

REGIONAL SCHOOL DISTRICT NO. 17
BOARD OF EDUCATION
SPECIAL MEETING
February 26, 2015

A meeting of the Regional School District No. 17 Board of Education was held on February 26, 2015 in the Central Office Board Room. Board of Education Chair, Sue Twachtman, called the meeting to order at 6:34 PM.

Members Present: *Susan Dean, Kathy Brown, Dan Chase, Jeannie Young, Karen Perry, Joel D'Angelo and Sue Twachtman*

Members Absent: *Michele Amendola, Brian Gamache, Becky Valenti and Amy Jacques-Purdy*

Also Present: *Superintendent of Schools, Howard Thiery, Director of Facilities, Michael Distefano, and Board Clerk, Larissa Johnson*

Visitors: *7*

Call to Order/Opening of Meeting

Board of Education Chair, Sue Twachtman called the meeting to order at 6:34 PM.

Presentation from CREC: Roof Replacement and Energy Conservation Program Management Services Proposal

Doug Rogers, Director of Construction Services for CREC, presented the "Regional School District 17 Energy and Infrastructure Improvement Overview & Assessment" for Haddam-Killingworth High School. The presentation included information on CREC Construction Services and the Process Steps for infrastructure improvement.

Doug Rogers and Erik Bartone of DBS Energy gave information regarding the District's current Heating Plant at HKHS. The existing heating plant is currently 40 years old and has been operating long past its life expectancy. Currently, the boilers run on No. 4 Heating Oil which is becoming increasingly rare and expensive. In the short term, DBS Energy has suggested that the District convert the existing boilers to No. 2 Heating Oil as this would not only be less expensive to purchase but also would make the boilers less expensive to operate, as it requires less energy to run the boilers. Additionally, DBS Energy recommended that the District re-tube the boilers as many of the tubes are worn-out and are burning out. They also noted that the domestic hot water system is over-sized and were originally designed to meet higher volumes of hot water requirements within the school facility than are currently needed. CREC recommends that the District consider a dual-fuel, oil-fired and propane multi-cluster boiler design. A multi-cluster boiler design would allow for the utilization of smaller capacity boilers to meet heating loads more efficiently by reducing stand-by losses, pre-heating losses and electric-pumping capacities. The Board discussed the existing heating system and the proposed upgrades at some length.

DBS Energy also assessed the interior and exterior lighting at HKHS. The exterior lighting is primarily made up of High Intensity Discharge technology and many lamp poles are wood construction. The interior lighting primarily utilizes high efficiency T8 fluorescents, but there are opportunities to improve efficiencies in common areas that utilizes 2x2 U-Bend fluorescent tubes, recessed lighting fixtures and lighting above

seating areas in the auditorium. DBS and CREC are recommending that the District upgrade the exterior lighting to LED technology and upgrade targeted interior lighting with high efficiency fluorescent retrofits and LED conversions. The benefits to this upgrade would be the project's eligibility for Connecticut Energy Efficiency Fund Grants Reimbursement and reduced electricity consumption and future maintenance.

DBS Energy also assessed the pumps, transformers and power factor correction system. They are recommending that the existing heating pump motors be replaced with high efficiency motors with Variable Frequency Drives and replace existing transformers with high efficiency transformers.

Mark Malcarne of Tremco discussed the HKHS roof's current condition. The existing roof is 40 years old, and is at the end of its useful life, having lasted 20 years beyond its life expectancy. The roof at HKHS is likely the oldest school roof in Connecticut. Mr. Malcarne gave the specifications for a new roof, which would have a different construction than the current roof and would bring the roof up to current codes and requirements, complimentary to the installation of a photovoltaic system on the roof. The Board discussed the construction and recommended materials for the roof replacement at length.

A Solar Photovoltaic System is being recommended for the HKHS roof which would be eligible for the State of Connecticut School Construction Grant Reimbursement and participation in CL&P's ZREC program, which would create a long-term revenue source from the sale of Renewable Credits from the electricity generated by the photovoltaic system. The installation of a solar photovoltaic system would produce approximately 25% of the District's current energy consumption. It is anticipated that over the 25 year useful life of the photovoltaic system, the system would generate \$1,049,400 in revenue from the sale of renewable credits, reducing the final cost of the system to \$238,143 after 25 years. The Board discussed this system at some length as well as the ZREC credit and cost of the system. The Board reviewed several Business Cases with a Summary of Project Costs and discussed these with the representatives from CREC, Tremco, and DBS Energy.

The Board also discussed CREC's Project Management services and fees, which are reimbursable up to 50% under the proposed grants recommended by CREC and DBS Energy. The Board also reviewed a project timeline for the proposed upgrades and improvements.

At the conclusion of the presentation, Board Chair Sue Twachtman thanked the representatives from CREC, DBS Energy and Tremco.

Adjournment

Board of Education Chair, Sue Twachtman called for the meeting to adjourn at 9:03 PM.

Respectfully submitted,

Larissa B. Johnson
Board Clerk

Approval: _____ Date: _____
Becky Valenti, Secretary