

Sanborn Rooftop Solar Feasibility

Andover School Committee Meeting

4/15/2021

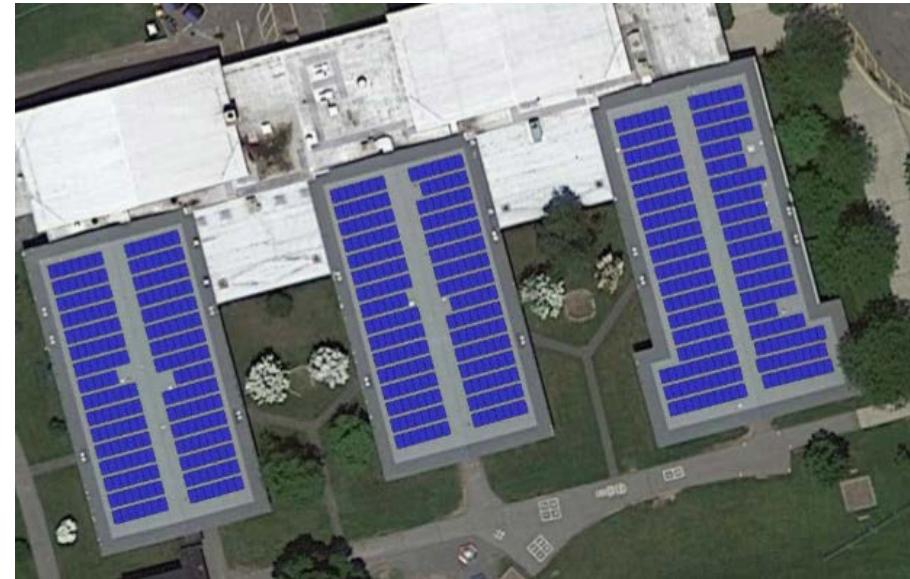
Town of Andover

Presenter: Joyce Losick-Yang, PhD



Feasibility and Production Potential at Sanborn

- Roof nearing end of life
- Expected life of new roof matches well with life expected for solar panels (both 25-30 years)
- Material and structural compatibility can be ensured
- Roof space ideal for solar:
 - South-facing
 - Little to no shading
 - Low pitch
 - Little to no HVAC units
- Cadmus Group feasibility study showed solar production potential to be ~ 180% current electricity usage



Site Name	Roof Capacity (kW-DC)	Roof Capacity (kW-AC)	Annual Production (kWh)	Total Panels Installed
Sanborn Elementary	258.3	202.4	332,000	698

Financial Projections Summary

- Cadmus ran financial analysis in August for two approaches:
 - Power purchase agreement (PPA) model
 - 3rd party owns and maintains system
 - School leases rooftop space
 - School purchases solar power at a discount and allocates on-bill credits to other schools' utility bills
 - Town generates (new) PILOT revenue
 - Ownership model
 - Town/School owns and maintains panels
- Projection: Both models give long-term net positive savings > \$200,000 over 20 years

APPLICABLE WARRANT ARTICLES AND SUMMARIES

P21	Authorize PPA (typically 20+ years agreement) and on-bill credit for excess solar generation
P22	Authorize lease on rooftop (typically 20+ years agreement)
P23	Authorize PILOT (typically 20+ years agreement)

