

---

---

# Solar Canopy Projects at Blake, High & Memorial Schools

— Medfield Energy Committee —  
Forum - June 5, 2023

---

---

# Why Solar?

- Key element of the town's Climate Action Plan
- Reduce GHG emissions
- Offset Price of Electricity
- Take advantage of incentives
- Produce electricity locally

---

# Why Solar Now?

*The best time to get solar was  
10 years ago.*

*The next best time is now.*

- Accelerate the town's decarbonization
- Emissions savings accrue year after year
- Interconnection Limits
- Take advantage of current state incentives

\_\_\_\_\_

# Why Schools?

- Current installations are at  
Wastewater treatment plant (2015)  
Public Safety Building (2016)  
DPW Building (2023)
- Energy Committee & Town Energy  
Consultant Inventoried potential new  
solar locations in town
- Schools have care & custody of the areas  
with largest potential for solar.

The parking lot canopies and new Blake  
roof section were identified as the best  
locations to move forward now

---

# Project Overview

- Arrays at High, Memorial & Blake Schools & Blake roof portion
- Three separate projects
- Power Purchase Agreement
- No capital investment by the town or schools
- Fixed electricity supply rate for 25 years
- DPW roof is also a PPA

---

# Project Benefits

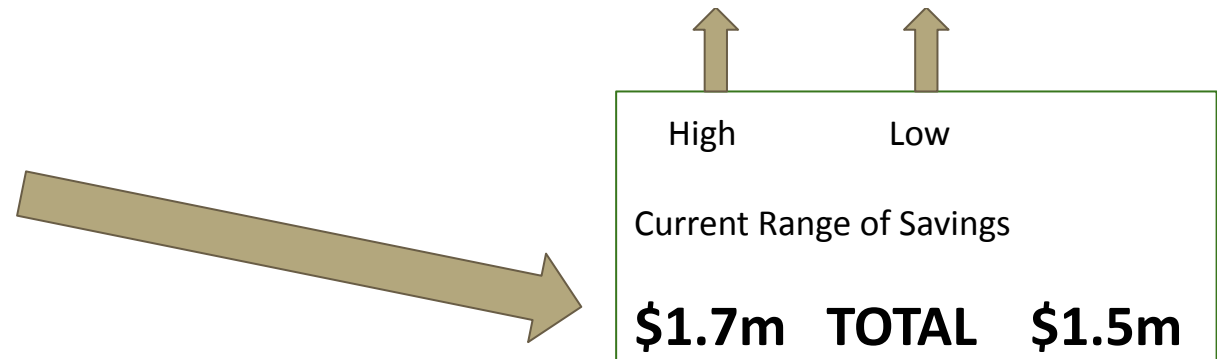
- Help Medfield reach its Climate Goal by reducing GHG emissions
  - Will provide 76% of electricity for use by High, Middle & Memorial Schools
  - Begin generating electricity for the schools ASAP
  - Stabilizes future energy expenses
  - Accesses current incentive programs and interconnection capacity, which are limited
  - Visible reminder the schools intend to be part of the climate solution
-

