I. Meeting Packet



State of Florida Public Service Commission INTERNAL AFFAIRS AGENDA Tuesday – February 18, 2020 9:30 am Room 105 - Gerald L. Gunter Building

- 1. Public Utility Research Center 2019 Annual Report to Florida Public Service Commission Dr. Mark Jamison (Attachment 1)
- 2. Legislative Update
- 3. General Counsel's Report
- 4. Executive Director's Report
- 5. Other Matters

BB/aml

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.

Attachment 1

PURC 2019 Annual Report to the Florida Public Service Commission



2019

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 website at <u>www.purc.ufl.edu</u>. We truly appreciate the support of the FPSC and welcome opportunities for continued collaboration.

PURC 2019 Annual Report to the Florida Public Service Commission

UPDATE ON PURC RESEARCH AND OUTREACH

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PURC 2019 Annual Report to the Florida Public Service Commission

UPDATE ON PURC RESEARCH AND OUTREACH

STATISTICS AND HIGHLIGHTS

Statistics

- 38 blog posts
- 8 working papers and journal articles
- 3 topical expert news interviews
- 1 video blogs
- 1 opinion editorial
- 1 comment filed with federal regulatory agencies
- 1 US Senate testimony; 1 Congressional staff briefing
- 2 research conference presentations
- 1 national news appearance

47th Annual PURC Conference (2020)

The 47th Annual PURC Conference, "Rates, Realities, and Risks: Ratemaking for Tomorrow" will closely examine ratemaking, electric vehicles, the potential implications of recurring proposed constitutionals amendments in Florida and next generation energy efficiency.

46th Annual PURC Conference (2019)

More than 80 key leaders in industry and government attended the 46th Annual PURC Conference, "Digitalization, Disruption, Dogma: The Amazon-Uber-fication of Utilities?" held February 20 – 21, 2019. Conference speakers and attendees examined disruptive technology, changing business models, adaptive leadership challenges, and how policy is or isn't keeping up.

Digital Markets Initiative (DMI)

DMI examines the business and regulatory implications of the growth of digital markets, through rigorous and relevant research, public engagement, and student mentorship. PURC just launched this initiative Fall 2019, and



we already have laid a firm foundation from which we will accomplish our goal of transforming how researchers, policy makers, and practitioners consider the business, regulatory, and antitrust implications of the new economy.

Global Regulatory Research, Technical Assistance, and Capacity Building Grant funded by the Bill & Melinda Gates Foundation

PURC is excited to address the challenge of expanding appropriate sanitation services for the poor and other underserved groups by developing a program for knowledge development and incentives for professionals working in urban sanitation in developing countries. This grant was accepted and funded by the Bill & Melinda Gates Foundation in 2019 and work will begin in 2020 with the hiring of the Project Lead.

Design and Construction of Regulatory Accounting Systems for the Office of the Energy Regulatory Commission of Thailand

In August 2019, PURC had the pleasure of hosting 21 professionals from Thailand for this customized program delivery. The final day of this week-long course, included a trip to the Public Service Commission in Tallahassee, where participants had the opportunity to learn from and engage with PSC staff.

Research Initiatives on Distributed Energy Resources, Incentive Regulation, and Competition

PURC faculty and affiliates are engaged in research on behavioral changes of solar customers, technology innovation, distributed energy resources, deregulation, anticompetitive conduct, and mergers.

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

One hundred forty-nine people attended this two-week program in 2019. Since its inception in 1997, this program has educated more than 3600 professionals representing 156 nations.

PURC Advanced International Practices Program

Thirty-two infrastructure professionals from around the world participated in this year's courses on energy pricing and benchmarking.



PRIMARY RESEARCH PROJECTS

ENERGY

Valuing Municipal Utilities – The Case of the Potential Sale of JEA in Jacksonville

PURC examined valuation and other issues related to the potential sale of JEA. According to the assessment, the utility's current value is \$7.5 billion, which is not inconsistent with earlier valuations promulgated by JEA. The report addresses considerations when evaluating a possible sale of the JEA, including history, effects on the city's welfare, possible advantages and disadvantages of being a municipal utility, regulatory treatment of investor-owned utilities vs. municipal utilities, and factors, such as timing, that could significantly impact the potential seller and buyer.

Motivating the Optimal Procurement and Deployment of Electric Storage as a Transmission Asset

Examined the optimal choice between two means of relieving congestion in an electricity network: (1) traditional expansion of transmission capacity; and (2) storage as a transmission asset (SATA). Assuming the electric utility has unique knowledge of both the cost of implementing SATA and the likelihood of local network congestion, the optimal policy differs considerably from policies under active consideration, in part by paying the utility relatively little for implementing SATA. Despite the relatively limited compensation, the utility profits from its unique knowledge, particularly its knowledge of SATA implementation costs.

Designing Compensation for Distributed Solar Generation: Is Net Metering Ever Optimal?

Electricity customers who install solar panels often are paid the prevailing retail price for the electricity they generate. This paper demonstrates that this rate of compensation typically is not optimal. A payment for distributed generation that is below the retail price of electricity often will induce the efficient level of distributed generation when the fixed costs of centralized electricity production and the network management costs of accommodating intermittent solar are large, and when centralized generation and distributed generation produce similar (pollution) externalities. The payment for distributed generation can optimally exceed the retail price under alternative conditions. The optimal compensation policy varies considerably as industry conditions change.

Solar Impacts: Does Distributed Production Affect Consumption Choices?

As the role of distributed generation grows in the electricity industry, this growth is accompanied by questions regarding its impact on the rest of the system, chiefly the impact on finances, environmental footprint and reliability. Unfortunately, analyses of these impacts assume, a priori, that generation from distributed resources displaces generation from "somewhere else", usually centralized resources and a 1:1 basis. We examine the behavior of customers who install solar arrays on their homes and find that these customers increase consumption by 8-14%. That is, every 100 kWh generated by residential distributed solar displaces only 86-92 kWh from



other sources. This result has profound impacts on the financial compensation of these resources, their role in reducing emissions, and their impact on system reliability.

Self-Sabotage in the Procurement of Distributed Energy Resources

This paper examined conditions under which a regulated monopoly supplier can benefit from intentionally raising its own costs. Such self-sabotage is beneficial when it induces the regulator to implement a more accommodating procurement policy. The paper also demonstrates how the implementation of standard policies (e.g., cost reimbursement or a simple cost-sharing plan) can reduce procurement costs by deterring self-sabotage.

The Economic and Political Realities of Regulation: Lessons for the Future

As competition emerges for electricity utilities, it is important to keep in mind lessons from the past. One lesson is that actual data, rather than conjecture, is needed for anchoring decisions in reality. Another lesson is that economic incentives are powerful. For example, electric utilities in the UK revealed that they were able to make significant improvements in efficiency once they were allowed to profit from the improvements. Finally successful transitions require that regulators carefully pace the changes so that the system does not derail. Because so many stakeholders have to give up something during times of change, the work of regulation is often about disappointing people at a rate that they can endure.

Five Things Regulators Should Know About Blockchain (and Three Myths to Forget)

With all the excitement about blockchain, it is important that utility regulators separate truth from myth. What should they know? The basic benefits of blockchain technology, its potential regulatory applications, the roles of smart contracts, and the implications for artificial intelligence. What are the myths? That blockchain removes the need for trust, that it uses too much electricity, and that smart contracts are actually smart and contracts.

