I. Meeting Packet
1. 2013 Annual Public Utilities Research Center Report, by Dr. Mark Jamison. (Attachment 1)

2. Draft Report on the Efforts of the PSC to Reduce the Regulatory Assessment Fee for Telecommunication Companies. Approval is Sought. (Attachment 2)


5. Legislative Update. (No Attachment)

6. Executive Director’s Report. (No Attachment)

7. Other Matters. (No Attachment)

OUTSIDE PERSONS WISHING TO ADDRESS THE COMMISSION ON ANY OF THE AGENDAED ITEMS SHOULD CONTACT THE OFFICE OF THE EXECUTIVE DIRECTOR AT (850) 413-6463.
2013 Update on PURC Research and Outreach

This update on PURC research and outreach is intended to serve as an overview for FPSC commissioners and professional staff. At the end of this summary is a list of recent research papers that are also available through the research papers search engine on the PURC Web site at www.purc.ufl.edu. We truly appreciate the support of the FPSC and welcome opportunities for continued collaboration.
Update on PURC Research and Outreach

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UPDATE ON PURC RESEARCH AND OUTREACH

HIGHLIGHTS

Dr. Ted Kury was sought out by the Wall Street Journal

The Wall Street Journal approached Dr. Kury to compose an article about why burying power lines may not be the best answer to preventing storm outages.

41st Annual PURC Conference


NEW Online Course: Economics of Pricing

PURC is proud to announce its first online training program launched this October. This foundational course helps decision-makers develop rate structures that promote financial sustainability, while encouraging efficiency and fairness.

Video Trainings for the FPSC

PURC developed a video training series for new staff members. The training modules included “Purpose and Role of Utility Regulation” and “Basics of Utility Regulation”.

FPSC Leadership Development in Utility Regulation Training Program

Delivered twice this year, this training seminar series provided FPSC staff with technical and practical information to develop leadership and management skills in a state regulatory agency.
FPSC Fundamentals of Utility Regulation Training Program

This training program provided more than 65 FPSC staff members with an overview of the fundamentals of utility regulation in Florida.

NARUC Risk Management Project

PURC developed a risk management course in response to NARUC’s request for proposal and was selected to deliver the course in two locations nationwide.

PURC Presentations at Gartner Symposium ITXPO 2013

PURC Director, Dr. Mark Jamison, talked with the group about the need to understand the regulatory system from the inside and about strategies for developing new paradigms for regulation.

PURC Director of Water Studies, Dr. Sanford Berg, facilitated a session where participants described their challenges in water utilities, focusing on information (benchmarking), internal incentives, institutional capacity building, leadership, and ways to improve governance.

PURC Director of Leadership Studies, Araceli Castaneda, conducted a leadership workshop where CIOs discussed their current and future challenges. The session ended with a call for action on what, as leaders in their field, the CIOs should do to face these issues.

Energy Efficiency in the European Union – PURC published paper

For over a year, PURC Policy Analyst, Dr. Lynne Holt, and PURC Senior Fellow, Mary Galligan, have been researching the energy efficiency within the European Union. Their research paper was met with great interest as it was published in the Electricity Journal, August/Sept. 2013, 33-42 edition.

PURC/World Bank International Training Program on Utility Regulation and Strategy

One hundred and forty five people attended courses in 2013. Since its inception in 1997, this program has educated more than 2,800 professionals representing 151 nations. Chairman Ronald Brisé was a featured speaker in June.

PURC Advanced International Practices Program

Twenty-six infrastructure professionals from around the world participated in this year’s courses on energy pricing, benchmarking, and next generation networks.
National Science Foundation Grant Awarded

Dr. Mark Jamison was awarded a National Science Foundation grant to examine barriers to adoption of solar technologies in developing countries.

Other Research

PURC researchers have written papers on regulation and politics, renewable energy, time-of-use pricing, the effects of ISOs, benchmarking water systems, and common carrier regulation, to name a few.

Body of Knowledge on Infrastructure Regulation (BoKIR) web site

PURC expanded this online resource to include more information about clean energy and energy efficiency.

Director of Energy Studies earns Ph. D

Dr. Ted Kury has completed his Ph. D. Ted’s dissertation was on the effectiveness of energy markets and on carbon pricing.

PRIMARY RESEARCH PROJECTS

Should utilities be required to bury power lines to protect them?

No. According to the article and research composed by PURC Director of Energy Studies, Dr. Ted Kury, for the Wall Street Journal city requirements to relocate electricity distribution lines underground would likely lead to an inefficient use of electricity consumers’ money. The city government is not as likely as the utility or its regulator to possess the technical expertise necessary to decide whether this undergrounding is either feasible or prudent. The relocation of some power lines underground may provide a cost-effective strategy to mitigate the risk of damage to elements of a utility’s infrastructure, but these cases should be evaluated individually by the local distribution utility and its regulator. A government mandate to bury power lines will likely result in greater costs for all electricity consumers with no guarantee of increased system reliability.
What are the challenges in quantifying optimal CO2 emissions policy? The case of electricity generation in Florida.

Implementing public policy without understanding its economic impacts can be costly and unproductive. This problem is paramount when a price of carbon dioxide (CO2) emissions is considered as a vehicle for abatement. The United States Congressional Budget Office, Environmental Protection Agency, and Department of Energy’s Energy Information Administration have all released their estimates of the macro-economic impact of various proposals for environmental legislation. The focus of these studies is on the level of output variables such as the amount of CO2 emissions, the cost of emissions allowances, and the broad impact of increased electricity prices, rather than on the marginal effects of policy change. This paper utilizes a model that simulates the dispatch of electric generating units in the state of Florida under various prices for CO2 emissions, and analyzes the challenges that may arise in the determination of optimal emissions abatement policy.

What is the role of the regulator in promoting cost-effective renewable energy projects?

The role of energy sector regulators in facilitating renewable energy (RE) projects depends on the laws and policies established in the executive and legislative branches of government. Dr. Sanford Berg shows how ten functions of energy sector regulators in developing (and developed) countries affect the pace and pattern of investments in renewable energy in his article “Regulatory Functions Affecting Renewable Energy in Developing Countries.” This article appeared in the Electricity Journal (July 2013). The article concludes that public policy partly determines the extent to which renewables are adopted in a developing (or developed) country.

What role do regulators play when it comes to energy efficiency?

Sector regulators generally have significant roles in the implementation of renewable energy initiatives. They also have roles to play in promoting energy efficiency since EE can be expanded via utility actions (incentivized and monitored by the regulator) and actions by other agencies. The former include reduced line losses, improvements in load patterns and system reliability, decision-relevant customer billing information, energy audits, and smart grids. The adequacy and cost-effectiveness of utility programs clearly falls under regulatory oversight. Other agencies set appliance standards, provide government financial support, create tradable certificates, award tenders, and establish targeted government programs, like improving EE in schools and hospitals. The sector regulator must then factor in the interdependencies among EE programs when determining the cost-effectiveness of utility-based programs.

What are the regulatory challenges associated with renewable energy?

The most recent additions to the Body of Knowledge on Infrastructure Regulation (BOKIR) include new Frequently Asked Questions related to the regulation of state-owned utilities and how energy regulators can promote cost-effective renewable energy and energy efficiency. A key point is that
ultimately, public policy determines the extent to which renewables are to be incorporated into a developing (or developed) country’s generation mix. Energy sector regulators implement that policy—thus affecting the pace and pattern of RE investments and connections to the grid. New regulatory RE objectives specified in legislation are likely to require the agency to balance fundamental goals of affordability, cost recovery (for sustainable utility operations), and fairness (since implicit cross-subsidies may be required to meet new policy mandates). The issues surrounding renewable energy illustrate need for processes that clearly identify objectives, alternative strategies, and regulatory choices that balance those objectives in a politically acceptable manner.

Is common carrier still relevant for telecommunications in the U.S.?

Not for economic regulation, according to PURC Director Dr. Mark Jamison. He and Dr. Janice Hauge examine the historical development of the common carrier concept and find that the justifications for economic regulation were based on the carriers having substantial market power. The authors also examine more recent justifications put forward for regulating telecommunications, such as special infrastructure and general purpose technologies, and find that telecommunications in the U.S. does not fit these categories, either.

How can utility regulators provide incentives for efficient financing?

Some water utilities in the U.K. are financing with almost 90% debt. This appears to impose unnecessary risks and financing costs on customers according to the water regulator, OFWAT. To address this issue, Drs. David Sappington and Mark Jamison construct an incentive scheme that rewards utilities for choosing more optimal capital structures.

Do new firms imitate others, or develop new business models?

This study of 1067 market entries by U.S. Competitive Local Exchange Carriers (CLECs) from 1996 through 2004 finds that the start-ups imitate entry decisions of and gravitate toward markets that are densely populated by other start-ups. While start-ups avoid markets already densely populated by corporate ventures, they do imitate the market entries of corporate ventures. The study was conducted by Drs. Richard Gentry, Thomas Dalziel, and Mark Jamison.

Can mergers in network industries spur new technology adoption?

“Yes”, according to research by Drs. Mark Jamison and Janice Hauge. Using a simulation model, the research finds that customers can be made better off by new technology adoption even if the adoption is made economical only by a significant increase in market concentration.
How should competition regulators adapt market definition tools to evolving markets?

This paper examines the development of market analysis for mergers in the United States. Merger Guidelines were developed to reduce risks for businesses considering merging. The current process for defining markets was introduced in the 1982 Merger Guidelines, but was based on court cases and scholarly research stretching over some decades. The basic approach is to select a group of products that might constitute a market and analyze whether, if these products were produced by a monopoly, the firm could profitably increase price. This approach is not without controversy and challenges, but it remains a core approach. More recently the role of developing market definitions has been diminished by the development of tools for looking at product substitutability more directly. The paper's author, Dr. Jamison, suggests how these tools might be adapted to markets that are undergoing constant change.

What is best practice in the governance for state-owned water utilities?

The fundamental lesson that emerges from surveying developing countries is that sector regulation has to be embedded in an adequate and consistent institutional framework in order to have a positive impact on performance. Sector regulation, by itself, is no guarantee of performance improvements in the drinking water supply and sanitation sector. Case studies and empirical analyses suggest that without significant changes in the supporting institutions, the standard tools of regulation will not be effective. This conclusion is disturbing, especially for developing countries, since it means that the establishment of a regulatory agency might raise hopes, but ultimately, the agency's rules are unlikely to improve performance without additional, politically difficult initiatives.

How can benchmarking techniques incorporate factors beyond managerial control into efficiency scores?

Yardstick comparisons represent one way to reduce the information asymmetry experienced by regulators. Quantitative studies can identify strong and weak performers, however they should take into account factors that are beyond managements' control. This study computes efficiency scores that control for the effects of environmental variables, using data from Brazilian electricity distributors for the period 2004 - 2009. The methodology has several steps, starting with electricity sales and customers as the two outputs of the utility, and Capital Costs and Operating Expenditures as the inputs. The next step includes data on unique conditions facing each utility, the resulting efficiency scores are adjusted. This methodology overcomes limitations associated with the one employed recently by the Brazilian regulator. The paper illustrates the usefulness of more comprehensive approaches to evaluating the performance of electricity distribution companies.

How sensitive are efficiency rankings?

If regulators are to devise incentives for improving sector performance, they must have confidence that efficiency measures are robust. PURC hosted a Japanese scholar who shared data over one-thousand Japanese water utilities (for 2004 and 2005). This study compared a number of model
specifications to determine the sensitivity of efficiency rankings to model assumptions. The consistency of the performance scores depended on types of models being estimated. If regulators are to use performance scores to set targets and establish incentives for improving efficiency, they need some assurance that the results are not dramatically affected by how the empirical model is specified. With such a large sample, the PURC researchers were able to identify when results were not robust, signaling to regulators that quantitative studies required great care if they are to be used to reward or punish utilities.

How cost effective is hydroelectric power?

Hydroelectric power plants account for more than 85 percent of the electricity produced in Brazil. The net social benefits of hydro depend on initial investment and the timing of cash flows based on a plant’s Capacity Factor--CF (and valuation of non-monetary impacts over time). The inter-temporal timing issue also involves balancing the use of the energy stored in reservoirs and the likelihood of future replenishment in the presence of climate variability. The purpose of this study is to present the facts regarding CFs for hydroelectric plants in Brazil: by region and plant size (large, small, and micro). The study also describes how the planning for expansion has been effected by ecological and social concerns.

Non-cooperative entry deterrence in a uniform price multi-unit capacity auction

This article examines firms’ bidding behavior in an energy market capacity auction with multiple units and where allocations impact other parties. An incumbent is willing to deter entry by bidding below its net marginal cost. Numerical simulations reveal that the incentive to deter entry may cause an incumbent to preempt entry, even at a substantial loss, resulting in large inefficiencies. In addition, because a less efficient supplier shoulders relatively little of the burden of entry deterrence, it may secure greater profit than its more efficient counterpart.

What's the price of subsidized entry in energy capacity auctions?

This paper examines the effect of subsidized entry of electricity generation capacity on the outcome of centralized capacity auctions with multiple units. Subsidized entry suppresses capacity prices and induces an inefficient allocation of capacity. Subsidized entry also alters the generation portfolio determined by the capacity auction, leading to lower expected electricity prices in subsequent market interactions. These effects reduce total industry profit, but may benefit customers. Subsidized entry has long-term adverse impacts. The suppressed capacity and electricity prices reduce unsubsidized firms’ incentives to undertake generation capacity investments. The long-term resource adequacy issues associated with insufficient capacity investment may dominate the potential short-term benefits of subsidized entry.
How do consumer advocate negotiations affect consumers?

Over the past 25 years, the practice of negotiated settlements (or stipulations) has come to increasingly replace the rate-of-return regulation used by US and Canadian regulators to set rates of public utilities firms. In spite of its prevalence, this practice has been largely neglected by economists. The consensus in recent research is that the motivations for parties to settle a rate case are different from that in litigation. Consequently, a new theory is required to analyze such agreements.

What factors affect inefficiency in water utilities?

This paper examines inefficiencies in Japanese water utility companies. Efficiency in this context is defined as a firm’s capacity to maximize output given a fixed level of inputs. The findings suggest that the average operation rate, customer density and size variables are associated with lower levels of inefficiency (or higher levels of efficiency), while water purification (a conditioning variable capturing low initial water quality), subsidies and outsourcing are associated with higher levels of inefficiency. Since inefficiency exists, there is an opportunity to improve Japanese water utilities by working on emulating “best practice” firms whenever possible and by providing a regulatory framework that can set appropriate incentive schemes to do so.

How can utilities best prepare for severe storms?

PURC continues to assist Florida’s electric utilities by coordinating a research effort in the area of hardening the electric infrastructure to better withstand and recover from hurricanes.

What impacts customers’ water usage?

This study of water usage in Hong Kong found that per capita usage is insensitive to price but dependent upon past usage, income, weather, and seasonal factors. Income growth countered what would otherwise have been a downward trend. The paper makes recommendations for water use policy in Hong Kong.

Can time-of-use rates be win-win for customers and utilities?

Based on an examination of time-of-use rates in California, this study finds that option design allowing a utility’s customers to allocate their consumption to be billed at the fixed and daily-varying time-of-use rates offers a win–win mechanism for electricity procurement in the face of uncertain spot prices and hedging options. Even if all customers have the same risk preferences, the proposed mechanism is Pareto-superior to the tariffs and procurement strategies commonly used in North America.
Will customers shift demand to off-peak with time-of-use rates?

Based on a pilot study in British Columbia (Canada), this study finds that customers will shift usage from peak to off-peak when on-peak prices rise relative to off-peak prices. However, the movement was small unless remotely activated load-control devices were used. These devices tripled the percentage shift.

How does wind generation impact electricity prices when other renewable sources are present?

Wind generation can reduce wholesale electricity market prices by displacing conventional generation. But what if wind competes with other renewable sources, such as hydroelectric generation? Using data from the Pacific Northwest region of the United States, this study finds that increased wind generation reduces wholesale market prices by a small, but statistically significant, amount. While a hydro-rich system can integrate wind generation at a lower cost than a thermal-dominated region, the direct economic benefits to end-users from greater investment in wind power may be negligible.

What impacts the effectiveness of energy efficiency policies?

The United States and the European Union have taken different approaches toward energy policy as illustrated by their respective policies on carbon emissions reduction. A comparison of those policy approaches suggests that the interaction of policies must be well understood in order to achieve success in three key areas: energy efficiency, electricity production from renewable sources, and carbon market/tax.

Can new technologies lower the cost of solar energy?

New solar PV materials based on earth-abundant elements may lower the cost of solar PV, but the materials have to be developed. In response to this challenge, PURC has joined engineers from three universities to develop and test such new materials. PURC is examining the market for solar PV so that the materials development team has benchmarks for costs and product characteristics. This project is funded by the National Science Foundation’s Sustainable Energy Program.

How can regulators effectively address the frictions between their formal and informal roles?

PURC researchers examine the formal and informal roles of regulators in helping stakeholders find feasible outcomes that satisfy political aspirations. While the political process reveals public values and preferences, it generally lacks concrete information on what is truly achievable given the physical, economic, legal, and institutional realities that a country faces. This research identifies tactics that help identify the “sweet spot”, where aspirations and reality meet. The paper also examines governance structures for regulators and state-owned enterprises.
Research with Thammasat University

For the second time, Thammasat University of Thailand hired PURC to conduct research on telecommunications competition and deliver a seminar on the research findings. This year PURC produced two research papers. One examined the Federal Communication Commission’s approach to market definition and market analysis, and the other examined new developments in market analysis for mergers.

