



2017 ENERGY STAR  
CERTIFIED  
FACILITY

[www.energystar.gov](http://www.energystar.gov)





The New Haven City/BOE's energy efficiency efforts were recognized at a special ceremony held at the Energize Connecticut Center in North Haven. The ENERGY STAR® Achievement Ceremony was developed by United Illuminating (UI), a subsidiary of AVINGRID Inc., to honor municipalities for their recent ENERGY STAR eligibility or certifications, as well as continued commitment to the Clean Energy Communities program sponsored through the Energize Connecticut initiative. The New Haven BOE is proud to have ENERGY STAR certified 9 schools in 2016 and 2017.

### 2016 & 2017 Energy Star Certified Schools

- 1 Edgewood
- 2 Clinton Ave
- 3 Ross Woodward
- 4 Conte Campus
- 5 Wexler Grant
- 6 High School in Community
- 7 Nathan Hale
- 8 Betsy Ross Campus
- 9 Truman

# Energy Conservation Program

## Collaborative Energy Committee

New Haven also coordinates savings and opportunities through the efforts of the Energy Committee. This committee is comprised of representatives from the City of New Haven, NHBOE, Source One and others. The committee meets on a regular basis to discuss energy options regarding gas and electric commodity procurement, Z-Rec and L-Rec pricing and timing as well as other energy related concerns. The results have been years of town wide savings via lower negotiated commodity prices rather than direct from the utility companies and additional revenue through the sale of available Rec's. collaborative energy purchasing strategy has resulted in \$ 4.45M in cost avoidance since 2009.

## Fuel Cell

The School Construction/Facilities collaborative project at Clemente/Hill Central included a Fuel Cell Inter-Connection Agreement that provides on-site generation of electricity, resulting in \$60,000K electrical annual cost avoidance. Selling back excess energy RECS will return \$70,000 this fiscal year and the projected savings for next fiscal year is \$170,000.

New Haven's central utility plant (CUP) generated electricity for three buildings. The City and Board of Education now sell renewable energy credits (REC's) for generating their own energy. Just this quarter, the BOE received \$40K for selling their REC's.

## Cogeneration

Cogeneration, or combined heat and power (CHP), is the use of a heat engine or power station to simultaneously generate electricity and useful heat. The installation of (6) cogeneration units in schools with swimming pools supplements the heating of the swimming pools and has resulted in \$75,000 annual cost avoidance in electrical costs. The six cogeneration schools are located at:

Sound School • Wilbur Cross • Conte School • Hill Regional • Martinez School • Hillhouse

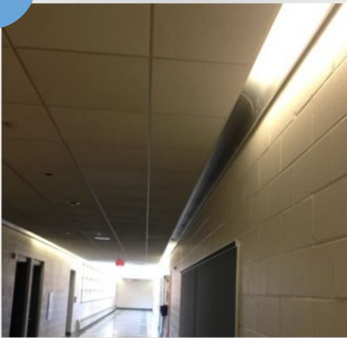


## LED Lighting

SCHOOL	Total Incentive	UIL Projected Savings (annual)	5 Year Projected Saving
Lincoln Bassett	\$17,585	\$10,035	\$50,175
Wilbur Cross	\$44,849	\$15,850	\$79,250
Nathan Hale Gym	\$3,692	\$1,108	\$5,540
Sound School Exterior	\$11,369	\$5,684	\$28,420
Quinnipiac Interior	\$19,919	\$9,494	\$47,470
King Robinson Interior	\$49,763	\$24,881	\$124,405
Ross Woodward Interior	\$49,028	\$23,369	\$116,845
Hillhouse	\$152,097	\$70,979	\$354,895
Jepson	\$8,842	\$3,242	\$16,210
Quinnipiac Exterior	\$4,177	\$2,266	\$11,330
Betsy Ross Gym	\$5,290	\$2,531	\$12,655
Barnard Int	\$55,244	\$17,582	\$87,910
HSC Regional Interior	\$37,799	\$11,899	\$59,495
Hill Career H. S.	\$6,618	\$3,088	\$15,440
Hill Central	\$3,877	\$1,809	\$9,045
Central Kitchen, NH	\$13,897	\$6,428	\$32,140
Betsy Ross, NH	\$36,359	\$16,031	\$80,155
Ross Woodward, NH	\$16,223	\$5,995	\$29,975
Katherine Brennan	\$31,139	\$15,989	\$79,945
Clarence Rodgers	\$19,298	\$10,697	\$53,485
Field House (Hillhouse HS)	\$62,672	\$39,861	\$199,305
Bishop Woods	\$55,341	\$26,716	\$133,580
New Horizon H. S.	\$28,928	\$13,613	\$68,065
Barnard Exterior	\$10,185	\$5,093	\$25,465
John Daniels	\$5,550	\$2,590	\$12,950
Truman	\$57,398	\$28,899	\$144,495
Conte-West Pool/Gym	\$9,938	\$3,600	\$18,000
Hill Regional Interior	\$59,292	\$17,488	\$87,440
Hillhouse H.S. EXT	\$40,266	\$18,791	\$93,955
Co-op Arts	\$4,626	\$2,159	\$10,795
King/Robinson Ext	\$5,549	\$3,995	\$19,975
Wexler-Grant	\$8,630	\$4,027	\$20,135
Columbus	\$5,074	\$5,074	\$25,370
<b>TOTAL</b>	<b>\$940,514</b>	<b>\$430,863</b>	<b>\$2,154,315</b>