Employing Simple Cost-Sharing Policies to Motivate the Efficient Implementation of Distributed Energy Resources

This paper considers the optimal design of simple cost-sharing policies to motivate electricity distribution utilities to manage the costs of distributed energy resource projects. The optimal share of realized cost savings that is awarded to the utility takes a particularly simple form in certain settings. More generally, the savings can vary with the prevailing environment in subtle and sometimes counterintuitive ways. For instance, the savings may increase as cost savings become less onerous for the utility to secure and as the utility becomes more averse to risk. Gains from affording the utility a choice among cost-sharing policies typically are minimal.

Energy Blogs

Dr. Kury blogs on energy issues for The Conversation. He addresses issues of storm hardening, taxes, and grid security. In 2019, his posts were read over 50,000 times. His blogs are available at <u>https://theconversation.com/profiles/theodore-j-kury-406888/articles</u>.



TELECOM

Market-based Policies for Broadband in Florida

Nearly all Floridians have access to broadband and the percentage with access continues to grow, but a gap remains. Contrary to conventional wisdom, the gap does not appear to be driven by low incomes or low population density. While the counties with low access all have low population density, many comparably populated counties have extensive broadband access. A similar pattern holds for income levels. So any government program to expand access should focus on the peculiarities of particular situations.

Applying Antitrust in Digital Markets

Challenges an emerging school of thought that businesses should be broken up simply if the businesses are large. The so-called neo-Brandeisians hold that large is always anticompetitive and a threat to democracy. This paper demonstrates the economic fallacies and historical errors of this school.

Regulating Regulators in Transitionally Competitive Markets

Over the past 30 years of transformations in telecommunications, the US has gained considerable insights about how to design regulatory policy in the presence of developing competition. The insight to date has focused on how to harness competitive forces to motivate incumbent suppliers to serve the best interests of consumers. This paper stresses the importance of considering the incentives of regulators and explores the associated changes in standard recommendations for regulatory policy design in the presence of developing competition.

Economic Scholars' Summary of Economic Literature Regarding Title II Regulation of the Internet

Much has been claimed about the economics of the FCC's 2014 decision to classify internet service as a Title II common carrier service, but little of what is said seems to relate to actual economic research. A group of scholars, led by PURC, summarized the economic research and provided this summary to the FCC in its Restoring Internet Freedom proceeding. In general the research shows that some of the activities prohibited by the FCC's decisions can actually be beneficial to customers, but not always.

Beyond Net Neutrality: Policies for Leadership in the Information, Computing, and Network Industries

This paper analyzes the FCC's struggles in developing coherent policies for net neutrality and concludes that the current regulations are counterproductive. It explains a multistakeholder approach that can be used to resolve intra-industry conflicts, which largely drive net neutrality issues, without imposing explicit regulatory constraints on a rapidly evolving technology ecosystem.



Identifying Market Power in Times of Constant Change

This paper explains that traditional approaches to defining markets to investigate market power fail in times of constant change because demand and supply are in constant flux. The analyses rely upon historical data, the value of which degrades over time, possibly resulting in harmful regulatory decisions. This points to a need for a different approach to determining when regulation is an appropriate response to market power. The paper presents an approach that relies upon essential factors leading to monopoly (EFMs), such as control of essential facilities, which persist across generations of products. Market power analyses should be a search for EFMs and policy responses should focus on diffusing the market power without destroying value.

Revealing Transactions Data to Third Parties: Implications of Privacy Regimes for Welfare in Online Markets

This paper examines the effects of privacy policies regarding transactions (e.g., price/quantity) data on online shopping platforms. Disclosure of transactions data induces consumer behavior that affects merchant pricing decisions and the welfare of platform participants. A profit-maximizing platform prefers the disclosure policy that maximizes social benefit. Although this policy benefits sophisticated consumers, it harms those who do not understand the implications of their behavior. Consequently, the welfare effects of alternative privacy policies, data breaches, willful violations of stated privacy policies, and opt-in/opt-out requirements differ sharply, depending on the level of consumer sophistication and on other factors such as the prevailing status quo.

Net Neutrality Policies and Regulation in the United States

This paper examines the history of net neutrality in the United States, beginning with Federal Communications Commission decisions the 1960s and 1970s that laid the groundwork for neutrality policies. The paper also summarizes the economics literature on net neutrality to assess the implications of alternative regulatory approaches.

Technology Blogs

Dr. Jamison blogs on technology issues for the American Enterprise Institute. He addresses issues of net neutrality, universal service, privacy, innovation, competition, and regulatory institutions. His blogs are available on the PURC website at <u>http://warrington.ufl.edu/centers/purc/research/directorsTake.asp</u> or at the American Enterprise Institute website at <u>http://www.aei.org/scholar/mark-jamison-2/</u>.



WATER

Global Regulatory Research, Technical Assistance, and Capacity Building Grant funded by the Bill & Melinda Gates Foundation

This grant will address the challenge of expanding appropriate sanitation services for the poor and other underserved groups by developing a program for knowledge development and incentives for professionals working in urban sanitation in developing countries. There are two basic barriers to any needed change: The lack of technical knowledge on the part of those who are to implement the change and the adaptive challenges of mobilizing people to do something beyond their scope of experience. PURC will develop knowledge products such as case studies, frequently asked questions (FAQs), annotated reading lists and training modules that will fill the knowledge gaps that regulators, other government officials, and utilities need to develop tools and practices appropriate to their situations. Knowledge products will also address the "upstream" issues since many countries are missing proper institutional/policy/regulatory design, consistency and coordination mechanisms which is a clear binding constraint to further advance and scale CWIS.

Data Transparency as a Key Tool for Regulating Government-Owned Water Utilities

Data collection and information incentives are key for regulating the water sector where government ownership and operation is often the case. The problems are compounded for fragile, conflict-affected, and low income states. Issues, potential actions, and supporting examples that arise when monitoring and evaluating infrastructure utility performance are offered by this paper.

Technical Inefficiency Effects in a Stochastic Production Function for Managerial Incentives in Public Water Utilities

Performance of state-owned water utilities in developing countries is often weak. This study estimates the impact of managerial incentives upon efficiency using a stochastic frontier production function with revenue water as the output. The empirical analysis utilizes an unbalanced paneled data consisting of revenue water, connections, operating expenditure, water delivered and staff, from Uganda's nineteen NWSC sub-utilities for a nine-year period, 2002-2010. The inefficiency effects are modelled as a function of utility-specific variables: service coverage, level of financial incentives, target difficulty, and year of observation. While financial incentives and increased service coverage improve efficiency, targets (such as the reduction of non-revenue water) that are perceived as excessive by employees may reduce it. The findings suggest some policy implications: utility managers in the public water sector need to incorporate monetary incentives and increase service coverage to reduce non-revenue water. However, targets need to be set with great care and with transparency.



MULTISECTOR

Blockchain

Dr. Jamison has written several blogs on applying blockchain for regulatory issues. He has also launched a Florida Blockchain group that provides educational services, helps people form businesses using the technology, and advises businesses and governments on the application of blockchain. He testified before the Florida Blockchain Task Force.

Access Pricing in Mixed Oligopoly

Characterizes optimal access prices in mixed oligopoly where a private, profit-maximizing firm competes against a public enterprise after purchasing an essential input (e.g., network access). Optimal access prices tend to be lower for the private firm than for the public enterprise, and can be particularly low for a relatively efficient private supplier. The optimal access price for a private firm is the same whether it competes against another private firm or a public enterprise. Failure to tailor the prevailing access pricing policy to the objectives of the competing suppliers can reduce welfare substantially.