SUN Agreement

A cooperative agreement was arranged between the University of Florida’s Public Utility Research Center and the Second University of Naples, Department of Economics. The primary objective of this agreement is the development of cooperative efforts between PURC and SUN, which will enhance the academic and research interchange between the two institutions. No formal project has begun; yet proposed research programs include the following: the governance model of public utilities; public utility regulation demand analysis of transport services; human resource practices and leadership. This agreement is now active and due to expire January 5, 2016.

Towards Convergence: Thailand’s Telecom and Broadcasting Policy

Interns from the National Broadcasting and Telecommunications Commission of Thailand, Natchaya Taweewithakreeya & Roswan Sangprasert, composed a book on convergence as a result of the research they conducted during their internship at PURC in 2012.

OUTREACH

Plans for the 41st Annual PURC Conference


Alternative Regulation for the Electric Industry Seminar for the Kansas Corporation Commission

Is the U.S. system for regulating electricity broken? Maybe. But if regulators wait until it is clear that the system is broken before making changes, they will be too late. This was the underlying theme for PURC Director Mark Jamison’s seminar to the Kansas Corporation Commission, Dr. Jamison explained that multiple forces are driving unprecedented change in the sector, leading
people to question the current industry and regulatory models. He compared several alternative methods of regulation for their impacts on three imperatives, namely improved cash flow, improved efficiency incentives, and adaptability to future industry changes. He concluded that most alternative methods focus on improving cash flow, but would improve efficiency or adaptability only under certain conditions. He explained that regulators should experiment with alternative mechanisms and learn from each other.

**Consumer Engagement in Regulation: Panacea or Paralysis?**

Does customer involvement in regulation improve outcomes? Not always, according to PURC Director Mark Jamison. Speaking at the Australian Competition and Consumer Commission annual conference in Brisbane, Australia, Dr. Jamison explained that the key question is, "Who do we expect to change when regulators and customers engage?" Most discussion on customer engagement is about customers informing regulators about customer preferences and utility practices. Learning by regulators is important, but so are the building legitimacy, ensuring regulator integrity, and engaging in adaptive learning that are largely about changing customers. An over emphasis on changing regulators can result in pandering to current norms, which hinders institutional strengthening and adaptive work.

**PURC's participation in CS Week's Executive Forum**

For CS Week's Executive Forum, Dr. Jamison and Ms. Castaneda developed and conducted a panel on how utilities can involve customers in new programs. Featuring speakers from several Florida organizations, including the Office of Public Counsel, the panel highlighted best practices and new innovations. CS Week is held annually in Tampa, Florida, and highlights how utilities can best engage in customer service.

**The Battle of Undergrounding Transmission**

The costs and benefits of relocating power lines underground is a complicated question. Organizers of the 2013 EEI/NRECA Transmission Siting Workshop brought Dr. Ted Kury, Director of Energy Studies and Roger Anderson of Columbia University together to deliver the keynote presentation in Richmond, Virginia. The speakers elaborated on their respective essays from the Wall Street Journal and addressed questions from the audience. Dr. Kury discussed his position that the costs and benefits of undergrounding vary considerably from one project to the next, and that a uniform policy would likely lead to a waste of resources.

**American Economic Association Presentation by Mark Jamison**

Dr. Jamison presented his research on the relevance of common carrier regulation in telecommunications. Based on an examination of the historical development of the common carrier
concept, Drs. Jamison and Hauge concluded today’s markets do not fit the traditional motivations for concept.

**How can regulation of energy utilities be improved?**

How can regulation of energy utilities be improved? That was the question for a PURC workshop at Gartner Symposium ITXPO 2013 in Orlando, Florida, on October 8, 2013. Utility executives from North and South America discussed problems of political interference, lack of understanding of the utility business, lack of accountability, and economic incentives that encourage inefficiency. PURC director Mark Jamison explained that these are the very problems that regulatory commissions were supposed to in some sense solve when they were developed about 100 years ago in the United States. The sense in the workshop was that while having expert and independent utility regulatory agencies is important, the traditional design of the regulatory system and the growing impact of environmental regulators, who do not bear the consequences of their decisions, were unsustainable for today’s energy business. Dr. Jamison talked with the group about the need to understand the regulatory system from the inside and about strategies for developing new paradigms for regulation.

**Water is a Sick Sector: Where are the Healers?**

In a 2008 Report, Goldman Sachs labeled the water sector “the petroleum for the next century.” They forecast a sustained focus and investment in the global water sector for years to come. They also point out that the US alone has an estimated backlog of $300 billion to $1 trillion of infrastructure replacement and upgrades (for security) that involves investment rates of up to twice the growth rate for GDP. The OECD argues that meeting the water reform challenge requires establishing fundamental (1) improvements in financing, changes in governance, and increased coherence between water and sectoral policies. A strong case can be made that water reforms will not take place, due to the political economy of water: key stakeholders will block needed reforms, further delaying investments. Drawing upon some recent experiences in the developed and developing world, one can identify some bright spots that illustrate how leadership can improve water sector performance. However, the global foundational elements are extremely shaky: (1) dramatic changes in public attitudes towards pricing and allocating water are unlikely; (2) there will be no dramatic changes in water sector governance (for water resource management and water utility regulation and operations); and (3) the political will to address water use across sectors is pitifully weak. In Dr. Sanford Berg’s workshop at Gartner Symposium ITXPO 2013 participants described their challenges, focusing on information (benchmarking), internal incentives, institutional capacity-building, leadership, and ways to improve governance. The group concluded that communication and citizen education were necessary to improve public understanding of why prices for water and wastewater services can be expected to rise.

**PURC Leadership Workshop at Gartner Symposium ITXPO 2013**

“In five years from now, what do you want to have accomplished, what do you want to be most proud of?” This is the question that PURC director of Leadership Studies, Araceli Castaneda asked
a group of Chief Information Officers during the PURC leadership workshop conducted at the Gartner Group Symposium ITXPO 2013 in Orlando, Florida on October 9. The question prompted the discussion among CIOs, a Gartner Group representative, PURC Director, Mark Jamison, and Araceli Castaneda, who identified and debated some of the current and future challenges being faced as CIOs. Clear subjects of concern moving into the future ranged from cultural shifts within their organizations to the lack of understanding between industry and regulatory bodies on roles and regulatory matters. The session ended with a call for action on what, as leaders in their field, the CIOs should do to face these issues.

Association of Latin American Water Regulators Annual Meeting

In November, Dr. Berg gave several presentations at the Annual meeting of the Association of Latin American Water Regulators in Montevideo, Uruguay. He focused on governance issues associated with the regulation of municipal and state-owned utilities. In particular, the Board of Directors can play an important role in developing better incentives for managers. Many PURC alumni have important positions in regulatory commissions in Latin America: they turn to PURC for studies and capacity building.

Other Research Conferences

PURC researchers presented papers at the International Industrial Organization Society Conference, the Florida Energy Summit and the Telecommunications Policy Research Conference. Also at the International Industrial Organization Society Conference, PURC awarded its annual “Best Paper in Regulation” award. PURC researchers spoke at several international conferences, including the CARILEC workshop on renewable energy in Barbados, a Utilities Regulations and Competition Authority (URCA) meeting in the Bahamas, the Organisation of Caribbean Utility Regulators’ 11th annual conference in Belize, the International Energy Regulation Conference and the University of Finland’s International Energy Policy Conference. The presentations covered renewable energy, regulatory governance, and leadership topics.

PURC Visiting Scholars

Visiting Scholars are often catalysts for PURC Research, and this year was no exception. This year PURC had three visiting scholars: Fernando Prado (Escola Politécnica da Universidade São Paulo), Luis Guttierez (Rosario University, Colombia), and Atanas Georgiev (Sofia University St. Kliment Ohridski, Bulgaria). Fernando initiated a project on Brazilian hydroelectric dams. A joint paper, “Capacity Factors of Brazilian Hydroelectric Power Plants: Implications for Cost Effectiveness” was the result of this collaboration. Currently hydro accounts for 85 percent of the electricity produced in Brazil. This study presented the facts regarding capacity factors for hydroelectric plants in Brazil: by region and plant size (large, small, and micro). In addition, comparisons with wind are presented, since these two alternative technologies represent the most cost-effective renewable energy options for countries like Brazil in the medium term.
Luis Guttierez earned his PhD in Economics from the University of Florida and is currently Professor of Economics at Rosario University, Colombia. During his Visiting Scholar year he assisted several graduate students with their work on cross-subsidies and the impacts on service quality. He also completed a study on broadband in Colombia.

Atanas Georgiev participated in the Advanced International Practices Program. He attended the Energy Pricing and Benchmarking Infrastructure Operations courses. The purpose of the stay was to learn more about how a university can host a center such as PURC.

Results of the 40th Annual PURC Conference


Body of Knowledge on Infrastructure Regulation (BoKIR) Web site

PURC expanded this valuable online resource to include more information about clean energy and energy efficiency. New links to other databases will be integrated into the site, and 10 new Frequently Asked Questions and 20 new references pertaining to clean energy have been added. Currently, the web site provides tutorials, literature surveys, self-paced tests, and more than 500 downloadable references on utility regulation, as well as a regulatory glossary translated into several different languages.

Other:

On May 22nd, PURC hosted a group from Global Jax the included six international participants. The meeting was informational, and covered the work of PURC and a brief synopsis of utilities in the area (GRU). The meeting was led by Dr. Berg. Dr. Berg discussed the BOKIR and the FAQs on Renewable Energy and Energy Efficiency. PURC’s Director of Leadership Studies, Araceli Castaneda, shared the importance of leadership in the field of regulation and its effects on organizational performance. Fernando Prado (PURC Visiting Scholar) also was present at the meeting and presented a brief synopsis of his research with Brazilian water utilities. Ed Regan (PURC Research Associate) also participated sharing the findings from the recent FEECA report.

PURC is also a member of a consortium that won the USAID Clean Energy IDIQ for critical priority countries.
TRAINING AND DEVELOPMENT

FPSC Fundamentals of Utility Regulation Training

PURC delivered a three-day training which provided an overview of the fundamentals of utility regulation in Florida for 65+ FPSC staff members during January and February of this year.

FPSC Leadership Development in Utility Regulation Training Program

Delivered twice this year, this training seminar series provided 35+ FPSC staff members with technical and practical information to develop leadership and management skills in a state regulatory agency.

Purpose and Role of Utility Regulation Video Training for the FPSC

This module was designed to provide new regulatory staff with a basic understanding of why Florida regulates utilities and the role that regulation plays in ensuring sufficient and efficient utility service for the state. This module would also be of interest to new commissioners and experienced staff wanting to renew their understanding of purpose and role.

Basics of Utility Regulation Video Training for the FPSC

This module was designed to provide new regulatory staff with a basic understanding of how the main features of regulation are performed and the issues faced. This video module would also be of interest to new commissioners and experienced staff wanting to renew their understanding of the bigger picture of regulation.

33rd and 34th PURC/World Bank International Training Programs on Utility Regulation and Strategy

One-hundred forty infrastructure managers learned from each other and from leading experts during the January and June deliveries of this biannual, two-week program in Gainesville. The program is designed to enhance the economic, technical, and policy skills required to design and manage sustainable regulatory systems for infrastructure sectors. The participants studied ongoing infrastructure reform programs, networked with international speakers, and offered their own insights into regulatory policies.
### 2013 PURC Advanced International Practices Program

PURC delivered three courses under its Advanced International Practices Program: Energy Pricing, Benchmarking Infrastructure Operations, and Telecom Policy and Regulation for Next Generation Networks. In attendance were 26 participants from 15 nations. Participants of the energy course performed price reviews and analyzed financial statements for rate setting. Benchmarking participants assessed how information on trends in key performance indicators helps decision-makers. Telecom participants examined the foundations, drivers, and policy priorities for NGN. Dr. Jamison, Dr. Berg, Dr. Kury, and Ms. Castaneda designed and delivered the courses during the 10-day program.

### Practicing Leadership in a Political Environment: A One-Day Intensive Training Workshop for Emerging Leaders in Utility Policy

In January and June, Dr. Jamison and Ms. Castaneda delivered leadership workshops for regulatory professionals, who examined the activities, behaviors, mindsets, and skills of a successful leader during this training workshop designed by PURC for emerging leaders in utility policy.

### Economics of Pricing

PURC developed and launched an online learning platform with the introduction of the Economics of Pricing Course in October. The course was designed to introduce engineers, lawyers, and other professionals to the conceptual framework for designing price structures in infrastructure industries. When implemented, these rate designs can promote efficiency and financial sustainability. In addition, the course illustrated how to minimize the efficiency impacts of cross-subsidies when several customers in separated markets are purchasing one or more products from a network. This foundational material will help decision-makers develop rate structures that promote financial sustainability, while encouraging efficiency and fairness.

### PURC Executive Academy

PURC is developing an executive academy for senior managers and executives in utilities and regulatory agencies. The academy will assist them with organizational development, strategy, managing the political context and aligning purpose with stakeholders.

### NARUC Risk Management Proposal and Grant

How can commissions ensure that they are making smarter risk-based decisions? PURC and the National Regulatory Research Institute (NRRI) will offer NARUC and the PUCs with three one-day training on the application of probability, understanding of risk modeling, strategies for risk management, and sources of risk in the electric utility industry. This training has been developed in
response to the NARUC Request for Proposals to Develop Training Programs for Risk-Based Decision-Making for State Public Utility Commissions issued December, 18, 2012, and will be delivered in 2014.

Design and Proposal of a Public Utility Economics Course

In August of 2013, PURC developed and submitted a proposal and syllabus for a Public Utility Economics course in response to the Florida Energy Systems Consortium (FESC) Education Program Solicitation. The course will focus on energy sustainability and will be targeted to upper level undergraduates from any college at UF who have fulfilled a prerequisite in the principles of microeconomics. The proposal included the creation of a 4 credit course offered by the Economics Department to be taught in the Warrington College of Business Administration (WCBA), a non-credit course offered online, and a video archive that can be used for multiple purposes, including allowing future UF students to access the course online if there are sufficient resources. Decisions are still pending.

Training Program on Broadcasting Competition

In November 2013, PURC is provided a one-week course on broadcasting competition. The course examined the media convergence, channel sharing policies, the effects on competition, and emerging trends in broadcasting competition. The course was conducted for the National Broadcasting and Telecommunications Commission of Thailand.

PURC Regulatory Training Course for the Project Management Unit of the Power Holding Company of Nigeria (PHCN)

In August of this year, Dr. Ted Kury and Dr. Rajnish Barua delivered a one week regulatory foundations training for officers from Transmission Company of Nigeria, Ministry of Power, Presidential Task Force on Power, Project Management Unit in Accra, Ghana.

PURC Regulatory Training Course for Nigerian Electricity Regulatory Commission (NERC)

This training program not only focused on regulatory foundations but also provided training on regulatory issues that NERC needs to fulfill its many obligations for the long run. The five-day course was conducted twice over two consecutive weeks for about 100 staff members in April of this year in Accra, Ghana.

Regulation of Next Generation Networks for the Hong Kong Office of Communications Authority

How can regulators address the new issues created by next generation networks (NGN)? This was the theme of a course provide by PURC for OFCA in February 2013. The course examined NGN
technologies, radio spectrum issues, regulatory convergence, innovation, connectivity, pricing, network economics, and universal service.

**Course on Infrastructure Sharing for Broadcasting**

In December 2012, PURC provided a course on infrastructure sharing in broadcasting. The course examined the economics and logistics of sharing, business models for infrastructure sharing, the effects on competition, and emerging trends in resource sharing. The course was conducted for the NBTC of Thailand.

**FACULTY RESEARCH FOCUS**

**Mark A. Jamison, Director**

Dr. Jamison conducts studies on leadership in regulation, regulation and strategy in telecommunications, and regulatory institutions. In recent years, his research has been presented at meetings of the American Economic Association, Industrial Organization Society, Western Economic Association, Australian Competition and Consumer Commission, Telecommunications Policy Research Conference, the Caribbean Electric Utility Services Corporation, the Organisation of Caribbean Utility Regulators, and the National Association of Regulatory Utility Commissioners. He was the principal investigator for the research on Florida’s Energy Efficiency and Conservation Act and was awarded a National Science Foundation grant to examine barriers to adoption of solar technologies in developing countries. He has conducted training programs for regulatory organizations in Africa, Asia, Australia, the Caribbean, Central America, Europe, North America, and South America.

**Sanford V. Berg, Director of Water Studies**

Sanford Berg retired in July from traditional classroom teaching at UF after 42 years of service. He will continue to contribute to PURC outreach and research initiatives. This past year he focused on issues associated with ways the regulatory system promotes or weakens infrastructure performance. In a Report to the United Nations Economic Commission for Latin America and the Caribbean, Best practices in regulating State-owned and municipal water utilities, he concluded that that sector regulation has to be embedded in an adequate and consistent institutional framework in order to have a positive impact on performance. As part of that project, he collaborated with Dr. Lynne Holt on a paper on “The

Dr. Berg also completed a World Bank funded project to add material on renewable energy and energy efficiency to the Body of Knowledge of Infrastructure Regulation (BoKIR) www.regulationbodyofknowledge.org. He subsequently revised some of the answers to eight Frequently Asked Questions in the BoKIR into publications. His article “Regulatory Functions Affecting Renewable Energy in Developing Countries” appeared in the Electricity Journal (July 2013).

