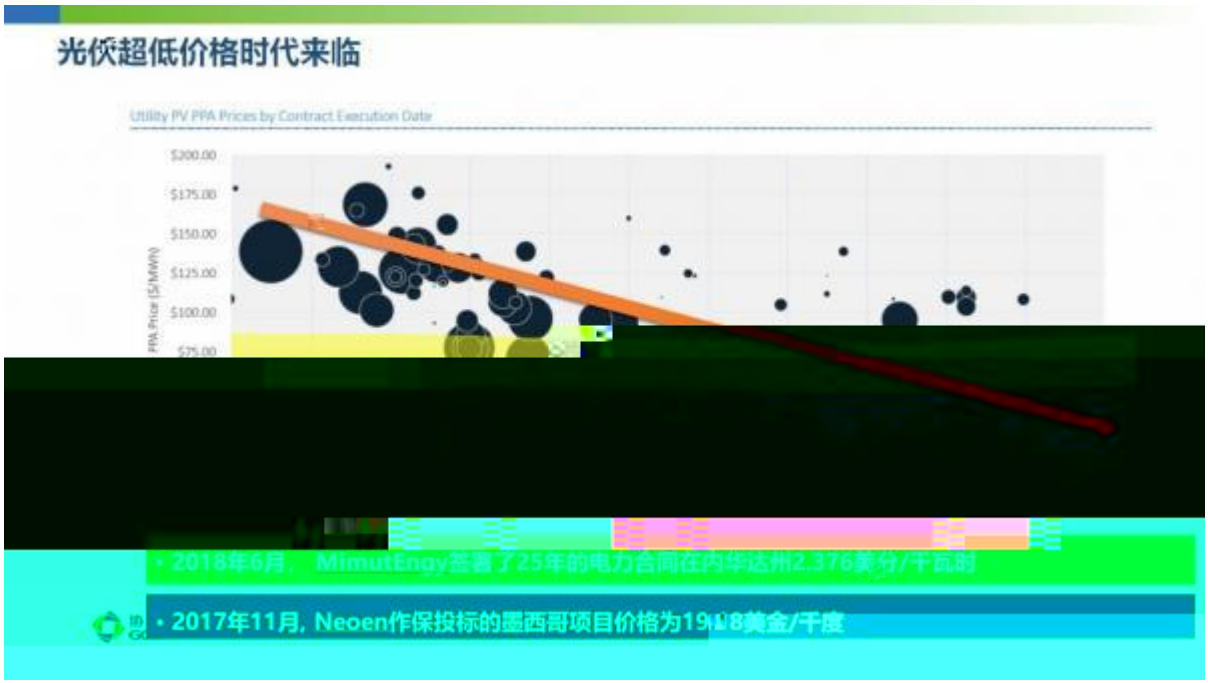
609 450 000 2018 12 31 2017

https://solar.ofweek.com/2019-02/ART-260006-8420-30302318.html

20 166

2018 531

531



2018 6 25%

2.376 / 0.13 / 0.16

300 3.0

400 4.0

2018 2019 300 400

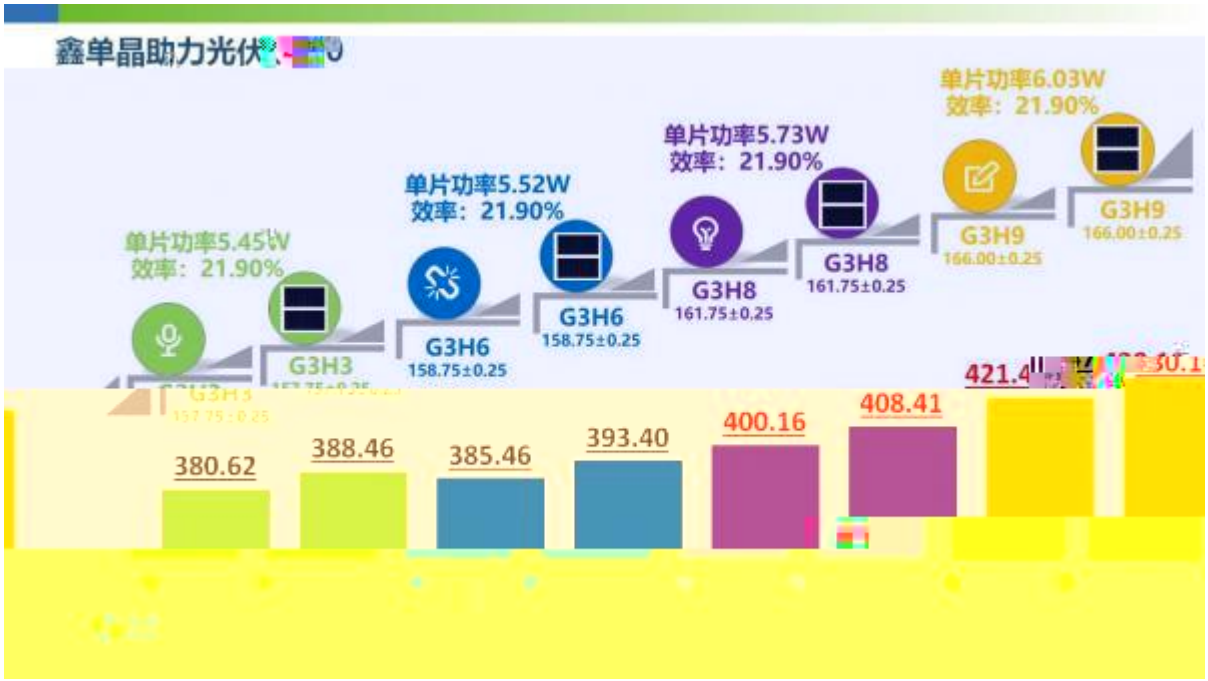
0.3 2019 0.25

2020 1.7 400

1.9 2021 200

300 400

400



G 157.75

158.75 161 166 157.75

158.75

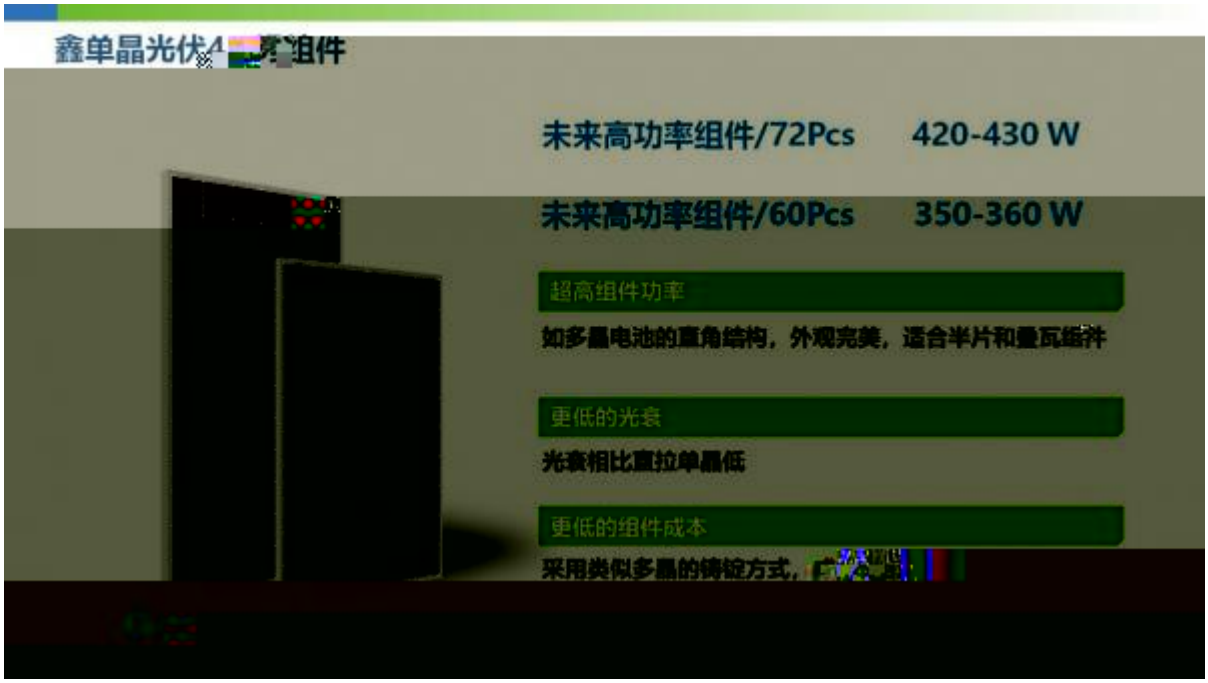
161

161 166

166

157.75 21.9% PERC MBB

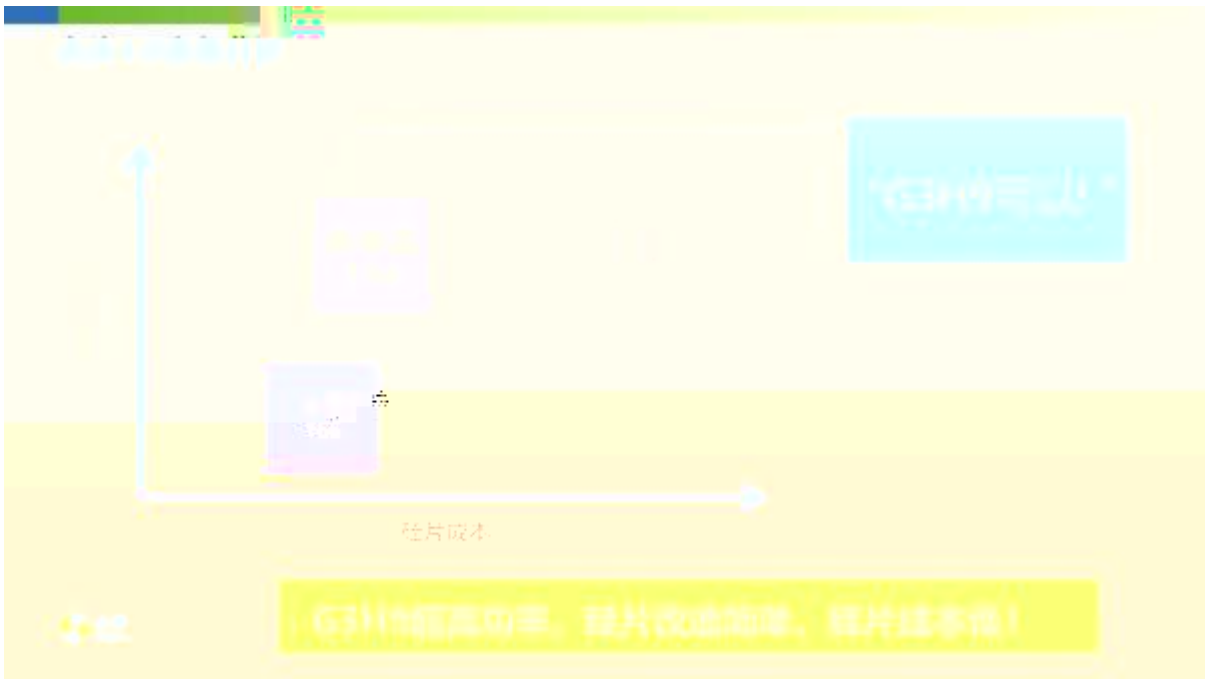
158



161 400 408 166 420

430 500

PERC 2019 400



1/3

166 3

166 166 166

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PERC 166 400

PERC HJT

https://solar.ofweek.com/2019-01/ART-260018-8400-30298230_2.html

21

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20 2019

112 16

1 “ ”

2019 CEO

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EPC

13

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2019

“ ”

1GW

https://solar.ofweek.com/2019-01/ART-260009-8460-30299449.html

22

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17 2

PERC 19 60 285W 315W

28

100%

13.5

10 2

6

12 7.3

2 14

11

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IC

IC

http://www.semi.org.cn/news/news_show.aspx?ID=55268&classid=117