Stakeholders and Power Relations in Regulation

Stakeholders play at least two roles in utility regulation: Some receive benefits, such as customers protected from monopoly power. Stakeholders also influence regulation by, for instance, commenting in proceedings. Most studies on stakeholder relations focus on engagement, such as through advisory groups and public hearings. Largely missing are analyses of power relationships. Some stakeholders, such as lawmakers, have formal authority over regulatory bodies. Others have little formal authority. Stakeholders also vary in how and the degrees to which regulators affect them. This paper examines these relationships and illustrates them with a survey of regulatory agencies in the Caribbean.



OUTREACH

Plans for the 47th Annual PURC Conference – Rates, Realities, and Risks: Ratemaking for Tomorrow

When the world around us changes, sometimes the best practices that used to work are called into question. The U.S. has tried and true methods for regulating utility prices. They were developed to ensure that needed utility investments would be made, that customers would be protected, and that all voices would be heard. Have circumstances changed in ways that important goals are impeded by our current modes of regulation?

Both utilities and customers are trying and adopting new technologies. Do the incentives align with our regulatory objectives? Are risks, rewards, and losses in proper alignment? Some people are concerned that diminishing returns on investments in energy efficiency are making it hard to find efficiency gains. Should we rethink these policies? Long-term financial viability of water systems remains a challenge. What holds us back from investment-inducing ratemaking?

Conference details are available online at <u>http://www.purc.ufl.edu</u>.

How can Florida position itself to make its most effective use of blockchain?

That was the question addressed by PURC Director Mark A. Jamison to the Florida Blockchain Task Force in December 2019. Dr. Jamison explained that other geographic areas have a competitive advantage for innovation in algorithms, but Florida has competitive advantages in applications. This is particularly true for applications in tourism, real estate, agriculture, and niche fintech. Florida should ascertain whether there are laws that are incompatible with blockchain applications, but blockchain-specific laws are probably unnecessary. Government can lead by establishing goals for its own blockchain use. The goals should be a stretch for government, but achievable and specific.

Champions in Energy: Leadership to Address Your Company's Immunity to Change

The status quo is potent. As leaders we often see our organizations failing to make changes that people know would improve success; and we see individuals (including ourselves) fail in the same way. How can we make the changes we know we want, but never seem able to achieve? This was the theme of the workshop that PURC director of Leadership Studies, Araceli Castaneda delivered at the Florida's Women in Energy Leadership Forum held in St. Petersburg, Florida, December 4-6, 2019. The "Champions in Energy: Leadership to Address Your Company's Immunity to Change" workshop engaged the audience in an exercise to reveal the hidden stories you tell yourself - and that people in your company tell themselves - to create a natural but powerful immunity to change. Experiencing how this mechanism holds you back personally helps you recognize it at work in your company. Through this workshop, Ms. Castaneda helped the audience identify the strategies needed for unlocking their own potential, as well as that of the company they lead and finally move forward.



Applying Antitrust in Big Tech

Two fundamental challenges in applying antitrust in Big Tech are: (1) the rise of the neo-Brandeisians; and (2) the contradiction between current antitrust practices that assume static markets, and the dynamism of digital markets. Director Mark Jamison addressed both of these challenges in his comments at the event "Is Big Business Bad? The Law and Economics of Innovation, Entrepreneurship and Antitrust," co-sponsored by the International Center for Law & Economics and the Charles Koch Institute. Dr. Jamison described the contradictions inherent in the neo-Brandeisian school of thought. He also proposed a test for market power that does not depend upon static assumptions, namely examining whether business decision making in an industry reflects a belief that competition is robust or that there is market power.

How can Florida entrepreneurs strategically position themselves in blockchain businesses?

That is the question DMI director Mark Jamison answered in his keynote address at "Demystifying Blockchain," a video conference hosted by the University of South Florida in November 2019. Dr. Jamison explained the comparative advantages that Florida entrepreneurs have relative to California startups, namely Floridians' expertise in tourism, finance, real estate, agriculture, and Latin America. He suggested that the California entrepreneurs have the advantage in technology. Universities can help by hosting an ecosystem that enables entrepreneurs and scholars to learn from each other and expand opportunities.

Applying Antitrust in Digital Markets

At "TPRC47: Research Conference on Communications, Information and Internet Policy," Dr. Jamison discussed conflicts that arise when trying to apply traditional antitrust principles in the context of digital markets. Antitrust has both political and economic foundations. The political approach emphasizes populist themes that ultimately harm economic development, while economic approaches focus on characterizations of and remedies for market power. Digitization of markets thwarts current antitrust tools by adding complexity and rapid change. A number of authors suggest populist approaches for antitrust in digital markets, but these lack rigor and fail to address central challenges. He suggested that antitrust should return to its earliest roots and directly address features in the economy that create market power.

Insights on Antitrust in Digital Markets

Director, Mark Jamison, visited Capitol Hill for this panel as part of TPRC on the Hill. The so-called neo-Brandeisian school of antitrust argues that big companies are bad by definition, and should be broken up, regulated, and/or prohibited from further mergers. The school of thought makes at least three basic errors. One error is that it does not distinguish between a firm that becomes big by serving customers well, versus one that becomes big because it has control over customers or essential resources. Today's big tech companies became big by being good. The second error is that technology is at an end-of-history moment, so that the talents today's tech companies have built will never be surpassed by another innovation. This is an illusion that has led to overuse of antitrust in the past. The third error is believing that government regulators know how businesses should be structured. The reality is that platform economics involves so much uncertainty that numerous platform business models fail. So chances are slim that government officials can design a business that will serve customers well.



How can universities think about financial and environmental sustainability? What can the rest of the world learn from this?

These topics were covered by PURC Director of Energy Studies Ted Kury at the US Energy Association's inaugural Advanced Energy Technology Forum held in Washington DC on July 17, 2019. Dr. Kury presented as a part of the Forum's university panel and shared his thoughts on sustainability and what it means for the infrastructure gap and the emergence of new technologies with US and international leaders from government and private industry.

What progress has the US Federal Communications Commission (FCC) been making on rural broadband?

Quite a bit, according to PURC director Mark Jamison. Testifying before the US Senate Committee on Commerce, Science and Transportation Subcommittee on Communications, Technology, Innovation, and the Internet, Dr. Jamison explained that the FCC's recent policies to improve the effectiveness of its rural broadband programs are based on sound economic thinking and empirical evidence. The FCC is letting customers lead in determining what services should be targeted for rural broadband expansion, is using competition where possible to get the right amount of subsidy into the hands of those who can use it best, and using incentive regulation where competition is impractical. He also complemented the FCC's parallel deregulatory efforts to allow internet service providers to increase the value of their service offerings, which he said may be just as important as the agency's subsidy programs. Lastly, he said it is crucial that overlap across federal and state universal service programs be diminished and that coordination be improved. He testified on March 12, 2019, in Washington, D.C.

Annual PURC Award for Best Paper in Regulatory Economics

This year's award went to Matthew Grennan, University of Pennsylvania, Wharton School and Robert Town, University of Texas for their paper "Regulating Innovation with Uncertain Quality: Information, Risk, and Access in Medical Devices."

Results of the 46th Annual PURC Conference – Digitalization, Disruption, Dogma: The Amazon-Uber-fication of Utilities?