Ted Kury, Director of Energy Studies

Dr. Ted Kury’s research has focused on three current issues confronting energy markets: the efficacy of relocating power lines, the complexity in determining optimal levels of carbon dioxide abatement, and the effects of restructured electricity markets. The relocation of power lines is a complicated question because relocation is very expensive and does not necessarily reduce the damage associated with storm events. In areas more susceptible to storm surge and flooding, the relocation may even increase damages, leading to a waste of valuable consumer and utility resources. Understanding how the efficacy of undergrounding changes with location is critical to ensuring that customers are receiving safe, reliable electricity service at just and reasonable rates. Economic theory provides clear guidelines on what constitutes optimal levels of production for any good—the point at which the marginal cost is equal to the marginal benefit. However, in practice, these curves are not always well-behaved, and this can lead to different characterizations of the optimum. So while an understanding of these costs and benefits is necessary to determine optimal levels, it is not sufficient, and public policy should take this into account. Restructured electricity markets have led to more opportunities, but it is not clear how these opportunities are distributed. Dr. Kury’s research has shown that the benefits of increased trade in transparent wholesale markets are not uniformly distributed, with larger and privately-owned utilities more apt to participate. He is also addressing the question of whether this restructured market has influenced a utility’s decision to invest in transmission assets.

Lynne Holt, Policy Analyst

During 2013, Dr. Holt focused on energy efficiency, renewable portfolio standards, and carbon emission reduction in the United States and the European Union. In
collaboration with Dr. Mary Galligan, she wrote papers about the different approaches taken by the U.S. and the EU toward these policy tools and the interaction of these policy tools.

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**Araceli Castaneda, Director of Leadership Studies**

During 2013, Araceli Castaneda has focused on the development and implementation of leadership tools for professionals in the regulatory field. These tools are mostly oriented towards problem solving, helping leaders move forward in difficult times, accepting and adapting to change, and bringing awareness to personal strategies and skills to design next steps when faced with difficult challenges. She has also focused on the design of leadership skills for PURC’s new leadership initiative, the Executive and Leadership Academy.

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**David Sappington, Lanzillotti-McKethan Eminent Scholar**

Professor Sappington’s recent research analyzes different elements of regulatory policy. In particular, his work demonstrates how alternatives to standard access pricing policies can provide stronger incentives for efficient operation by vertically-integrated network operators. His work in the energy sector explores the optimal design of policies to reward utilities for promoting energy conservation. His recent work also analyzes the benefits and costs of exposing regulated utilities to antitrust liability.

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**Amanda Phalin, Research Associate**

Phalin’s current research focuses on deploying solar technologies in the developing world. She is conducting market analyses in several emerging countries, including Brazil and China, to determine product competition, price points, input costs, regulatory barriers, and distribution issues for developers of a new, kesterite-based thin-film solar-panel technology. In addition, she has investigated the relationship between patent quality and the international transfer of solar technology. Using data from 84 countries, Phalin also explored whether strengthening a country’s intellectual property rights (IPR) laws increases patent filings in this sector. She found a generally positive and statistically significant relationship between patent quality and the international transfer of solar technology. The analysis also showed that—contrary to other research—IPR laws alone generally have no effect or a negative effect on technology transfer in this sector when a quality measure is included. Finally,
results demonstrate that climate affecting the intensity of sunlight alone does not determine solar technology inflows. Rather, infrastructure, IPR laws, and human capital combined with this indicator are important.
APPENDIX

Public Utility Research Center

Recent Publications and Working Papers

APPLIED PUBLICATIONS


TECHNICAL PUBLICATIONS


WORKING PAPERS


DATE: November 21, 2013
TO: Braulio L. Baez, Executive Director
FROM: Beth W. Salak, Director, Office of Telecommunications
       Bob Casey, Public Utilities Supervisor, Office of Telecommunications
       Mark Long, Public Utilities Supervisor, Office of Telecommunications
RE: Draft Review of the 2013 Regulatory Assessment Fee Report
CRITICAL INFORMATION: Please place on the December 4, 2013, Internal Affairs agenda. Approval by the Commission is required. Report is due to the Governor, the President of the Senate, and the Speaker of the House of Representatives, by January 15, 2014. ACTION IS NEEDED

Pursuant to Section 364.336(3), Florida Statutes, “(b) by January 15, 2012, and annually thereafter, the commission must report to the Governor, the President of the Senate, and the Speaker of the House of Representatives, providing a detailed description of its efforts to reduce the regulatory assessment fee for telecommunications companies, including a detailed description of the regulatory activities that are no longer required; the commensurate reduction in costs associated with this reduction in regulation; the regulatory activities that continue to be required under this chapter; and the costs associated with those regulatory activities.”

The draft report includes a staff-written synopsis of what actions the Commission has taken in 2013 to comply with the statutory requirements. Staff is requesting approval of the draft report.

cc: Lisa Harvey, Deputy Executive Director, Technical
    Apryl Lynn, Deputy Executive Director, Administrative
REPORT ON THE EFFORTS OF THE
FLORIDA PUBLIC SERVICE COMMISSION
TO REDUCE THE REGULATORY ASSESSMENT FEE
FOR TELECOMMUNICATIONS COMPANIES

As of December 2013

Florida Public Service Commission
Office of Telecommunications
Introduction

During the 2011 legislative session House Bill CS/CS/HB 1231, the “Regulatory Reform Act” (Act), was passed and signed into law by the Governor, effective July 1, 2011. Under the Act, the Legislature eliminated most of the Florida Public Service Commission’s (PSC’s or Commission’s) retail oversight authority for the telecommunications wireline companies, yet maintained the PSC’s authority over wholesale intercarrier issues. The PSC was required to reduce its regulatory assessment fees charged to wireline telecommunications companies to reflect the concurrent reduction in PSC workload. Section 364.336(3), Florida Statutes, requires:

By January 15, 2012, and annually thereafter, the commission must report to the Governor, the President of the Senate, and the Speaker of the House of Representatives, providing a detailed description of its efforts to reduce the regulatory assessment fee for telecommunications companies, including a detailed description of the regulatory activities that are no longer required; the commensurate reduction in costs associated with this reduction in regulation; the regulatory activities that continue to be required under this chapter; and the costs associated with those regulatory activities.

As a result of this Act, the PSC reduced its telecommunications regulatory assessment fees (RAFs) 20%, from 0.0020 to 0.0016 of companies’ gross operating revenues derived from intrastate business. This change became retroactively effective July 1, 2011. Florida telecommunications statutes remained essentially unchanged in 2012 and 2013; the agency continues to streamline remaining responsibilities.

Regulatory Activities That Are No Longer Required

The 2011 Act eliminated most of the retail regulation of local exchange telecommunications services by the PSC, including the elimination of rate caps on all retail telecommunications services, elimination of telecommunications-related consumer protection and assistance duties of the PSC, and elimination of the PSC’s remaining oversight of telecommunications service quality. The bill also reformed the PSC’s certification processes, authority over intercarrier matters, and other general revisions.

Consistent with the reduced authority of the PSC from the Act, the PSC has ceased the following activities over the past several years:
The PSC no longer resolves non-basic retail consumer billing complaints.

The PSC no longer addresses slamming or cramming complaints from consumers. The PSC continues to address slamming complaints that are reported by carriers under the Commission's wholesale authority.

The PSC no longer publishes and distributes materials informing consumers on billing related matters or informative materials relating to the competitive telecommunications market.

The PSC no longer designates wireless eligible telecommunications carriers (ETCs) in Florida for the federal universal service fund. Any wireless carrier seeking ETC status in Florida must petition the Federal Communications Commission (FCC) for that authority.

The PSC no longer performs service evaluations on carriers, with the exception of payphones and telephone relay service, nor does it investigate and resolve service related consumer complaints except as they may relate to Lifeline service, Telephone Relay Service, and payphones.

ILECs can no longer petition the PSC for recovery of storm damage related costs and expenses.

The PSC no longer reviews non-access service tariff filings for content, form, or format. It is the carrier's choice whether to file its rate schedules with the PSC or publicly publish the schedules elsewhere, such as the companies' websites.

There were no statutory changes in 2013 resulting in additional activities that are no longer required.

Savings
The PSC has been seeking cost savings and efforts to streamline regulatory processes for at least 12 years. The origin of these streamlining efforts is not limited to the emergence and evolution of competition in the telecommunications industry. In fiscal year 1999/2000, the PSC had 401 full time
positions. Through several reductions over a period of years, that number was reduced to 296 in the 2011/2012 fiscal year, a total reduction of 26.2 percent. For fiscal year 2012/2013, three additional PSC positions were eliminated. For 2014/2015, the PSC has proposed to reduce its workforce by another 10 positions. Over the years, many of these reductions came as a result of projected workload reductions in the telecommunications area.

Effective July 2011, the PSC reduced the telecommunications RAF from 0.0020 to 0.0016 of the gross operating revenues derived from intrastate business. In addition, all local telephone service providers now pay $600 as the minimum fee instead of varying rates based upon the service offered. At the current 0.0016 rate, carriers will pay this minimum fee up to $375,000 in gross intrastate operating revenues. The reduced RAF rate was determined assuming reduced responsibilities, projecting staff hours on continuing telecommunications workload, and projecting telecommunications company revenues. Taking into account the continuing decline in revenues from the telecommunications companies regulated by the PSC, the smaller number of regulated companies, the reduction in PSC workload, and the positions eliminated, the agency does not plan to further reduce the telecommunications RAF rate at this time.

**Regulatory Activities That Continue To Be Required**

There were 382 telecommunications companies regulated in some way by the PSC as of October 31, 2013. The Commission continues to retain authority and responsibility in the following areas for telecommunications companies:

- The PSC resolves intercarrier disputes involving interpretations and implementation of sections of the intercarrier agreements.

- The PSC processes arbitrations of intercarrier agreements when the companies cannot negotiate all the terms of the agreement and request the PSC to resolve issues the companies define.

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1 Previously, the minimum fee ranged from $600 to $1000, depending on the type of service offered. Payphone operators continue to pay a minimum fee of $100.
The PSC reviews interconnection agreements filed with the PSC in accordance with federal requirements.

The PSC resolves cases involving area code relief, number conservation plans, number resource reclamation, local number portability, and other numbering issues.


The PSC maintains oversight of the Florida Relay Service.

The PSC maintains oversight of Florida's Lifeline Program including establishing eligibility criteria, automatic enrollment, and monitoring ETCs.

The PSC issues certificates of authority for telecommunications companies to operate in Florida, evaluating the applicant's technical, financial, and managerial capability to provide service.

The PSC resolves consumer complaints relating to Lifeline, Telephone Relay, and payphones.

The PSC publishes network access tariff and company rate schedule information.

The PSC publishes and distributes informative materials relating to the Lifeline program and conducts related consumer outreach.
Efforts to Reduce Costs

The PSC continues to find ways to reduce the costs of performing its continuing duties. In 2013, the PSC implemented agency-wide electronic filing and submission policies that will substantially reduce the number of paper documents at the agency.

The PSC retained the National Regulatory Research Institute (NRRI) in May 2011 to review the PSC’s organization structure and work flow processes to determine if any additional changes were needed in the telecommunications area. NRRI concluded that the structure of the PSC’s telecommunications group compares favorably to those in other states. In addition, NRRI made several recommendations for further efficiencies the PSC could implement over time. The PSC has fully implemented NRRI’s recommendations.

The PSC has also revised or repealed all substantive rules resulting from the Act, resulting in cost savings to both the agency and its regulated telecommunications companies. Additionally, the telecommunications staff continues to conduct periodic internal cross training on its remaining responsibilities and has developed comprehensive written Standard Operating Procedures for its functions. As staff become familiar with each other’s duties, the requisite training time will be reduced should the need arise to further consolidate or transfer functions.

Summary

The PSC has proactively responded to the changes in its statutory authority as a result of the Act. The agency has assessed the appropriate staffing levels for the telecommunications staff, and will continue to monitor the workload and staffing needs. The PSC hired NRRI in 2011 to audit the PSC’s telecommunications program to determine if additional changes needed to be made. While the audit results reflected favorably upon the current program, it also suggested additional streamlining measures. The PSC has completed implementation of NRRI’s plan. The PSC has reviewed its telecommunications rules and eliminated unnecessary or obsolete regulations. The agency continues to seek ways to economize its resources while maintaining a high quality work product for all industries under the PSC’s authority, including telecommunications.

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2 Assessing the Structure and Cost of the Florida Public Service Commission Telecommunications Department, Sherry Lichtenberg, Ph.D., National Regulatory Research Institute, August 31, 2011.
DATE: November 21, 2013

TO: Braulio L. Baez, Executive Director

FROM: Ana Ortega, Public Utility Analyst II, Division of Economics
       Judy G. Harlow, Economic Supervisor, Division of Economics
       Mark A. Futrell, Director, Office of Industry Development and Market Analysis
       Cindy B. Miller, Senior Attorney, Office of the General Counsel
       Kathryn Cowdery, Senior Attorney, Office of the General Counsel

RE: Draft Comments to the U.S. Environmental Protection Agency - Proposed Rule on Greenhouse Gas Emissions Standards for New Electric Generating Units

Critical Information: Please place on the December 4, 2013 Internal Affairs. Approval of Comments to EPA is sought.

On September 20, 2013, the U.S. Environmental Protection Agency (EPA) revised its proposed standards of performance for greenhouse gas emissions from new fossil-fueled electric generating units with a capacity greater than 25 megawatts. The EPA will take comments on the new proposed rule for 60 days after its publication in the Federal Register. Staff is actively monitoring the Federal Register and will notify the Commissioners when the proposed standards for new power plants are published.

Staff seeks approval of the draft comments to the EPA regarding the revised proposed greenhouse gas rule. The Commission previously filed comments in this proposed rulemaking. The EPA withdrew its prior proposal, however, and announced that comments submitted in response to the April 2012 proposed rule will not be considered with the new proposal. Staff utilized the previously filed Commission comments as a starting point in developing the attached proposed comments. Further, Section 366.015, Florida Statutes, encourages the Commission to participate in federal proceedings that affect the utilities we regulate. Staff has attached draft comments to the EPA for your consideration (Attachment A).

The new rule proposes separate carbon dioxide (CO₂) emissions limits for coal and gas-fired power plants, whereas the original rule proposed common standards. Key components of the revised proposed rule include:

- Proposed standards based on Best System of Emissions Reductions –
  - Natural gas plants – 1,000 pounds of CO₂ per megawatt-hour (lbs./MWh) for large plants and 1,100 lbs./MWh for smaller plants.
  - Coal plants – 1,100 lbs./MWh average over 12-month operating period.
• Allows for 7-year averaging for coal plants, with a tighter emissions standard (1,000 to 1,050 lbs./MWh) (EPA’s previous proposal had 30-year averaging and did not reduce the emissions standard).

• The proposed limits for new fossil fuel-fired utility boilers and integrated gasification combined cycle units are based on the performance of a new efficient coal unit implementing partial carbon capture and storage.

• The proposed limits for new natural gas units are based on the performance of modern natural gas combined cycle units.

• Excludes reconstructed or modified power plants, electric generating units that do not burn fossil fuels, and electric generating units that sell less than a third of their power to the grid (most simple cycle combustion turbines).

Attachment

cc: Lisa Harvey
    Apryl Lynn
    S. Curtis Kiser
UNITED STATES OF AMERICA  
BEFORE THE 
ENVIRONMENTAL PROTECTION AGENCY  

Carbon Pollution Standard for New Power Plants Rule  
Docket ID No. EPA-HQ-OAR-2013-0495  

COMMENTS OF THE FLORIDA PUBLIC SERVICE COMMISSION  

The Florida Public Service Commission (FPSC) is charged with ensuring that Florida’s electric utilities provide safe, reliable energy for Florida’s consumers in a cost-effective manner. Section 366.015, Florida Statutes (F.S.), encourages the FPSC to participate in federal proceedings that impact the utilities we regulate. The FPSC appreciates the opportunity to provide comments in this rulemaking.  

We recognize the necessity and role of the U.S. Environmental Protection Agency (EPA) to address public health and environmental measures. The FPSC is concerned, however, that the EPA’s proposed carbon standards for new fossil-fueled power plants and intention to regulate carbon emissions from existing plants in the future has the potential to reduce fuel diversity, adversely impact reliability, and increase costs for Florida’s energy consumers. EPA’s final rules should avoid compromising electric system reliability and allow the maximum compliance flexibility for electric utilities provided for under the Clean Air Act (CAA). Electric utilities should be given the flexibility to choose the most efficient, least-cost compliance options to meet public health and environmental goals. The FPSC is concerned that under the provisions of the proposed rule, electric utilities will be precluded from constructing coal-fired generation to meet future needs because the standard can be met solely with costly and unproven carbon capture and sequestration (CCS) technology. Because a diversified fuel supply can enhance system reliability and significantly mitigate the effects of volatile fuel price fluctuations, extreme weather events and unplanned plant outages, it is important that utilities have the greatest possible level of flexibility in their generation fuel source mix when seeking to comply with relevant carbon standards.
The proposed Carbon Pollution Standard for New Power Plants rule is of direct concern
to the FPSC. The FPSC has authority pursuant to Section 366.04(5), F.S., over the planning,
development, and maintenance of a coordinated electric power grid throughout Florida to assure
an adequate and reliable source of energy for operational and emergency purposes. The FPSC
has regulatory authority under Chapter 366, F.S., over Florida’s five investor-owned electric
utilities, including aspects of rates, operations, and safety. The statute provides the FPSC with
more limited authority over Florida’s 35 municipally-owned and 18 rural electric cooperatives,
which includes safety, rate structure, and planning. Pursuant to Section 403.519, F.S., the FPSC
is charged with determining need for all new steam electric generating facilities over 75
megawatts (MW). Florida’s investor-owned electric utilities have the opportunity to petition the
FPSC for rate relief for prudently incurred costs to comply with new environmental
requirements, pursuant to Section 366.8255, F.S.

