



Colts Neck Township Schools

Energy Savings Improvement Program (ESIP) Update

Project Status Update - September 25th, 2024



POWERING OUR COMMUNITIES SUSTAINABLY



Energy Conservation Measures (ECMs)



Colts Neck Township Schools ECM MATRIX

✓	ECM was evaluated and included in the project
✓	Potential ECM evaluated but not included in the project
	ECM not evaluated

ECM #	ECM DESCRIPTION	Conover Road Primary School	Cedar Drive Middle School	Conover Road Elementary School	Administration Building	Transportation Building	CRPS Maintenance Lighting
1	LED Lighting Retrofit	✓	✓	✓	✓	✓	✓
2	District Wide Energy Management System Tier 1	✓	✓	✓	✓		
2.1	District Wide Energy Management System Tier 2	✓	✓	✓	✓		
2.2	District Wide Energy Management System Tier 3	✓	✓	✓	✓		
3	Unit Ventilator with VRF Replacement		✓	✓			
4	Solar PPA	✓	✓	✓			
5	Roof Renovations	✓	✓	✓			
6	Condenser Evaporative Pre-Cooling	✓					
7	Split System Air Conditioning Replacement	✓			✓		
8	Boiler Replacement	✓		✓			
9	Premium Efficiency Pump Motors and VFDs	✓		✓			
10	Plug Load Controls	✓	✓	✓	✓		
11	Pipe & Valve Insulation	✓	✓	✓			
12	Retro-Commissioning	✓	✓	✓			
13	Building Envelope Improvements	✓	✓	✓	✓	✓	
14	Needle Point Bipolar Ionization	✓	✓	✓	✓		
15	Exhaust Fan Replacement	✓	✓	✓			
16	Air Handling Unit Replacement			✓			
17	Rooftop Unit Replacement		✓	✓			
18	ETemp	✓	✓	✓			
19	Combined Heat Power	✓					
20	H&V Replacement with Packaged RTUs		✓	✓			

Key ESIP Components Overview



Overview

- October 2023 – June 2024 = ~\$38K
- July 2024 – June 2025 = ~\$131K
 - Current energy savings projections show savings exceeding projections
- New Lights provide the District with a 10-year Warranty
- 60% of all flat roofs will have a 16-year Warranty
- Over 50% of electric (post addition of cooling) will be supplied via the Solar PPA - ~\$0.02/kWh

ECM - LED Lighting & Controls



Construction Start: January 2nd, 2024

Construction Complete: April 3rd, 2024



Conover Road Primary School



Conover Road Elementary School

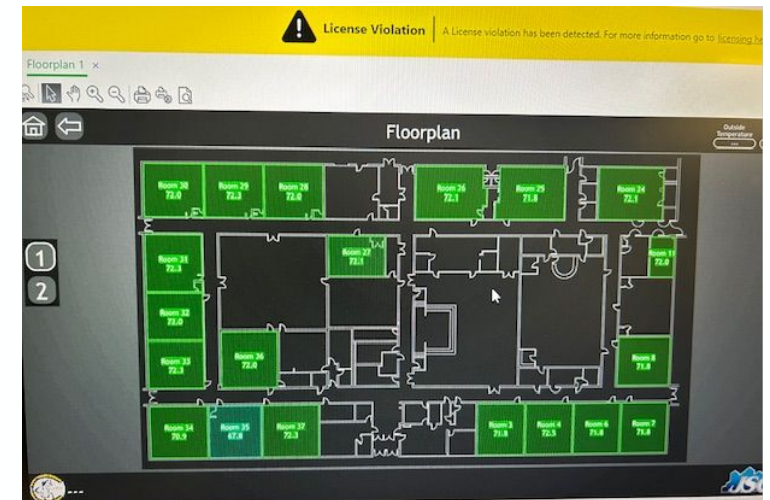


ECM – District-Wide Energy Management System (EMS)