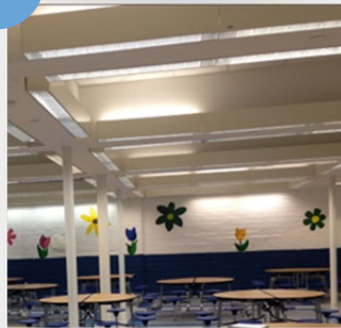
## LED Lighting

Before



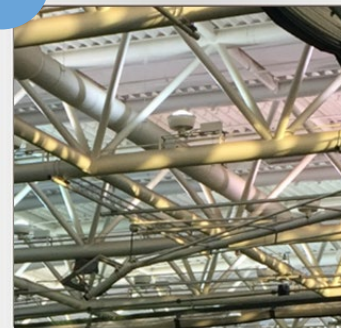
Lincoln Bassett Hallway

Before



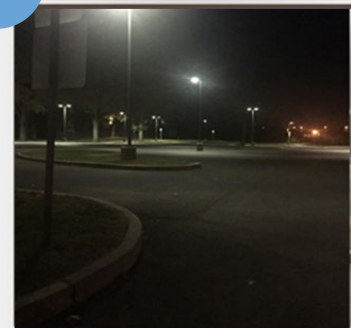
Lincoln Bassett Cafeteria

Before



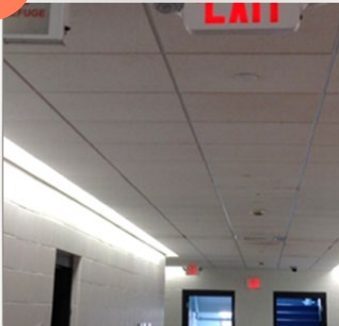
Floyd Little Field House

Before



Betsy Ross Parking Lot

After



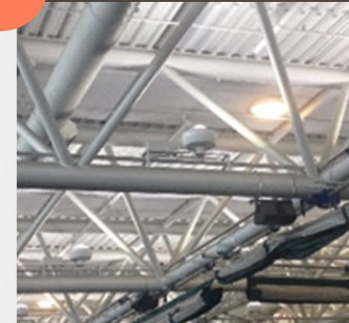
Lincoln Bassett Hallway

After



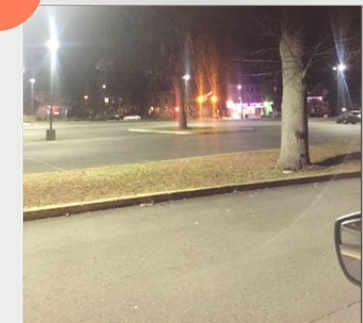
Lincoln Bassett Cafeteria

After



Floyd Little Field House

After



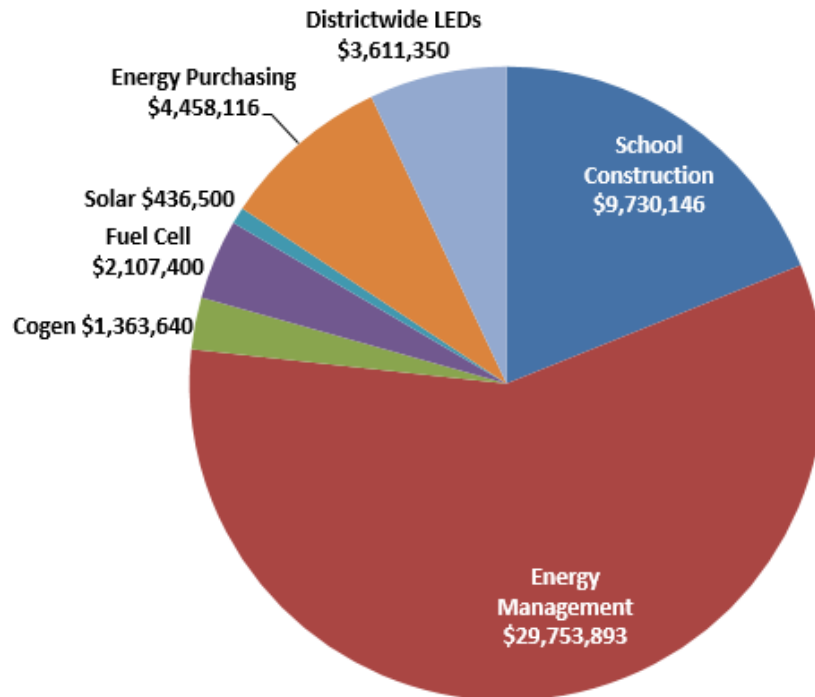
Betsy Ross Parking Lot

## Solar

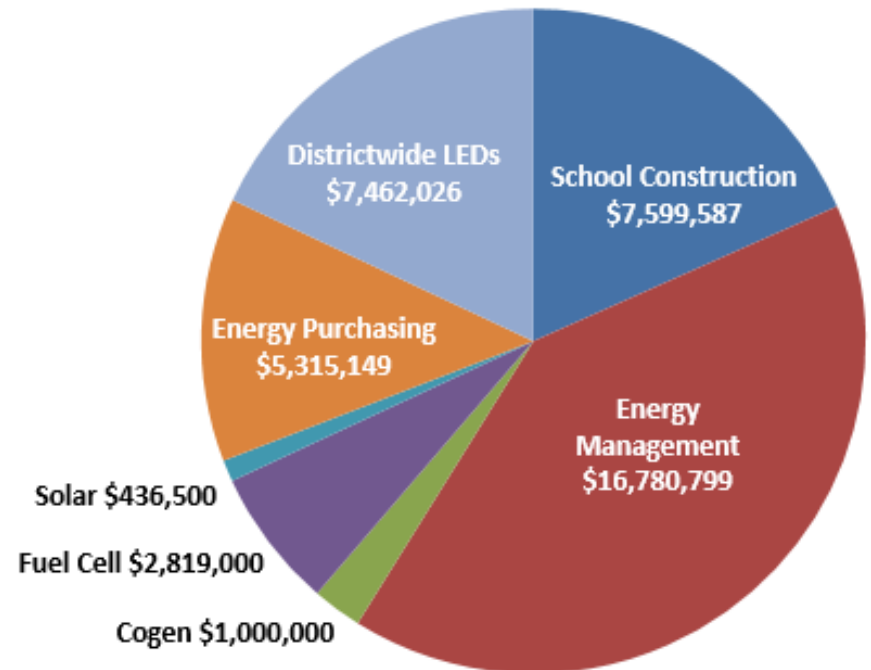
<b>New Haven School</b>	<b>Year 1 Savings</b>	<b>Aggregate Savings (15 Year PPA Term)</b>
Brennan Rogers School	\$12,341	\$253,937
John S. Martinez School	\$11,794	\$242,693
Mauro-Sheridan School	\$8,536	\$175,652
Ross Woodward School	\$15,595	\$320,908
Hill Regional Career High School	\$11,774	\$242,277
James Hillhouse High School	\$11,298	\$232,022
Wilbur Cross High School	\$13,828	\$284,537
Benjamin Jepson School	\$7,821	\$160,928
Clinton Avenue School	\$6,820	\$153,859
Columbus Family Academy	\$7,171	\$161,072
East Rock School	\$6,505	\$146,124
<b>TOTAL</b>	<b>\$113,483</b>	<b>\$2,374,009</b>

## Cost Avoidance

**Total 9 Year Energy Cost Avoidance  
2009-2017  
\$51,461,044**



**Total 4 Year Projected Energy Cost Avoidance  
2018-2021  
\$28,668,827**



# Thank you.

*William F. Clark*

**Chief Operating Officer**

**New Haven Board of Education**

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**NEW HAVEN PUBLIC SCHOOLS**



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