24

1 30

2000

CFO 10

http://www.semi.org.cn/news/news_show.aspx?ID=55281&classid=117

25

19

110 480 300mm

300mm

480 300mm

110

60	56	139	300mm

60

https://libattery.ofweek.com/2019-01/ART-36001-8420-30294571.html

27 40

1 4

“ ” 40

LCK6105FCEVG1

上海漢鏡精機股份有限公司

7500

1994

2014 Vision SENRY Euroba

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600 KVAH 11 Wh

https://libattery.ofweek.com/2019-01/ART-36008-8460-30295634.html

28

2018 12 20

1.17

“ 1.17 ”

2018 12 25

631.25 3.03

25

“ ” 2004

2016

“ ”

10kW 30kW 60kW 200kW

“ ”

“ 2018

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8.5 100

2018

74

14 250

2.5 60

5 UNDP …… “

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400 ɔ S

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3 150

20 6000 6000 1500

2018—2020

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500kg/d 35MPa 200kg/d 70MPa

30% 300 1000kg/d

35MPa 400kg/d 70MPa 30%

500

2

3

“ ”

10% 100

10%

500

1

20%

500

2

“ ”

http://china-hydrogen.org/hydrogen/mix/2019-01-06/8969.html

30

”

2007 9

800 6 20

“

”

‘ ’

http://china-hydrogen.org/hydrogen/mix/2018-12-06/8810.html

1

2018-11-20

4

2

2018-11-12

11 9

000811 9.94% 5.31 6814 2.06%

10.14% 2.75