Florida has a total generating capacity of 57,454 MW (summer). Florida’s reliance on
natural gas as a generation fuel has increased over time. Currently, more than 65 percent of the
electric power in Florida is generated from natural gas, while approximately 21 percent is
generated from coal and oil. Transmission capability to import energy into peninsular Florida
from other states is approximately 3,800 MW.

Electricity usage in Florida is impacted by the state’s unique weather, customer base, and
high reliance on electricity for cooling and heating. Florida has the highest number of cooling
degree days of any state in the continental U.S., indicating the greatest need for air conditioning
in the summer months. Our state’s high proportion of residential customers comprises almost 89
percent of Florida’s electricity customers, and includes a large population of senior citizens on
fixed incomes. Compared to other states, Florida’s customers rely more heavily on electricity to
meet their energy needs, rather than the direct use of natural gas or other fuels for cooling and
heating. Approximately 85 percent of Florida’s residential customers’ energy needs are met with
electricity.
**Key Principles**

The FPSC supports the general principles for federal environmental regulations as established in the National Association of Regulatory Utility Commissioners’ (NARUC) resolution, entitled “Resolution on the Role of State Regulatory Policies in the Development of Federal Environmental Regulations.” The resolution was approved by the Board of Directors of NARUC at its 2011 Winter Committee Meetings in February 2011, and is included as Appendix A. In accordance with the resolution’s principles, the final rules should:

- **Avoid compromising system reliability** – Section 111 of the CAA requires EPA to issue standards of performance for emissions from each category or subcategories of new and modified stationary sources that “cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare.” Section 111(a)(1) of the CAA defines the term “standard of performance” as “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.” EPA has the authority to determine the categories of stationary sources for which each emission standard is set, and then sets the standard based on that category’s best system of emission reduction. Thus, EPA’s designation of the categories of generating units that must meet a new carbon standard is essential in defining the emission limitation each type of generating technology must meet and the technologies necessary to meet this standard.

The FPSC supports EPA’s decision to revise its previous proposed rules by establishing separate categories for electric utility steam generating units (boilers and integrated gasification combined cycle (IGCC) units) and combined cycle units. The difference, however, in the CO₂ emissions standards proposed in the revised rule between coal-fired generating units and natural gas-fired combined cycle units is negligible. EPA’s decision to set the proposed standard for all new boilers and IGCC generating units, has major
implications for new coal- and oil-fired power plants. EPA states that “new coal-, coal refuse-, oil- and petroleum coke-fired boilers and IGCC units should be able to meet this standard by employing partial carbon capture and storage (CCS) technology.” The FPSC is unaware of any proven, cost-effective commercially available CCS system that would meet the proposed standard. This proposed standard will significantly increase the cost of new coal capacity. As a result, coal-fired generating units will not be constructed in Florida. Therefore, the FPSC is concerned about the potential impact on fuel diversity and compliance costs.

The FPSC commends EPA for excluding modified power plants from the proposed New Source Performance standards and including these units in the rulemaking process for existing electric generating units. Section 111(b) of the CAA requires the EPA to set emission standards for affected new, modified, and reconstructed sources. The FPSC maintains, however, that modified plants should be treated like existing sources under the guidelines of Section 111(d) since modified plants have the same limited options to reduce emissions as existing sources. Requiring modified plants to meet the proposed standards for new sources would necessitate the requirement of CCS installations at existing coal, oil, and some natural gas-fired plants. As a result, these plants would incur costly modifications, placing some units at risk of early retirement, thus potentially impacting reliability. The FPSC notes that many of Florida’s existing plants will require modification to meet the requirements of other EPA rules, including the Cross-State Air Pollution rule, the Mercury and Air Toxics rule, the Cooling Water Intake Structures rule, and the Coal Residuals rule. Electric generators and their consumers should not be placed in the position where investments to meet one EPA rule trigger an unobtainable CO₂ standard for existing coal- and oil-fired generators.

The FPSC agrees with EPA that there should be a separation in how EPA addresses CO₂ from new and existing power plants. Florida has improved its average CO₂ emissions profile from 1,835 pounds per megawatt-hour (lbs./MWh) in 2000, to 1,292 lbs./MWh in 2011, largely due to repowerings and efficiency improvements at existing generating
units. Utilities should not be discouraged from improving the efficiency at existing units, which has the added benefit of reducing CO₂.

- **Minimize cost impacts to consumers and provide an appropriate degree of flexibility for compliance** – In order to minimize costs, each utility should have the flexibility to choose compliance options to meet air emissions standards that best fit the utility’s unique system and varying load profile. EPA has, in effect, required partial CCS for all new coal- and oil-fueled generators. In the final rule, the EPA should avoid one-size-fits-all mandates that would unnecessarily increase utility costs. Section 111(a)(1) of the CAA requires EPA to set a standard of performance based on the emissions limitation achievable through the best system of emission reduction EPA determines has “been adequately demonstrated,” while taking into account the cost of achieving the reduction. CCS at this time is costly and has not been adequately demonstrated on the scale necessary for deployment by the electric generation utility industry.

The EPA points to four currently planned power plants to serve as examples of the CCS technology being adequately demonstrated: Southern Company’s Kemper, SaskPower’s Boundary Dam (Canada), Texas Clean Energy Project, and Hydrogen Energy California. These projects are at various stages of development, of various sizes, and all intend to utilize enhanced oil recovery as the storage method for the captured carbon. Adding the commercialization of enhanced oil recovery provides revenue and enhances the economic viability of these power plants. EPA states “the EPA wishes to encourage EOR [enhanced oil recovery] using captured CO₂, since the practice makes CCS itself more economical.” However, to our knowledge, Florida has insufficient ability to utilize enhanced oil recovery for the captured carbon from the CCS process due to the minimal oil and gas production currently within the State. Moving the captured CO₂ to other areas within the Southeast with greater oil and gas resources will require the construction of a pipeline and additional associated costs. Until CCS is feasible and cost-effective, EPA should set a standard for coal-fired generators that could be achievable through supercritical or IGCC technology.
The FPSC notes that, in an effort to provide flexibility, EPA’s previous proposal contained a 30-year emissions averaging option for coal-fired plants, while the current proposal has reduced this option to 7 years. Given that many power plants operate for more than 40 years, having a longer-term averaging option, much like the previously proposed option, is more appropriate. While long-term averaging of emissions can provide some flexibility, the FPSC questions whether utilities would be able to obtain financing for large projects given the continued uncertainty surrounding CCS development. If EPA finalizes standards that can be met solely with CCS, EPA should provide a longer-term emissions averaging option to allow time for CCS technology to develop, rather than the seven-year averaging option contained in the proposal.

The FPSC also supports the addition of the three-year rolling average methodology for determining the applicability of the proposed rule for simple cycle combustion turbines. Simple cycle combustion turbines are primarily used to service peak periods of demand or in the event of an emergency, due to their higher marginal cost of operation relative to baseload generation. Given Florida’s large number of cooling degree days, and its vulnerability to extreme weather events such as hurricanes, there may be instances where simple cycle combustion turbines may be used for a longer period than is typical. As a result, including the averaging methodology allows for flexibility in deploying a utility’s resources.

- **Recognize the needs of each state and region to deploy a portfolio of cost-effective supply- and demand-side resources based on unique circumstances** – Over the past twenty years, the vast majority of new capacity additions in Florida have been natural gas-fired. EPA’s proposed carbon standard, Cross-State Air Pollution rule, Mercury and Air Toxics rule, and currently low gas prices may further encourage utilities to install natural gas-fired generation as a compliance strategy. EPA contends that the proposed rule will have little or no economic cost because utilities are not currently planning to install additional coal capacity. Florida’s utilities currently have not identified the need for new coal- or oil-fired generating capacity in their Ten-Year Site Plans. Adding the significant costs of CCS will make it less likely that a coal-fired plant will ever be
constructed. In the event a coal plant is chosen, and if the FPSC finds these costs to be reasonable and prudent, Florida’s ratepayers will bear the incremental costs associated with CCS. EPA states, “even if requiring CCS adds sufficient costs to prevent a new coal-fired plants from constructing in a particular part of the country due to lack of available EOR [enhanced oil recovery] to defray the costs, or, in fact, from constructing at all, a new NGCC plant can be built to serve the electricity demand that the coal-fired plant would otherwise serve.” The FPSC believes, however, that utilities should not be precluded from considering coal for future projects due to EPA’s decision to set a standard for CO₂ based on costly and unproven CCS technology. Furthermore, history has demonstrated that fuel costs can be volatile and the most cost-effective generating option can change over time.

In order to provide Florida’s consumers with the benefits of a diversified fuel mix, EPA should not set a standard that requires CCS until this technology is proven on the scale necessary for electric generators. The CAA requires EPA to review New Source Performance Standards at least every eight years. After eight years, EPA will have more information on the operations and costs of the four CCS projects discussed above. The FPSC contends that there is nothing that prevents the EPA from setting initial emission standards based on currently demonstrated fuel efficient coal generating technology and revisiting the development of CCS when the EPA reviews these standards.

**Conclusion**

The EPA’s proposed rule on Carbon Standards for New Power Plants and its intention to regulate carbon emissions from existing plants in the future has the potential for significant rate and reliability impacts on Florida’s energy consumers. The Clean Air Act requires that performance standards be set based on demonstrated control technology, while taking cost into account. Yet, the proposed standard can be met by coal-fired generators solely through the installation of costly, undemonstrated CCS technology. Given EPA’s stated intention to regulate CO₂ emissions from existing power plants, the proposed rule has introduced uncertainty for electric utilities; if a similar approach is applied to existing sources, the impact on fuel diversity
may magnify our concerns for electric system reliability. The FPSC supports EPA’s decision to exclude modified power plants in the revised rule. Had modified plants been included, CCS could be necessary at Florida’s coal- and oil-fired generating units, and some natural gas-fired units, resulting in some units facing the risk of retirement. Although EPA’s revised rule provides some flexibility, the final rules should avoid limiting fuel source choices that may compromise electric system reliability, and should allow the maximum compliance flexibility for electric utilities provided for under the CAA. Electric utilities should be given the flexibility to choose the most efficient, least-cost compliance options to meet public health and environmental goals. Until CCS is proven to be feasible and cost-effective at the scale necessary for electric generation, EPA should set a standard for coal-fired generators that is achievable through supercritical or IGCC technology.

Attachment: Appendix A - NARUC Resolution
Resolution on the Role of State Regulatory Policies in the Development of Federal Environmental Regulations

WHEREAS, The National Association of Regulatory Utility Commissioners (NARUC) recognizes that the U.S. Environmental Protection Agency (EPA) is engaged in the development of public health and environmental regulations that will directly affect the electric power sector; and

WHEREAS, EPA is expected to promulgate regulations to be implemented by State environmental regulators concerning the interstate transport of sulfur dioxide and nitrogen oxides, cooling water intake, emissions of hazardous air pollutants and greenhouse gases, release of toxic and thermal pollution into waterways, and management of coal combustion solid waste; and

WHEREAS, NARUC at this time takes no position regarding the merits of these EPA rulemakings; and

WHEREAS, Such regulations under consideration by EPA could pose significant challenges for the electric power sector, with respect to the economic burden, the feasibility of implementation by the contemplated deadlines and the maintenance of system reliability; and

WHEREAS, EPA is expected to provide opportunities for public comment and input with respect to forthcoming regulations; and

WHEREAS, Compliance with forthcoming environmental regulations will affect consumers differently depending upon each State’s electricity market and the nature of the decisions made by State regulators; and

WHEREAS, Addressing compliance with multiple regulatory requirements at the same time may help to reduce overall compliance costs and minimize risk assuming reasonable flexibility with respect to deadlines; and

WHEREAS, State utility regulators are well positioned to evaluate risks and benefits of various resource options through policies that appropriately account for and mitigate the risks arising from compliance with pending regulations; and

WHEREAS, Cooperation between utility commissions and environmental regulators can promote greater policy coordination and integration and improve the quality and effectiveness of electricity sector regulation; and

WHEREAS, State utility regulators, by working with the power sector and State and federal environmental regulators, can help to facilitate least-cost compliance with public health and environmental goals; and

1 Based upon Resolution on Implications of Climate Policy for Ratepayers and Public Utilities, adopted by NARUC Board of Directors on July 18, 2007.
WHEREAS, State utility regulators can help to minimize environmental risk as well as uncertainty regarding reliability and customer rate impacts by requesting regulated utilities with fossil generation to develop plans that evaluate all relevant environmental rulemakings at U.S. EPA; now, therefore, be it

RESOLVED, That the Board of Directors of the National Association of Regulatory Utility Commissioners, convened at its 2011 Winter Committee Meetings in Washington D.C., urges the EPA to ensure that, as it develops public health and environmental programs, it will:

- Avoid compromising energy system reliability;
- Seek ways to minimize cost impacts to consumers;
- Ensure that its actions do not impair the availability of adequate electricity and natural gas resources;
- Consider cumulative economic and reliability impacts in the process of developing multiple environmental rulemakings that impact the electricity sector;
- Recognize the needs of States and regions to deploy a diverse portfolio of cost-effective supply-side and demand-side resources based on the unique circumstances of each State and region;
- Encourage the development of innovative, multi-pollutant solutions to emissions challenges as well as collaborative research and development efforts in conjunction with the U.S. Department of Energy;
- Employ rigorous cost-benefit analyses consistent with federal law, in order to ensure sound public policy outcomes;
- Provide an appropriate degree of flexibility and timeframes for compliance that recognizes the highly localized and regional nature of the provision of electricity services in the U.S.;
- Engage in timely and meaningful dialog with State energy regulators in pursuit of these objectives; and
- Recognize and account for, where possible, State or regional efforts already undertaken to address environmental challenges; and be it further

RESOLVED, That NARUC urges State utility regulators to actively engage with State and federal environmental regulators and to take other appropriate actions in furtherance of the goals of this resolution.

Sponsored by the Committees on Electricity and Energy Resources and the Environment
Adopted by the NARUC Board of Directors February 16, 2011
The U.S. Environmental Protection Agency (EPA) has begun to gather information in order to develop a proposed rule to regulate carbon dioxide (CO₂) emissions from existing power plants under Section 111(d) of the Clean Air Act (CAA). The EPA was directed by President Obama to issue proposed federal guidelines for reducing CO₂ from existing power plants by June 1, 2014, and engage directly with states and other stakeholders in the rule development process. Consequently, on September 23, 2013, the EPA requested input from states to be included as considerations in designing guidelines for reducing CO₂ emissions from existing power plants (Attachment A). The EPA has not established a deadline for accepting input from the states.

Staff seeks approval of the attached draft letter to the EPA regarding the forthcoming greenhouse gas guidelines for reducing CO₂ emissions from existing power plants. For your consideration, the attached letter (with attachments) outlines Florida-specific concerns and current initiatives to curb CO₂ emissions from the power sector (Attachment B). The general position is that EPA’s guidelines for CO₂ emissions reductions under Section 111(d) of the CAA should allow electric utilities the flexibility to choose the most efficient, least-cost compliance option to meet public health and environmental goals, and provide states flexibility in designing state implementation plans. In response to EPA’s request for information, the proposed letter includes an attachment that addresses those questions posed by the EPA that are specific to the FPSC’s authority. Staff also attached the recently approved resolution from the National Association of Regulatory Utility Commissioners, entitled “Resolution on Increased Flexibility with Regard to the EPA’s Regulation of Greenhouse Gas Emissions from Existing Power Plants.”
Staff will continue to monitor this rulemaking process and inform the Commissioners of additional requests for information. The Commission will have an additional opportunity to comment on the EPA's proposed guidelines once they are published in the *Federal Register*, which is expected to occur in mid-2014.

**Summary of EPA Process**

Although the EPA is currently in the process of rulemaking to reduce CO₂ emissions from new power plants (Section 111(b)), the process for developing performance standards for existing sources pursuant to Section 111(d) is substantially different. Under the 111(d) provision, the EPA is required to issue guidelines to reduce certain pollutants from existing sources. Once the federal guidelines are issued, state environmental authorities have the option to develop state implementation plans to comply with the guidelines for performance standards of affected sources. If states choose not to develop an implementation plan, or if EPA does not approve the plan, a federal implementation plan will become effective.

**Attachments**

cc: Lisa Harvey
    Apryl Lynn
    S. Curtis Kiser
Considerations in the Design of a Program to Reduce Carbon Pollution from Existing Power Plants

The EPA recently released an overview presentation entitled “Building a Common Understanding: The Clean Air Act and Upcoming Carbon Pollution Guidelines for Existing Power Plants,” (available at: http://epa.gov/airquality/cps/webinar.html) which describes President Obama’s Climate Action Plan and the Clean Air Act provisions for addressing carbon emissions from power plants. As follow up to that presentation, this document provides additional materials about issues that should be considered in designing a program to reduce carbon pollution from existing power plants. These materials are intended to provide states and stakeholders with information to plan for open and interactive dialogue with EPA in the fall of 2013.

Background
On June 25, 2013, President Obama issued a Presidential Memorandum directing the EPA to work expeditiously to complete carbon pollution standards for the power sector. EPA is using its authority under section 111 of the Clean Air Act to issue requirements that address carbon pollution from existing power plants and modifications of those plants. The Presidential Memorandum specifically directs EPA to build upon state leadership, provide flexibility, and take advantage of a wide range of energy sources and technologies toward building a cleaner power sector that provides reliable and affordable power to meet our energy needs.

