

Fitchburg Public Schools Crocker Elementary School Solar Energy Presentation

June 17, 2025



Agenda

- Crocker Elementary School Solar Update
- Project Economics
- System Installation & Next Steps



Crocker Elementary Solar Update

Preconstruction Activities

- Design System
- Confirm with Architects regarding Solar design integration
- Update walk-ways & finalize design
- Confirmed system price & production

Rooftop Solar System – 350.9kW (DC) / 250kW (AC)



Crocker Elementary Solar System Savings

PPA Savings Summary

PV System Capacity (kW DC)	350.88
Year 1 PV Output (kWh)	409,000
Percent of Usage	121%
Avoided kWh Electric Cost	\$0.20129
Solar PPA kWh Rate	\$0.1490
PPA Rate Escalator	0.0%
Term (Yrs)	25
SMART Incentive Amt (\$/kWh)	\$0.0
Year 1 Forecast Savings	\$31,600
Term Savings	\$1,512,000
Annual Avoided CO ₂ (lbs)	393,000
Term CO ₂ Avoided (tons)	4,600

Assumptions

Prevailing Wage labor (3rd party owned)
 Rates assume PILOT of \$0.00 per kW-DC
 Rates do not include utility network upgrade or study costs
 Bonding not included as system is 3rd party owned
 Utility electric rates escalate at 2.5%
 Avoided emissions calculated based on 2020 EIA MA State Electricity Profile

Solar System Savings by Year

Year	Solar Production (kWh)	Grid-Delivered Electricity Cost (\$/kWh)	Excess Generation	Savings from Excess Gen	On-Bill Savings from Solar	Combined Electric Savings	Solar PPA Rate (\$/kWh)	PPA Payment	Net Savings
1	408,986	\$0.2013	131,773	\$36,717	\$55,799	\$92,517	\$0.1490	\$60,939	\$31,578
2	406,736	\$0.2063	131,048	\$37,428	\$56,880	\$94,308	\$0.1490	\$60,604	\$33,704
3	404,499	\$0.2115	130,327	\$38,153	\$57,981	\$96,134	\$0.1490	\$60,270	\$35,864
4	402,275	\$0.2168	129,611	\$38,892	\$59,104	\$97,995	\$0.1490	\$59,939	\$38,057
5	400,062	\$0.2222	128,898	\$39,645	\$60,248	\$99,893	\$0.1490	\$59,609	\$40,284
6	397,862	\$0.2277	128,189	\$40,412	\$61,415	\$101,827	\$0.1490	\$59,281	\$42,546
7	395,673	\$0.2334	127,484	\$41,195	\$62,604	\$103,799	\$0.1490	\$58,955	\$44,843
8	393,497	\$0.2393	126,783	\$41,992	\$63,816	\$105,808	\$0.1490	\$58,631	\$47,177
9	391,333	\$0.2452	126,085	\$42,805	\$65,052	\$107,857	\$0.1490	\$58,309	\$49,549
10	389,181	\$0.2514	125,392	\$43,634	\$66,311	\$109,946	\$0.1490	\$57,988	\$51,958
11	387,040	\$0.2577	124,702	\$44,479	\$67,595	\$112,074	\$0.1490	\$57,669	\$54,405
12	384,911	\$0.2641	124,016	\$45,340	\$68,904	\$114,244	\$0.1490	\$57,352	\$56,893
13	382,794	\$0.2707	123,334	\$46,218	\$70,238	\$116,456	\$0.1490	\$57,036	\$59,420
14	380,689	\$0.2775	122,656	\$47,113	\$71,598	\$118,711	\$0.1490	\$56,723	\$61,989
15	378,595	\$0.2844	121,981	\$48,025	\$72,985	\$121,010	\$0.1490	\$56,411	\$64,599
16	376,513	\$0.2915	121,310	\$48,955	\$74,398	\$123,353	\$0.1490	\$56,100	\$67,253
17	374,442	\$0.2988	120,643	\$49,903	\$75,838	\$125,741	\$0.1490	\$55,792	\$69,950
18	372,383	\$0.3063	119,980	\$50,869	\$77,307	\$128,176	\$0.1490	\$55,485	\$72,691
19	370,335	\$0.3139	119,320	\$51,854	\$78,804	\$130,658	\$0.1490	\$55,180	\$75,478
20	368,298	\$0.3218	118,663	\$52,858	\$80,329	\$133,188	\$0.1490	\$54,876	\$78,311
21	366,272	\$0.3298	118,011	\$53,882	\$81,885	\$135,767	\$0.1490	\$54,575	\$81,192
22	364,258	\$0.3381	117,362	\$54,925	\$83,470	\$138,395	\$0.1490	\$54,274	\$84,121
23	362,254	\$0.3465	116,716	\$55,989	\$85,086	\$141,075	\$0.1490	\$53,976	\$87,099
24	360,262	\$0.3552	116,074	\$57,073	\$86,734	\$143,807	\$0.1490	\$53,679	\$90,128
25	358,280	\$0.3641	115,436	\$58,178	\$88,413	\$146,591	\$0.1490	\$53,384	\$93,207
Total									\$1,512,294

Please note: Production, PPA rate and savings is subject to final engineering & utility approval. Crocker Elementary School is in first year of operation. Savings forecasts to be confirmed based on actual electric data.

Project Development Update & Next Steps

INTERCONNECTION AND INCENTIVE PROCESS

- Site assessment and engineering (Complete)
- Complete utility review (Pending)

PPA & LEASE AGREEMENTS:

- School Committee Vote of recommendation that City Council authorize the systems (Complete)
- City Council Vote
- Sign Agreement & Lease

STRUCTURAL & PERMITTING

- Structural Assessment & Report
- Submit Building Permit

INSTALLATION & OPERATION

- Order Equipment & Materials
- Confirm / Coordinate on site access
- Proceed with Installation



Discussion, Questions Thank you!

Byron Woodman, Sr. Director Business Development

bwoodman@solect.com

339-203-5530