0.4% 300464 ,

300257

5 1035.9

1031.49

2018 11 08 34552.48

0.48 453.53 72.22

2018 24.43 1.96

0.30 10.83

3.34 1.41%

2018-11-12

10 12 2018

6 AMOLED

90%

2014 APEC

2016 45%

3 20%

4

9 26

C919

2017

797.3 15.9%

2017

27 5 11

8

2020

80% 600

2.5 50%

2011

2012

2016

7 2018 2020

Sand River

6

2003

22 6504 25.65

30

21 66

30

180

7 25

5

2017 23

23 423 397

94% 383 355 372 263

100

50

2017 413

59.4% 484.7 44% 14.2%

2.2

4 “ ”

2018-11-12

5.16%

2018

2135 27%

10.4 28%(2017 24%)

GMV

6.06% 4.73%

4.59% 4.55% 4.12% 3.54%

3.53% 3.04% 3.02% 3.02% 3.00%

50

28%

20%

20% CR8

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2500 2020 4700 20%

5

2018-11-13

5.16%

2018

2135 27%

10.4 28%(2017 24%)

2018-12-06

12 4

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9 “ ”

2018-12-25

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12 21

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10 10 64

2018-12-03

10 64 4585.30 4.06

10 11 19 ~11 30

176 64 4585.30 4.06

80 1.50 12.95

10

10

1050.00 8465.00

805.70

10 6 6

10 7.35% 3.39%

10 13.95%

5.95% 4.08% 42.68% 18.48%

10 13

5357.57

14.49 6.00

11 2

2018-12-29

20%

90%

2003-2012 10.25%

2013 126.7 2018 1948

72.7% 2008

CR3