SPECIAL LIBRARIES ASSOCIATION
Petroleum and Energy Resources Division

Bulletin

v. 28 no. 3 August 2007

Contents:

Letter from the Chair

By Gilberto Morales, DPER Chair
gilberto.morales@bakerhughes.com

Hello Everyone!

I must admit that I enjoyed Denver for a number of reasons. One, the weather was just right; Two, I was able to watch the Houston Astros play the Colorado Rockies at beautiful Coors Field Stadium; and Three, we had a magnificent conference. I want to offer a big **THANK YOU** note to our PER Board and Committee Chair officers and members, our sponsors, and collaborators for the successful program of events during the Denver SLA 2007 Annual conference. Only by the great efforts and collaboration from a large number of people was this possible. Comments provided from PER members, other SLA attendees, and sponsor representatives gave us the evidence needed to confirm the significant impact PER events created during the conference.

Now our efforts are focused on the ***Seattle SLA 2008 Annual Conference*** to be held during **June 15 – 18, 2008.** Mona Suarez, 2007 PER – Chair Elect, is hard at work on a potential WOW program for the conference. After receiving input from PER members for program she plans to submit the first draft of PER events to SLA during the month of August. Mona will keep us informed on the upcoming 2008 SLA PER Program of Events.

Here are some of PER plans for the rest of 2007.

- Continue planning the Seattle SLA PER 2008 Program of Events.
- Implement an aggressive Recruitment and Marketing Campaign during July - December 2007.
    - This plan includes awards for most members recruited,

- Promote PER at the Online Information Conference in London (Dec. 2007) in a shared event with the SLA Europe Chapter.
- Contacting & researching worldwide locations and events of Energy information professionals (Europe, Middle East, Russia, India, others).

Thank you for your significant support and please continue to provide us your comments and ideas.

Gilberto Morales, DPER Chair, with DINGER, the Colorado Rockies mascot

2007 DPER Special Achievement Award Honors Gina Williamson

By Daran Bishop, Awards Chair

The SLA Petroleum & Energy Resources (PER) Division is pleased to announce that Gina Williamson is the recipient of the 2007 PER Special Achievement Award. The PER Special Achievement Award is given to a current or past member of the PER Division who has made a substantial achievement of significant importance to the Division.

Gina has been a member of the PER Division since 1996 and has made many contributions to the Division. Gina served admirably as the 2003/2004 PER Division Chair. Her accomplishments as Chair included planning and implementing a successful conference program in Nashville, encouraging member involvement, and significantly redesigning and updating the PER Division website. Her most significant contribution, however, was her effort to keep the Division afloat when two consecutive Chairs had to unexpectedly resign while in office. Gina stepped back into a leadership role in 2004/2005, and it was largely through her efforts that the PER Division continued to function as a viable Division. In addition to serving as Chair (both in 2003/2004 and 2004/2005), Gina has also served the Division as Chair-Elect, Past Chair, Awards Chair, Networking Chair, and Webmaster. She has provided invaluable assistance to the Division through her efforts in fundraising, conference planning, and recruitment and development of future PER leaders.

Gilberto Morales, Gina Williamson, Daran Bishop

Conference Reviews

Editor's note: I received reviews for two sessions and the NREL Tour. Reviews of other sessions are most welcome.

Energy Issues: Global Climate Change and Future of Renewables.

By Gilberto Morales

With great expectation from the packed room of over 90 attendees, the Petroleum & Energy Resources Division (DPER) and the Environment & Resource Management Division (ERMD) hosted the presentation "Energy Issues: Global Climate Change and Future of Renewables" on Tuesday, June 5th, 2007 during the 2007 SLA Denver Annual Conference. Speakers of the event included Stanley R. Bull, Associate Director for Science and Technology, National Renewable Energy Laboratory (NREL), and Michael Shepard, President, E Source Companies LLC; who discussed issues surrounding renewable energy and climate change. The event was sponsored by ***THOMSON*** and ***EBSCO***, and moderated by Marlene Vogelsang, DPER Secretary and Fundraising Chair.

Stan Bull from NREL, offered "Renewable Energy: The Future and Role in Mitigation of Climate Change."

The presentation key topics included:

-- Mounting evidence regarding climate change
-- Declining energy R&D investments reflect world oil price movement
-- Climate change response
-- The role of renewable energy sources vis-à-vis world energy supply and U.S. energy consumption
-- Renewable energy sources
-- U.S. national goals, challenge goals
-- Growing renewables through 2030: achieving the 10/20/50% Usage Pattern
-- State policy framework for renewable electricity standards
-- Evolution of US commercial wind technology
-- Solar energy, biomass/biofuels, energy efficient buildings

Michael Shepard from E Source presented "Climate Change: The Challenge of Our Time."

The main points discussed were:

-- Americans and energy
-- Cumulative CO2 emissions
-- Four things we must do
-- U.S. greenhouse gas emissions
-- Selected efficiency goals
-- Low-carbon electricity supply in 2020
-- Firming up solar with thermal Storage
-- Carbon capture technology coal plants
-- Policy
-- European Union emissions trading scheme
-- Voluntary programs

Both speakers answered numerous questions and fielded comments concerning renewables and climate change. Many SLA members stayed after the event to chat with the speakers.

See Ann Coppin's Internet Corner in this issue of the *Bulletin* (p. 13) for links to the presentations and other pertinent websites.

Energy Resources Roundtable: Energy Industry Statistics

By Jan Heagy

On Monday, June 4, 2007, the Petroleum and Energy Resources Division, SLA held a roundtable to discuss energy industry statistics. The event was facilitated by **Jan Heagy** and sponsored by ***EOS International***.