# Financially Beneficial

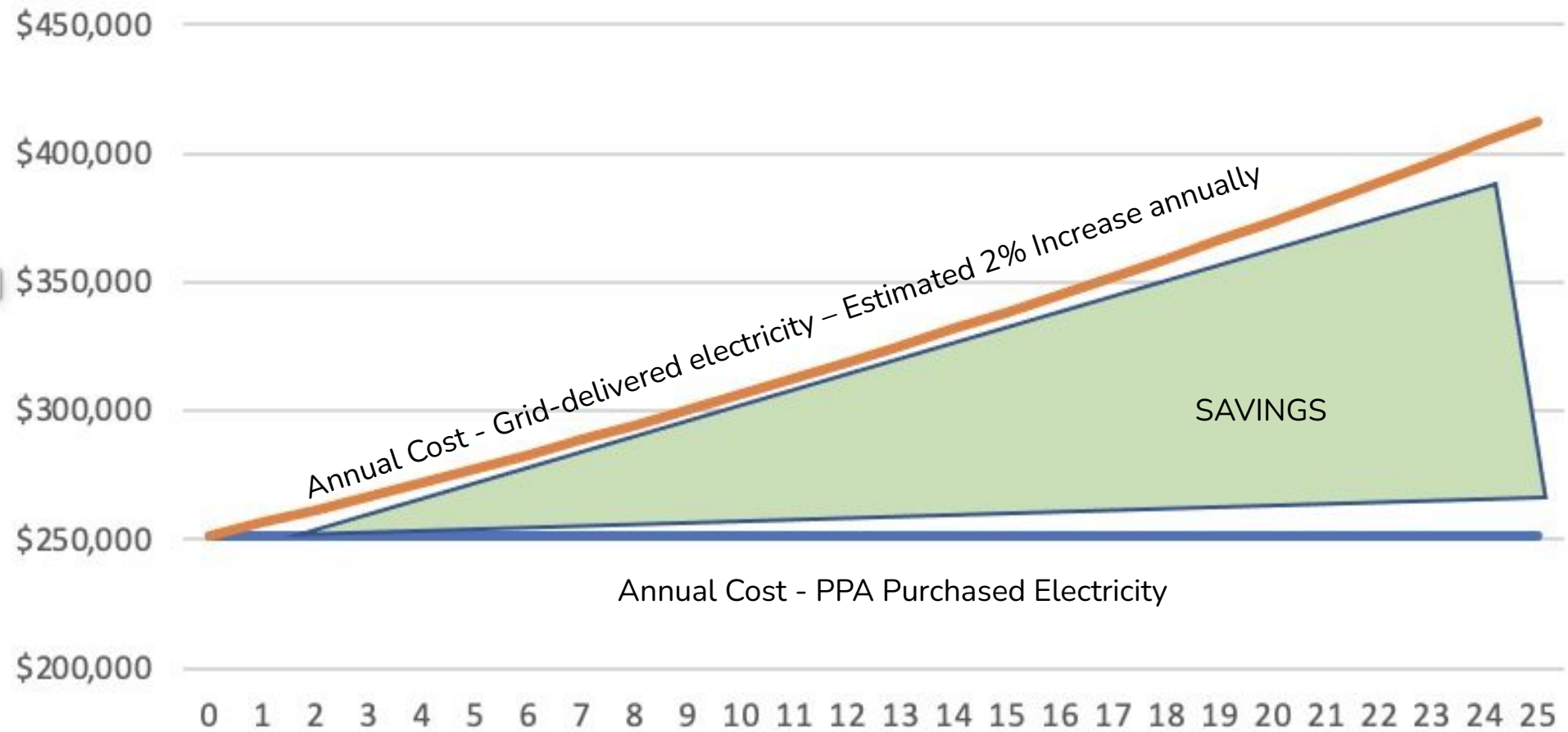
## Medfield Schools - Solar Updates

Location	System Size kW (DC)	kWh (Year- 1)	% Of Use	System Type	PPA Rate Block 7	PPA Rate Block 8	Total Savings + Tax (Block 7)	Total Savings + Tax (Block 8)
Blake Middle School	413.3	452,000	79%	Canopy + Roof	.1587	.163	\$476,827	\$395,872
Medfield High School	661.44	734,000	64%	Canopy	.164	.167	\$676,729	\$627,690
Memorial School	374.4	395,000	105.9%	Canopy	.149	.156	\$547,743	\$484,192

PPA rates assume a 30% tax credit. Subject to final engineering, utility approval and incentive award.



