



Maryland SREC Market Update

June 10, 2019

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IMPLICATIONS OF MARYLAND CLEAN ENERGY JOBS ACT



- On May 22nd, 2019, MD Governor Larry Hogan announced his decision to let the Maryland Clean Energy Jobs Act (CEJA) pass without his signature.
- **RPS:** The Act establishes increased RPS and solar carve-out schedules through 2030; the RPS and solar carve out schedules reach 50% by 2030 and 14.5% by 2028, respectively.
- **ACP:** The ACP has been lowered and will decrease year after year, reaching \$22.35 in 2030.

Year	Previous Solar Carve-Out	CEJA Solar Carve-Out	Previous SACP	CEJA SACP
2019	1.95%	5.50%	\$150.00	\$100.00
2020	2.50%	6.00%	\$125.00	\$100.00
2021	2.50%	7.50%	\$100.00	\$80.00
2022	2.50%	8.50%	\$75.00	\$60.00
2023	2.50%	9.50%	\$60.00	\$45.00
2024	2.50%	10.50%	\$50.00	\$40.00
2025	2.50%	11.50%	\$50.00	\$35.00
2026	2.50%	12.50%	\$50.00	\$30.00
2027	2.50%	13.50%	\$50.00	\$25.00
2028	2.50%	14.50%	\$50.00	\$25.00
2029	2.50%	14.50%	\$50.00	\$22.50
2030	2.50%	14.50%	\$50.00	\$22.35

EXEMPT LOAD CONTRACT IMPLICATIONS



- **Exempt Load:** Electricity load that is entered into contracts signed prior to October 1, 2019 (the effective date of the Maryland Clean Energy Jobs Act) will be exempt from the new compliance obligations. This portion of the load will continue to comply with previous compliance obligations.
- **Roll-off Rate per Year:** Naturally, the exempt load will experience a roll-off each year as previous contracts expire.

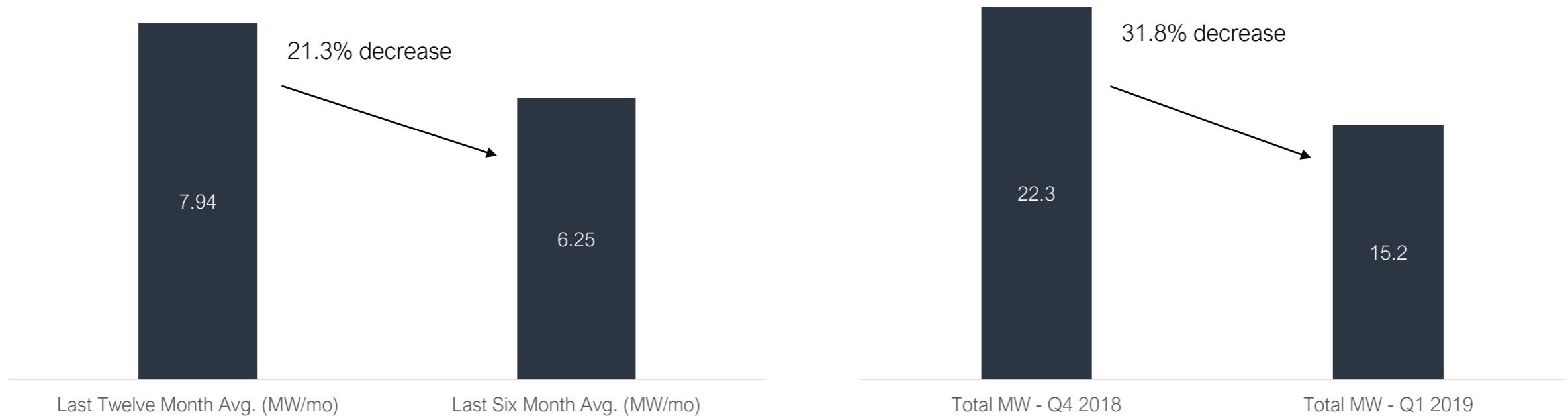
Contracts signed prior to October 1, 2019		
Year	Solar RPS	ACP
2019	1.95%	\$150
2020	2.50%	\$125
2021	2.50%	\$100
2022	2.50%	\$75
2023	2.50%	\$60