More than 80 key leaders in industry and government attended the 46^{th} Annual PURC Conference, held February 20 – 21, 2019. This year's conference examined disruptive technology, changing business models, adaptive leadership challenges, and how policy is or isn't keeping up.

Body of Knowledge on Infrastructure Regulation (BoKIR) Web site

UF

PURC continues to update this valuable online resource to include more recent information in its sections. 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. As of 2019, the glossary of terms is available in 11 languages including Bulgarian and Arabic.

PUBLIC UTILITY

WARRINGTON COLLEGE of BUSINESS

RESEARCH CENTER

TRAINING AND DEVELOPMENT

45th and 46th PURC/World Bank International Training Programs on Utility Regulation and Strategy

One hundred and forty-nine infrastructure managers learned from each other and from leading experts during the January and June deliveries of this biannual, two-week program at the University of Florida. 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.

2019 PURC Advanced International Practices Program

PURC delivered two courses under its Advanced International Practices Program: Energy Pricing and Benchmarking Infrastructure Operations. In attendance were 32 participants from 8 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. 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.

Comprehensive Regulatory Impact Analysis

PURC's online course provides tools and approaches for regulatory impact analysis (RIA), a systematic appraisal of the potential impacts of a regulatory decision to assess whether the decision is likely to achieve the desired objectives and at what cost. Through case studies, exercises, and lectures, course participants learn how to identify key questions, identify stakeholders and engage them in the analysis, use appropriate analytical techniques, and communicate their findings. In the fall of 2019, this online course was led by PURC director of energy studies, Ted Kury, and PURC director of water studies, Sanford Berg.

Training on Utility Regulation for the Regulatory Authority of Bermuda

What challenges do electricity and telecommunications regulators face in the evolution of technologies and changing ownership structures? What tools do regulators need to manage these challenges? These questions and others were addressed in an in-country training program for the Regulatory Authority of Bermuda by PURC Director of Energy Studies Ted Kury and PURC Fellow, David Brevitz. PURC led Commissioners and staff from



the regulator, representatives of the Ministry, and other stakeholders in discussions and exercises in regulatory principles, structure, and the technical tools for pricing and oversight.

Licensing, Governance, and Regulation for Natural Gas Operators

What does open access for the natural gas system really mean? What do independent system operators do and how can we tell whether they're doing a good job? These questions and many others were addressed by regulators and other participants in Thailand's natural gas sector in a workshop on independent gas transportation system operators held in Gainesville, Florida. PURC Director of Energy Studies Ted Kury was joined by PURC Director of Leadership Studies Araceli Castaneda, Michelle Foss, and John Stanton in a discussion of the challenges and opportunities in the natural gas markets and the roles, responsibilities, and incentives for superior performance of independent system operators.

Energy Pricing Course for Aboitiz Power

What is the impact of distributed generation on the ability of utilities to recover the costs of providing service? How can traditional utility rate designs adapt to mitigate any challenges in revenue recovery? These topics and more were discussed in PURC's customized program for Aboitiz Power in the Philippines. PURC Director Mark Jamison and Director of Energy Studies Ted Kury discussed resource integration, system sustainability, rate design, and revenue volatility with participants from generation and distribution utilities, and moderated group computer simulations designed to test the sustainability of various rate designs in the face of a changing operating environment for electric utilities.

Custom Course in Design and Construction of Regulatory Accounting Systems

This course focused on both the concept and application of the Uniform System of Account (USOA). Twenty one (21) professionals participated in this customized course delivery for the Office of the Energy Regulatory Commission of Thailand, that encompassed classroom sessions, as well as practical workshops where participants worked with model documents for both electricity and natural gas.

Strategic Issues and Leadership in Telecoms, Broadcasting, and Postal Regulation

How can regulatory systems adapt and thrive during times of constant change? That was the central question for a one-week training program at the Uganda Communications Commission (UCC). The course addressed governance, leading change, next practices in regulatory strategy, content regulation, evolving business models, radio spectrum management, competition, postal regulation, regulatory sandboxes, and institutional capacity and development. Board members and staff of the UCC, telecom and postal operators, ministry personnel, private attorneys, and members of parliament attended the course, which was held April 1-5, 2019, in Kampala, Uganda.



Senior Policy Makers Regulatory Forum: How Regulation Works

What do stakeholders need to know about the world of utility regulation? This was the main topic of the workshop delivered in The Bahamas February 4 and 5, 2019. Ministers, permanent secretaries, board members and other high-level representatives from industry and the regulator were offered an overview of regulation, the role of an independent regulator and the appropriate relationships among the different groups involved in the regulatory processes. Attendees also had the opportunity to discuss pressing issues in regulation in The Bahamas.



FACULTY RESEARCH FOCUS



Mark A. Jamison, Director

Dr. Jamison conducts studies on regulation and strategy in telecommunications, information technologies, and energy. 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 is the director of the university's Digital Markets Initiative and was a co-principal investigator on a National Science Foundation grant to examine barriers to adoption of solar technologies in developing countries. His current research examines market competition, antitrust, and institutional change. He has conducted training programs for regulatory organizations in Africa, Asia, Australia, the Caribbean, Central America, Europe, North America, and South America.



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. In addition to his academic work, Dr. Kury has published a number of essays in the popular press on the topic. His work on carbon abatement includes insight into the marginal cost curves for abatement. Theoretically, we can equate the marginal cost with the marginal benefits of abatement to determine optimal levels of emmissions. 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. In addition, the sensitivity of these marginal abatement curves to the price of natural gas means that consumers suffer twice as natural gas prices increase. This question is critical as states decide how to comply with the EPA's Clean Power Plant Rule. 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 studying whether growth in distributed generation resources have an effect on consumption for consumers, impacting system planning and reliability. In 2018 he led the PURC team that performed a study for the Jessie Ball duPont Fund on the Value of Municipal Utilities, utilizing JEA in Jacksonville as a case study.





Araceli Castaneda, Director of Leadership Studies

Ms. Araceli Castaneda's leadership work in 2019 has mostly focused on the topic of change and the difficulties of its implementation. The same values that have made individuals and organizations effective over time may be holding them back from moving into a successful future. Surfacing those values and exploring the loss to be experienced will be key to accept and implement change. Of note in 2019, Ms. Castaneda delivered a workshop at the Florida's Women in Energy Leadership Forum on this same topic. Ms. Castaneda also co-presented the Senior Policy Makers Regulatory Forum: How Regulation Works where ministers, permanent

secretaries, board members and other high-level representatives from industry and the regulator of The Bahamas were offered an overview of regulation, the role of an independent regulator and the appropriate relationships among the different groups involved in the regulatory processes.



Sanford V. Berg, Senior Fellow

Dr. Sanford (Sandy) Berg, PURC Senior Fellow, continues to examine internal and external governance mechanisms in the context of infrastructure reform. After the December 2018 Conference in Manila (sponsored by the Bill and Melinda Gates Foundation), he assisted the Eastern and Southern Africa Water and Sanitation Regulators Association by reviewing their Gates-sponsored report on sanitation initiatives in the region. PURC is exploring a now has a funded project to assist in

training and the development of resource materials. Berg also conducted a study for Jamaica's Office of Utility Regulation on reducing Non-Revenue Water. In addition, Berg continues to assist in the delivery of PURC eLearning and training programs for international participants.