## Electricity Supply Cost -- 76% of Overall Buildings' Use





# Process to date

## MEC asked School Committee to take on the next Solar Projects in Medfield

- Fall/Early Winter 2022
  - Project review/conversation with school committee
  - Preliminary financial analysis
  - Identified best 1<sup>st</sup> projects – High School Parking Lot, Blake Parking Lot, Blake Roof, Memorial/North Street Parking lot
- February 2023
  - School Committee signed LOI which allows Solect to do more engineering, apply for interconnection & incentives (note: interconnection application is in)

# Process to date

## MEC asked School Committee to take on the next Solar Projects in Medfield

- Fall/Early Winter 2022
  - Project review/conversation with school committee
  - Preliminary financial analysis
  - Identified best 1<sup>st</sup> projects – High School Parking Lot, Blake Parking Lot, Blake Roof, Memorial/North Street Parking lot
- February 2023
  - School Committee signed LOI which allows Solect to do more engineering, apply for interconnection & incentives (note: interconnection application is in)
- Solect Applied for Incentives & Interconnections
- Spring 2023 - public outreach including two forums, movie nights, community survey, warrant committee meetings.
- May 2023 – town meeting, Article 26 - Approved
- **June 2023 - Renderings - share with community**

# Process to date

## MEC asked School Committee to take on the next Solar Projects in Medfield

- Fall/Early Winter 2022
  - Project review/conversation with school committee
  - Preliminary financial analysis
  - Identified best 1<sup>st</sup> projects – High School Parking Lot, Blake Parking Lot, Blake Roof, Memorial/North Street Parking lot
- February 2023
  - School Committee signed LOI which allows Solect to do more engineering, apply for interconnection & incentives (note: interconnection application is in)
- Spring 2023 - public outreach including two forums, movie nights, community survey, warrant committee meetings.
- May 2023 – town meeting, Article 26 - Approved
- **June 2023 - Renderings - share with community**
- June 2023 - Incentives finalized/updated pricing (still getting guidance on tax incentives)
- Contract negotiations/contract language/School Committee decision
- Goal to begin work when school ends in June 2024