Contracts signed after October 1, 2019		
Year	Solar RPS	ACP
2019	5.50%	\$100
2020	6.00%	\$100
2021	7.50%	\$80
2022	8.50%	\$60
2023	9.50%	\$45

MD SOLAR BUILD RATES



Monthly build over the last 6 months has decreased slightly by 21.3% to 6.25 MW/month as compared to 7.94 MW/month over the last 12 month (LTM) average. Total quarterly MW build for Q1 2019 is 31.8% lower than the previous quarter reflecting a significant build slow down.



The following analysis assumes the following:

- Electric load growth remains flat at 2017 MWh sold – 59.1 million MWh per year through 2023 (source: MD PSC)
- Load served under contracts signed *prior* to the effective date of Maryland Clean Energy Jobs Act (Oct 1, 2019) is 80% of the total load in 2019, rolling off in even increments over the next four years (CY2019, CY2020, CY2021, CY2022)*.
- Scenarios presented are derived from Last Twelve Month (LTM) average build rates per month (Apr 2018 – March 2019). Due to the variability of build rates, three scenarios are presented representing different rates of new capacity acceleration – 50%/100%/150% of current LTM build rates per month.
- The SREC production capacity factor is 12.56%; based off of the past 12 months of average SREC production, 1 MW is expected to produce 1,100 MWh per year.

**This is an educated guess and may not represent the actual exempt electric load in the state.*

MD 2019 ESTIMATED SREC SUPPLY



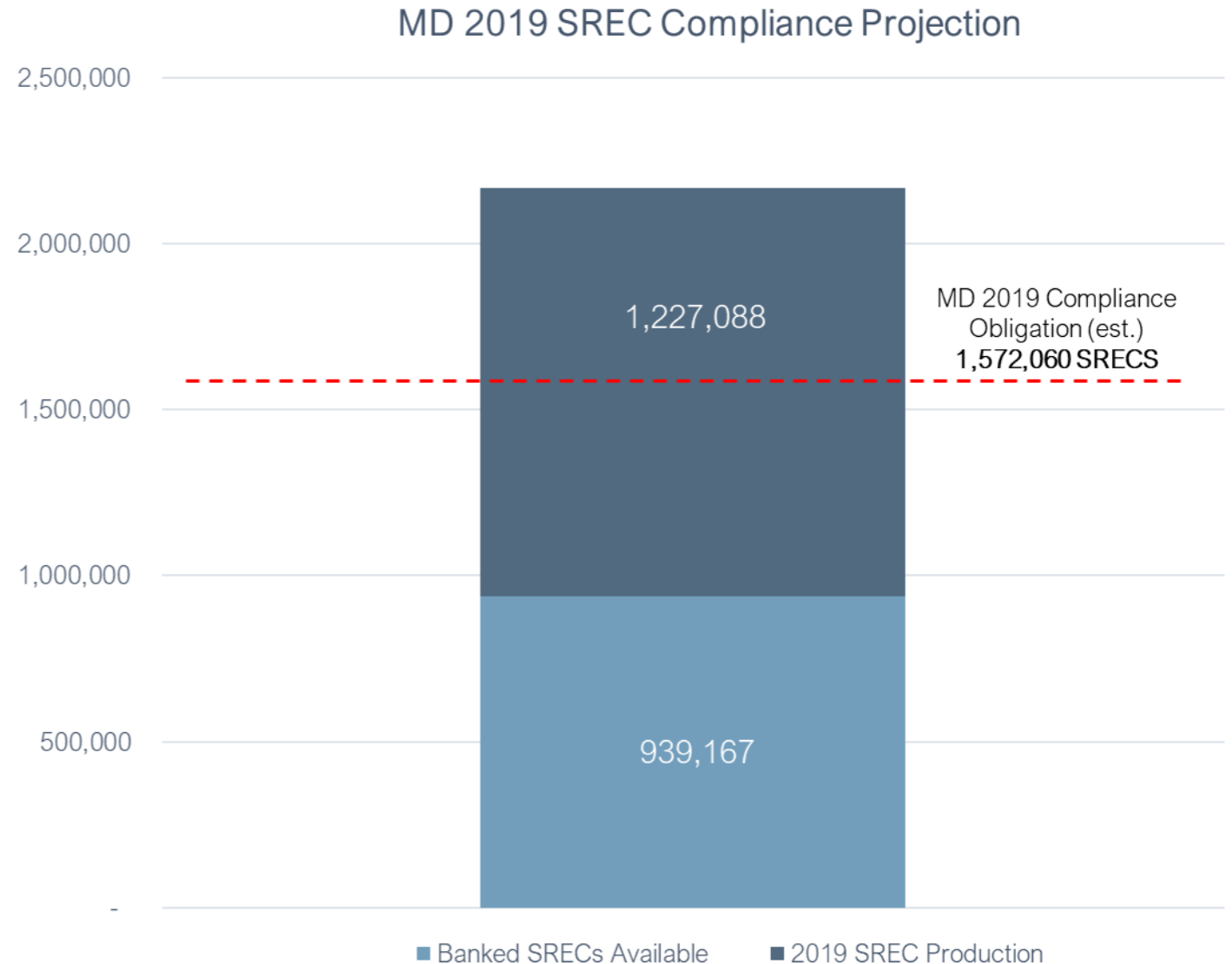
Using GATS recent issuance data as of June 2019