The purpose was to collaborate with colleagues to identify ways of gathering and sharing our collective energy statistics knowledge.

Jan began the session with a brief review of our past efforts, drawing from the rich tradition of DPER conference sessions and publications in the DPER archives.

In the discussion that followed participants noted they frequently require both historical data and future projections. Projections are somewhat more difficult to find.

Because we are all time constrained, the group recognized that any action items for capturing and sharing information on statistical resources would necessarily have to be relatively quick and easy to implement.

With that in mind, the group arrived at the following suggestions:

1. Implement a list of web resources using the social bookmarking tool, Del.icio.us.

2. Put all DPER members on the listserv.

3. Link to the DPER Blog from listserv.

Amanda Robertson, our DPER Webmaster, graciously offered to setup the del.icio.us account and to establish Blog IDs for DPER members.

Know a good statistics resource?? Share it!

As was discussed during the Energy Statistics session at the conference in Denver, Amanda Robertson set up a del.icio.us account for DPER where we can add useful links. Some of the links reviewed at the session are posted. Check it out and add your favorites today!

http://del.icio.us/dper
password: oil&gas

Need a DPER Blog ID?

E-mail Amanda:

mailto:arobertson@nexant.com

Speaking of statistics…

Vasanth Sridharan's article, "Rig Counts Give Clues on Oil Industry, Not Full Picture" published in the ***Dallas Morning News*** July 30, 2007 details the problems inherent in rig count interpretation. Excellent reading!

The Future in the Making – SLA Tour of NREL

By Joe Morganti

When muckraking journalist Lincoln Steffens returned from a visit to Russia in 1919 he famously declared "I have seen the future and it works." Within ten years Steffens had bitterly renounced his earlier optimism. Russia's nascent revolution, so full of promise in 1917, had, in fairly short order, revealed itself as falling far short of that promise. In a similar vein, those of us who remember the "oil shocks" and "energy crisis" of the 1970's may have memories that recall those of Steffens. At that time, with the price of crude oil soaring, the brave new world of alternative energy sources—especially solar, wind and ethanol—appeared poised to deliver us from evil. The end of fossil fuel was confidently proclaimed and a future of clean, alternative energy was said to lie just around the corner. It proved to be an awfully long corner. By the early 1980's, no sooner had the price of crude oil dropped precipitously than the promise of renewable energy began dropping as well—dropping out of the headlines, certainly, and out of sight in most other ways, for the foreseeable future. Or so it seemed. In a less publicized vein, the dream of alternative energy was kept alive on many small fronts and in one major initiative that made few headlines. Chartered by President Carter in 1974, the Solar Energy Research Institute (SERI) officially opened in 1977 in Golden Colorado, just outside of Denver, and, without much fanfare, work on the future of alternative energy continued. In 1991, during the administration of President George H. W. Bush, SERI was designated as a national laboratory of the US Department of Energy and renamed the National Renewable Energy Laboratory, (NREL). Nowadays, with the price of gasoline having returned to the headlines, and speculation about "peak oil" being endlessly discussed, we seem to have come full circle and NREL's time may have finally come around. On June 7, 2007, members of the PER division who were attending the SLA annual conference in Denver, got a chance to see for themselves with a PER-sponsored tour of NREL.

DPER gathers for NREL Tour

We assembled in the NREL Visitor Center, which our guide, Jim Bosch, informed us was the only part of the facility usually open to visitors, over sixteen thousand of whom arrive each year. The center was well provided with interactive displays to educate and publicize the work of NREL to students and visitors from a wide spectrum of age and experience. He emphasized that the Laboratory's research function was two-fold: to work on renewable sources of energy and to investigate the most efficiently use of that energy, whether derived from alternative or conventional sources. The Visitor Center itself was designed to demonstrate this. Much of its electricity was wind generated and both the orientation of the building and its insulating walls dramatically reduced the amount of energy needed for heating and cooling. For our tour we would be visiting three of the lab's six facilities: the Alternative Fuels User Facility, the Solar Energy Research Facility and the new Science & Technology Facility. Although solar and wind power are the fastest growing sources of alternative energy today, we would not be able to visit the National Wind Technology Center (NWTC), which is located about 20 miles

away. Our tour would emphasize solar energy and biofuels.

DPER members view NREL Solar Panels

Our first stop was the Alternative Fuels User Facility, whose primary area of research is in deriving ethanol from sources of biomass. President George W. Bush visited this facility in 2006, prior to his State of the Union address where he famously announced that America was "addicted to oil" and that current research into alternative sources, "such as switchgrass," held great promise to reduce this addiction. On hearing this, most reporters--except for those raised in the Great Plains--went scurrying to their libraries to find out what switchgrass was, so it was gratifying to see some first hand and learn about its promise. This tall, fast growing prairie grass is but one of several sources of lignocellulosic biomass that NREL is investigating. Biomass, Jim emphasized, is our only renewable source of hydrocarbons. "Growing" the source of our fuels avoids the obvious dangers of simply depleting the sources of fuel in coal and oil reserves. But there is a second advantage to this process; it "closes the loop" on greenhouse gas emissions. That is, while plant-generated hydrocarbon fuels *release* carbon dioxide into the atmosphere when they are burned, the same plants that generated the fuel were also *absorbing* carbon dioxide from the atmosphere while they were growing.

