STEVENS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

Special topics in Energy seminar series

Wednesday October 24, 2007
Carnegie Room 315, 1:30 pm

NEXT GENERATION DISTIBUTED ENERGY SYSTEMS

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The presentation focuses on the use of distributed power systems that provide both power and heat at the point of use. These systems have always been around but today these versions are being used more and more to reduce fuel consumption, i.e. increase efficiency and while reducing carbon emissions such that these systems could be called "**GREEN SYSTEMS**". These systems are being promoted by the states and are subsidized with tax monies to promote energy savings. The economic impact in reducing our energy dependence at each site will dictate the correct system configuration. The speakers are experts in selecting the appropriate system for each end user in order to reduce fuel and electric energy supply and therefore the carbon emissions. The speakers hold engineering and financial degrees and all are actively involved in developing the next generation distributed energy system. These systems will have a sizeable impact of reducing our energy supply needs. For example, New Jersey is actively involved in displacing 20% of our future energy needs over the next 20 years with renewable sources of energy. This goal combined with achieving a reduction in our fuel energy consumption through distributed energy efficiency improvements will result in a combined benefit that our state will have sufficient energy to continue to grow and prosper.

Past projects by UTC resulted in significant fossil fuel energy savings and set the standards for future sizeable reduction in our fuel consumption needs. In the traditional sense these systems are called combined heat and power (CHP). CHP systems were originally used at large industrial sites. Today small packaged systems are available for hospitals, school campuses, light industry, etc and as well as numerous energy and carbon footprint reduction projects. Commercial entities such as UTC play a key role in achieving our nation's goal of reducing energy consumptions by increasing efficiency through technological advances. The seminar will open with the technologies offered by UTC. Next our team of speakers will explain the economics of implementing a distributed energy system with CHP capabilities combined with alternative energy systems such as and including solar, wind, and geothermal.

For more information, please contact
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