MD2019 Supply and Demand Summary

- MD Banked SRECs Available for Compliance: 2017 = **217,424**; 2018 = **721,743**
- MD2019 Supply (projected): **1,227,080**
- Compliance Obligation (est.): **1,572,060**
- Oversupply: **594,195** (37.8% of obligation)

Factors that could impact this include:

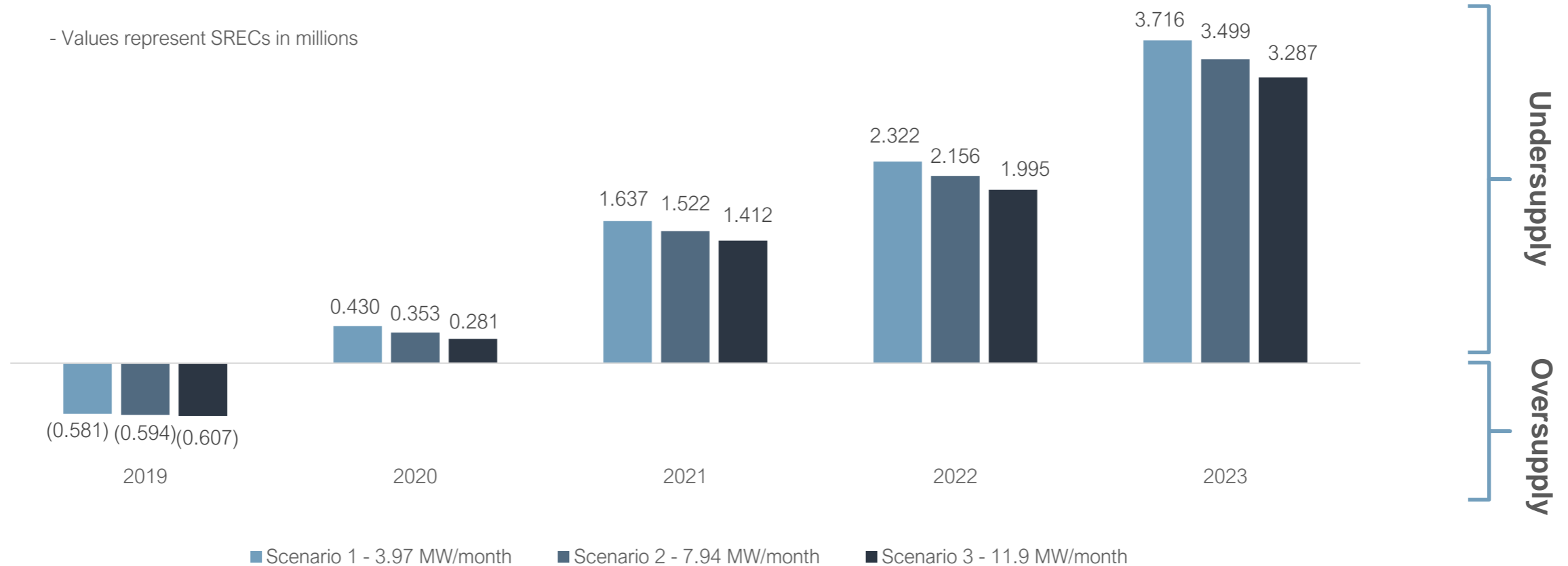
- Final MD 2019 electric load figures
- Build rate and production capacity factor for the remainder of 2019
- Exempt load electricity contracts