David Sappington, Lanzillotti-McKethan Eminent Scholar

Professor Sappington's ongoing research focuses on the design of regulatory policies to: (i) limit peak electricity consumption by providing incentives for demand response; and (ii) promote efficient distributed generation of electricity via net metering and related policies.



APPENDIX

Public Utility Research Center

Recent Publications and Working Papers

Alvarado de Córdoba, Sylvia, and Juan A.B. Belt. 2018. "Central American Power Markets: Lessons Learned and Policy Recommendations with Particular Emphasis on Competitive Procurement" University of Florida, Warrington College of Business, PURC Working Paper.

Baye, Michael R., and David E. M. Sappington. 2018. "Revealing Transactions Data to Third Parties: Implications of Privacy Regimes for Welfare in Online Markets." University of Florida, Department of Economics, PURC Working Paper.

Belt, Juan, and Nicolas Allien, Jay Mackinnon, and Bahman Kashi. 2017. "Cost Benefit Analysis of Power Sector Reform in Haiti" University of Florida, Warrington College of Business, PURC Working Paper.

Berg, Sanford V. 2016. "Seven Elements Affecting Governance and Performance in the Water Sector" Utilities Policy, 43(A): 4-13.

Berg, Sanford V. 2017. "Three Lessons for Improving Infrastructure Performance" University of Florida, Warrington College of Business, PURC Working Paper.

Berg, Sanford V., and Michelle Phillips. 2016. "Data Availability as a Key Tool for Regulating Government-Owned Water Utilities" Utilities Policy, forthcoming.

Berg, Sanford V., and Michelle Phillips. 2018. "Networks in Infrastructure with Applications to Latin America and the Caribbean" Competition and Regulation in Network Industries Journal, forthcoming.

Berg, Sanford V., and Robert N. Gakubia. 2016. "Performance Based Contracts (PBC) and Regulatory issues" University of Florida, Warrington College of Business, PURC Working Paper.

Bet, Germán, Roger D. Blair, and David E. M. Sappington. 2019. "The Impact of Vertical Integration on Losses from Collusion." University of Florida, Department of Economics, PURC Working Paper.



Boampong, Richard. 2016. "Residential Energy Consumers Response to Energy Efficiency Rebates, Incentives, and Prices" University of Florida, Warrington College of Business, PURC Working Paper.

Boampong, Richard, and Michelle Phillips. 2016. "Renewable energy incentives in Kenya: Feed-in-tariffs and Rural Expansion" University of Florida, Warrington College of Business, PURC Working Paper.

Boampong, Richard, Colin A. Knapp, and Michelle Phillips. 2016. "The Effect of Renewable Portfolio Standards on State-Level Employment: An Ex Post Analysis" University of Florida, Warrington College of Business, PURC Working Paper.

Bose, Arup, Debashis Pal, and David E. M. Sappington. 2016. "Pricing to Preclude Sabotage in Regulated Industries" University of Florida, Department of Economics, PURC Working Paper.

Brown, David P., and David E. M. Sappington. 2016. "Designing Compensation for Distributed Solar Generation: Is Net Metering Ever Optimal?" University of Florida, Warrington College of Business, PURC Working Paper.

Brown, David P., and David E. M. Sappington. 2016. "On the optimal design of demand response policies" Journal of Regulatory Economics, 49(3):265-291.

Brown, David P., and David E. M. Sappington. 2016. "On the Role of Maximum Demand Charges in the Presence of Distributed Generation Resources" University of Florida, Department of Economics, PURC Working Paper.

Brown, David P., and David E. M. Sappington. 2018. "Employing Simple Cost-Sharing Policies to Motivate the Efficient Implementation of Distributed Energy Resources." University of Florida, Department of Economics, PURC Working Paper.

Brown, David P., and David E. M. Sappington. 2018. "Optimal Procurement of Distributed Energy Resources," The Energy Journal, Vol. 39(5), September 2018, pp. 131-155.

Brown, David P., and David E. M. Sappington. 2018. "Optimal Policies to Promote Efficient Distributed Generation of Electricity," The Journal of Regulatory Economics, forthcoming.



Brown, David P., and David E. M. Sappington. 2018. "Self-Sabotage in the Procurement of Distributed Energy Resources," University of Florida, Department of Economics, PURC Working Paper.

Brown, David P., and David E. M. Sappington. 2019. "Motivating the Optimal Procurement and Deployment of Electric Storage as a Transmission Asset," University of Florida, Department of Economics, PURC Working Paper.

Castaneda, **Araceli**, **and Mark A. Jamison.** 2017. "Stakeholders and Power Relations in Regulation" University of Florida, Warrington College of Business, PURC Working Paper.

Castaneda, **Araceli**, **Mark A. Jamison**, **and Michelle Phillips**. 2015. "The Essential DNA of Electricity Regulation" University of Florida, Warrington College of Business, PURC Working Paper.

Cui, Shana, and David E. M. Sappington. 2019. "Access Pricing in Mixed Oligopoly," University of Florida, Department of Economics, PURC Working Paper.

Costello, Kenneth. 2019. "A Cautionary Tale About Energy Efficiency Initiatives" Regulation, 42(1): 26-29.

Costello, Kenneth. 2019. "Rent-Seeking under Public Utility Regulation: Who Protects Ratepayers?" University of Florida, Warrington College of Business, PURC Working Paper.

Fikru, Mahelet, and Michelle Phillips. 2016. "Consolidation of Municipality-owned Water Suppliers in Japan" Water Science and Technology, 695-702.

Hauge, Janice A., and Mark A. Jamison. 2016. "Identifying Market Power in Times of Constant Change" University of Florida, Warrington College of Business, PURC Working Paper.

Hauge, Janice A., Mark A. Jamison, and Laura Jamison. 2018. "X-efficiency vs Adaptive Efficiency: An Analysis of Firm Survival" University of Florida, Warrington College of Business, PURC Working Paper.

Hauge, Janice A., Mark A. Jamison, James E. Prieger, Michelle P. Connolly, and Gerald Faulhaber. 2017. "Economic Scholars' Summary of Economic Literature Regarding Title II Regulation of the Internet" University of Florida, Warrington College of Business, PURC Working Paper.

> PUBLIC UTILITY RESEARCH CENTER

Holt, Lynne. 2015. "Political Implications of the Clean Power Plan for the 2016 Presidential Election." University of Florida, Warrington College of Business, PURC Working Paper.

Holt, Lynne. 2016. "U.S. Electric Utility Creditworthiness--Why the Regulatory Framework Matters" University of Florida, Warrington College of Business, PURC Working Paper.

Holt, Lynne, and Mary Galligan. 2015. "Florida's Proposed Constitutional Amendment on Local Solar Electricity Supply" The Electricity Journal, 28(4):66-77.

Holt, Lynne, and Mary Galligan. 2017. "Utility-Led Community Solar – A "Win-Win" for Customers & Electric Utilities?" University of Florida, Warrington College of Business, PURC Working Paper.

Holt, Lynne, and Mary Galligan. 2017. "State Public Utility Commissions' Role in Cybersecurity and Physical Security Issues: Trade-Offs and Challenges" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2015. "The Economic and Political Realities of Regulation: Lessons for the Future." Energy Regulation Quarterly, 3:17-20.

Jamison, Mark A. 2016. "Co-evolution of Business, Government, Technology, and Economics: Lessons from U.S. Telecommunications" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2016. "Emerging Institutional Weaknesses in US Regulation?" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2016. "Three Things Economists Wish the FCC Knew about Broadband Markets" Georgetown University, Center for Business & Public Policy, PURC Working Paper.