The Presidential Memorandum directs EPA to issue proposed carbon pollution standards and guidelines, as appropriate, for modified and existing power plants by no later than June 1, 2014, and to issue final standards and guidelines, as appropriate, by no later than June 1, 2015. In addition, it directs EPA to include a requirement for state submittal of the implementation plans required under section 111(d) of the Clean Air Act by no later than June 1, 2016.

Section 111 of the Clean Air Act calls for different types of programs to cut pollution from new and existing emissions sources. Under section 111(b), EPA issues national emissions standards that apply to new sources in a category of similar sources. By contrast, for certain pollutants, section 111(d) provides that EPA shall establish a procedure for states to submit plans containing performance standards for existing sources in a source category. Under section 111(d) EPA issues guidelines for states to use in developing plans implementing standards of performance for the affected sources. These state plans are submitted to EPA for approval. Congress recognized that the opportunity to build emissions controls into a source’s design is greater for new sources than for existing sources. Partly for that reason, section 111 allows for new source standards and existing source standards to be quite different.

As the overview presentation describes, section 111(d) of the Clean Air Act is broad and allows for collaboration between EPA and states to address pollutants that endanger the public health and welfare. Moving forward, there are different options available for addressing carbon pollution from existing power plants such as a “source-based approach” and a “system-based approach.” A source-based approach evaluates emission reduction measures that could be taken directly at the affected sources—in this case, the power plants. A system-based approach evaluates a broader portfolio of

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1 We anticipate this document will be periodically updated and revised as we receive feedback from stakeholders during the interactive dialogue at meetings in the fall of 2013.
measures including those that could be taken beyond the affected sources but still reduce emissions at the source.

In the following pages, we provide brief synopses of key topics for discussion between EPA and a wide variety of stakeholders. The topics cover a number of issues relevant to the consideration of potential design of a program under section 111(d) for existing power plants. We describe why the topic is important to the design of a carbon pollution program for existing power plants, and provide specific questions to spark further discussion and exploration with the agency in the coming months. This document is not intended to portray all potential topics in the design of the program, but is intended to spark a conversation about new ideas and concepts. A robust discussion among states, stakeholders, and the EPA will inform the design of a program that ensures cost-effective solutions, provides flexibility, and builds upon the leadership of states over the past decade.

1. **What is state and stakeholder experience with programs that reduce CO₂ emissions in the electric power sector?**

Over the past decade, a variety of strategies have been employed that reduce CO₂ emissions from the electric power sector. Some of these have specifically focused on CO₂ emissions while others have had other purposes but still result in CO₂ emissions reductions as a co-benefit. Some have been required by state statute, others initiated by state utility commissions under existing statutory authorities, while others have been undertaken at the initiative of utilities or independent owners of power generation facilities. Examples include greenhouse gas (GHG) emissions performance standards, emissions budget trading programs, resource planning requirements, end-use energy efficiency resource standards, renewable energy portfolio standards, and appliance and building code energy standards.

It is important for EPA to understand and consider the full range of existing state programs and the progress states have made to date. Many states and other stakeholders have advocated that states should be provided with flexibility in developing their state plans under CAA section 111(d), including the ability to use a range of existing or future state programs. Consequently, EPA is exploring how it could provide a framework for state plans that recognizes and builds off efforts already underway to reduce CO₂ emissions from the power sector, provides flexibility for states to adopt measures that meet the reduction goals, and accommodates the diverse needs of states.

**Questions for further discussion**

- What actions are states, utilities, and power plants taking today that reduce CO₂ emissions from the electric power system? How might these be relevant under section 111(d)?
- What systems do states and power plants have in place to measure and verify CO₂ emissions and reductions?
- How do state programs and measures affect electricity generation and emissions at a regional level? How are interstate effects accounted for when measuring the progress of a state program? For example, are the multi-state effects of state renewable portfolio standards, end-use energy efficiency resource standards, emissions performance standards, and emissions budget trading programs currently accounted for by the state, and if so, how?
2. How should EPA set the performance standard for state plans?

A key question in designing a program under CAA section 111(d) to limit CO₂ emissions from power plants is: What levels of emission performance are required? CAA Section 111(d) calls for EPA to issue guidelines for state plans. States are to submit plans that contain standards of performance for existing sources. EPA is to approve or disapprove those plans. As with previous section 111(d) rules, EPA believes that its guidelines should identify for sources and states the required level(s) of performance prior to plan submittal. Under section 111:

“Standard of performance” means “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.”

There are a number of ways to reduce CO₂ emissions from existing power plants that might be included in an evaluation of the best system of emission reduction (BSER), including:

- Onsite actions at individual affected section 111(d) sources.
  - Supply-side energy efficiency improvements (“heat rate improvements”).
  - Fuel switching or co-firing of lower-carbon fuel.
- Shifts in electricity generation among sources regulated under section 111(d) (e.g., shifts from higher- to lower-emitting affected fossil units).
- Offsite actions that reduce or avoid emissions at affected section 111(d) sources.
  - Shifts from fossil generation to non-emitting generation.
  - Reduction in fossil generation due to increases in end-use energy efficiency and demand-side management.

Questions for further discussion

- Which approaches to reducing CO₂ emissions from power plants should be included in the evaluation of the “best system of emission reduction” that is used to determine the performance level(s) that state plans must achieve? Should the reduction requirement be source- or system-based?
- How does the amount of flexibility that states are given to include different types of programs in their state plans relate to the “best system of emissions reduction” that is used to set the performance bar for state plans? For example, if state standards to improve end-use energy efficiency were included in state plans, should EPA consider potential improvements in end-use energy efficiency in setting the performance target for states?
- What should be the form and specificity of the performance level(s) in EPA guidelines? (Rate-based or mass-based? Separate levels for each subcategory of sources, or one level for the covered sources in the state? A uniform national level, or different levels by state/region based on an established evaluation process?)
• When can emission reductions from existing power plants be achieved, considering different reduction strategies?
• How should a state, in applying a standard of performance to any particular source, consider a facility’s “remaining useful life” and other factors?

3. What requirements should state plans meet, and what flexibility should be provided to states in developing their plans?

Many states and stakeholders have voiced support for state flexibility to include different types of program designs in their state plans. There are numerous and varied means for reducing or avoiding carbon pollution from existing electric generating units (EGUs), including options that target electricity supply and those that target electricity demand. States have been leaders in exploring these options, and many states have developed a portfolio of programs and measures that reduce electricity sector CO₂ emissions while providing significant economic, consumer and reliability benefits.

Under CAA section 111(d), state standards for existing sources must reflect the level of emissions performance achievable through the application of the “best system of emission reduction” (BSER), but states have significant flexibility in the design of their plans. In considering criteria for approvability of state plans, relevant questions include the breadth of that flexibility, who is responsible for achieving the required level of emissions performance, and how performance would be measured and verified under different state program designs.

Questions for further discussion

• What level of flexibility should be provided to states in meeting the required level of performance for affected EGUs contained in the emission guidelines?
• Can a state plan include requirements that apply to entities other than the affected EGUs? For example, must states place all of the responsibility to meet the emission performance requirements on the owners or operators of affected EGUs, or do states have flexibility to take on some (or all) of the responsibility to achieve the required level of emissions performance themselves or assign it to others (e.g., to require an increase in the use of renewable energy or require end-use energy efficiency improvements, which will result in emissions reductions from affected EGUs)?
• What components should a state plan have, and what should be the criteria for approvability?
• Can a state plan include programs that rely on a different mix of emission reduction methods than assumed in EPA’s analysis of the “best system of emission reduction” that is used to set the performance standard for state plans?
• What should be the process for demonstrating that a state plan will achieve a level of emissions performance comparable to the level of performance in the EPA emission guidelines?
• What enforceability, measurement, and verification issues might arise, depending on the types of state measures and programs that states include in their plans? For example, what issues are raised by actions that have indirect affects on EGU emissions, such as end-use energy efficiency resource standards, renewable portfolio standards, financial assistance programs to encourage end-use energy efficiency, building energy codes, etc.?)
• Do different CO₂ reduction methods under different state plan approaches necessitate different timelines for the achievement of emission reductions?
• What issues arise from the fact that operation and planning of the electricity system is often regional, but CAA section 111(d) calls for state plans? How should interstate issues be addressed, where actions in one state may affect EGU emissions in another state? For example, where actions have interstate impacts, which state would receive credit for the emission reductions in its state plan? Could EPA provide for coordinated submittal of state plans that demonstrate performance on a regional basis?

4. What can EPA do to facilitate state plan development and implementation?

Under CAA section 111(d), states are able to determine the combination of measures that will achieve an equivalent or better level of emission performance as those specified by EPA’s emissions guidelines. To help states develop their plans, EPA has historically issued a model rule under section 111(d). However, many states are deploying a range of policies, programs, and measures that reduce electricity sector CO₂ emissions. In these circumstances, the potential role of a model rule is less clear, and any such model rule would need to consider the unique regional and sometimes integrated nature of these existing programs. In addition, states without current programs may be better informed by the experiences of their sister states in finding the appropriate mix of measures and programs.

EPA is exploring whether and how to develop a “toolbox” of decision-making and implementation resources for states that might include information about state programs and measures that reduce electricity sector CO₂ emissions. Examples of information in the decision-making toolbox might include criteria for demonstrating how system-wide actions can meet the level of performance in the emission guidelines; a compendium of existing state energy and GHG policies, programs, and measures that includes information about key design attributes and how the states are estimating energy savings and emission reductions; and links to tools that help quantify energy savings and emissions reductions from state programs and measures.

Questions for further discussion

• What types and amount of guidance and implementation support should be provided to states?
• Are there benefits for coordination among neighboring states in the development and submittal of state plans? Should EPA facilitate the coordination of multi-state plan submittals?
• Would certain types of measures that might be included in state plans increase the need for coordination among states?
• Are there model rules that EPA could develop that would assist states, and what would those rules cover?

There are many other questions that deserve consideration in the development of the section 111(d) guidelines, and EPA encourages the suggestion of other topics. EPA welcomes input on these and any other questions.
Ms. Janet McCabe  
Acting Assistant Administrator  
Office of Air and Radiation  
Environmental Protection Agency  
Mail Code: 6101A  
1200 Pennsylvania Ave., NW  
Washington, DC 20460

Re: Considerations in the Design of a Program to Reduce Carbon Pollution from Existing Power Plants

Dear Ms. McCabe:

The Florida Public Service Commission (FPSC) appreciates the opportunity to provide input to the U.S. Environmental Protection Agency (EPA) in its efforts to develop a proposed rule addressing carbon emissions from existing electric generating units pursuant to the Clean Air Act (CAA), Section 111(d). The FPSC believes it is necessary to include states in the process because states are in the best position to know the details of the particular electricity markets, energy consumers, and the existing energy-related policies in their respective states. Herein, the FPSC expresses its desire that the EPA provide states and electric utilities with the flexibility to meet any standards in a cost-effective manner and allow for the consideration of all compliance options.

The FPSC is charged with ensuring that Florida’s electric utilities provide safe, reliable service for Florida’s consumers in a cost-effective manner. The FPSC has regulatory authority under Chapter 366, Florida Statutes (F.S.), over Florida’s five investor-owned electric utilities, including aspects of rates, operations, and safety. This statute also provides the FPSC with more limited authority over safety, rate structure, and planning for Florida’s 35 municipally-owned and 18 rural electric cooperatives. Further, Section 366.015, F.S., encourages the FPSC to participate in federal proceedings that affect the utilities we regulate.

The FPSC recognizes the necessity and role of the EPA to address public health and environmental measures. The FPSC is concerned, however, that the EPA’s future rule for existing fossil-fueled power plants has the potential to reduce fuel diversity, adversely impact reliability, and
increase costs for Florida’s energy consumers. In order to minimize these impacts, each utility should have the ability to choose compliance options to meet air emissions standards that best fit the utility’s unique system and varying load profiles. Florida’s utilities should have the greatest possible level of flexibility in their generation fuel source mix when seeking to comply with relevant carbon standards. A diversified fuel supply can enhance system reliability and significantly mitigate the effects of volatile fuel price fluctuations, extreme weather events, and unplanned plant outages.

EPA should also consider the efforts made by the states and utilities to curb CO₂ emissions when designing its guidelines for existing power plants. The Florida Department of Environmental Protection estimates Florida’s average CO₂ emissions profile, for power produced in Florida, decreased from 1,835 pounds per megawatt-hour (lbs./MWh) in 2000 to 1,292 lbs./MWh in 2011. The FPSC asserts that the EPA guidelines for existing electric generating units should avoid setting a performance level that is based on a national uniform approach and instead recognize the varying characteristics of specific states and regions of the U.S. Finally, the EPA should avoid a one-size-fits-all mandate and provide guidelines that allow states to incorporate existing programs that have been successful in reducing greenhouse gases into their state implementation plans.

The FPSC appreciates the opportunity to provide input into EPA’s development of proposed standards for CO₂ emission reductions from existing sources. To avoid regulations that adversely affect fuel diversity, reliability, and costs to Florida’s customers, the FPSC urges the EPA to consider the attached responses to its questions posed to the states on September 23, 2013 (Attachment A). Additionally, the FPSC encourages the EPA to develop a framework that allows for the maximum flexibility for compliance when developing any proposed standards for reducing carbon emissions from existing electric generating units. The FPSC also supports the general principles for federal environmental regulations as established in the National Association of Regulatory Utility Commissioners’ (NARUC) resolution, entitled “Resolution on Increased Flexibility with Regard to the EPA’s Regulation of Greenhouse Gas Emissions from Existing Power Plants.” The resolution was approved by the Board of Directors of NARUC at its 2013 Annual Meetings in November 2013, and is included (Attachment B).

Thank you for considering our concerns.

Sincerely,

Ronald A. Brisé
Chairman, Florida Public Service Commission

Attachments
The Florida Public Service Commission’s Responses to
EPA’s Questions to States Regarding the Design of a Program to Reduce
Carbon Pollution from Existing Power Plants

What actions are states, utilities, and power plants taking today that reduce CO₂ emissions from the electric power system?

The current landscape of CO₂ emissions from the power sector in Florida is encouraging. Through a combination of repowering as a result of low natural gas prices, demand-side management goals, and efficiency improvements, Florida’s utilities have reduced their average CO₂ emissions per megawatt-hour produced. The Florida Department of Environmental Protection estimates Florida’s average CO₂ emissions profile, for power produced in Florida, decreased from 1,835 pounds per megawatt-hour (lbs./MWh) in 2000 to 1,292 lbs./MWh in 2011. Additionally, the FPSC has policies in place that are designed to, among other goals, improve environmental conditions by encouraging the generation of renewable energy, encouraging efficient operation of electric baseload generating units, and reducing and controlling growth in peak demand of electricity consumption.

• **Standard Offer Contract:** Designed to implement requirements under the Public Utility Regulatory Policies Act, Section 366.91(3), F.S., requires that each investor-owned utility continuously offer to purchase capacity and energy from renewable energy generators. Under this requirement, each investor-owned utility must file with the FPSC by April 1 of each year a standard offer contract based on the next avoidable generating unit or planned purchase. Requiring a standard offer contract ensures that renewable energy generators have a place in Florida’s energy sector.

• **Net Metering and Expedited Interconnection of Customer-Owned Renewable Generation:** The FPSC has adopted rules that require the expedited interconnection and net metering of small customer-owned renewable resources. This program is designed to promote the development of small customer-owned renewable generation, particularly
solar and wind energy systems. As of December 2012, Florida recorded 5,296 total connections of customer-owned renewable generation delivering 18,674,866 kilowatt-hours in 2012 to Florida’s investor-owned, municipal, and rural electric cooperative utilities.

- **Generating Performance Incentive Factor (GPIF):** To encourage the efficient operation of electric baseload generating units, the FPSC sets targets for electric generating utilities that include heat rate improvements. The FPSC has the authority to reward utilities that reach their targets and penalize those utilities that do not reach their targets. This policy encourages utilities to engage in supply-side energy efficiency improvements, thus reducing average fuel consumed per MWh at the plant level.

- **Demand-side Management Programs (DSM):** The Florida Legislature enacted the Florida Energy Efficiency and Conservation Act (FEECA) in 1980, with an emphasis of reducing the growth rates of weather-sensitive peak demand, reducing the growth rates of electricity consumption, and reducing the consumption of expensive resources such as petroleum fuels. To accomplish these objectives, FEECA requires the FPSC to establish goals and the electric utilities to implement DSM programs to meet those goals. Additionally, in 2009 the FPSC directed the FEECA utilities to spend 10 percent of their historic energy conservation cost recovery expenditures on solar water heating and solar photovoltaic pilot programs. Collectively, the FEECA utilities have been successful in meeting demand and energy reduction goals, which may have contributed to reductions in Florida’s CO₂ emissions.

**What level of flexibility should be provided to states in meeting the required level of performance for affected electric generating units contained in the emission guidelines?**

The FPSC believes that EPA guidelines for CO₂ emissions reductions (EPA guidelines), under the CAA Section 111(d), should allow electric utilities the flexibility to choose the most efficient, least-cost compliance option to meet public health and environmental goals, and provide states flexibility in designing state implementation plans. Additionally, EPA should
consider the efforts made by the states and utilities to curb CO\textsubscript{2} emissions when designing its guidelines for existing power plants. In order to minimize costs, each utility should have the ability to choose compliance options to meet air emissions standards that best fit the utility’s unique system and varying load profiles. Because a diversified fuel supply can enhance system reliability and significantly mitigate the effects of volatile fuel price fluctuations, extreme weather events and unplanned plant outages, it is important that utilities have the greatest possible level of flexibility in their generation fuel source mix when seeking to comply with relevant carbon standards.

