



Executive Office of Public Safety Massachusetts State Police

Solar PPA Projects

Massachusetts State Police

Solar Parking Canopy

General Headquarters Framingham, MA

- Projects in support of Decarbonization, Climate Change Reduction and Resiliency
- The Massachusetts State Police has entered into a Power Purchase Agreement (PPA) with Solect Solar as part of the State Power Options Contract.
- The canopy will consist of 780 High Efficiency Solar Panels rated at 374 kW.
- The Project received a Grant from the Massachusetts Department of Energy Resources (DOER).
- The Massachusetts State Police will purchase the power produced back from Solect Solar for a fixed kWh rate for the 25-year term.
- This PPA agreement is projected to save the Commonwealth \$554,000 as well as avoid 402,000 lbs. of CO2 annually and 4,700 Tons of CO2 avoided over the term.



Canopy location





Massachusetts State Police

Proposed Ground Mount Solar Array

Training Academy New Braintree, MA

- The Massachusetts State Police is proposing entering into a Power Purchase Agreement (PPA) with Solest Solar as part of the State Power Options Contract.
- The proposed project will consist of .
- The Project is planning to a Grant from the Massachusetts Department of Energy Resources (DOER) through the SMART 3.0 solicitation. .
- The Massachusetts State Police would purchase the power produced back from Solest Solar for a fixed kWh rate for the 25-year term.
- This PPA agreement could potentially save the Commonwealth \$5,361. 615 over the 25 year term.





MA State Police Academy

PPA Savings Summary

PV System Capacity (kW DC)	1441
Year 1 PV Output (kWh)	1,698,000
Percent of Usage	75%
Avoided kWh Electric Cost	\$0.17041
Solar PPA kWh Rate	\$0.06080
PPA Rate Escalator	0.0%
Term (Yrs)	20
SMART Incentive Amt (\$/kWh)	\$0.06216
Year 1 Forecast Savings	\$185,300
Term Savings	\$5,362,000
Annual Avoided CO ₂ (lbs)	1,631,000
Term CO ₂ Avoided (tons)	15,500

Assumptions

Prevailing Wage labor
 Rate assume project is exempt from Personal Property Tax (under 125%)
 Rates do not include utility network upgrade or study costs
 Performance, decommissioning, or payment bonds not included
 Utility electric rates escalate at 3.0%
 Avoided emissions calculated based on 2020 EIA MA State Electricity Profile
 Total electric cost assumes contract third party supply rate of \$0.12/kWh

Year	Solar Production (kWh)	Grid-Delivered Electricity Cost (\$/kWh)	Excess Generation	Savings from Excess Gen	On-Bill Savings from Solar	Electric Savings	Solar PPA Rate (\$/kWh)	PPA Payment	Net Savings	PILOT
1	1,697,642	\$0.1704	80,828	\$13,017	\$275,525	\$288,542	\$0.0608	\$103,217	\$185,325	\$0
2	1,688,305	\$0.1755	80,383	\$13,333	\$282,230	\$295,564	\$0.0608	\$102,649	\$192,915	\$0
3	1,679,019	\$0.1808	79,941	\$13,658	\$289,098	\$302,756	\$0.0608	\$102,084	\$200,672	\$0
4	1,669,785	\$0.1862	79,502	\$13,990	\$296,134	\$310,124	\$0.0608	\$101,523	\$208,601	\$0
5	1,660,601	\$0.1918	79,064	\$14,331	\$303,340	\$317,671	\$0.0608	\$100,965	\$216,706	\$0
6	1,651,468	\$0.1976	78,630	\$14,679	\$310,722	\$325,401	\$0.0608	\$100,409	\$224,992	\$0
7	1,642,385	\$0.2035	78,197	\$15,037	\$318,283	\$333,320	\$0.0608	\$99,857	\$233,463	\$0
8	1,633,351	\$0.2096	77,767	\$15,402	\$326,029	\$341,431	\$0.0608	\$99,308	\$242,123	\$0
9	1,624,368	\$0.2159	77,339	\$15,777	\$333,962	\$349,740	\$0.0608	\$98,762	\$250,978	\$0
10	1,615,434	\$0.2223	76,914	\$16,161	\$342,089	\$358,251	\$0.0608	\$98,218	\$260,032	\$0
11	1,606,549	\$0.2290	76,491	\$16,554	\$350,414	\$366,969	\$0.0608	\$97,678	\$269,290	\$0
12	1,597,713	\$0.2359	76,070	\$16,957	\$358,941	\$375,899	\$0.0608	\$97,141	\$278,758	\$0
13	1,588,926	\$0.2430	75,652	\$17,370	\$367,676	\$385,046	\$0.0608	\$96,607	\$288,440	\$0
14	1,580,187	\$0.2503	75,236	\$17,793	\$376,624	\$394,416	\$0.0608	\$96,075	\$298,341	\$0
15	1,571,496	\$0.2578	74,822	\$18,226	\$385,789	\$404,015	\$0.0608	\$95,547	\$308,468	\$0
16	1,562,852	\$0.2655	74,410	\$18,669	\$395,177	\$413,846	\$0.0608	\$95,021	\$318,825	\$0
17	1,554,257	\$0.2735	74,001	\$19,124	\$404,794	\$423,917	\$0.0608	\$94,499	\$329,418	\$0
18	1,545,708	\$0.2817	73,594	\$19,589	\$414,644	\$434,233	\$0.0608	\$93,979	\$340,254	\$0
19	1,537,207	\$0.2901	73,189	\$20,066	\$424,735	\$444,800	\$0.0608	\$93,462	\$351,338	\$0
20	1,528,752	\$0.2988	72,787	\$20,554	\$435,071	\$455,625	\$0.0608	\$92,948	\$362,676	\$0
Total									\$5,361,615	\$0

Disclaimer: This savings estimate is for informational purposes only and no data contained in this solar model constitutes tax, legal, insurance or investment advice. The financial inputs throughout this solar model, whether electricity quotes, rebates, tax, or any other statement or statements regarding financial information, is obtained from sources which we believe reliable, but we do not warrant or guarantee the timeliness or accuracy of this information.

Note: If not exempt as "developed land" per DOER, this PPA rate includes \$110,625 SMART 3.0 incentive "ground mount mitigation" fee. This is our estimate of that fee. If it is not required, the PPA rate will be \$0.0046/kWh lower.

Note: Includes use of Leading By Example grant funds estimated at \$864,600 to offset capital cost and lower PPA rate

Note: PPA rate includes allowances for \$20,000 for an impact or group study and \$100,00 for utility system upgrades