FORECASTED SUPPLY : BUILD RATE SCENARIOS



Using supply and demand assumptions from slide 6, MD SREC supply 2019 through 2023 would be as follows.



Forecasted SREC (Over) / Under Supply	2019	2020	2021	2022	2023
Scenario 1 - 3.97 MW/month	-37.0%	18.6%	54.8%	62.4%	71.9%
Scenario 2 - 7.94 MW/month	-37.8%	15.3%	51.0%	57.9%	67.7%
Scenario 3 - 11.9 MW/month	-38.6%	12.2%	47.3%	53.6%	63.6%

FORECASTED SUPPLY : BUILD RATE SCENARIO DETAIL



Compliance year	2019	2020	2021	2022	2023
Scenario 1 - 50% of LTM Average MW is Added Per Month Throughout the Forecast					
MD SREC Requirements	1,572,060	2,304,900	2,984,550	3,723,300	5,171,250
Less: Excess SRECs From Prior Period	939,167	580,916	-	-	-
Less: Scenario 1 Estimated SRECs Produced	1,213,809	1,294,382	1,348,037	1,401,691	1,455,345
# of SRECs Under / (Over) Supplied	(580,916)	429,602	1,636,513	2,321,609	3,715,905
Scenario 2 - LTM Average MW is Added Per Month Throughout the Forecast					
MD SREC Requirements	1,572,060	2,304,900	2,984,550	3,723,300	5,171,250
Less: Excess SRECs From Prior Period	939,167	594,195	-	-	-
Less: Scenario 2 Estimated SRECs Produced	1,227,088	1,358,190	1,462,936	1,567,682	1,672,428
# of SRECs Under / (Over) Supplied	(594,195)	352,515	1,521,614	2,155,618	3,498,822
Scenario 3 - 150% of LTM Average MW is Added Per Month Throughout the Forecast					
MD SREC Requirements	1,572,060	2,304,900	2,984,550	3,723,300	5,171,250
Less: Excess SRECs From Prior Period	939,167	607,474	-	-	-
Less: Scenario 3 Estimated SRECs Produced	1,240,367	1,416,618	1,572,943	1,728,549	1,884,387
# of SRECs Under / (Over) Supplied	(607,474)	280,808	1,411,607	1,994,751	3,286,863

MD SREC CURRENT PRICING



MD2018 market: \$55 bid @ \$65 offer

MD2019 market: \$60 bid @ \$70 offer

MD2020 market: \$68 bid @ \$75 offer

- MD2018 bid
- MD2019 bid
- MD2020 bid