Which approaches to reducing CO\textsubscript{2} emissions from power plants should be included in the evaluation of the “best system of emission reduction” that is used to determine the performance level(s) that state plans must achieve?

The EPA states that “there are a number of ways to reduce CO\textsubscript{2} emissions from existing power plants that might be included in an evaluation of the best system of emission reduction.” The FPSC asserts that EPA should avoid a one-size-fits-all mandate and provide guidelines that allow states to incorporate existing programs into their state implementation plans. One approach, which includes flexibility for electric utilities to choose the most efficient, least-cost compliance option, would be to set a level of emission performance based on onsite actions that affected sources could potentially achieve through supply-side energy efficiency improvements. EPA’s guidelines should also devise a mechanism that provides utilities with the opportunity to receive credit for CO\textsubscript{2} reductions achieved through the implementation of DSM programs. DSM programs can have a secondary benefit of lowering CO\textsubscript{2} emissions from power plants by reducing the amount of fossil fuels used for electricity generation. EPA’s guidelines should recognize but not require offsite actions such as DSM programs because the success of DSM programs is not entirely under the control of the affected source. Utilities should also be given the flexibility to comply with any standards utilizing renewables, including utility-owned renewables, utility purchases from renewable generators, and customer-owned renewables.

What should be the form and specificity of the performance level(s) in EPA guidelines? (Rate-based or mass-based? Separate levels for each subcategory of sources, or one level for the
covered sources in the state? A uniform national level, or different levels by state/region based on an established evaluation process?)

The FPSC takes no position on certain aspects of the form and specificity of the performance level(s) in EPA’s guidelines, such as using a “rate-based” or “mass-based” standard of performance. The FPSC asserts that EPA guidelines should avoid setting a performance level that is based on a national uniform approach and recognize the varying characteristics of specific states and regions of the U.S. For example, electricity usage in Florida is impacted by the state’s unique weather, customer base, and high reliance on electricity for cooling and heating. Florida has the highest number of cooling degree days of any state in the continental U.S., indicating the greatest need for air conditioning in the summer months. Our state’s high proportion of residential customers comprises almost 89 percent of Florida’s electricity customers, and includes a large population of senior citizens on fixed incomes. Compared to other states, Florida’s customers rely more heavily on electricity to meet their energy needs, rather than the direct use of natural gas or other fuels for cooling and heating. Approximately 85 percent of Florida’s residential customers’ energy needs are met with electricity.

As with the EPA requirements for new power plants, EPA guidelines for existing sources should include separate levels for different sources. Additionally, the FPSC supports EPA’s decision to exclude modified power plants from the revised new source rule and treat modified power plants as existing sources. Section 111(b) of the CCA requires the EPA to set emission standards for affected new, modified, and reconstructed sources. The FPSC maintains, however, that modified plants should be treated like existing sources under the guidelines of Section 111(d) since modified plants have the same limited options to reduce emissions as existing sources. Had modified plants been included in the new source rules, carbon capture and sequestration (CCS) might have been required at Florida’s coal- and oil-fired units, and some natural gas-fired units. The added costs of CCS would result in some units being retired prematurely without allowing utilities the lead-time necessary to make cost-effective adjustments in their generation fleet.
Further, pursuant to Section 366.8255, F.S., Florida’s investor-owned electric utilities have the opportunity to petition the FPSC for rate relief for prudently incurred costs to comply with new environmental requirements. The FPSC has implemented this statute through an annual Environmental Cost Recovery Clause. Between base rate proceedings, Florida’s investor-owned electric utilities will have the opportunity to recover the costs associated with EPA regulations through this cost recovery clause, subject to FPSC review. Recovery of these compliance costs through a cost recovery clause, as allowed by Florida law, will have a near immediate rate impact on Florida’s consumers.
Resolution on Increased Flexibility with Regard to the EPA’s Regulation of Greenhouse Gas Emissions from Existing Power Plants

WHEREAS, A reliable, affordable energy supply is vital to the nation’s future economic growth, security, and quality of life; and

WHEREAS, Compliance with expected environmental regulations regulating greenhouse gas (GHG) emissions will affect ratepayers differently depending upon each State’s existing generation, energy resources, electricity market and State commission decisions; and

WHEREAS, States have jurisdiction over the reliability and affordability of electricity provided to retail customers; and

WHEREAS, Incorporating flexibility in the implementation of EPA regulations to allow for unique State or regional strategies can lessen generation cost increases because of improved planning, greater use of energy efficiency and demand-side resources, and orderly decision-making; and

WHEREAS, NARUC at this time takes no position regarding the merits of EPA rulemakings for the purpose of regulating GHG from new or existing power plants; and

WHEREAS, In 2009, President Obama made a pledge that by 2020, America would reduce its greenhouse gas emissions in the range of 17 percent below 2005 levels; and

WHEREAS, The Regional Greenhouse Gas Initiative implemented by nine States is recognized as reducing emissions and provides a net consumer and economic benefit; and

WHEREAS, Ten States have successfully implemented market-based emissions trading systems applicable to the electrical power sectors for the purpose of reducing emissions; and

WHEREAS, Many States have: 1) implemented mandatory and/or voluntary renewable portfolio/energy standards, 2) implemented energy efficiency and/or peak load reduction programs, 3) experienced significant retirements of coal based generating plants and/or 4) mandated emission reductions programs; all of which have already contributed to a reduction in GHG emissions; and

WHEREAS, It may be in the best interest of ratepayers to maintain the operation of certain existing coal-based electricity generating plants that meet environmental performance requirements for priority pollutants for a period of time; and

WHEREAS, On June 25, 2013, the President issued a memorandum to the U.S. EPA Administrator directing the EPA to:

- Issue proposed carbon pollution standards, regulations, or guidelines, as appropriate, for modified, reconstructed, and existing power plants by no later than June 1, 2014;
- Issue final standards, regulations, or guidelines as appropriate for modified, reconstructed and existing power plants by no later than June 1, 2015;
Include in the guidelines addressing existing power plants a requirement that States submit to the U.S. EPA the implementation plans required under Section 111(d) of the Clean Air Act and its implementing regulations by no later than June 30, 2016; and

WHEREAS, The President instructed the EPA, in its efforts to address GHG emissions from modified, reconstructed and existing power plants to engage directly with States, and expressly recognized that States “will play a central role in establishing and implementing standards for existing power plants;” and

WHEREAS, The President instructed the EPA to work with State agencies to “promote the reliable and affordable provision of electric power through the continued development and deployment of cleaner technologies and by increasing energy efficiency, including through stronger appliance efficiency standards and other measures;” and

WHEREAS, Section 111(d)(1)(A) requires the EPA to establish a procedure under which each State shall submit to the Administrator a plan which establishes standards of performance for existing sources; and

WHEREAS, Section 111(d)(1)(B) requires: (1) the plan submitted by the State to provide for the implementation and enforcement of such standards of performance and (2) the Administrator to permit a State, in applying such standards of performance, “to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies;” and

WHEREAS, The States rely on EPA to issue a procedure under Section 111(d) that reflects the best system or systems of emission reductions that has been adequately demonstrated at affected facilities; and

WHEREAS, State utility regulators have jurisdiction over decisions regarding integrated resource planning and/or resource adequacy, processes which ultimately determine the mixes of fuels and resources in State generation portfolios, which differ from State to State; and

WHEREAS, States have different mixes of fuels and resources in their existing generation portfolios; and

WHEREAS, States have achieved different levels of GHG reductions to date, and have diverse economies and face different economic conditions, including States with energy intensive manufacturing industries that provide goods for the entire nation; now, therefore be it

RESOLVED, That the National Association of Regulatory Utility Commissioners, convened at its 125th Annual Meeting in Orlando, Florida, urges the EPA, in developing any emissions guidelines for regulating carbon emissions from existing power plants, to recognize the primacy of States to rely on both State utility and environmental regulators to lead the creation of emission performance systems that reflect the policies, energy needs, resource mix, economic conditions of each State and region; and be it further
RESOLVED, That the guidelines should be flexible enough to allow States individually or regionally to take into account, when establishing standards of performance, the different makeup of existing power generation in each State and region; and be it further

RESOLVED, That the States need EPA under the relevant statutory factors, to issue guidelines that avoid GHG emissions reductions that are not feasible; and be it further

RESOLVED, That the guidelines should provide sufficiently flexible compliance pathways or mechanisms that recognize State and regional variations to achieve the most cost-effective emissions reductions in each State; and be it further

RESOLVED, That the guidelines recognize and credit States’ emissions reduction achievements to date, recognize any and all existing State emission reduction programs, and shall not intrude on the States’ jurisdiction over decisions regarding integrated resource planning and/or resource adequacy or otherwise mandate specific modifications to the mix of fuels and resources in existing and future State generation portfolios.

Sponsored by the Committee on Electricity
Recommended by the NARUC Board of Directors November 19, 2013
Adopted by the NARUC Committee of the Whole November 20, 2013.
II. Outside Persons Who Wish to Address the Commission at Internal Affairs
OUTSIDE PERSONS WHO WISH TO ADDRESS THE COMMISSION AT

INTERNAL AFFAIRS
December 4, 2013

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III. Supplemental Materials Provided During Internal Affairs

The records reflect that there were no supplemental materials provided to the Commission during this Internal Affairs meeting.
IV. Transcript
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

PROCEEDINGS: INTERNAL AFFAIRS

COMMISSIONERS PARTICIPATING: CHAIRMAN RONALD A. BRISÉ
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER ART GRAHAM
COMMISSIONER EDUARDO E. BALBIS
COMMISSIONER JULIE I. BROWN

DATE: Wednesday, December 4, 2013
TIME: Commenced at 9:34 a.m.
Concluded at 10:40 a.m.

PLACE: Gerald L. Gunter Building
Room 105
2540 Shumard Oak Boulevard
Tallahassee, Florida

REPORTED BY: JANE FAUROT, RPR
Official FPSC Reporter
(850) 413-6732

FLORIDA PUBLIC SERVICE COMMISSION
CHAIRMAN BRISÉ: We are going to go ahead and call this Internal Affairs meeting to order. We thank you all for being here today.

And we are going to go ahead and start with a report from Dr. Jamison. Dr. Jamison from the Public Utilities Research Center at the University of Florida.

DR. JAMISON: Mind if I come up?

CHAIRMAN BRISÉ: Sure. Please join us, and thank you for being here.

DR. JAMISON: Oh, my pleasure.

Well, Commissioners, thank you for engaging with PURC so much this past year. We've really enjoyed our opportunities of working with you and with your staff.

You have seen our reports, so you know kind of the things that we have been doing. I'd just like to hit some highlights of those things.

Most of our engagements with you have been in the training arena. And we have done a course on fundamentals of regulations and leadership workshops, as well. And then the production of some videos that you can use over the years, as you have new staff come in. And we hope that those are all really productive for you.
We do have, as you know, a lot of our international training that we do that some of you contributed to, and will continue to, and we are looking forward to all of that. And that continues to be real productive, as well. We have reached out to probably 150 people this past year, maybe closer to 200, actually, from different parts of the world. And so we are always excited to be able to do that, too.

In the research arena, we've been pretty active this year. Continuing with the hurricane hardening work, staying engaged with the utilities here, but that continues to be useful for people all over the country.

Every time hurricane season starts up or a storm hits the U.S., Ted Kury gets a call and he is either on NPR or the Wall Street Journal or something talking about, well, you know, here's what the economics says about how you prepare for these things.

We have been doing a lot in renewable energy, looking at some best practices in renewable energy, looking at renewable portfolio standards, engaging in a project for the National Science Foundation on new solar technologies. We've also been working on the energy efficiency issues. We did a study last year, of course, that you used, but we've also now looked into Europe,
some of their energy efficiency practices, as well.

We did some work on time-of-use pricing in electricity, the effects of ISOs in electricity, benchmarking of water systems. That's kind of where our research has been for the past year.

So that's a big summary of what we've done.

I'd be glad to answer any questions, take any feedback from you on ways that we can be more effective for you.

CHAIRMAN BRISÉ: All right. Commissioners, any questions or comments for Dr. Jamison?

Well, I would like to say thank you for the work that you all do. I've participated a few times in the international program, and it's always a rewarding experience for me. And I know it has been an enriching experience for those participants who are coming for the classes as well as the training seminars that go on for our staff. I think it's very helpful for us.

And nationally you all are recognized for the work that you do. And at NARUC -- I'm speaking out of turn because we have the first vice-president of NARUC, but NARUC recognizes the value of the work that PURC does, so I'm thankful for your work.

MR. BAEZ: Mr. Chairman, I just wanted to interject real quickly. I don't think Dr. Jamison has tooted his horn quite as loud as he should have.
I, too, want to join in thanking PURC for all of their efforts, and I don't think in all of my time associated with the Commission that we have ever had as much interaction between -- active interaction between PURC and the Commission. And they have, as always, proven themselves to be an excellent resource. But in this past year, combined with funding that we have had available to us for the past couple of years, which you'll get a wrap-up, we're putting the finishing touches on a complete wrap-up, we have been very, very fortunate to have them as a readily available resource.

And I think we have been able to do things that will continue giving us returns for our investment in the years to come. So I want to thank Mark and Aris Elly (phonetic) as well for making themselves available to us.

CHAIRMAN BRISÉ: All right. Thank you.

MR. KISER: Mr. Chairman.

CHAIRMAN BRISÉ: Yes, sir.

MR. KISER: I wanted to see if we couldn't nudge them just a little bit to create an outreach program to the media.

(Audience laughter.)

A little education with those folks about how it really works and what parameters we have to work in,
because I really see a lot of misinformation, half
information, and not a full picture of our processes.
And it's really unfair to the public, because they only
get a bad side. And, you know, a good illustration is
the last month or so on all of these clauses. You know,
you didn't see one article explaining in those
pass-throughs that these are pass-throughs. The
companies don't make any money on these things. And all
you see is how much it's adding to the bill with the
inference that, you know, the companies are getting more
and more money, instead of it just being a reimbursement
for what they have spent and there is no money made on
those.

And it's unfair, because the public -- we can
only do what we do with the support of the public. And
when they begin to question the regulatory process it
hurts what we do. Somewhere along the line, you know,
you could get ethics training for them or something,
that it's their obligation to fairly report, you know, a
full picture. It would be very helpful to all of us.

DR. JAMISON: If you have advice on how we can
engage them, that would be great. There is something,
like, the Knight Foundation that puts on courses for
journalists. We have tried to engage with them and just
had no success.
COMMISSIONER BROWN: Why?

DR. JAMISON: In our two-week international course, we spent a full day on working with the media.

MR. KISER: Well, maybe we should require that some of those come in here to report that they have to have a certificate they have attended your school.

(Audience laughter.)

CHAIRMAN BRISÉ: All right.

Commissioners, any further comments? If there are no more, thank you very much.

DR. JAMISON: Okay. Thank you so much for your time.

COMMISSIONER GRAHAM: Thank you.

CHAIRMAN BRISÉ: Okay. Moving on to Item Number 2, the Draft Report on Efforts of the PSC to Reduce Regulatory Access Fees.

Mr. Long.

MR. LONG: Commissioners, Attachment 2 is the draft of the annual telecom RAF report, and staff is seeking your review and approval of the draft --(inaudible). We are seeking your review and approval so that we can file it by January 15th.

CHAIRMAN BRISÉ: Commissioners, questions? Commissioner Brown.

COMMISSIONER BROWN: Thank you, Mark, for
compiling this report. I was wondering, as part of this report you don't talk about as part of the streamlining process and the cost-saving measures, what about the, I guess, the areas of the agency that we've done about cross-training the telecommunications staff in an effort to streamline our process? It doesn't talk about the reorg or anything to that effect.

Would it be something that would be helpful? An additional bullet to talk about another measure that we have done, proactive measures that we have done at the Commission to retain employees and to train them in other areas, something to that effect? I don't know. I just was thinking that that was another activity that we have done here. It was not required, but we took a proactive measure to cross-train. And, Mr. Baez, if you have any input on that?

MR. BAEZ: I want to save Mark on this one.

I would agree with you, Commissioner, that our efforts along those lines have been to, at the same time, address our staffing needs in other areas of our work, and that has the fallout effect of being able to create efficiencies and certainly opportunities on the telecom side.

I hesitate to include discussion of those kinds of efforts only because it is not, strictly
speaking, a measure that is directed at reducing or creating opportunities to reduce RAF rates for the telecom industry, but rather more the result of -- it's an organic -- it results from an organic process that we have, and it just so happens that it can impact our efforts on the telecom side. I don't know if I'm being clear.

COMMISSIONER BROWN: Okay. No. The answer is no. (Laughter.)

MR. BAEZ: Well, I always try not to say no, and really it's a little bit less simple than that.

COMMISSIONER BROWN: Okay. Thank you. No.

MR. BAEZ: You know, but no. I'll take it.

MR. LONG: We do mention on Page 5, it is, you know, mildly mentioned in the third paragraph, "Additionally, the telecommunications staff continues to conduct periodic internal cross training on its remaining responsibilities and has developed comprehensive written SOPs." And this is -- our approach to this is kind of an incremental report, building on last year's report, building on the previous year's report, and the cross training had a little more emphasis in those. And so, kind of, it's now just down to a sentence, but at least we do bring it up.

