

Energy Issues

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IEP Newsletter –

PEM On-Line Update

In the Spring Newsletter it was announced that IEP had partnered with a well-known energy company to offer the Professional Energy Manager (PEM) certification on-line. That company is **Schneider Electric**.

For several years Schneider Electric has been developing and expanding their on-line **Energy University** offering worldwide. Anyone can register and take energy-based modules on a variety of topics at their own pace. This educational service is provided at no cost.

After two years of development, Schneider Electric is conducting a beta test of the modules and examination for PEM certification. Selected internal personnel are currently concluding the required



IEP and Schneider Electric

course material and exam. Results are anticipated by mid-October.

After the results of the testing have been evaluated, the modules and examination questions will be reviewed to determine if modifications are required. An official announcement of the PEM on-line offering is expected in late October at a national trade show.

Plans are to make the on-line offering available in North America during the fourth quarter of this year. It is anticipated that the certification will be expanded to Europe, Latin and South America and Asia in the future.

Tips from the Board

Focus on Chillers

Following are three (3) measures to improve chiller efficiency.

1. Reset Chilled Water Temperature – Between 40% and 80% load savings range from ½ to ¾ percent per degree increased in temperature. For chillers with VSD at <80% load saving of 2% to 3% are possible.
2. Proper Refrigerant Charge – A low charge increases head pressure and energy.
3. Reduce Condenser Water Temperature –Each degree lower will save approximately 1.5% in energy.

Contributor: William J. "Bill" Turpish, PE, PEM

The Continuous Search for Intellect

By: William H. Mashburn, PE, PEM, CEM

“...if we are to provide an effective and sustainable energy strategy for the future we must not only understand the technical aspects, but also the issues that impact the acquisition of our energy resources.”



When you received your Professional Energy Manager (PEM) certification, you exhibited both technical and intellectual skills. I want to encourage you to continue to develop both. There are two great books that I firmly believe will bring you to a higher level, both technically and intellectually.

The first is “THE QUEST” by Daniel Yergin. This book was reviewed in the Spring 2012 IEP Newsletter. Yergin focuses on recent energy history, from the breakup of the Soviet Union to the present day. He discusses a multitude of energy topics in an objective professional manner. The book is long (900 pages), but reads like a novel once into it. It provides insight into the energy issues facing the country and logical concise facts that refute many of the points often referenced by the uninformed, such as:

- We will peak in oil production within twenty years,
- Electric cars will fill American roads in a few years, and
- Wind and solar have no negative impacts on the environment

The second book is “STRATEGIC VISION” by Zbigniew Brezinski, which is reviewed in this issue. This book has no direct reference to energy, but discusses the potential decline of America as a major power within the world. It highlights that most of the power plays within the world are *energy related* in often subtle ways, particularly in the Middle East.

As Energy Managers, if we are to provide an effective and sustainable energy strategy for the future we must understand not only the technical aspects, but also the issues that impact the availability and acquisition of our energy resources. By providing an understanding of the political awakening of people worldwide and the importance of energy resources, these two books will lay an important foundation, one from which you can build upon.

William H. Mashburn Sr. is Professor Emeritus Mechanical Engineering VPI&SU and Executive Director of the Institute of Energy Professionals. Mr. Mashburn is also the founder of the Energy Management Diploma Program.

Be a Contributor

What would you like to see in your Newsletter? In an effort to provide useful and timely information, IEP is interested in your thoughts and ideas for future articles. If you have an article you would like to submit or topics you would like to see included, just let us know.



STRATEGIC VISION

By: Zbigniew Brezinski, Ph.D.

A Book Review by William H. Mashburn, PE, PEM, CEM
Basic Books – 208 pages, \$26.00

Dr. Brzezinski was formerly President Jimmy Carter's National Security Advisor and is currently Counselor and Trustee at the Center for Strategic and International Studies. In this book, he is a realist, as he gives a much needed wake-up call regarding the international repercussions if America fails to address multiple domestic crises successfully.

He discusses the dramatic shift of power from West to East caused by the dynamic political awaking of people worldwide and the deterioration of America's performance, both domestically and internationally.

Dr. Brezinski details six (6) critical dimensions which stand out as America's major and increasingly threatening liabilities:

- First - America's mounting and eventually unsustainable national debt,
- Second - America's flawed financial system,
- Third - A widening income inequality,
- Fourth - Decaying national infrastructure,
- Fifth - A major vulnerability is a public highly ignorant about the rest of the world, derived in part from its deficient public educational system, and
- Sixth - America's increasingly gridlocked and highly partisan political system.

In a bipartisan way, Dr. Brezinski then describes six (6) crucial assets of America:

- First - America has overall economic strength,
- Second - Technological and innovative prowess derived from an entrepreneurial culture and superiority in institutions of higher education,
- Third - America's relatively strong demographic base,
- Fourth - The capability for reactive mobilization,
- Fifth - America has the advantage of a uniquely secure national resource, and
- Sixth - Its association with a set of values – human rights, individual liberty, political democracy, and economic opportunity.

He then discusses the new level of power by most of the industrialized countries. Dr. Brezinski points out that China will not reach the level of America, because of its population problem and form of government. India has multiple religious groups and overpopulation that will prevent it from achieving major power status.

He concludes that America needs to show the world that it has the will to renovate itself at home by placing greater emphasis on other dimensions of national power, such as innovation, education, the ability to intelligently balance force and diplomacy, the quality of political leadership and the attraction of a democratic life-style.

It is a must read for all who are concerned about the future of our country at home and abroad.



Professional Energy Manager

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