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## A Century of Utility Regulation: Lessons We’ve Learned

**N**ext year marks the hundredth anniversary of regulation by public utility commissions in this country. Speakers at the 33<sup>rd</sup> Annual PURC Conference in February examined how the lessons we have learned through our hundred years of experience provide us with a path for the future.

Why look back? At the PURC conference in 2005, a Florida Public Service Commissioner reminded us why history matters and how we can lose sight of what’s really important if we forget where we’ve come from, why we’ve created traditions and why we’ve kept them. A century ago, U.S. citizens were engaged in a very full debate about whether they should create state utility regulatory agencies, what their authority should be, and which kind of independence they should have

from the political process and from the industry. With the spirit that has made our country the great nation it is today, the people chose to create a regulatory system that had never been tried before. Today, we are fortunate to reap benefits of these long-ago decisions and the adjustments that have been made between then and now.

We have learned, for example, that independence, legitimacy, credibility and stability are important. A century ago when the world’s largest electricity generator churned out 5,000 watts of power and the largest high voltage line ran 136 kilometers and carried only 50 kilovolts, total electricity generating capacity in the United States was 3,000 megawatts. Today, it’s approximately a million megawatts. Electricity, back then, cost 24 cents per kilowatt hour. In 2004, this cost was less than 9 cents for residential customers. This performance by U.S. utilities is unmatched in the world, in no small part because of our system of regulation.

Federal Energy Regulatory Commissioner Nora Mead Brownell opened the conference by noting several significant lessons learned following the August 2003 blackout, for example, as she described areas of energy policy evolution, and challenges being faced with the implementation

of the recent Energy Policy Act. She was followed by Irene Flannery, a Senior Vice President for the Universal Service Administrative Company, on changes in telecommunications subsidy systems. Other speakers followed these themes, emphasizing the changes and challenges in both energy and telecommunications. (Copies of speakers’ presentations and/or audio files are available through the PURC web site at [www.purc.ufl.edu](http://www.purc.ufl.edu).)

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*FMEA Executive Director Barry Moline, right, poses a question to FERC Commissioner Nora Mead Brownell, center panelist, during the 33rd Annual PURC Conference in February. Seated to her right is Irene Flannery, Senior Vice President of Programs at USAC. At Commissioner Brownell’s left is PURC Director Mark Jamison. Additional photos on page 2.*

*A note to readers:*

*The summer issue of the PURC Review is mailed with the July issue of Public Utilities Fortnightly. Within its pages, you’ll find an article authored by me and Paul Sotkiewicz, PURC’s Director of Energy Studies. Its pages afford us the opportunity to address issues raised at this year’s annual conference in detail. We hope you enjoy the issue and, as always, welcome your comments.*

# How Do You Know?

Mark A. Jamison, Ph.D., PURC Director

Recently a third-grade class touring a natural history museum learned more than just history. A scientist was explaining a fossil dig when a chipper little girl asked, “How old is that fossil?” “Six billion years old,” knowingly replied the scientist. “How do you know that?” questioned the girl. “Well, I’m a scientist,” explained the paleontologist. The little girl pressed on: “But how do you know?” “I have instruments that measure age.” “How do you know they’re right?” “The manufacturer said so.” “How do you know the manufacturer is right?” The girl and the guide went back and forth for several minutes like this before the scientist finally exclaimed, “Look, I don’t know! Okay? I just work here!”

Some things are easier to know than others. Florida is well known for its hurricanes. Indeed five of the seven most intense hurricanes to ever hit the United States landed on Florida, according to the National Hurricane Center. What is less widely known is that Florida has the best experts on dealing with storm preparation and recovery.

Consider the following: National Grid, a leading international electric utility, partners with Florida Power & Light on storm recovery specifically to learn how FPL does it, and Con Edison of New York asked FPL for training in hurricane preparation and recovery. Progress Energy’s and TECO’s hurricane recovery preparations and response will be showcased at the Edison Electric Institute’s annual convention. Southern Company was recently featured at a conference on emergency preparedness. Some utility regulators in the northeast ask their utilities to partner with Florida electric companies in storm recovery efforts so that their utilities can learn from Florida.