COMMISSIONER BROWN: Thank you.
CHAIRMAN BRISÉ: All right. Any further comments or questions on this item? If there are none, we are ready to entertain a motion.

COMMISSIONER EDGAR: I move approval.

COMMISSIONER GRAHAM: Second.

CHAIRMAN BRISÉ: Moved and seconded. All in favor say aye.

(Vote taken.)

CHAIRMAN BRISÉ: All right. Thank you.

Thank you, Mr. Long.

Moving on to Item Number 3, the first set of our EPA comments for today.

MS. ORTEGA: Good morning, Commissioners. I am Ana Ortega with the Division of Economics, and I have Cindy Miller with the Office of General Counsel and Mark Futrell with the Office of Industry Development and Market Analysis.

Item 3 contains draft comments to the EPA regarding the revised proposed rule to set limits on carbon dioxide emissions from new power plants that will be built in the future. We're seeking your approval on the comments.

The EPA originally proposed CO2 emission standards for new power plants in 2012, but announced revised rules this past September. Staff prepared
comments for you based on the previously filed comments and modified them to reflect the new proposal. The EPA will take comments up to 60-days after publication of the Federal Register, which they haven't done as of today.

Some of the major points in the comments are that the regulation of CO2 emissions from new and existing sources has the potential to significantly impact rates and reliability by limiting fuel source choices. The standards for new coal-fired power plants can only be met by the installation of costly and undemonstrated carbon capture and storage, which may preclude the utilities from choosing coal in the future. Also that EPA rules shall allow for the maximum compliance flexibility under the Clean Air Act. That includes the most efficient and cost-effective option for utilities.

Finally, that the EPA shouldn't set a standard that requires carbon capture and storage until the technology has been adequately demonstrated as outlined in the Clean Air Act.

We do have a correction that we'd like to make in the next item to the figure. It's for the average CO2 emissions profile in Florida. It should read 1,291 pounds per megawatt hour in 2012. And that
actually occurs in Item 3 on Page 6, Item 4 on Page 9, and on Page 10.

And we're happy to answer any questions that you have on the draft comments.

CHAIRMAN BRISÉ: Thank you very much.

Commissioners, questions, comments?

COMMISSIONER BALBIS: I have a question.

CHAIRMAN BRISÉ: All right. Commissioner Balbis.

COMMISSIONER BALBIS: I want to thank you for putting together these comments. I think this is something that obviously in 2012 this Commission agreed that it is important enough for us to provide those comments to EPA.

I have a couple of clarifications, and I'd like to hear from my colleagues on their thoughts on it. Obviously we are statutorily charged with looking at fuel diversity, so it's important we address this.

Do you think that we can put in the first section, Page 3, where you kind of summarize our position, specifically state that the limits should be based on commercially available technology? I mean, you say that in the body, but in the first page, you know, add that --

MS. ORTEGA: Sure.
COMMISSIONER BALBIS: -- to that, you know, if it's okay with everyone else.

The other issue, it is my understanding that TECO has a pilot injection project. What is the status of that, is it working?

MR. FUTRELL: I think they're going through -- Commissioner, if I may, they are going through some testing of that. I think they're collecting data on it. I have not seen anything come before that I have seen that gives a summary of where they really are, but I'm understanding it's going on.

I think there may be folks from TECO here that maybe if you'd like could possibly answer that, if you care to hear from them. But I do think the project is going on and they are doing testing.

CHAIRMAN BRISÉ: Okay. I think we have a representative from TECO present that can address us.

MR. CARPINONE: Good morning. My name is Paul Carpinone. I'm with Tampa Electric Company, I'm the Director of Environmental Health and Safety and --

CHAIRMAN BRISÉ: You're welcome to come to the table.

MR. CARPINONE: Sure. Okay.

Yes, the project, the carbon capture project is proceeding. It's in the very early stages of testing
and start-up right now. It's supposed to, in January, start operating. And it should be operating for about an 18-month period, and it was based on the DOE funding for that project.

And that's the capture portion only. The injection portion is not proceeding because of the regulations, the Class VI versus Class V well regulations by EPA. But right now the capture part of that project is proceeding as planned.

**COMMISSIONER BALBIS:** Okay. And I'm glad you brought that up. And I don't know if it's appropriate for these comments or not, but I think since Florida is unique from a geology standpoint from the fact that we do not have oil and gas production, I wonder if we can add, you know, a summary or some sort of comment on what we've done in the state that pertains specifically to the state and whether or not it's working, and where it is in the stage of development. And I think it further bolsters the fact that this technology isn't commercially available on this scale, and certainly not in Florida, since TECO is the only company that's doing it. I don't know what everyone's thoughts are on that. It sounds like we have time, if they haven't published it in the C.F.R.

**MS. MILLER:** Yes. We did talk with EPA staff
and they said they expect to issue the rulemaking notice in the *Federal Register* the second week of December, and then you have 60 days after that.

**COMMISSIONER BALBIS:** Okay.

**MR. CARPINONE:** I mean, there has been a lot of work, and the studies have been done for carbon sequestration injection in Florida. You know, we are not proceeding at this point, but obviously it's something that we are very interested in doing.

**COMMISSIONER BALBIS:** Okay.

**COMMISSIONER EDGAR:** I'm unclear as to the point that you are trying to make and how that applies to these comments and proposed rules.

**COMMISSIONER BALBIS:** Okay. No, that's a fair question. The first comment on -- as far as having the statement that the limit should be based on commercially available technology I think is consistent with what we made in the comments.

But then in other sections in the comments, and it may pertain more to Attachment 4, where it lists -- where we are answering EPA's questions as to what we are doing, to maybe list that in that section. So it might be more appropriate for Attachment 4, but I believe there's a way to bolster the position that this isn't available on a commercial basis, and then perhaps...
provide, you know, a summary or a statement that, you
know, one of our utilities is in the development phases,
or whatever the accurate statement is.

I think it may be appropriate in this one at
some point, if we have time to do it, just to encourage
staff to work with the utilities to summarize where we
are, what the technology is, and put it where it's
appropriate and bring it back to us. And that's where I
was kind of going with it.

COMMISSIONER EDGAR: So when -- I'm just
trying to understand.

CHAIRMAN BRISÉ: Sure.

COMMISSIONER EDGAR: So when you say for
Attachment 4, you mean in both or perhaps in the 111(d)
comments?

COMMISSIONER BALBIS: Yes. When we are
responding to EPA's questions as to whether we are --

COMMISSIONER EDGAR: Right.

MR. FUTRELL: Commissioner Balbis, if I may?

COMMISSIONER BALBIS: Yes.

MR. FUTRELL: In Item 3 there is a section on
Page 7 in that bottom paragraph where we're referring to
carbon capture sequestration projects, and also there's
a statement about the -- that Florida has, to our
knowledge, has insufficient ability to utilize enhanced
oil recovery. And that's where a lot of the promise has been identified for carbon capture. And maybe if it's the will of the Commission, that might be a point where we could bolster it with, you know, identifying the TECO project.

COMMISSIONER BALBIS: Yes, that seems to make sense to me.

COMMISSIONER EDGAR: Kind of with that last sentence there on that page. Thank you, Mark, for drawing my attention to that section.

Thank you.

CHAIRMAN BRISÉ: Thank you.

COMMISSIONER BALBIS: And the other, you listed the average carbon dioxide emissions on Page 6 at the bottom, how we reduce it from 1,835 to 1,292, and I understand there is probably a correction there.

MS. ORTEGA: Yes.

COMMISSIONER BALBIS: I was looking at what each company averages from their coal limits, and, you know, FPL is right around 2,200 pounds per megawatt hour; Duke, 2,000; TECO 2,100; Gulf, 2,100. I'm wondering if that is important to point out. Not just carbon dioxide utility-wide, but specifically for coal, because these rules are going to pertain to coal, as well. Because I look at this and say, look, we are at
1,292. If we establish those rates at 1,100, that doesn't seem that hard to achieve. But when you look at what the coal plants are doing now in Florida, they are almost double what the proposed standards are, and I'm wondering if that might be important just to point out.

**MS. ORTEGA:** We can certainly add that information.

**MR. FUTRELL:** I think that the thing to consider is that -- on the first item that we are talking about is on new facilities, so perhaps that might be appropriate on the second item for existing sources to point out.

**COMMISSIONER BALBIS:** That's fine. There's a lot of cross --

**MR. FUTRELL:** Yes, sir.

**COMMISSIONER BALBIS:** But I think that's important just to show what our coal plants are doing. And I know that the companies have spent, in some cases, hundreds of millions of dollars on pollution control measures, so it's not like these are old inadequate plants, that they have installed state-of-the-art scrubbers, et cetera, that may not address CO2, but I think it's important to show what the emissions are in this case currently for either 3 or 4 (inaudible) --

And the only other general comment I have
CHAIRMAN BRISÉ: Sure, go ahead.

COMMISSIONER BALBIS: -- I know at the recent NARUC Conference in Orlando there were several panels that had different utilities from around the country making presentations or giving statements on their position on these proposed rules.

I'm wondering if it would be appropriate as we have done in the past with proposed rules to get the input from the Florida IOUs on these proposed rules, so that at least we can see what their position is. I don't know if you have reached out to them.

MR. FUTRELL: We have spoken with them, Commissioner. My understanding is in general they are supportive of the draft comments that we provided to you. I don't know exactly if they are going to be -- if they are planning to file comments or not once the comment period opens up.

We have spoken with DEP staff. We understand that they are going to be filing some high level comments once the comment period opens up on the new source rule.

COMMISSIONER BALBIS: Okay.

MR. FUTRELL: So we're aware of that. We understand our IOUs are here today to answer your
COMMISSIONER BALBIS: Well, specifically, I mean, it would just be what their position is on those comments. But, again, if we have time, and if DEP is coming out with their comments, I think it would be important for staff to kind of see where everyone is on this, so at least with DEP or, you know, in ourselves we have a more consistent message, because I know we have aligned with them in the past on nutrient standards, et cetera. So, maybe.

COMMISSIONER EDGAR: I think it's important for us to make our own statement and that the work that staff has done, which I know you have met with them numerous times, I have met with them numerous times. I think the comments are very thorough and very well written. I think it's important for us to make our own statement and get it out there.

For the comments on Attachment 3, I do believe that there is more time, is my understanding, with the EPA timeline. However, and I know -- we have kind of drifted into it. As you said, there certainly is a strong relationship. But in particular for the comments on 111(d) for the existing, the last information I heard is that they were going to close this window probably next week. So my preference would be very strongly --
it would certainly, you know, maybe talk about wording
or the details of this more while we are gathered
together today, but I really do think if we are going to
make comments, and I hope that we do, that those go out
sooner rather than later.

I know that our staff has coordinated with
DEP. I have asked them a number of times, and I know
that they have, and I've also asked them to inquire and
work with high-level staff over at the Energy Office, as
well, to make sure that we were coordinated at that
level. And I know that the industry is looking at all
of this very closely, but I think we need to make our
statement on behalf of this agency on reliability and
cost-effectiveness and get that out there.

COMMISSIONER BALBIS: I agree for Item 4. I
mean, the deadline is approaching, and with the minor
modifications to get that out. And obviously our
comments will be our comments. But at the end of the
day, the utilities are the ones that are going to be
implementing whatever measures need to be implemented.

So I think though staff has indicated they
have coordinated with the utilities, which is fine, you
know, we do have time to make sure that coordination has
been done to the proper level, you know, so we have as
much as information as possible, and get it out there to
the decision-makers in Washington.

MR. BAEZ: Commissioner Balbis, just as a matter of course, any time that we propose comments, we have an open process, and this discussion is part of it. And the companies are well aware of what our intentions are, you know, from a historical perspective.

This is nothing new, what we are putting out. It may have a different direction. It may have a different focus substantively, but our positions have been developed over the course of years, because we are really dealing with how we maintain control over our jurisdiction, how our jurisdiction is preserved as part of the process. My point being that nothing that we put out in the form of comments beyond the comment period and the advanced notice that we provide as part of our process shouldn't surprise anyone. And I think that's what substitutes for coordination, strictly speaking, as part of the process.

I don't know if the companies want to chime in on whatever views they may have of what we are providing today. They certainly have a right to comment on it right now, as well. But I see your point --

COMMISSIONER BALBIS: That's fine.

MR. BAEZ: -- and that's sort of happening on an ongoing basis. I mean, we don't really -- we don't
really step off the reservation without having spoken to
the folks that are impacted in general. I think that's
a step below putting it out and our comments becoming
someone else's, to Commissioner Edgar's point.

COMMISSIONER BALBIS: Great.

MR. BAEZ: But no surprises here.

COMMISSIONER BALBIS: Okay.

CHAIRMAN BRISÉ: Did anyone in the audience
want to address the Commission on these issues?

Yes, sir. Please state your name.

MR. KENNEDY: My name is Mike Kennedy. I'm
the Environmental Affairs Director for Florida for Duke
Energy.

COMMISSIONER EDGAR: I don't bite.

MR. KENNEDY: Okay.

(Audience laughter.)

MR. KENNEDY: I just wanted to offer that we
have, of course, reviewed both draft letters, and the
staff clearly have done a lot of work on it and showed a
lot of insight into the issues.

And we actually offered a couple of minor
comments on the letters and understanding that, as you
had mentioned already, that there is time on the new
unit proposal because it hasn't been published in the
Federal Register, and because it is --
Just as an aside, quickly, because it has been three months since it was issued, and it hasn't been published yet, there could be some changes. I know there are some issues that have been raised in the interim with EPA, and it's uncertain as to whether they are taking any of that feedback into account. So you'll want to take a look at the -- we all will want to take a look at the published version in case the comments need to be adjusted accordingly with the new units.

And as far as the existing unit letter goes, again, we think the staff has done a really good job representing the issues, and the particular issues we have here in Florida with trying to implement such standards, and Duke Energy supports the draft letter.

COMMISSIONER BALBIS: Okay.

COMMISSIONER EDGAR: Thank you.

CHAIRMAN BRISÉ: Thank you. All right.

Anyone else?

MR. CARPINONE: Tampa Electric Company.

COMMISSIONER EDGAR: We were just keeping it warm for you.

(Audience laughter.)

MR. CARPINONE: Tampa Electric. We have reviewed both the documents, the letters, and we support and commend the staff for an excellent job that they
have done in preparing these proposed comments.

Our company is especially interested in the flexibility of the state maintaining its flexibility with response to these rules. Thank you.

CHAIRMAN BRISÉ: Okay. Anyone else?

MR. BUTTS: Hey, folks. How are y'all?

COMMISSIONER EDGAR: Hello.

MR. BUTTS: I'm Ray Butts with Florida Power and Light Company, and I think I want to echo what Mike had to say. We do think that the comments were put together very well and that they certainly reflect a lot of the thinking that we have on the central rules.

On the new unit rule, I do agree with your comments on discussing more with regard to the commercial availability of carbon capture and sequestration, because I think that's a flaw in the rule. It's appropriate for Florida to bring that out, because that would be very costly for our customers. So that was a good point to add.

And as far as the existing rule, we think that those comments are -- if you want to talk about that at this point. On the existing rule, the only addition I would suggest in the comments is that you discuss a little bit more, and then you do talk about renewables, but we should probably talk about nuclear upgrades and

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nuclear as a significant reduction for CO2. We offset a lot of CO2 with nuclear generation in the state, and we should take credit for that and make sure the EPA allows credit for that.

And then the other thing is on Question 4 of the existing facilities rule, there's some discussion about -- actually the comment discusses where Florida is as far as having residential customers versus the industry. The question that EPA had asked is should the state or should they implement a rule that has a national perspective or a national limit versus state or regional limits, and we would prefer a national limit. But if there are state and regional limits, those work out okay, as well.

But what Florida wants to make sure we get is credit for our early action. Talk about our repowerings and modernizations of facilities. Those are significant reductions of CO2, and we need to stress that more in that letter, I believe, and that would be a good location to do that.

Make sure that, one, EPA gives us credit for those early actions as a state; and, second, they don't penalize Florida for already having lower emissions and then give a break to other states that have done nothing, whether it's energy efficiency or revising or
changing their generation.

So those would be our primary comments on that. And we're certainly here to answer any questions if you all have any, and if staff wants us to review something.

The other point I would like to make is you had talked about discussing the specific limits of or the emissions of each utility. The numbers you quoted, I'd like to see those before they go in writing because I don't think those are right for FPL. It's much too high, I think. If we could get a chance to look at that.

COMMISSIONER BALBIS: Sure.

MR. BUTTS: So thank y'all very much.

CHAIRMAN BRISÉ: Thank you.

All right. Is there anyone else?

MR. VICK: So we complete the IOU list here --

(Audience laughter.)

MR. VICK: I'd feel bad if I didn't come up and say something. Hi, I'm Jim Vick with Gulf Power, Director of Environmental Affairs.

How are y'all today?

CHAIRMAN BRISÉ: Doing well.

MR. VICK: I agree pretty much with most everything that has been said today, particularly on the
quality and all the hard work that has gone into putting these comments together. It's a great job and clearly reflects a lot of the feelings of Gulf Power.

The one thing that I would mention, other than what has pretty much been said by my counterparts, is that under Section 111(d), y'all kind of reference in your letter to the EPA that you would like for EPA to make sure that EPA provides states and the utilities with flexibility to implement this thing.

Under the Clean Air Act you guys have -- that has already been mandated to you guys. And our only feeling is this may weaken your position a little bit if you go ahead, you know, and address what's already clearly mandated in the Clean Air Act, you guys have got that authority. The states have that authority to implement Section 111(d). And that would be the only comment, I guess, just to kind of beef that up, acknowledging that EPA needs to abide by the Clean Air Act and give the states -- not give the states, but recognize that the states do have that inherent authority already.