The difficulty, of course, is to accomplish all this in a manner that is at least as efficient and inexpensive as deriving hydrocarbons from our current sources, and NREL is very aware of this concern. They have developed extensive partnerships with government, educational and commercial bodies to speed up the process and make it more commercially viable. Currently, the experimental Process Development Unit within the facility is capable of processing only one ton of biomass per day, which yields about 70 gallons of ethanol, and work is proceeding apace to increase the output and lower the cost of producing it. Enzymes, for example, which break down the chemical bonds within plants, account for at least 40% of the cost involved in this process, so intensive research is going into this area. Two other areas of research that are currently less well funded but that are still being studied are the creation of biodiesel fuels and fuels from algae ponds. The ultimate goal would be the creation of "biorefineries" that, like current oil refineries, could take a variety of feedstocks from alternative sources—e.g. corn stover, wood chips and, of course, switchgrass—and produce various products from them. This is obviously a tall order but NREL seems to be approaching it in a clear-headed and realistic fashion. A theme repeated many times in our tour was an emphasis on partnering with private companies, as well as educational institutions, and balancing state-of-the-art research with rapid commercialization of what they discover from that research.

Our next stop was the Solar Energy Research Facility. Here, the much-touted alternative source for generating electricity seemed to be making steady progress. While alternative fuels are largely still in the

area of promising research, solar power—especially generation of electricity from photovoltaic (PV) cells—has actually made steps to become a measurably commercial activity in recent years. In Germany and Japan at least, considerable inroads have been made in increasing the popularity of solar power and incorporating it into the electrical power grid. Again, cost is a major factor here in at least two senses: first, in the cost of actually producing PV cells themselves and, second, in the cost of bringing the cost of generating electricity from PV cells into line with the cost of generating electricity from coal, oil and natural gas. There is a third factor here, tied in with the issue of manufacturing costs. Solar cells need to be both efficient at turning solar energy into electricity but they also need to be physically sturdy. An individual PV cell generates relatively little electricity on its own so it must be combined with others into very large arrays, traditionally made of silicon and glass. The issue of physical sensitivity was quite evident as we examined the various experimental arrays outdoors and were cautioned to avoid any physical contact with them. Still, NREL is working very hard on this problem. We were shown not only flexible PV cells that could be rolled up like a rug but even cells that were literally integrated with the shingles on a roof. The difficulty of balancing the physical durability of PV cells against the need to increase their electrical output is formidable but I could not help feeling that, if anyone could create a workable solution, it would probably come from the desks of the engineers at NREL.

Jim Bosch of NREL discusses solar panel research

The final leg of our tour represented a change of pace. Although alternative energy was still its main focus, it primarily served to demonstrate NREL's commitment to the study—and practice—of energy efficiency. The recently completed Science & Technology Facility is the first federal laboratory building to achieve a platinum rating (the highest) by the US Building Council's Leadership in Energy and Environmental Design program (LEED). Jim was especially proud of this structure, which only uses about 60% of the energy required by a comparable newly-constructed federal building. Additionally, he emphasized that there was "no bottom cost" to construct this building, i.e. it costs the same amount of money to construct an energy saving building as it would to construct the same building without its energy saving features. From the positioning of the building (to take full advantage of the sun), to its insulation, to its electrochemical windows (which can be darkened if the sun's rays make the room too warm), the building was designed with ingenious and energy-saving (and, therefore, cost saving) features. The open design of the building also emphasizes collaboration, both between scientists and engineers working in its open spaces and between NREL with its commercial and academic partners.

Altogether I think we were all very impressed with the work we saw at NREL. Our three hours there demonstrated some very creative work in developing alternative ways of generating energy as well as ways to use it more efficiently. After our tour, I certainly couldn't proclaim that we'd seen the future--and that it worked--but what we did see held a great deal of promise for the future that may be far closer than any of us might have imagined.

Many thanks to Gilberto Morales, Mona Suarez and Marlene Vogelsang for all the work (and energy!) they put into making this tour such a success. Thanks, too, to Mary Donahue and Al Berger, from NREL's library, who accompanied us and answered our questions about their facility. Although the library does not have its own web page, the library's e-mail is library@nrel.gov and their phone is 303-275-4215.

For further information on NREL, please consult the following web sites:

www.nrel.gov The main web site for NREL

http://nrelpubs.nrel.gov/Webtop/ws/nich/www/public The site for NREL's publications

www.eere.energy.gov The Office of Renewable Energy and Energy Efficiency of the DOE

International Relations News

By Dennie Heye

Libraries in developing countries can apply for free access to a wide range of scientific journals via the OARE (Online Access to Research in the Environment):

http://www.oaresciences.org/en/

Over 1,300 journal titles from different publishers (including Elsevier, Taylor & Francis, Sage, Springer etc) are available. For those of us who know of librarians in developing countries, this is a good source to promote. Recently we found out about this in our mission to help Stephen Kizza, a government librarian in Uganda who is now also a DPER member.

New Publication – Kiplinger's Biofuels Market Alert

Kiplinger Washington Editors launched their new bi-weekly publication ***Kiplinger's Biofuels Market Alert*** on July 2, 2007. According to Paul Vizza, Sales Director, Custom Content Group at Kiplinger:

"Like our other forecasting newsletters such as ***The Kiplinger Letter*** and ***The Kiplinger Tax Letter***, ***Kiplinger's Biofuels Market Alert*** goes behind the scenes to reveal what's happening, and what will happen next, in the burgeoning biofuels industry."

The newsletter includes "Business Briefs" and "Research and Technology" columns as well as articles covering various aspects of the industry.

Subscription Cost: $697.00 per year
ISSN: 1937-4615
Additional information:
www.kiplinger.com

2007 Student Stipend Award Winning Essay

By Talia Shatz

Information Professionals must "Climb to New Heights" to fulfill the imperative need for Energy subject specialists.