Florida’s electric utilities didn’t rise to this level of prominence through idleness and luck, but rather through hard work, preparation, and innovation. Florida’s electric utilities and the Florida Public Service Commission continue to look for ways to improve upon their performance. As part of this effort, the utilities are working with PURC to coordinate information sharing and cutting edge research on how Florida can harden its electric infrastructure to better withstand and recover from hurricanes. This effort serves two purposes. First, it helps ensure Florida’s utilities remain at the forefront of disaster preparation and recovery methods that serve customers reliably and cost-effectively. To this end, the utilities’ managers and some of the nation’s top academic researchers met at the University of Florida in early June to learn from each other and to brainstorm on solutions to outstanding problems. Second, such a public effort provides transparency, showing the public and government officials that the state’s utilities continue to push the envelope.

The importance of being an acknowledged leader should not be diminished or ignored. Knowing Florida’s utilities and government officials are respected by their peers should provide customers with the confidence that preparations and restoration priorities have been considered with the utmost due diligence. When mistakes appear – whether real or imagined – second-guessing and armchair-quarterbacking are less frequent and have less validity.

As the third graders learned, sometimes knowledge is hard to get, but constantly seeking to learn more is worth the effort. ☞



*Above, former Texas PUC Chairman and The Gee Strategies Group President Bob Gee speaks about the regulatory climate leading to the Energy Policy Act of 2005. Seated from left are Allan Guyet, Director of the Florida Energy Office and Florida PSC Commissioner J. Terry Deason.*



*John W. Mayo, left, Georgetown Professor of Economics, Business and Public Policy accepts the 2006 PURC Distinguished Service Award from Director Mark Jamison.*



*Philadelphia University Dean of the School of Media + Design Sean Carton speaks to attendees about the changing demographics of the digital generation.*

# PURC Offers New Course in Utility Training

This July, PURC launches its newest education initiative with a week-long training engagement in Jamaica titled Utility Ratemaking and Analysis: An Advanced Course in Regulation. The course, offered July 17-21, 2006 in Ocho Rios, is co-sponsored by PURC and the Organisation of Caribbean Utility Regulators (OOCUR).

The course is the first advanced one sponsored by PURC and its newest international offering since the inception of the PURC/World Bank International Training Program on Utility Regulation and Strategy in 1997. That two-week program, delivered each January and July in Gainesville, has educated more than 1,550 utility representatives in the public and private sectors from 128 nations.

Building on concepts presented in the PURC/World Bank program, the advanced course will focus on benchmarking (using methodologies such as data envelopment and stochastic frontier analysis), price and revenue cap analysis, mechanism design for incentive regulation, financial statement analysis, quantifying cross-sub-

sidies in the context of price affordability, designing economically efficient interconnection prices, cost analysis and regulatory impact analysis. Session topics were identified by OOCUR leaders as important for continued professional development within their agencies.

Joining PURC Director Mark Jamison and Director of Water Studies Sanford Berg are area speakers including Carol Balkaran of the Regulated Industries Commission in Trinidad & Tobago; Carey Anderson of the Office of Utilities Regulation in Jamaica; Franklin Brown of the Public Utilities Commission in the Bahamas and Nigel Gordon of Cable and Wireless in Jamaica.

The course is expected to be a highly interactive one featuring a mix of presentations, moderated discussions, small group exercises, and case studies. Participants are expected to have at least three years of experience with a regulatory commission. Although not required, prior participation in the PURC/World Bank International Training Program is recommended. More information is available online at [www.purc.ufl.edu](http://www.purc.ufl.edu). ☞

## Papers and Presentations

“A Law Enforcement Perspective of Electricity Deregulation,” by PURC Research Associate Ira Horowitz appeared in the May-June 2006 Electricity Market Reform and Deregulation issue of *Energy*. This paper summarizes the deficiencies in market oversight and enforcement that left the deregulated California electricity market prone to potential abuse, how some market agents exploited those deficiencies and the AG’s recommendations for improving enforcement.

“Designing Pareto-superior Demand-response Rate Options,” by Horowitz and C. K. Woo appeared in the May-June 2006 Electricity Market Reform and Deregulation issue of *Energy*. This paper explores how three rate options—real-time pricing, time-of-use pricing, and curtailable/interruptible service—encourage customers to alter their electricity usage in response to changes in the electricity prices.