Other than that, that's pretty much all I've got. But, once again, I commend the staff for their comments.

COMMISSIONER GRAHAM: Thank you.
CHAIRMAN BRISÉ: Any further comments from the audience? I think that was everyone. All right. Thank you very much.

So, Commissioners, we are still with 3, and then move on to 4. Okay. Commissioner Balbis, since you started the discussion.

COMMISSIONER BALBIS: Yes, I have a question for staff.

One of the representatives made an interesting point. Since they haven't formally been published, would it be better to wait until they are, to see the final ones before sending these in?

MR. FUTRELL: I think that is certainly an option. I think given the calendar, you know, the information that Cindy has is that something is going to be published in the coming week. 60-days after that, I think we have an Internal Affairs on January 23rd that would accommodate that, if you wish.

So that's certainly -- to my recollection, I don't recall where things have changed significantly in the past. Maybe you have some recollection, Cindy, of rules significantly changing from initial release by the agency and publishing. Do you have any --

MS. MILLER: I have rarely seen that, but we are still relatively new to the EPA world, so I don't
I know the answer on that. But we have been told for certain by EPA not to file them until they publish the notice, so we will wait for that. Although they have already received 3,000 comments even before it has been published. Yes, they had over a million comments in the prior proposal.

CHAIRMAN BRISÉ: Well, in terms of time, we have the next IA, which is on the 17th, and that may still put us -- if we wanted to be part of the early-bird crowd, that still puts us within that timeframe to do so. And we can, you know, take a second look at the comments if they are adjusted to reflect our discussion here today.

MR. FUTRELL: Cindy has got some information, and we certainly all hope they are published within the next week or so. But then you just never know. With the holidays coming, that may be -- it could potentially get slipped until right before Christmas, potentially. So we're still dealing with a lot of unknowns as far as when they will actually be published in the Federal Register. So the 17th might be a little dicey as far as whether we will actually have a published rule at that point.

CHAIRMAN BRISÉ: Right.

COMMISSIONER GRAHAM: Well, if it's not
published it's not published. That's pretty simple.

    MR. FUTRELL: Yes. But as far as if you want to bring something back to you, we're looking to be in a position to bring something to you on a published rule, potentially.

    MS. MILLER: I think our recommendation would be due next Monday.

    CHAIRMAN BRISÉ: Commissioners, any thoughts; any additional thoughts on what we want to do with this in terms of timing?

    Commissioner Graham.

    COMMISSIONER GRAHAM: If we're talking specifically just about Item 3, I don't think there is anything we need to do with it today. I mean, the staff heard the things we had to say, they heard what the IOUs had to say. And I guess it's just a matter of sitting tight until we get the published, the actual published information.

    Item 4 is a different story, or Attachment 4.

    CHAIRMAN BRISÉ: All right. Any further comments on timing for 3?

    Okay. Does that seem to be the consensus that we --

    COMMISSIONER BROWN: Yes.

    CHAIRMAN BRISÉ: -- address Item 3 or these
comments at a later date?

All right. Let's move on to 4.

**MS. ORTEGA:** Well, since we have already talked about Item 4 a little bit, I will give you just a brief kind of couple of thoughts on Item 4.

Item 4 is on the existing sources. And as of today, we don't have a rule because the process is different for existing. As you are probably aware, the EPA sets out federal guidelines. And what they're asking for is the state's input into those guidelines before they publish them. So for your consideration, staff drafted a letter that has an attachment to it that kind of outlines where we are in Florida, our concerns when it comes to existing sources, and still puts out our thoughts of flexibility and fuel diversity and reliability.

So as we heard, the draft letter can be submitted, you know, in the next week, and you're welcome to make adjustments to it as you please.

**CHAIRMAN BRISÉ:** Okay. Commissioners, let's finalize the adjustments that we talked about a little bit earlier, go through that so that staff will have some clarity as to that. So if you have suggestions, enumerate those for them at this time.

**COMMISSIONER BROWN:** I think Gulf Power's
comments, suggestion about bolstering -- about our 
authority, that we already have the authority to 
implement under the Clean Air Act, I think that was a 
very good suggestion. We could play with that idea.

**CHAIRMEN BRISÉ:** Okay. Anyone else?

**COMMISSIONER EDGAR:** Similarly. And I think 
it's in here, I'm just going back and forth between 
them, and I can't find it. But if it's not in here 
adding it, or if it is already, and I think it is, but 
making sure that our desire for credit for early action 
by states, whatever is the best way to re-emphasize 
that, I think is very good. And that is certainly, I 
know, one of the themes that we have expressed over 
time.

I think it was Mr. Butts who mentioned it for 
the company that he represents, that they would be 
interested in a national standard. I'm not ready to go 
there. So whatever the comments they want to make 
that's fine, and I appreciate that information, but I'm 
not ready to go there. But as far as the credit for 
early action and including nuclear off-set and any other 
specifics, I think, is excellent. It may already be in 
there or strengthen it.

**MR. FUTRELL:** I think, Commissioner, you're 
right, that needs to be strengthened. On Page 9 of the
item, which is Page 2 of the letter, the first full paragraph, EPA should also consider -- it's kind of hinting at that, but I think we can make that more direct and clear as you said and reference that.

CHAIRMAN BRISÉ: All right. Any other comments?

COMMISSIONER BALBIS: No, I agree with all those recommendations. I think those are good revisions. And I'm not sure, I mean, I did discuss previously if it's appropriate to add the TECO Capture Project, because I think it would be appropriate in the answers to the questions that EPA had, as our list of actions we have taken to show that, you know, we don't have our heads in the sand. We are moving forward with it, but it's just not commercially available at this time.

COMMISSIONER EDGAR: Just a suggestion, and I'm not married to this, but I don't know if, you know, how many words matter, and sometimes wanting to make sure that the points are emphasized, I don't know that that project specifically mentioned that, you know, the adds, but as far as the point about commercial liability, I think is a good one, maybe a way to approach it.

COMMISSIONER BALBIS: Maybe. I mean, my whole
concern is that the EPA seems to be looking at a national approach to this, and they're talking about different strategies for carbon sequestration and capture. And a lot of it, as staff has said, indicates from the oil and gas production process in capturing that, which Florida doesn't have that.

So we have very few options, and I think one of the few -- and I don't want to say viable, but one of the few options we do have is the carbon capture project that TECO is doing. So maybe we don't have to mention TECO, but that Florida is proceeding with a pilot program for carbon capture that is yet to come to fruition, or something to that effect, just to show that we are moving forward with a project.

And I don't think it has to be in the Chairman's letter. I think in Attachment A, just adding a sentence or two in the appropriate question of Attachment A. So that is my only point of the whole thing.

COMMISSIONER EDGAR: Mr. Chairman, it was your letter --

(Laughter.)

-- but that position makes more sense to me, I mean, in the attachment.

CHAIRMAN BRISÉ: Right. I think that that is
appropriate, as Commissioner Balbis indicated in
response to some of the questions, and not specifically
identifying a company in the letter and a particular
project in the letter to me is --

COMMISSIONER BALBIS: That was my intent.

CHAIRMAN BRISÉ: -- is more in line with what
-- so you all have got all of those suggestions?

MS. ORTEGA: We did.

MR. FUTRELL: Mr. Chairman, if I may. In some
of our conversations once this was released to the
Commission, we have got a couple of suggestions we'd
like to also get permission to make. In the letter, on
Page 2 of the letter, Page 9 of the attachment, at the
top, the first full sentence speaks to, "In order to
minimize these impacts, each utility should have the
ability to choose compliance options." We'd like to
modify that to have the emphasis be on the state should
have the ability to choose compliance options.

Because in this process the state, DEP will be
making -- developing the implementation plan. They
should have the flexibility to select the compliance
option. And, again, that emphasis was also reflected in
the NARUC resolution where the emphasis was on state
flexibility. So we'd like to made a tweak to that
sentence to reflect that.
And also, potentially, we may do that in the explanation of the comments, because I think there's something in the previous item where we are referring to efforts made by the utilities to reduce their carbon emissions. And we cite several examples here in the response to the answers of adding something to reflect the efforts of the utilities to approve efficiency of their generation, the effects of adding, you know, lower carbon-emitting generation like gas-fired combined cycle, if that has had an effect, and represent that in addition to the things you have mentioned about nuclear uprates, things like that. All that together has had an effect on reducing carbon emissions.

CHAIRMAN BRISÉ: Okay. Commissioners, are there any issues with those suggestions?

Perfect. So we can go ahead and incorporate those.

MR. FUTRELL: Thank you.

CHAIRMAN BRISÉ: All right. Anything else on Item Number 4? Okay. So I think we are ready to entertain a motion.

COMMISSIONER EDGAR: I'll give it a try.

CHAIRMAN BRISÉ: Go right ahead and try.

COMMISSIONER EDGAR: Mr. Chairman, I would propose in keeping, I believe, with the discussion that
we have had, that we direct our staff to go back and
make some slight changes and adjustments to Item 3, and
that that come forward either -- I guess whenever we
think the next appropriate time is, the next IA, or the
one following.

And then for Item 4, that changes be made and
bolstered as we've discussed, and with that that we
approve it giving you, obviously, the delegated
authority -- you don't need delegated, because I think
you already have it, but to review those and be the
final sign off, and that that be approved generally and
go forward.

COMMISSIONER BROWN: Second.

CHAIRMAN BRISÉ: Okay. It has been moved and
seconded. Any further comments?

All right. Seeing none, all in favor.

(Vote taken.)

CHAIRMAN BRISÉ: All right. Thank you.

Commissioner Edgar.

COMMISSIONER EDGAR: Yes.

Commissioners, I had mentioned to the Chairman
as we were just sitting down for this meeting, at the
last SEARUC Commissioners' meeting that we had a few
weeks ago, I think three or four of us were there for
the discussion that the SEARUC president had proposed a
draft resolution on these very same issues and had
circulated what he referred to as an early draft, and
asked for Commissioners and states to give review and
make comments. And I had asked Mark and his staff to do
that, to review it and analyze it.

My understanding is that they had asked that
any comments and word tweaks kind of be sent to the
executive director, and that then maybe a new draft
would be coming out. So I just wanted to mention that
to let you all know that I had asked our staff to review
it for content, for tone, and also any consistency or
inconsistency with the resolution that NARUC had
adopted, and also with the comments that they were
formulating for our consideration.

I'm not sure what the dates are on that, but
just so you know that I have asked our staff to do that,
and I know that they are prepared to talk about it.
This is an early draft that we received, so I don't know
that specific word tweaking right now would be the best
use of our time, but just to mention that they are
looking at it. And I had asked our Chairman to kind of
follow through on that with the SEARUC president and
their staff.

**COMMISSIONER BROWN:** Thank you.

**CHAIRMAN BRISÉ:** All right. That's where we
are with that. (Laughter.)

Mark, I don't know if you have copies.

**MR. FUTRELL:** I do. I have copies. I'm sorry, I have got copies -- whatever your pleasure is.

**MR. BAEZ:** We can have them distributed to your offices as working copies with the understanding that it probably may change.

**COMMISSIONER EDGAR:** Absolutely.

And, again, they passed it out at the meeting and asked for comments. I think some us got it. I don't know that everybody did. I did pass it on to staff and had mentioned to the Chair that I was going to ask our staff to review it. And I guess what I would say is if anybody has any individual comments, if it is all right, get them to Mark, and he will be working with the SEARUC Executive Director.

And, Mr. Chairman, if you would just help us kind of follow along with that process so that we can participate as appropriate.

**CHAIRMAN BRISÉ:** Okay.

**MR. FUTRELL:** I can say, Mr. Chairman, that it is largely closely identical to the NARUC resolution that was passed recently. There's a few changes. There are some parts of it that are captured in earlier versions of the NARUC resolution. There's a few word
tweaks that I can make some suggestion on, but I think it's largely identical, and it's along the same kind of themes and expresses the same kind of concerns as the NARUC resolution.

CHAIRMAN BRISÉ: Right. And if my recollection is correct, it tracks the resolution that we passed at NARUC, but it also adds a particular SEARUC flavor to it to address the issues that are particular to our regions. And so if Mark will work with the offices, and once we get the wordsmithing done from our end, and our level of comfort, that we will send a unified draft to the Executive Director of SEARUC and that will be our component to the whole.

MR. BAEZ: Is it your expectation for staff to bring it back?

CHAIRMAN BRISÉ: No.

MR. BAEZ: Okay. We'll just have --

COMMISSIONER EDGAR: Take comments and work with the Chair.

MR. BAEZ: Okay. Thank you.

COMMISSIONER EDGAR: Thank you, Mark.

CHAIRMAN BRISÉ: Okay. Legislative update.

MS. PENNINGTON: Good morning. Just very quickly. We have an interim committee week next week. The House is not meeting at all. The Senate has a few
meetings. Our substantive committee, Communications, Energy, and Public Utilities is not meeting next week. General Government Appropriations is meeting in the Senate, but they are dealing with lion fish and real estate, so no issues relevant to the Public Service Commission.

The only other thing I would mention is that Representative Santiago has filed a water and wastewater bill that tracks some of the recommendations of the study committee and the language that Senator Hays is looking at. It tracks it. It's not identical, although Senator Hays has not filed his bill yet.

Any questions?

CHAIRMAN BRISÉ: Any questions?

Commissioner Graham.

COMMISSIONER GRAHAM: At the last meeting you talked about -- or maybe it wasn't the last meeting. Somewhere you said that you sent comments back to Senator Simmons about his proposed bill, that the staff has gone over it.

MS. PENNINGTON: We did do an analysis of that at the Senate request, and we did copy you all on the bill analysis. I don't know that we have sent Senator Simmons -- I'll have to check to see if we did. We generally only send them to members at their request.
We provide them to staff.

COMMISSIONER GRAHAM: Okay. I don't remember seeing it. I guess I'll check with my staff to see --

MS. PENNINGTON: Okay. We can resend it. And would you like us to send a copy to Senator Simmons?

COMMISSIONER GRAHAM: No. I don't want you to do anything different than what you have already done. I just know that I hadn't seen it yet.

MS. PENNINGTON: Yes. It would have come from Nancy, not under my name, but we'll resend it just in case you missed it.

COMMISSIONER GRAHAM: Actually, I think it's when we had that hearing that came up.

MS. PENNINGTON: Right.

COMMISSIONER GRAHAM: And someone mentioned it.

MS. PENNINGTON: Yes.

COMMISSIONER GRAHAM: Okay. Thank you.

CHAIRMAN BRISÉ: Any further questions or comments?

MS. PENNINGTON: Thank you.

CHAIRMAN BRISÉ: All right. Thank you very much.

Mr. Executive Director.

MR. BAEZ: Commissioners, just a couple of
items of interest. Many of you may know that FERC is testifying before the House Subcommittee on Energy tomorrow. FERC 1000 is one of the many things, other pipeline permitting, and we can distribute the hearing notice for you if you are interested.

Secondly, you heard me mention in an earlier conversation about we're currently putting the finishing touches on a workup of our activities with the ARRA funding, which is officially ended at the end of last month. So we are busy preparing for you a summary of how we used our funding and where we employed that funding investment. So we hope to have it either for the next IA, or for the first IA in January, where you can discuss and provide it for you in advance so you -- any questions you might have.

That's it today.

CHAIRMAN BRISÉ: All right. Thank you.

With reference to that committee meeting that FERC is coming before them in DC, we are tracking it. We are sending a letter, an electronic letter that tracks our comments to similar committee meetings, because Representative Castor serves on that committee, so we are just getting her all the information that we send traditionally so that she could be more aware of the issues and the positions that we have as the
MR. BAEZ: Every so often we get opportunities to get in ahead of time as to one of these meetings, and this is one of those opportunities. So, thank you, Chairman, for your help on that.

CHAIRMAN BRISÉ: All right. Anything else? Anything for other matters?

COMMISSIONER GRAHAM: I have just got a curiosity question, because I see lot of people back in the back leaning forward. Can you guys hear back there? Everybody? Okay. Because from time to time some of us speak softer than others, and so I wanted to make sure that our voice was carrying back there.

MR. BAEZ: Just a comment on that, Commissioner. With the new room, it takes a little bit to get the levels. But that's an on-going process, and hopefully we will all get used to our ownselves to speak up and others. You know, the sound will get better. It's sort of a breaking-in process.

COMMISSIONER BALBIS: But they can't hear the whispers, right?

(Audience laughter.)

MR. BAEZ: I was instructed, and I've forgotten two of three days, that the red light is really what you should be conscious of. (Audience
laughter.) Because, you know, if it's on, then all bets are off, as they say. Govern yourselves accordingly.

CHAIRMAN BRISÉ: We've got a system. I look at J.R., and he has chosen a new spot back there, and I look at J.R. and if he's --

MR. BAEZ: J.R. is the canary in the coal mine, yes.

CHAIRMAN BRISÉ: -- if he can hear, then I'm good.

MR. KELLEY: I hear everything you say, Braulio.

MR. BAEZ: Good, because I'm the mumbler of the group, apparently.

CHAIRMAN BRISÉ: All right. If there is nothing else for today. With that -- let's see who will adjourn us today. Commissioner Balbis will move that we rise.

(Internal Affairs concluded at 10:40 a.m.)
STATE OF FLORIDA  

COUNTY OF LEON  

I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 18th day of December, 2013.

JANE FAUROT, RPR  
Official FPSC Hearings Reporter  
(850) 413-6732

FLORIDA PUBLIC SERVICE COMMISSION