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## CE 591 Environmental Engineering Seminar

# Plant Energy Usage: A Detailed Analysis

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### Description

High performing facilities have been shown to increase human productivity by as much as 25%. Effective energy usage is an important part of a high performance building. To understand energy usage in an environmental facility, we must monitor and audit energy consumption. We do this through the inspection or examination of the facility which frequently results in recommendations for improvements to the building's appropriateness, safety, and its efficiency. This presentation will walk through the various options for energy audits, identify the building areas of interest and reference real-time and tangible solutions we have encountered in our energy audits.

### Who Should Attend

Graduate students registered for CE591 (All Disciplines), outside professionals seeking information and PDH credit, and the general public with interest in how engineers are meeting the challenge of sustainable design.

### Format of Course

6:30 p.m. – 7: 30 p.m. *Lecture and Q/A Session*

7:30 p.m. – 8:30 p.m. *Class Project* – students work individually or in groups on in-class assignment

8:30 p.m.-9:30 p.m. *Review* previous week assignment and provide current week assignment

### Date and Location

April 2, 2009

Salisbury Lab – RM 305 WPI Campus

### Registration Information

Professional Development Registration:

\$50 *Lecture Only* CRN 27994 CESUS15

\$150 *Lecture and Class Project* CRN 27995

CESUS15 -- 2 Hrs PDH's Awarded

Graduate Course Registration:

CRN 27162 – 3 Credits Awarded

### About the Speaker



**David Bouffard** has over ten years of service, education, and consulting engineering experience in the HVAC sector. Upon earning his Associates Degree in Heating Ventilation and Air Conditioning (HVAC), David began his career as an HVAC Technical where he serviced commercial and

industrial HVAC systems and controls.

David went on to earn his Bachelor of Science Degree in Mechanical Engineering Technology from the University of Maine, and his Master of Science Degree in Engineering Technology with an emphasis in Energy Management and Thermal System from Purdue University.

David is currently a Certified Energy Manager, a LEED Accredited Professional, a State of Maine Certified Oil Burner Technician, a State of Maine Propane and Natural Gas Technician, and an Nationally Certified Air Conditioning Technician. He is currently a member of the American Society of Heating, Refrigeration, and Air-conditioning Engineers, the Association of Energy Engineers, and holds a United States Patent on a Cold Climate, Air Source, Heat Pump System.

David's areas of expertise include energy analysis and modeling of thermal systems and equipment and the design of HVAC, ventilation, plumbing, and fire protection systems.

*For more information or to register call 508-831-5517. Graduate students may register at: <http://www.wpi.edu/Admin/Registrar/course056.html>; others may register through <http://cpe.wpi.edu/Individual/Workshops/regform.html>*