# Canopy Renderings

# HIGH SCHOOL

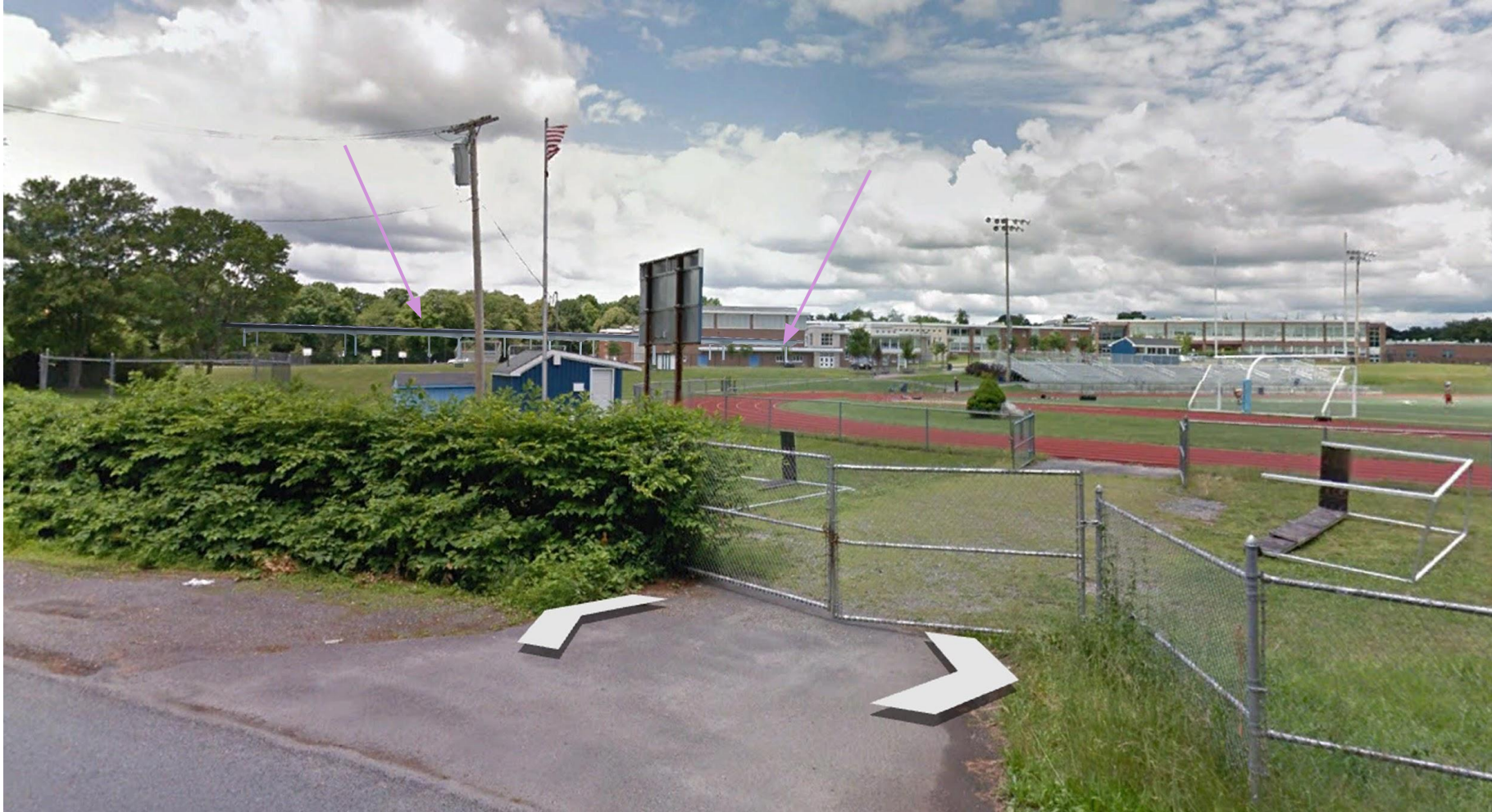






View of proposed High School canopy. Standing just off the road that comes from the Middle School looking toward the stadium.





View of proposed High School canopy from Phillip Street, across the field area

## MEMORIAL SCHOOL







View of proposed  
Memorial canopy from  
North Street.

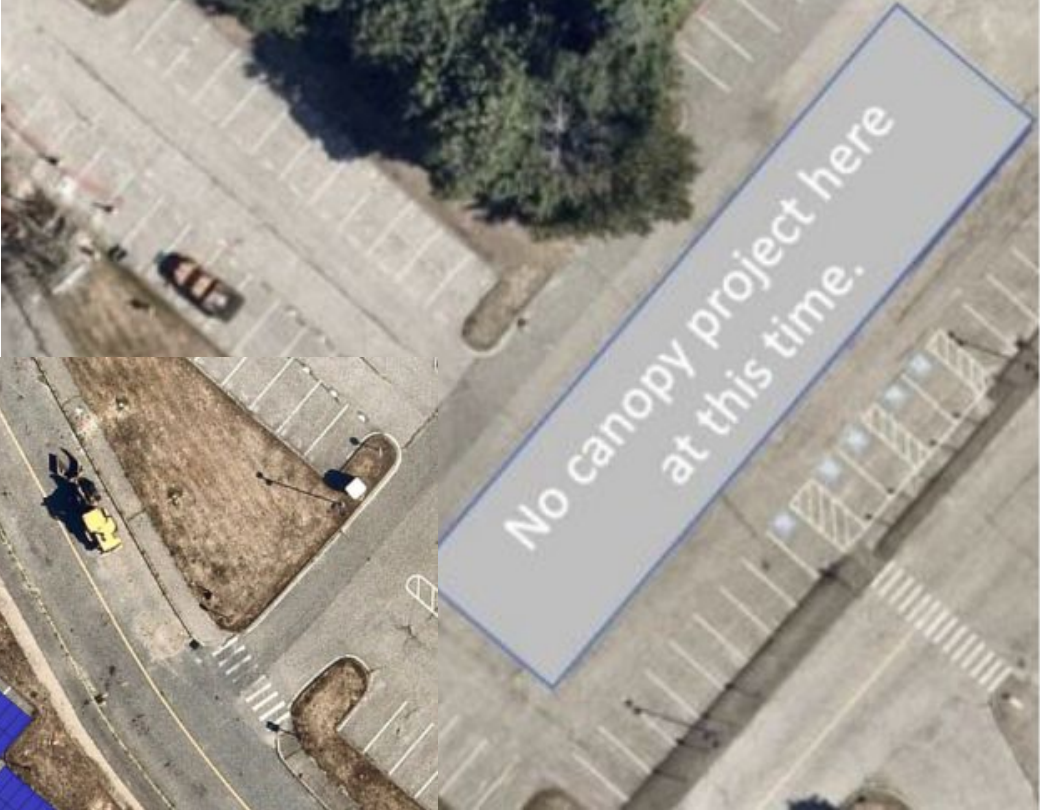




View of proposed Memorial canopy looking toward parking lot from the right of the school door.