“Consistency in Performance Benchmarking: The Peru Water Sector,” by Sanford V. Berg and Chen Lin has been accepted for publication in an upcoming issue of *Applied Economics*. This article examines the consistency of water utility performance rankings in Peru.

“Performance Assessment and Monitoring of Water Infrastructure: An Empirical Case Study of Benchmarking in Uganda,” by PURC/World Bank International Training Program alumnus Silver Mugisha, has been accepted for publication in an upcoming issue of *Water Policy*. This paper outlines the potential for internal incentive contracts in the context of Ugandan water, emphasizing proper contract design, competition for managerial responsibility, effective

## Progress Energy helps launch UF Water Institute

The University of Florida Water Institute is primed to launch into its role as the focal point for issues facing Florida’s greatest natural resource thanks to its founding sponsor, Progress Energy.

The Progress Energy Foundation is giving \$1.2 million to establish an endowment for the Water Institute and provide a hub for water-related research, education and public out-

reach programs based at the state’s largest and most comprehensive research university.

“Progress Energy has been an important partner on the Water Institute project even before its inception,” said UF President Bernie Machen. “We welcome their long-term commitment to the sustainability of

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Susan Story, President and CEO of Gulf Power Company, closed the conference by noting the challenges of generating reliable and affordable energy in a growing, populous state. She examined the conventional and alternative energy sources to consider as the state's growing demand for electricity rises by an expected 30 percent during the next 10 years, approaching 60 percent by 2020. In a later meeting with students in the Warrington College of Business, she shared experiences from her career at Gulf Power, spanning work as a nuclear power plant engineer and various managerial positions.

Next year, we continue our two-year salute marking the centennial of utility regulation in the U.S. at the 34<sup>th</sup> Annual PURC Conference titled, "1907-2007, A Century of Utility Regulation: Looking Forward to the Next Hundred Years." The conference is scheduled February 15-16, 2007 in

Gainesville. We look forward to seeing you there. ☺

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Florida's water resources."

The UFWI, formally created in 2004, is expected to host an annual summit of government and industry leaders involved in Florida's water-related issues.

Wendy Graham, a professor and chairwoman of the UF's agricultural and biological engineering department, has been named the institute's first director. She works closely with more than 200 UF faculty members across multiple disciplines, including PURC Director of Water Studies Sanford V. Berg, a member of the institute's launch team.

Progress Energy's gift is eligible for \$900,000 in matching funds from the State of Florida's Major Gifts Trust Fund. More information can be found at [www.waterinstitute.ufl.edu](http://www.waterinstitute.ufl.edu). ☺

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business planning, performance monitoring, and the use of managerial incentives.

In April, Mark Jamison presented his paper "Toward an Economic Theory of Leadership: Leading Adaptive Change" at the International Industrial Organization Society conference in Boston, MA. His paper relates recent research in neuroscience to the problem of someone providing leadership in an organization that needs to adjust to changes in its environment.

"Getting on the Balcony: Leadership Challenges in Regulation," by Mark A. Jamison, Robert Rowe and Brett A. Perlman was published in the December 2005 issue of *The Electricity Journal*.

Visit the PURC web site, [www.purc.ufl.edu](http://www.purc.ufl.edu) to find these and other papers. ☺

## Calendar of Events

**June 19-30, 2006**  
**20th PURC/World Bank**  
**International Training Program**  
**on Utility Regulation and**  
**Strategy**  
Gainesville, FL

**July 17-21, 2006**  
**Utility Ratemaking & Analysis:**  
**An Advanced Course in**  
**Regulation**  
Co-Sponsored by PURC and  
OOCUR  
Ocho Rios, Jamaica

**July 29, 2006**  
**PURC/CLA Executive Educa-**  
**tion Workshop for Utility**  
**Commissioners: Leadership in**  
**Utilities Policy**  
San Francisco, CA

**October 30, 2006**  
**Fall Roundtable on Telecom-**  
**munications**  
Co-sponsored by PURC and  
CIBER.  
Turnbull Conference Center  
Tallahassee, FL

**October 31, 2006**  
**Fall Roundtable on Energy**  
Co-sponsored by PURC and  
CIBER.  
Turnbull Conference Center  
Tallahassee, FL

*Details online at*  
[www.purc.ufl.edu](http://www.purc.ufl.edu).

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