Jamison, Mark A. 2018. "Politics and Business in Social Media Regulatory Responses to the Cambridge Analytica Revelations" University of Florida, Warrington College of Business, PURC Working Paper.



Jamison, Mark A. 2018. "Responses for the Record from Dr. Mark Jamison, Responding to Questions from Sen. Charles E. Grassley (R-IA) US Senate Committee on the Judiciary "Cambridge Analytica and the Future of Data Privacy" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2018. "Comments of Mark Jamison to the Federal Trade Commission on Competition and Consumer Protection in the 21st Century" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2018. "Net Neutrality Policies and Regulation in the United States" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2018. "Comments Filed with the FTC: Competition and Consumer Protection Issues in Communication, Information and Media Technology Networks" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2019. "Net Neutrality Policies and Regulation in the United States" Review of Network Economics, 17(3): 151-173.

Jamison, Mark A. 2019. "Statement before the Senate Committee on Commerce, Science, and Transportation Subcommittee on Communications, Technology, Innovation, and the Internet on 'The Impact of Broadband Investment in Rural America'" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2019. "Market-based Policies for Broadband in Florida," The Journal 62: 12-17.

Jamison, Mark A. 2019. "Letter to the FCC RE: Silos" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A. 2019. "Applying Antitrust in Digital Markets" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A., and Araceli Castaneda. 2017. "Stakeholders and Power Relations in Regulation" University of Florida, Warrington College of Business, PURC Working Paper. Jamison, Mark A., and Janice A. Hauge. 2016. "Adding Dimension to Merger Analysis" Journal for Competition Law and Economics.

Jamison, Mark A., and Roslyn Layton. 2016. "Beyond Net Neutrality: Policies for Leadership in the Information, Computing, and Network Industries" University of Florida, Warrington College of Business, PURC Working Paper.

Jamison, Mark A., and Palveshey Tariq. 2018. "Five Things Regulators Should Know About Blockchain (and Three Myths to Forget)," Electricity Journal.

Kury, Theodore, Cindy Miller, David Richardson, and Mark A. Jamison. 2018. "Valuing Municipal Utilities – The Case of the Potential Sale of JEA in Jacksonville" University of Florida, Warrington College of Business, PURC Working Paper.

Mandy, David M., John W. Mayo, and David E. M. Sappington. 2016. "Targeting Efforts to Raise Rivals' Costs: Moving from 'Whether' to 'Whom'" International Journal of Industrial Organization, 46:1-15.

Mayo, John W., and David E. M. Sappington. 2016. "Regulation in a 'Deregulated' Industry: Railroads in the Post-Staggers Era" Review of Industrial Organization, 49(2):203-227.

Mayo, John W., and David E. M. Sappington. 2016. "When Do Auctions Ensure the Welfare-Maximizing Allocation of Scarce Inputs?" RAND Journal of Economics, 47(1):186-206.

McNealy, Jasmine. 2018. "Twitter Reactions to Hurricane Irma: Mining Social Media for Inferences" University of Florida, Warrington College of Business, PURC Working Paper.

Mugisha, Silver, and Sanford V. Berg. 2016. "Adaptive Leadership in Water Utility Operations: The Case of Uganda" Sustainable Water Resources Management.

Sappington, David E. M., and Dennis L. Weisman. 2016. "The disparate adoption of price cap regulation in the U.S. telecommunications and electricity sectors" Journal of Regulatory Economics, 49(2):250-264.

Sappington, David E. M., and Dennis L. Weisman. 2016. "The price cap regulation paradox in the electricity sector" The Electricity Journal, 29(3):1-5.



Sappington, David E. M., K. Viscusi and J. Harrington. 2018. Economics of Regulation and Antitrust, Fifth Edition, Cambridge, MA: The MIT Press, forthcoming.



II. Outside Persons Who Wish to Address the Commission at Internal Affairs

<u>Note</u>: The records reflect that no outside persons addressed the Commission at this Internal Affairs meeting.

III.Supplemental Materials for Internal Affairs

<u>Note</u>: The records reflect that there were no supplemental materials provided to the Commission during this Internal Affairs meeting.

IV. Transcript

1		BEFORE THE PUBLIC SERVICE COMMISSION
2	FLORIDA	PUBLIC SERVICE COMMISSION
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7	PROCEEDINGS:	INTERNAL AFFAIRS
8	COMMISSIONERS	INIERNAL AFFAIRS
9		CHAIRMAN GARY F. CLARK COMMISSIONER ART GRAHAM
10		COMMISSIONER ART GRAHAM COMMISSIONER JULIE I. BROWN COMMISSIONER DONALD J. POLMANN
11		COMMISSIONER ANDREW GILES FAY
12	DATE:	Tuesday, February 18, 2020
13	TIME:	Commenced: 9:30 a.m. Concluded: 10:21 a.m.
14	PLACE:	Gerald L. Gunter Building
15 16		Room 105 2540 Shumard Oak Boulevard Tallahassee, Florida
17	REPORTED BY:	DEBRA R. KRICK
18		Court Reporter and Notary Public in and for
19		the State of Florida at Large
20		
21		PREMIER REPORTING
22	נ	114 W. 5TH AVENUE FALLAHASSEE, FLORIDA
23		(850) 894-0828
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1 PROCEEDINGS 2 CHAIRMAN CLARK: Well, good morning. Welcome 3 to Internal Affairs agenda. Good to see everyone 4 this morning. We will go ahead and call our 5 meeting to order. 6 Before we begin this morning, I would just 7 like to take a moment of personal privilege. One 8 of the goals that I kind of set for myself as 9 Chairman is to work harder to make sure that we are 10 recognizing our employees for the outstanding work 11 that they do. And one of the things that we have 12 done is a little bit of a revision to our employee 13 recognition program, and we are going to kind of 14 kick this new program off this morning. And I just 15 want to thank Bobby for all the hard work that he 16 did in helping. Where is Bobby? 17 I want to thank Bobby for all the hard work 18 that he and his staff did in putting together the 19 details of our new Employee Recognition Program. 20 And we just want to make absolutely certain that 21 the employees and staff here know how much they are

appreciated by the Commission, how much they are

appreciated by their peers. And we want to take an

24 opportunity to recognize individuals who have made 25 an extra contribution, who have gone above and 114 W. 5th Avenue, Tallahassee, FL 32303 (850)894-0828 Premier Reporting

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beyond, and being recognized by their peers, and
being nominated for this new award by their
particular departments or divisions, and we just a
want to make sure that we are recognizing these
folks.

So we want to start this morning with our first -- the first of our awards in employee recognition, and it is an honor for me to present the employee of the month.

10 This year -- this month's employee of the 11 month is representing the Division of AIT, and I 12 want to just read a very quick bio on Ms. Joyce 13 Pafford.

14 (Applause from the audience.)

15 Ms. Joyce works in the Human CHAIRMAN CLARK: 16 Resources -- as a Human Resource Analyst in the 17 office of Human Resources. Joyce arrives to work 18 each day with a smile on her face and a strong 19 desire to make the Commission a better place for 20 Specifically she spends much of her each employee. 21 time working with our retiring employees. 22 Retiring as a State of Florida employee is 23 exciting and something that should be celebrated, 24 but it also can be unnerving event for some because

they are making decisions that will affect them for

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the rest of their lives.

