



Vermont Academy of Science And Engineering

Vermont Energy Alternatives

Tuesday, September 16, 2003

5:00 – 6:30 p.m.

Carpenter Auditorium

Given Medical Building on the University of Vermont Campus

The availability of an adequate and economic supply of energy is essential for any prosperous, viable society. Over the past decades, Vermont has depended on hydrocarbon fuel, nuclear fuel, and hydropower energy supplies to meet its needs. As demands for energy change due to environmental considerations, safety issues, threats of terrorism, availability of natural resources, and consumer needs, Vermont, as with every other state, is compelled to look at the alternatives available to it for meeting its future energy needs. Fortunately, significant gains have been made in a number of supporting technical areas that offer opportunities at least for partial replacement of some of the conventional energy sources. To understand this problem, one must first look at what the climate and geography of the State of Vermont offers, in terms of both advantages and disadvantages. Following from this first issue, we then look at the possibilities of wind power, bio-gas energy, and hydropower as readily available options. Additionally, wood fuel power and landfill gas are examined to see what contributions might be made. Naturally, of course, careful attention is given to the existing power sources, including imported hydropower from Canada, nuclear power, and the large-scale generation of electricity from hydrocarbon sources.

The panel is led by Mr. Dan Reicher, former U.S. Assistant Secretary of Energy. Each presenter will outline the basic possibilities within their areas of expertise, and also discuss the collateral advantages and disadvantages of the methodology, while focusing on the economic practicality for both the short-term and longer-term perspectives. This forum is intended to offer a balanced diversity of ideas so that one may carefully weigh the available alternatives that will constitute a significant part of Vermont's future energy economy.

- 5:00 PM **INTRODUCTION**
David Japikse, Ph.D.
Vermont Academy of Science and Engineering
CEO, Concepts NREC, Wilder, VT
- 5:10 PM **MODERATOR**
Dan Reicher
Northern Power Systems, Inc.
- PANEL PRESENTATION**
- "Climate and Energy Needs"**
Alan Betts
Atmospheric Research
- "Conventional Energy Sources: Hydrocarbon, Nuclear, and Canadian Hydro"**
Speaker to be determined
- "Hydropower"**
Mathew Rubin
East Haven Wind Farm
- "Wood-Fueled Power"**
Carl Bielenberg
Better World Energy, LLC
- "Landfill Gas"**
Barry Bernstein
Better World Energy, LLC
- "Wind Power and Bio-Gas Recovery"**
Clint "Jito" Coleman
Northern Power Systems, Inc.
- 6:00 PM **OPEN DISCUSSION**
- 6:20 PM **SCIENCE TEACHER OF THE YEAR**