BLAKE MIDDLE SCHOOL







View of proposed  
Blake Middle School  
canopy from Pound  
Street.





View of proposed  
Blake Middle School  
canopy from the  
sidewalk between  
Blake Middle School  
and the High School.



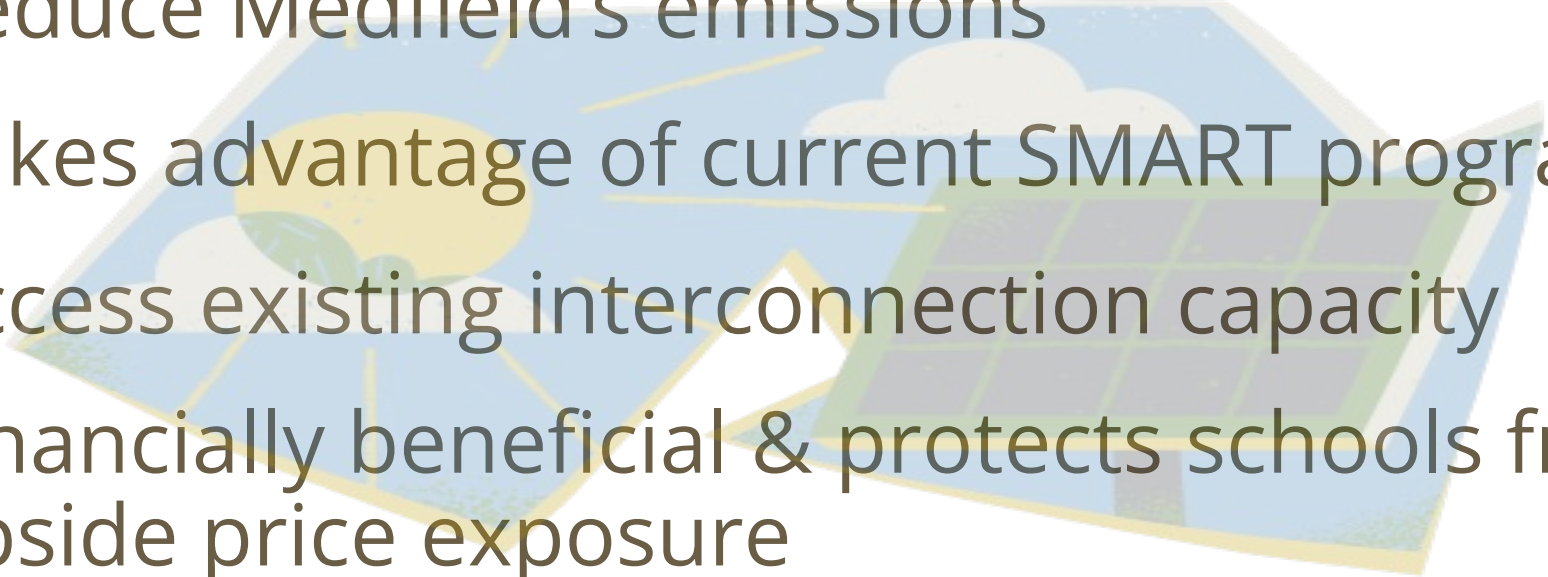
## ROOFTOP INSTALLATION ON RECENTLY REPAIRED ROOF



**It's exciting to be moving forward**



# It's exciting to be moving forward

- Begin generating electricity for the schools asap
  - Reduce Medfield's emissions
  - Takes advantage of current SMART program
  - Access existing interconnection capacity
  - Financially beneficial & protects schools from upside price exposure
- 



# Questions?