The nature of how information is disseminated and absorbed into practice by those whose actions affect society and the natural world is rapidly changing. Information Professionals have an important responsibility to provide the most accurate and up to date scientific, functional, and policy related information possible. In our changing world, energy issues are in the spotlight; there is an expanding societal awareness of environmental issues such as global warming, and the complex nature of the political and technical landscape of petroleum and energy resources is apparent. There is an increasing need for knowledgeable and up to date information experts who specialize in navigating the constantly evolving knowledge base which supports the development, utilization, conservation, and regulation of energy resources. New information professionals will be needed to carry on this important task; that is why you should send me to the 2007 SLA conference.

I am an M.S.L.S. student at Clarion University of Pennsylvania; the excellent program in which I am participating is a web-based cohort entitled "Special Libraries and Information Centers." I began looking for special libraries with a science and/or natural resource focus to investigate, because I have a background in the natural sciences and environmental studies and am especially interested in these topics. My investigations brought me to the WSU (Washington State University) Energy Program Library in Olympia, Washington. To see the library in action and observe its inner workings, I visited the library and interviewed Angela Santamaria, the library manager, and Margaret Thomas, a reference librarian. After completing an academic paper on the library which I forwarded to Ms. Santamaria, we discussed my completing an internship there and made a plan. Beginning in June, I will be working there part time as an intern/apprentice. I am excited to have the opportunity to explore energy librarianship, and to assist in the fielding of research questions from their various clients which include corporations, businesses, the public, students, and others interested or actively participating in energy-related or energy-dependent pursuits.

Attending the 2007 SLA conference would result in several beneficial outcomes. For one, it would give me the opportunity to meet with and talk to other information professionals and learn about their work. Secondly, it would

expose me to cutting edge ideas and technologies in both the field of energy research and special librarianship in general, which I could then share with others. Lastly, it would provide me with intellectual fuel, which is infinitely renewable but takes exploration to find. That fuel would provide me with energy and information which I could then contribute to the furtherance of the mission of special libraries, thus helping the field of Energy Librarianship "Climb to New Heights."

Lubuto Library Project

By Camilla Walker

I'd like to share this highlight from the recent SLA Conference in Denver. Some of you may have an interest in the list of project contribution opportunities.

Jane Kinney Meyers won the Dow Jones Leadership Award for her work as founder and president of the Lubuto Library Project. This project is dedicated to providing libraries to serve Africa's street children.

Opportunities to contribute are available in these areas:

- Fundraising
- Communication
- Volunteering
- Research

For additional information visit:

http://sla.dsoc.googlepages.com/lubutolibraryproject

Dennie Heye Promotes DPER

Dennie Heye has been busy spreading the word about DPER to Arabian Gulf region librarians via the LIS Café:

(http://mlis-kw.blogspot.com/)

Here is the promotional communication designed by Dennie.

TOP REASONS TO JOIN SLA DPER

The Petroleum and Energy Resources (PER) Division of the Special Libraries Association (SLA) focuses on all energy resources and industries, including petroleum, natural gas, electric, coal and other forms of depletable and renewable energy. The Division is concerned with all aspects of the utilization and conservation of these energy resources including exploration, production, generation, transportation, distribution, refining, products, marketing, economics, environmental effects, regulation, and research and technology.

Make Professional Contacts

1. The best reason for joining SLA DPER is to get access to a unique and unrivalled network of more than 200 peers working in the petroleum and energy industry.

2. SLA in total has 12,000 information professionals located throughout the world, representing more than 25 different disciplines and 83 countries.

3. You can reach information

professionals from Rio de Janeiro to Tokyo, working in industries as diversified as biotechnology, art museums, financial services, not-for-profits, advertising agencies, governments, and many more.

4. Accessing the members' network is easy. The members' database is available anytime by logging in to the SLA web site. You can search members by location, employer, industry or regional chapter.

Build Your Knowledge & Stay Ahead Of the Information Curve

5. You automatically receive the monthly publication DPER bulletin which features comprehensive articles on the information profession, written by your peers. You will also receive the SLA "Information Outlook" monthly magazine.

6. Throughout the year, SLA and several of the Divisions organise stimulating learning events (e.g. workshops, guest speakers, debates, virtual seminars) for their members. Hear first-hand from practitioners.

Get a Mentor

7. Several members of SLA DPER have expressed an interest in meeting members to build mentoring relationships. This is an exceptional opportunity to be teamed with a colleague and get insights into the industry, advice on your professional development, and the views of someone with extensive or different experience.

Focus On Your Career

8. SLA offers a variety of professional development and career services via its web site: virtual learning series, job postings, salary survey, lists of journals, books, articles related to career search for librarians. Check out Click University, an online learning community for the benefit of SLA members only.

9. In June 2003, SLA redrafted its Competencies for Information Professionals of the 21st Century. This critical document defines SLA's vision of the specific skills and knowledge requirements of our field. It outlines professional competencies (e.g., "Information professionals contribute effectively to senior management strategies and decisions regarding information applications, tools and technologies, and policies for the organization") as well as personal competencies (e.g., "Information professionals see the big picture, take calculated risks"). Practical scenarios are presented for each set of competencies. This is an invaluable tool for your professional growth and assessment, so please take advantage of it.

Save Money!

10. SLA is very affordable. The annual membership fee of €110 (£70) includes your affiliation to one region, one industry Division and access to the entire network of people and resources that SLA offers.

For additional information browse our web site: http://units.sla.org/division/dper/ or contact: Dennie Heye, PER International Relations, Chair: Dennie.Heye@shell.com

HAS THE QUEST FOR FUEL WOOD LED TO THE DEPLETION OF NATURAL FORESTS IN UGANDA?

