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	2022		2021		2020	
	893.51	56.00%	924.17	53.98%	741.34	49.55%
	206.40	12.94%	214.90	12.55%	198.03	13.24%
	148.07	9.28%	281.16	16.42%	231.36	15.46%
	97.79	6.13%	135.96	7.94%	269.12	17.99%
	174.63	10.94%	120.68	7.05%	11.37	0.76%

	2022		2021		2020	
	75.26	4.72%	35.09	2.05%	44.91	3.00%
	1,595.66	100.00%	**1,711.96**	**100.00%**	**1,496.13**	**100.00%**

	2022	2021	2020
	1,595.66	1,711.96	1,496.13
	36,323.20	28,486.22	32,385.97
	4.39%	6.01%	4.62%

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2011 2015 2015

1983 8

2010 2015

2015 2016 2017

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2015 2018 2018 2019

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2020

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FCC

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3-70nm 7-40nm 130-350cm^2/g 0.2-1.5cm^2/g

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POX

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2020 2021 2022

[2021] ZG10918 [2022]

ZG11393 [2023] ZG11012

	2022/12/31	**2021/12/31**	**2020/12/31**
	2,559,505,091.68	1,611,113,628.78	962,485,059.01
	1,795,298,070.71	883,909,291.65	296,524,690.72
	764,207,020.97	727,204,337.13	665,960,368.29

	2022	**2021**	**2020**
	363,231,960.27	284,862,176.85	323,859,660.14
	1,795,453.02	14,089,632.58	35,649,320.85
	1,979,918.02	14,218,939.58	32,052,567.81
	2,690,129.89	11,754,160.00	27,015,193.74
	2,473,554.56	11,754,160.00	27,015,193.74

	2022	**2021**	**2020**
	-85,866,351.66	-125,298,811.40	39,113,881.29
	-648,918,533.44	-370,989,196.22	-130,115,177.39
	641,907,306.49	561,770,124.28	-32,460,079.20
	-92,109,761.19	65,500,930.85	-123,933,737.35
	111,342,876.62	203,452,637.81	137,951,706.96

	2022/12/31	2021/12/31	2020/12/31
	0.71	1.47	1.42
	0.58	1.21	1.16
	70.14%	54.86%	30.81%
	61.68%	54.47%	26.98%
	2022	**2021**	**2020**
	2.68	3.17	3.73
	2.97	2.80	4.29
	-0.84	-1.25	0.39
	-0.90	0.66	-1.24
	4.39%	6.01%	4.62%

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			/	/
2022		0.33%	0.02	0.02
		-1.08%	-0.08	-0.07
2021		1.70%	0.12	0.11
		0.68%	0.05	0.04
2020		4.11%	0.27	0.27
		3.00%	0.20	0.20

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FCC

FCC 2022 91.68% 83.60%

3 / FCC

4 / FCC

2.85 / 5.85 / FCC

2 / 4 /

105.26% 100%

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2020 2021 2022

54.55% 57.10% 43.78%

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2020 2021 2022

24,078.40 21,440.36 16,012.25

75.55% 77.12% 44.74% 2022

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32,385.97 28,486.22 36,323.20

2,701.52 1,175.42 247.36

28.82% 28.31% 21.55%

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2015 2016 2019

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2020 2022

FCC

2020 FCC

2021

100.00% 2022 FCC

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	2022	2021	2020
FCC	15,888.15	14,499.30	17,683.20
	4,036.42	3,707.86	1,988.40
	1,258.73	548.56	576.79
	26,109.21	20,971.41	22,657.34

FCC

FCC

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	2022	2021	2020
FCC	11,893.69	12,564.32	12,664.00
	7,049.01	7,510.47	9,246.37
	25,896.85	21,481.47	23,334.38
	1,508.40	1,422.17	1,692.11

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2022

2021

	2022		2021		2020	
		%		%		%
	13,161.34	46.80	10,029.02	49.98	11,593.47	51.03
	1,669.21	5.94	1,231.08	6.13	1,445.89	6.36
	7,386.44	26.26	4,383.44	21.84	4,973.43	21.89
	2,340.40	8.32	1,512.68	7.54	1,877.39	8.26
	3,567.49	12.68	2,910.63	14.50	2,829.92	12.46
	28,124.88	100.00	20,066.86	100.00	22,720.10	100.00

50%

20%

2022

		2021	2022	
	/m ³	7.03	6.26	-10.90%
	/KWH	0.60	0.68	13.50%
	/t	210.92	295.12	39.92%
	/m ³	3.19	4.08	27.93%

		2021	2022	
	/	1,178.40	1,307.45	10.95%
	/	1,822.83	1,984.03	8.84%
	/	1,304.70	2,059.79	57.87%
	/	799.08	993.78	24.37%
	/	5,467.47	6,251.41	14.34%
	/	1,928.94	1,830.68	-5.09%
	/	20,837.68	21,747.03	4.36%

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	2022	2021	2020
FCC	11.36%	27.30%	26.35%
	26.35%	33.24%	36.72%
	30.93%	45.82%	45.86%
	42.23%	31.95%	52.43%
	21.41%	27.82%	28.71%

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2022

FCC

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-12,529.88 -8,586.64 2021 2022

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17,094.60

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GR201937100531

15%

2020 12 02
GR202036001757
15%

[2016]41 6,000 / FCC
2015-2017
2018-2020

[2017]34 20,000 / FCC
2016-2018
2019-2021

FCC
13%

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8,204.00 31,644.00

31,644.00 30%

50% 2022 10 19

= * 30%* 50%=12,465.25

12,465.25

30% 2022 10 19

	5,488.88
	2,744.44
	50.00%
170%	7.72
150%	6.81

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450.00

3,194.44 58.20%

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$P_1=P_0-D$

$P_1=P_0/(1+N)$

$P_1=(P_0-D)/(1+N)$

P_0 D N

P_1

2022 5 2021

2022 6 20 0.05 /

11.72 /

2,700

30% 2,700

70%

2022 2929

316,440,000.00

8,070,377.36 308,369,622.64

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