Construction Start: March 27th, 2024

Construction Complete: Est. April 30th, 2025

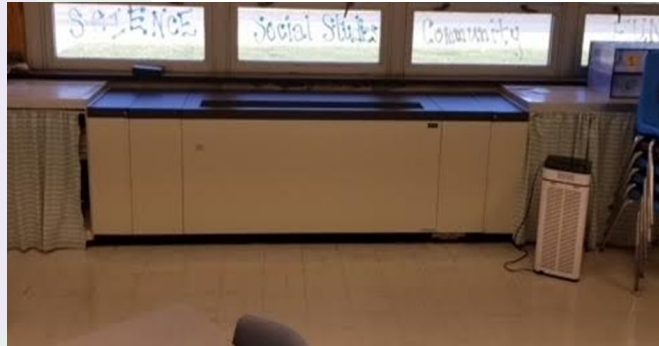


ECM – Unit Ventilator Replacement with VRF



Construction Start: June 24th, 2024

Construction Complete: September 4th, 2024

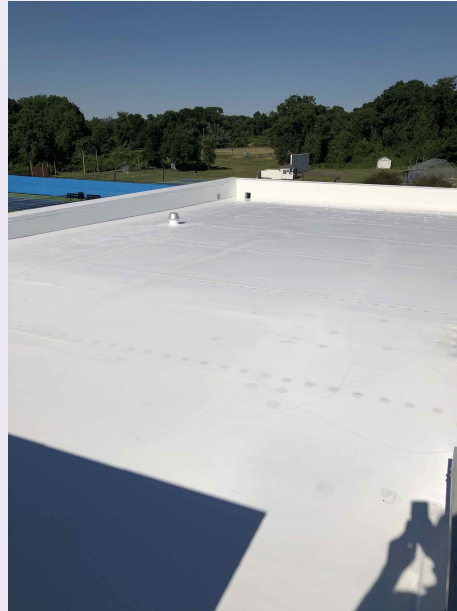


ECM – Roof Restoration



Construction Start: June 12th, 2024

Construction Complete: Est. October 11th, 2024



ECM – Miscellaneous



Pipe & Valve Insulation



Building Envelope Improvements



eTemp Sensors



COMPETITIVE EDGE

- DCO Energy (DCO), in partnership with the JINGOLI Competitive Edge Program, is committed to empowering the Colts Neck Township Schools (CNTS) community through education, career development, and community engagement.
- We are currently working with the District administrators on outlining an educational program that brings together components of the educational goals and requirements of the District and combining them with background in STEM/STEAM.

Construction Progress



ECM	Start Date	Completion Date	Construction Progress
LED Lighting	1/2/2024	4/3/2024	100%
Energy Management System	3/27/2024	Est. 4/30/2025	70%
Unit Ventilator Replacement with VRF	6/24/2024	9/4/2024	100%
Solar PPA	Est. 10/14/2024	Est. 1/31/2025	0%
Roof Restoration	6/12/2024	Est. 10/11/2024	90%
Pipe & Valve Insulation	1/2/2024	1/19/2024	100%
Retro Commissioning	Est. 10/21/2024	Est. 12/31/2024	0%
Building Envelopment Improvements	1/22/2024	2/9/2024	100%
eTemp Sensors	8/15/2024	8/23/2024	100%
Combined Heat & Power (CHP)	Est. 1/6/2025	Est. 2/28/2025	0%
H&V to Packaged RTU Replacements	Est. 12/16/2024	Est. 4/18/2025	0%

Overall ESIP Schedule



~~BOE Approval to Award DCO~~	~~12/21/2022~~
~~Field Audits~~	~~1/19 – 3/24/2023~~
~~Client Kick-Off Meeting~~	~~1/19/2023~~
~~Approve Resolution to bid Solar PPA (Board Meeting)~~	~~1/25/2022~~
~~Advertise Solar PPA Bid~~	~~2/8/2023~~
~~Utility Baseline & ECM Verification Workshop~~	~~2/28/2023~~
~~Solicit for 3rd Party Engineering Firm~~	~~3/6 – 3/17/2023~~
~~Solar PPA Bid Due~~	~~3/15/2023~~
~~Solar PPA Interviews (TBD)~~	~~3/31/2023~~
~~Award Solar PPA (Board Meeting)~~	~~4/19/2023~~
~~3rd Party Engineering Approval (Board Meeting)~~	~~4/19/2023~~
~~Solar PPA Contract Review~~	~~4/20 – 8/11/2023~~
~~Scope Verification~~	~~5/16/2023~~
~~Client Charette~~	~~6/13/2023~~
~~Select Option for Energy Savings Plan~~	~~7/10/2023~~
~~3rd Party Engineering Review (Whitman Engineering)~~	~~7/13 – 7/28/2023~~
~~M&V Workshop~~	~~7/25 or 7/26/2023~~
~~Submit ESP to BPU for Review~~	~~7/31 – 8/18/2022~~
~~Authorize Financing (Board Meeting)~~	~~8/9/2023~~
~~Acceptance of ESP, pending BPU Approval (Board Meeting)~~	~~8/9/2023~~
~~Approve Implementation Contract (Board Meeting)~~	~~8/9/2023~~
~~DOE Submissions/LRFP Update (Board Meeting)~~	~~8/9/2023~~
~~Accept ESCO/DCO Guaranty (Board Meeting)~~	~~8/9/2023~~
~~Solicit Lease Purchase Financing~~	~~8/16/2023~~
~~Close Financing~~	~~10/12/2023~~
• Design and Implementation Begins	November 2023