By Stephen Kizza

Editor's Note: Stephen Kizza recently joined DPER. He is the Assistant Librarian, Ministry of Energy and Mineral Development in Kampala, Uganda.

Forest cover in Uganda has reduced from 42% coverage of the total land mass of the country to 22% presently.

Impacts

Forest depletion has led to dropping water levels of Lake Victoria. Lake Victoria is a reservoir for the Nalubale and Owen Falls hydropower dams on the Nile. Decreasing water levels of Lake Victoria are greatly responsible for the low energy output of the hydropower stations. Hydropower generation has dropped from 320MW to just 120MW. Uganda relies on this power source for much of its electricity.

Other environmental changes manifest in flooding, prolonged drought, and reduced snow cover on high peaks of mountains such as the Rwenzori in western Uganda.

Population

Uganda's population now stands at 28.4 million and of this 80% lives in the rural areas where there is less than 1% coverage of electricity. Uganda is an agricultural country and much of the agriculture is still subsistence.

Population increases call for more agricultural and grazing land for the rural farmers who produce the bulk of the food to feed the ever increasing population.

Wood as rural energy resource

Biomass provides 90% of Uganda's energy requirements; 61% of the biomass fuel is consumed in form of fuel wood.

The rural population relies heavily wood for their energy needs. The people gather twigs, leaves, dead branches and trunks to cook food. Burning wood also provides lighting at night for the majority who can't afford paraffin. Rural industries such as earth brick baking, fish preservation and tobacco curing depend on fuel wood.

Charcoal production sale to the ever increasing urban population is a recent rural industry that has put an additional strain on the forest resources.

Ministry of Energy and Mineral Resources Initiative

Thus the government through the Ministry of Energy and Mineral Resources in the year 2000 embarked on Sustainable Energy use in Households and Industries (SEUHI) programme which among other things aimed to promote efficient use of fuel wood through mudstoves designed to achieve 90% efficiency compared to 17 % attained with the use the traditional three stone open air cook place. It was hoped less fuel wood would be used thereby reversing the trend of the declining forest covers.

Other deforestation factors

In contrast to the wood resource consumption by the rural subsistence farmer, far greater deforestation results from activity by other sectors. The turbulent political times which characterized Uganda's post independent politics have had a profound impact on the forest resources. Officials primarily responsible for resources exploited rather than safeguarded the forests.

During the regime of the late Idi Amin Dada, the building and furniture industries encroached on forests for timber. There was very little government control over these resources.

At present, deforestation continues as land is developed. The recent controversy over the Mabira forest is one example. This indigenous hardwood tropical rain forest reserve was saved, but at the cost of three lives.

Forests may be lost for security reasons as well. In some areas of Northern Uganda where rebel activities have been rife, woodlands have been cleared in an effort in an effort to stop fighting.

Conclusion

It is evident that while subsistence farmers in the rural areas heavily rely on fuel wood for energy needs, their activities have had minimal impact on the forest cover. Forests have disappeared mainly due to other political and economic factors.

Internet Corner –

By Ann Coppin

Global Warming: An Example of How the Internet Has Changed Resource Access

By Ann Coppin

A hot topic these days is global warming meaning the climate change related to the activities of mankind. It mentioned in the news in many ways – announcements by the UN's Intergovernmental Panel on Climate Change in its fourth report states global warming it is real, governing bodies debating and making laws and regulations related to it, programs calling for this action or that action, etc. It is even a topic of discussion at professional meetings such as the recent Special Libraries Association Annual Conference. Al Gore was the kick off keynote speaker for the SLA Conference. The focus of his talk was the need to do something about global warming. The Petroleum and Energy Division sponsored the Tuesday session "Energy Issues: Global Climate Change and Future of Renewables." A key theme is a need for information and for information exchange.

The PER session on "Energy Issues: Global Climate Change and Future of Renewables" was moderated by Marlene Vogelsang. The PowerPoint slides from both speakers are available on the Division web site. Michael Shepard, E Source Companies, spoke on "Climate Change: the challenge of our time," http://units.sla.org/division/dper/Bulletins/Shepard_SLA_Climate_%20June_07.pdf

He covered key indicators of climate change, its effects, "Four Things We Must Do (improve energy efficiency, decarbonize electricity, electrify or substitute biofuels for fossil fuel, abandon conventional coal fast), more on energy efficiency, and what we can do including a comparison of climate change proposals before Congress.
The climate resources he listed are:
http://www.ipcc.ch/ Intergovernmental Panel on Climate Change

Note: If you want to purchase their 4th Assessment Report, Cambridge University Press is the publisher, http://www.cambridge.org/browse/browse_highlights.asp?subjectid=710.

http://ipcc-wg1.ucar.edu/wg1/ The Intergovernmental Panel on Climate Change (IPCC) Working Group 1 The Physical Basis of Climate Change provides access to the Summary for Policymakers (SPM), Technical Summary (TS), individual Chapters, Supplementary Material, and other materials of the Working Group I report on this page.

http://www.climate.org The Climate Institute (Climate.org is a project of the Climate Institute in Washington, D.C. and seeks to provide reliable information on climate change, energy and the environment.)
http://www.realclimate.org/ Real Climate science from climate scientists blog
The second speaker at the PER session was Stanley Bull, National Renewable Energy Laboratory, on "Renewable Energy: The Future and Role in Mitigation of Climate Change,"http://units.sla.org/division/dper/Bulletins/Bull%20SLA%20Conference%206-5-2007.pdf. He covered Solar, Wind, Biomass/Biofuels, and Geothermal resources.
Resources he mentioned include:
http://www.nrel.gov/renewable_resources/ NREL Renewable Resources Maps & Data
http://www.eere.energy.gov U.S. Department of Energy, Office of Renewable Energy and Energy Efficiency (EERE)
http://www.ases.org/climatechange/ Tackling Climate Change in the U.S.: Potential U.S. Carbon Emissions Reductions from Renewable Energy and Energy Efficiency by 2030, a report by the Solar Energy Society, 2007.
http://americanenergynow.org/ American Energy: The Renewable Path to Energy Security, a report by Worldwatch Institute, 2006.