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2 Joyce is extremely knowledgeable and willing 3 to spend the time necessary explaining all options 4 to retiring employees. She thoroughly explains all 5 the options available to retirees, whether it's 6 insurance, benefits or financial planning. Joyce 7 truly cares about every retiree and wants to ensure 8 that they have the information necessary to make 9 informed decisions. Join me in congratulating Ms. Joyce Pafford. 10 11 (Applause from the audience.) 12 (Presentation of award.) 13 We have a small token of our CHAIRMAN CLARK: 14 appreciation and congratulations. 15 (Photos taken.) 16 (Applause from the audience.) 17 CHAIRMAN CLARK: Thank you so much. 18 Each month, we will be recognizing at Internal 19 Affairs an employee of the month, and each of our 20 employees of the month will be representing a 21 different division within the agency. 22 The different division heads are responsible 23 for making those recommendations to the Chairman's 24 office and then we go through a selection process, 25 and we will recognize one of those each month. So

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look forward to that.

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All right. Let's begin this morning. The first item on the agenda is the Public Utility Research Council annual report. That would be Jamison, you are up.

Welcome to Internal Affairs.

DR. JAMISON: Well, thank you.

8 I liked what you just did in recognizing your 9 staff. A long time ago, I was head of research for 10 the Iowa Utilities Board, and I worked a lot with 11 the staff and the commissioners from the Florida 12 Public Service Commission back in those days, and 13 recognized the leadership that Florida tends to 14 provide in that area.

15 Once I got to academia, we actually did a 16 study to see were there particular states that when 17 they took on an issue and decided it that other 18 states tend to follow, and Florida was one of those 19 There was a handful of, maybe four, I states. 20 think, around the country, and that depends upon 21 the quality of the staff to get that kind of a 22 thing done. So that's well -- well thought out. 23 Let me just talk a little bit about what PURC 24 is doing. Thank you for your long-term support of 25 You know, our job is to help people understand us.

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and think about issues really, really well. We don't have the answers. We just want to help people think.

4 In the space of -- if you have looked at our 5 report, you will notice in the space of energy, 6 we've had several things we've been looking at. 7 One is how do you help -- or how do we provide the 8 right structure for electric utilities to make good 9 decisions based upon -- excuse me -- in the issues 10 of do we build transmissions? Do we do energy 11 storage? How do we set prices?

12 And it turns out a lot of the things that we 13 are seeing being done around the country maybe 14 aren't the optimal things to do. That it really is 15 about providing the options, allowing the options 16 and to rewarding utilities when they make good 17 choices. That tends to be the right way to go.

18 We also looked at net metering, finding out 19 again that a lot of studies have shown that it's 20 really hard to do that right. Almost never can 21 that be done right. And so, you know, thinking 22 about energy -- excuse me, renewable energy and 23 such, there might be better approaches for that, 24 but that's -- that's our research. 25 In the space of solar, we've looked at how it

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is that how do consumers behave? How do they
change their behavior once they adopt solar
technologies? And find out -- found out they
actually increased their energy consumption by
eight to 14 percent.

We've got a next step to do in that, and wonder is that just solar technology or is it the fact that they own it? And so we are going to be looking at utility scale versus consumer solar to see if you still get those same kinds of results.

Our Director of Energy Studies, Ted Kury, has done a lot of blogging on energy issues. He blogs in a space called The Conversation, which is set up by universities so that reporters have them as resources.

16 He gets a lot of reads. He is one of the 17 leading energy writers there. He has written on 18 the issues with Pacific Gas & Electric, all the 19 discussions. Should it be state owned? Should it 20 be municipally owned? Should it go through 21 bankruptcy? Whatever. He's -- he has been writing 22 in that space, and every year does something on 23 hurricane hardening, helping people think about 24 those issues as well.

25 In the water space, we've looked at

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incentives, and both in the terms of incentives for management to do the right kinds of things. Found out that's critical, especially if it's a government-owned water utility.

5 And as we all know, our water utilities, 6 whether they be municipally owned or privately 7 owned, don't have the investment and the 8 infrastructure that's really going to make things 9 efficient, and so that will actually be a topic for 10 our annual conference.

We also do a lot in the technology space. We provided input to the Florida Blockchain Task Force on what kind of Florida -- what might be -- excuse me -- Florida's priorities. In that space, wrote an article on what utility regulators probably should know about blockchain.

17 Have worked on broadband issues as well. 18 Testified before the U.S. Senate on rural 19 broadband, how is the FCC's policies, how are they 20 working out? And a little bit about Florida as 21 well. What can we see from the patterns of the 22 broadband gaps -- gaps here? 23 And then in so many industries going more and 24 more digital, what does that mean for competition? 25 What's that mean for antitrust? So we've been

looking at the privacy issues in that. We've been looking at data ownership issues, and then just how does this change how we think about market power.

4 A lot of what we do, though, is training. As 5 you know, we offer courses around the world on 6 utility regulation. We have always welcomed the 7 FPSC staff to attend any part of those if they 8 would like to, and some have in the past, and 9 that's been a welcome contribution from our 10 perspective, because your staff provides really 11 good inputs in those particular courses.

As matter of fact, we had a group from Thailand that we were teaching about setting up a uniform system of accounts. So utility -- energy regulator had never had an accounting system before, so we worked with them on that. They came over and talked with the FPSC staff and learned a lot about how that is done here in Florida.

We have a regulatory impact analysis course that we offer on-line. That's been pretty popular. Then we also did a presentation at the women's forum on energy -- energy leadership. I got the name -- the words out of order there, but it's in there someplace.

That was on what we call Immunity to Change,

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1 which is an issue -- there is things that you have 2 always wanted to do and you know you should do them 3 but you never get them done, whether on a personal 4 level or a professional level, or just for an 5 organization, how do you figure out what holds you 6 back? And so our director of leadership studies, 7 Araceli Castaneda, took the whole group through 8 that exercise. And we found it makes a huge 9 difference for people to be able to figure those 10 things out.

We are looking forward to our 47th annual conference. That starts tomorrow. That's -- we are going to be focusing on the future of rate-making.

15 As we've talked with people around Florida, 16 and around other places as well, one of the things 17 I think that's important to each keep in mind is 18 the way that we do utility pricing came, not from a 19 grand theory, but from people trying to solve 20 fairly practical problems. And as those problems 21 evolve, so does the way that we do rate-making. So 22 we just thought it would be a good time to pause 23 and look at it and say, where did we come from, and 24 what might that mean for the future as the industry 25 and the regulatory system changes over time.

1 We will also be looking at electric vehicles, 2 how that plugs into the system. No pun intended. 3 I am just an economist. I stumble with the words. 4 We will also talk about next generation energy 5 efficiency. Florida was, I think, the very first 6 state to adopt energy efficiency as a policy for 7 the electric and -- yeah, the electric sector. So what's next in that? Are we -- are we going still 8 9 the right directions for all of that?

10 And then we wanted to also look at energy 11 markets. This keeps coming up as possible 12 constitutional amendments in Florida. Why is that 13 What have people been learning around the true? 14 country just as practical lessons and then -- or in 15 academia, what does the academic research say as 16 And looking forward to that panel and maybe well? 17 some of the most substantive discussion we've had on it because we have panelists that will come at 18 19 it from fairly different directions for very, very 20 good reasons, and we just want to explore and 21 say -- and see if this comes up again, how can we 22 help the discussion to be substantive in that. 23 So glad to talk with you about any of the 24 things we've been working on, or anything else 25 that's on your mind. Thank you for your time.

