

DANBURY PUBLIC SCHOOLS

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Sal V. Pascarella, Ed.D.
Superintendent of Schools

July 26, 2010

To: Mayor Mark Boughton
From: Sal V. Pascarella, Ed.D.
Subject: American Carrera Tech, LLC

In consideration of rising utility expenses the Danbury Board of Education partnered with American Carrera Tech, LLC, to identify possible cost savings measures across school buildings. An analysis of total energy consumption and usage pattern has identified cost avoidance solutions at five schools. The proposed improvements are alternative energy source and energy conservation measures.

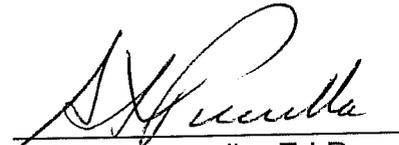
The Board of Education supports the installation of roof-top photovoltaic panels (solar energy) at Park Avenue and Ellsworth Avenue schools. In addition, energy conservation measures are proposed for Rogers Park Middle School, Broadview Middle School, and Danbury High School. The solar energy capture will be our first attempt at alternative energy while the lighting improvements will include daylight harvesting and lighting retrofits. These innovative projects have been recognized by both the Connecticut Clean Energy Fund (CCEF) and Connecticut Light and Power Connecticut Energy Efficiency Fund (CEEF) with preliminary approval of grant funds to partially offset the related total costs.

The energy conservation measures will cost \$978,011 to implement. At this time, CL&P rebates are estimated at \$344,350. The net cost to the Board of Education will be \$633,661. The rebates represent a 35.2% reduction to cost. The estimated ten year energy cost avoidance is \$2,322,018, or approximately \$232,201 per year.

The solar energy measures will cost \$1,464,780 to implement. At this time, CCEF grants are estimated at \$742,453. The net cost to the Board of Education will be \$722,327. The grants represent a 49.4% reduction to cost. The estimated twenty year cost avoidance is \$1,694,199, or approximately \$84,710 per year.

The two projects in total will cost \$2,442,791. Rebate and grant offsets are estimated in total \$1,086,803. A balance of \$1,430,234 remains to be financed by the Board of Education. We are currently exploring financing options and will report our findings and intent to the City Council.

I respectfully request an agenda item for the August 3, 2010 City Council meeting, requesting Council approval to move forward with the proposed projects and to secure suitable financing. School officials will attend the meeting and be available to answer questions pertaining to the proposed projects. Should you have questions in advance of the August 3rd meeting, please call me directly at (203) 797-4701, or contact Mr. Elio Longo at (203) 797-4703.


Sal V. Pascarella, Ed.D.

cc: D. St.Hilaire
Board Members
Town Clerk

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American Carrera Tech, LLC
American Solar & Alternative Power
Danbury School System

Projects Summary

Lighting

	Total Costs	CL&P Rebate	To Be Financed	Projected 10 Year Avoided Energy Costs
Danbury High School	\$497,861	(\$182,002)	\$315,859	\$1,165,421
Rogers	\$280,939	(\$101,016)	\$179,923	\$730,175
Broadview	\$199,211	(\$51,332)	\$137,879	\$426,422
Totals	\$978,011	(\$344,350)	\$633,661	\$2,322,018

Solar

	Total Costs	CCEF Grant	Net To Be Financed (1)	Projected 20 Year Avoided Energy Costs
Park Ave. Elementary	\$1,132,280	(\$536,328)	\$595,952	\$1,148,544
Ellsworth Elementary	\$332,500	(\$206,125)	\$126,375	\$545,655
Totals	\$1,464,780	(\$742,453)	\$722,327	\$1,694,199

Gross Solar Loan **\$796,572**
(1) after final CCEF payment

Total Loan Required \$1,430,234

American Carrera Tech, LLC										
Danbury School System										
Projected Loan Disbursements/Repayment										
Month >	1	2	3	4	5	6	7	8	9	
Solar										
Park	\$150,000	\$499,585							(\$53,633)	\$595,952
Ellsworth		\$62,500	\$84,488						(\$20,613)	\$126,376
										\$722,328
Lighting										
Broadview	\$19,921	\$39,842		\$78,116						\$137,879
Rogers		\$28,094	\$56,188			\$95,641				\$179,923
Danbury High				\$49,786	\$99,572			\$166,501		\$315,859
										\$633,661
TOTALS	\$169,921	\$630,021	\$140,676	\$127,902	\$195,214			\$166,501	(\$74,245)	\$1,355,989
	Loan amount required before final CCEF grant repayment =									\$1,430,234

6/1/2010

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American Carrera Tech, LLC
American Solar & Alternative Power
Danbury School System

Solar Projects Environmental Benefits

Park Ave. Elementary

<u>Environmental Benefits (lbs reduced per yr)</u>	
Carbon Dioxide Emmissions	132,740
Sulfur Dioxide Emissions	562.3
Nitrous Oxide Emissions	222.0
<u>Environmental Equivalencies (per year)</u>	
Equiv. acres of planted trees	17.9
Miles <u>not</u> driven in passenger cars	164,018
Gallons of gasoline not burned	6,863

Ellsworth Elementary

<u>Environmental Benefits (lbs reduced per yr)</u>	
Carbon Dioxide Emmissions	51,813
Sulfur Dioxide Emissions	219.5
Nitrous Oxide Emissions	86.6
<u>Environmental Equivalencies (per year)</u>	
Equiv. acres of planted trees	7.0
Miles <u>not</u> driven in passenger cars	64,022
Gallons of gasoline not burned	2,679

6/1/2010