This report on the PER Division session on climate change is a good illustration of how the Internet has changed access to resources. From the listed web sites the reader can go immediately to the PowerPoint slides from the presentations, a data site, organizations that are pertinent, an ongoing discussion by climate scientist, and reports that can be downloaded. Think back twenty-thirty years: Reviews of PER sessions did not include links to the speaker's PowerPoint slides. Names of pertinent organizations would be mentioned but the reader then would likely need to search printed directories for address or contact information. We see how the Internet facilitates information exchange (and overload) and understanding of issues. We know now, not days or weeks from now, what others are saying and doing about something.

Related Books, Articles and Web Sites

The following are resources for understanding what is global warming and sources for more information.

Wikipedia has a nice overview of the topic starting with a definition and explanation of how the two terms 'climate change' and 'global warming' are used.
http://en.wikipedia.org/wiki/Climate_change
Climate change
From Wikipedia, the free encyclopedia
For current global climate change, see Global warming.
"Climate change refers to the variation in the Earth's global climate or in regional climates over time. It describes changes in the variability or average state of the atmosphere over time scales ranging from decades to millions of years. These changes can be caused by processes internal to the Earth, external forces (e.g. variations in sunlight intensity) or, more recently, human activities."
"In recent usage, especially in the context of environmental policy, the term "climate change" often refers only to changes in modern climate, including the rise in average surface temperature known as global warming. In some cases, the term is also used with a presumption of human causation, as in the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC uses "climate variability" for non-human caused variations."
The article ends with a good list of books, articles, and web links.

A significant report on the economic implications of Climate Change is the Stern Report.
Stern, Nicholas H. and Treasury of Great Britain, "The Economics of Climate Change: the Stern Review." Cambridge University Press, Cambridge, UK, 2007, 692 p.
Wikipedia has a discussion of this reports importance.
http://en.wikipedia.org/wiki/Stern_report

Selected Books are:

Cotton, William R., and Pielke, Roger A., "Human impacts on weather and climate." Cambridge University Press, Cambridge, New York, 2nd ed., 2007, 308 p.

Singer, S. Fred, and Avery, Dennis T., "Unstoppable global warming: every 1,500 years." Rowman & Littlefield Publishers, Lanham, MD., 2007, 260 p.

Kirstin, Dow, and Downing, Thomas E., "The atlas of climate change: mapping the world's greatest challenge." University of California Press, Berkeley, 2006, 112 p.

Johansen, Bruce E., "Global warming in the 21st century." Praeger Publishers, Westport, Conn., 2006.

National Research Council. Committee on Surface Temperature Reconstructions for the Last 2,000 Years, "Surface temperature reconstructions for the last 2,000 years." National Academies Press, Washington, D.C., 2006, 145 p.
PDF available at
http://www.nap.edu/catalog.php?record_id=11676

National Research Council. Committee on the Geologic Record of Biosphere Dynamics, "The geological record of ecological dynamics: understanding the biotic effects of future environmental change." National Academies Press, Washington, D.C., 2005, 200 p.
PDF available at
http://books.nap.edu/catalog.php?record_id=11209

http://web.mit.edu/coal/
Massachusetts Institute of Technology, "The Future of Coal." Massachusetts Institute of Technology, 2007, 175 p.
"This report… evaluates the technologies and costs associated with the generation of electricity from coal along with those associated with the capture and sequestration of the carbon dioxide produced coal-based power generation. Growing electricity demand in the U.S. and in the world will require increases in all generation options (renewables, coal, and nuclear) in addition to increased efficiency and conservation in its use. Coal will continue to play a significant role in power generation and as such carbon dioxide management from it will become increasingly important. This study… discusses the interrelated technical, economic, environmental and political challenges facing increased coal-based power generation while managing carbon dioxide emissions from this sector.

http://geothermal.inel.gov/publications/future_of_geothermal_energy.pdf
The Future of Geothermal Energy: Impact of Enhanced Geothermal Systems (EGS) on the United States in the 21st Century
An assessment by an MIT-led interdisciplinary panel, Jefferson W. Tester, Chair.
This report is available on the Internet at: http://geothermal.inel.gov and http://www1.eere.energy.gov/geothermal/egs_technology.html
This study is about 'enhanced geothermal energy' which is not obtained by tapping geysers or volcanoes. Enhanced Geothermal Systems (EGS) are also known as Engineered Geothermal Systems. The definition of EGS for this study is "all geothermal resources that are currently not in commercial production and require stimulation or enhancement." Heat-mining technology is needed to utilize it. (Yes, this citation is a repeat from the last column.)

Articles of Interest

Collins, William, Colman, Robert, Haywood, James, Manning, Martin R., and Mote, Philip, "The Physical Science behind Climate Change -- [environment]: Scientific American." Scientific American, v. 297, no. 2. p. 64-71, 2007.
See also the online supplements to this article including http://www.sciam.com/article.cfm?articleId=C053EDAB-E7F2-99DF-356454A74454CBEB Clarifying some important issues about climate change.

http://www.pnas.org/cgi/reprint/0700609104v1
Raupach, Michael R., Marland, Gregg, Ciais, Philippe, Le Quéré, Corinne, Canadell, Josep G., Klepper, Gernot, and Field, Christopher B., "Global and regional drivers of accelerating CO2 emissions." Proceedings of the National Academy of Sciences, May 22, 2007.

"CO_2 emissions from fossil-fuel burning and industrial processes have been accelerating at a global scale, with their growth rate increasing from 1.1% y^{-1} for 1990-1999 to >3% y^{-1} for 2000-2004."

Jacobson, Mark Z., "Effects of ethanol (E85) versus gasoline vehicles on cancer and mortality in the United States." Environmental Science & Technology, v. 41, no. 11, p. 4150 -4157, 2007. 10.1021/es062085v S0013-936X(06)02085-2
Study reporting serious health effects if ethanol is heavily used in cars.

http://www.tbp.org/pages/Publications/Bent/Features/Sp07Bell.pdf
Bell, Trudy E., "Engineering Beyond Carbon: Pulling Answers Out of the Air." The Bent of Tau Beta Pi, Spring 2007, p. 14-22.
Good review of atmospheric carbon dioxide including various proposals on what to do about it.

Pacala, S., and Socolow, R. "Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies." Science, v. 305, no.5686, 968-72, 13 Aug 2004). info:doi/10.1126/science.1100103
Michael Shepard mentioned stabilization wedges briefly in his June talk. This article explains what they are.

http://www.foodandwaterwatch.org/food/pubs/reports/rush-to-ethanol
Food & Water Watch, Network for New Energy Choices, and the Vermont Law School Institute for Energy and the Environment, "The Rush to Ethanol: Not all BioFuels are Equal." 2007 78 p.
Comprehensive review of the literature on the environmental and economic implications of using ethanol.

Additional Web Sites of Interest:

http://www-airs.jpl.nasa.gov/
AIRS: Atmospheric Infrared Sounder
AIRS measures the key atmospheric gases affecting climate. These measurements include temperature and water vapor profiles; profiles of carbon monoxide, methane and ozone; and warning 'flags' to identify concentrations of sulfur dioxide and dust.

http://cait.wri.org/
Climate Analysis Indicators Tool (CAIT)
This is "an information and analysis tool on global climate change developed by the World Resources Institute. CAIT provides a comprehensive and comparable database of greenhouse gas emissions data (including all major sources and sinks) and other climate-relevant indicators."

http://www.wri.org/climate/topic_content.cfm?cid=4368
Climate Change and Energy Security Impacts and Tradeoffs in 2025
This chart by the World Resources Institute illustrates the projected energy security and climate characteristics of different energy options currently under consideration.
Geotimes, http://www.geotimes.org/ontheweb_index.html, in the current August issue has a review of this site.

http://www.esource.com/
"E Source information services provide member organizations with unbiased, independent analysis of retail energy markets, services, and technologies. … We serve as a high-value filter of the torrent of information on developments

in the energy services marketplace, sorting through the hype and providing our clients with concise strategic insights and in-depth technology assessments."

http://www.fypower.org/
Flex Your Power
"Flex Your Power is California's statewide energy efficiency marketing and outreach campaign. Initiated in 2001, Flex Your Power is a partnership of California's utilities, residents, businesses, institutions, government agencies and nonprofit organizations working to save energy." This is an example of one state's resource for energy efficiency and conservation information. I hear their announcements when I am commuting and listening for traffic alerts.

http://www.sej.org/resource/index18.htm
Climate change: A guide to the information and disinformation
This site by the Society of Environmental Journalists provides links to basic introductions to the topic, Basic Science, Federal Government Programs and Labs, International Agencies, Research and Academic Institutions, Environmental Groups, Deniers-Dissenters and "Skeptics," "Creation Care" and Evangelical Views, Some Help for Sifting Disinformation from Information, Expert Rolodex: Who Ya Gonna Call?, Outstanding Coverage, and Further Information

http://www.resourceshelf.com/2007/06/14/resource-of-the-week-climate-change-information-and-disinformation/
Resource of the Week — Climate Change: A guide to the information and disinformation
by Shirl Kennedy, Senior Editor
This guide includes links to basic information, a section of "Deniers, Dissenters, and Skeptics," and to watchdog-type resources which try to provide primers.

http://www.google.com/Top/Society/Issues/Environment/Climate_Change/
Google Directory:
Society>Issues>Environment>Climate Change
Web resources collected by Google.

I am accumulating a variety of articles and links on my connotea web site, http://www.connotea.org/user/ascoppin/, under the tags 'climate change' and 'global warming.' There is more information there about carbon sinks, energy efficiency, wind power, etc.

Related Articles from Library Literature

Elmore, Marcus, and Stoss, Fred, "Global Warming: Core Literature from Resources for College Libraries." Choice, v. 44, no. 10, June 2007, p. 1711-1713.

The following articles are older but at least give pointers to organizational names.

http://www.infotoday.com/searcher/nov03/mattison.shtml#top
Mattison, David, "Information on the Seven Seas: International Ocean Science Web Resources [Part 2]." Searcher, v. 11, no. 10, November/December 2003.

Mattison, David, "Information on the Seven Seas: International Ocean Science Web Resources, Part 1." Searcher, v. 11, no.7, July/August 2003, p. 14-22.

http://www.infotoday.com/searcher/feb03/keiser.shtml
Keiser, Barbie E., "Our Environment: Part 3, The Science and Technology." Searcher, v. 11, no. 2, February 2003.

http://www.infotoday.com/searcher/nov02/keiser.htm
Keiser, Barbie E., "Our Environment: Part 2, Governments, Laws, and Organizations." Searcher, v. 10, no. 10, November 2002.

http://www.infotoday.com/searcher/sep02/keiser.htm
Keiser, Barbie E., "Our Environment: Part 1, General Sources." Searcher, v. 10, no. 8, September 2002.

http://www.infotoday.com/searcher/feb02/keiser.htm
Keiser, Barbie E., "Weather, Climate, and Global Warming: A Web Review [Resource Links]." Searcher, v. 10, no. 2, February 2002, p. 28-41.
The link above is to the Table 1: More Weather on the World Wide Web and Table 2:
Global Warming and a Changing Climate: Not-for-Profit Association Reports, Research, and Activist Efforts.

Sites of Interest

http://www.resourceshelf.com/
ResourceShelf
A free site "librarians and researchers share the results of their directed (and occasionally quirky) web searches for resources and information."

http://geonames.usgs.gov/pls/gnispublic/
USGS Geographic Names Information System (GNIS)
Web site URL changed from last year's mention.

http://libraries.mit.edu/docs/theses.html
MIT Masters and Doctoral Theses
Some citations lead to PDFs that can be viewed.

http://www.powersof10.com/
Powers of Ten
This site is based upon the "Powers of Ten" film made by Charles and Ray Eames in 1977. The film takes the

viewer from the core of an atom to the edge of the universe, moving 10 times further every 10 seconds.

http://www.olympicpeninsula.org/
Olympic Peninsula
The peninsula includes the Olympic National Park.

PER Bulletin is a quarterly publication of the Petroleum & Energy Resources Division of the Special Libraries Association.

Send ***Bulletin*** items to:

Jan Heagy
Librarian Specialist
ExxonMobil Upstream Research Co.
URC-URC-SW104
PO Box 2189
Houston, TX 77252-2189
Tel 1-713-431-4466
Fax 1-713-431-4157
Email jan.b.heagy@exxonmobil.com

Copy deadline for next issue: October 31, 2007

Upcoming Event

Geoscience Information Society (GSIS) annual meeting. October 28-31, 2007. Denver, Colorado, USA. GSIS is also sponsoring a pre-Conference seminar: Geoscience Librarianship 101. October 27, 2007.

Further information:
http://www.geoinfo.org/

2007 PER Officers & Committee Chairs

Chair
Gilberto Morales
Baker Hughes
Houston Tech Ctr, Tech Library
2001 Rankin Rd
Houston, TX 77073
USA
Tel 1-713-625-6583
Email
gilberto.morales@bakerhughes.com

Chair Elect
Mona Suarez
Ernst & Young Center for Business Knowledge
ECU Business Researcher
Phone: (713) 750-1410
Email mona.suarez@ey.com

Secretary & Financial Development
Marlene Vogelsang
Resource Specialist
Energy Resource Ctr Pacific Energy Ctr
851 Howard St
San Francisco, CA 94103
USA
Tel 1-415-973-7206
Fax 1-415-896-1280
Email mxv6@pge.com

Treasurer
Joyce Fedeczko
Information Resources Director
BP America Inc.
602 Library, MC F1 - IS, B200C
150 W. Warrenville Road
Naperville, IL 60563
USA
Tel 1-630-420-4850
Fax 1-630-420-3697
Email joyce.fedeczko@bp.com

Past Chair & Awards Chair
Daran L. Bishop
Tech Information Specialist
Marathon Oil Co.
PO Box 3128
Houston, TX 77253-3128
USA
Tel 1-713-296-3640
Fax 1-713-296-4499
Email dlbishop@marathonoil.com

Archivist & Bulletin Editor
Jan Heagy
Librarian Specialist
ExxonMobil Upstream Research Co.
PO Box 2189
Houston, TX 77252-2189
USA
Tel 1-713-431-4466
Fax 1-713-431-4157
Email jan.b.heagy@exxonmobil.com

Bylaws Chair
Tora Williamsen-Berry,
Chevron Corp.,
Chevron Global Library,
ITC / IM COE
100 Chevron Way Bldg 50 Rm 1210
Richmond, CA 94802
USA
Tel 1-510-242-3115
Email wito@chevrontexaco.com

Government Relations
Camilla Walker
Gustavson Associates, Library
5757 Central Ave Ste D
Boulder, CO 80301
USA
Tel 1-303-443-2209
Email cwalker@gustavson.com

International Relations Chair
Dennie Heye
Shell Exploration & Production, EP Global Library
PO Box 60
Rijswijk, 2280 AB
Netherlands
31 70 447 3297
Email dennie.heye@shell.com

Membership
Candy Keller-Raber
DeVry Univ, Library
4000 Millenia Blvd
Orlando, FL 32839
USA
1-407-355-4809
Email ckeller-raber@orl.devry.edu

Nominating Committee members

Alicia Hawkings (EnCana Corp.)
EnCana Corporation, Info & Records Centre
PO Box 2850 150 9th Ave SW ;
Calgary, AB T2P 2S5
Canada
1-403-645-3085
Email alicia.hawkings@encana.com

Aimee Pyle
Chevron, ITC IM COE
6001 Bollinger Canyon Rd
A1129
San Ramon, CA 94583
USA
Tel 1-925-842-4426
Email aepy@chevron.com

Richard Todd
Halliburton Energy Services, Tech Support
2600 S Second St
Duncan, OK 73536-0400
USA
1-580-251-3516
Email richard.todd@halliburton.com

Webmaster and Networking Chair
Amanda Robertson
Nexant Inc, Information Services
44 S Broadway
5th Floor
White Plains, NY 10601
USA
1-914-609-0375
Email arobertson@nexant.com