1 CHAIRMAN GRAHAM: Any questions? 2 Commissioner Brown. 3 COMMISSIONER BROWN: Thank you, Mr. Chairman. 4 You talked about providing insight into the 5 blockchain technology group that's convened. 6 DR. JAMISON: Yes. 7 COMMISSIONER BROWN: What three things -- you 8 talked about regulators should know. Could you 9 give us three things that regulators should know 10 about blockchain? 11 DR. JAMISON: Yeah, see, now you are trying to 12 help me remember a paper I wrote a few months ago. 13 So one is to kind of understand that some of 14 the myths about it are not correct. So one of the 15 myths is that it consumes tremendous amounts of 16 electricity. Some blockchains do, most do not. 17 That particular issue has been solved, and so we 18 can use blockchain fairly efficiently now. 19 Also understand that we've got this thing in 20 the system called Smart Contracts. And they are 21 neither smart nor are they cracks. They just a set 22 of formulas that, once you push the button, they 23 will play out, and that's all they really do. So 24 they have no particular legal standing unless you 25 give them that kind of legal standing.

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1 The other thing I would keep in mind is that 2 sometimes this can be a real advantage for 3 regulators. And I don't know how that would work 4 in Florida, but I have talked with other regulators 5 around the world, and some of them, where they are 6 trying to coordinate work they do across multiple 7 agencies, receive being able to use that technology 8 so that they all know what each other is doing, 9 because you are all then working from a common 10 database that updates immediately, and it's what we 11 would call immutable, which means that it's really, 12 really, really hard to change and falsify, and they 13 see that as a real advantage when you have got 14 multiple agencies all working on utility issues, 15 how do that together. 16 So that's three of the eight things that are 17 in the paper. 18 COMMISSIONER BROWN: Thank you so much. 19 CHAIRMAN CLARK: Other questions? 20 Commissioner Fay. 21 COMMISSIONER FAY: Go ahead. 22 Commissioner Polmann. CHAIRMAN GRAHAM: 23 COMMISSIONER POLMANN: Thank you, Mr. 24 Chairman. I have about an hour's worth of 25 questions.

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1 COMMISSIONER BROWN: Yay. 2 DR. JAMISON: I have --3 CHAIRMAN CLARK: We have all day. 4 DR. JAMISON: -- answers, though. COMMISSIONER POLMANN: You do a lot of work 5 6 internationally, as you mentioned. 7 DR. JAMISON: Yes. 8 COMMISSIONER POLMANN: And I guess I would 9 like to know how you see your -- your focus maybe 10 over the next few years on the international 11 program versus national program versus a Florida 12 focus. Can you give us a little feel on where you 13 see the next, you know, two, three, five years? 14 DR. JAMISON: I think over the next few years, 15 we will be spending more time on Florida, just 16 because of the way the issues are coming up. So in 17 all of the technology issues, that's going to show 18 a lot more of a Florida focus. So -- and also 19 water issues are becoming more and more ripe --20 riper in Florida, so you will hear from -- hear 21 more from us in that space as well. 22 COMMISSIONER POLMANN: Okay. Well, you may 23 have answered -- may have answered my next 24 question, which is similarly a comparison of the 25 energy, water, gas focus, where do you see that in

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the next few years?

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2 DR. JAMISON: Most of our focus will be in 3 energy, and then lesser stint in the technology. 4 Water, we don't have enough resources to commit to 5 doing lots in the water space.

6 COMMISSIONER POLMANN: And among those, are 7 there a couple of key issues in these various 8 spaces that you can highlight for us? What do you 9 see -- obviously, this is going to depend on 10 funding, but do you anticipate -- I mean, you need 11 to know where the money is going to come from. 12 What do you see in the next few years on energy, 13 water, gas? Does the money come from?

DR. JAMISON: Lots of places. So our bread and butter is actually the courses we teach. That funds 80 percent of what we do, probably about 70 percent now, because we received some research grants recently.

In the water space, we have been doing some work with the Gaetz Foundation on sanitation issues. That's pretty much focused on outside the U.S. We're probably going to reset that some so that we are not quiet as involved in that as we originally thought we might be, but that's -that's yet to be determined.

1 In the energy space, I really think it's in 2 the renewable energy, in the energy storage is 3 where I see a lot of our work, continuing, of 4 course, with the storm hardening. That's an 5 ongoing focus just because we are in Florida. 6 On the technology space, it's how is the 7 technology changing industries? How is this 8 changing how government responds to industry? 9 So that's fairly broad, but a lot of -- a lot of industries are facing that very same issue. 10 Ιt 11 shows the greatest, of course, in what we call the 12 tech sectors, you know, the Googles, the FaceBooks 13 et al., the telecommunications then, but also 14 that's popped up now for energy bigtime. 15 COMMISSIONER POLMANN: With regard to funding, 16 is there anything that you would recommend? And I 17 put you on the spot here just because we are in 18 session, you might not feel comfortable, but that's 19 okay, I don't mind you being uncomfortable. 20 DR. JAMISON: That's all right. 21 COMMISSIONER POLMANN: Anything that you would 22 recommend perhaps over the next session for the 23 Legislature, what they might do to enable you to 24 broaden your partnership funding? What is it that 25 might help you get a broader spectrum of funding

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1 partners beyond your educational course --2 DR. JAMISON: Yeah, I --3 COMMISSIONER POLMANN: Where's the big money? 4 DR. JAMISON: I have a bias, and the bias is we should respond to what people value, and so I 5 6 have never gone to the Legislature for money and 7 just --8 Well, not that they COMMISSIONER POLMANN: 9 would give you money. 10 DR. JAMISON: Right. 11 COMMISSIONER POLMANN: But is there some -- is 12 there any constraint -- any place where you feel 13 that you should be able to look elsewhere, or look 14 more broadly for funding partners? Is there 15 another source that you haven't been able to tap, 16 or someplace where you would like to -- like to 17 look? 18 I haven't noticed anything that DR. JAMISON: 19 I would say the Legislature or legislation holding 20 us back. We do have grants from foundations. 21 The Florida utilities have been great sponsors 22 ever since the start. It was back in the early 23 1970s that actually the presidents of Florida 24 utilities got together with the dean and the head of finance at the University of Florida and said, 25

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1 well, you need a research center because we have 2 these issues coming up and people are getting --3 getting some of the numbers wrong, so somebody 4 needs to help us think through this well. 5 So no, I haven't found too much that holds us 6 back, other than the university's bureaucracy, so 7 if we had less bureaucracy, that would be nice. 8 But that's probably not going to happen. 9 COMMISSIONER POLMANN: Yeah, there is a 10 tremendous overhead with the bureaucracy. I am 11 familiar with that, so... 12 You had mentioned solar and batteries, and so 13 That's going to be very important for the forth. 14 Commission to deal with --15 DR. JAMISON: Yeah. 16 -- so personally, I COMMISSIONER POLMANN: 17 think -- well, not just for me. I think the 18 Commissioners, as a body, would encourage some 19 additional work --20 DR. JAMISON: Okay. 21 COMMISSIONER POLMANN: -- ongoing work as we 22 see solar certainly continuing to be a major issue 23 for us. And then there is a real challenge with 24 how battery storage is going to be developed, both 25 as a technology and then being deployed --

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1 DR. JAMISON: Yes. 2 COMMISSIONER POLMANN: -- so I think you will 3 see that across the industry. 4 The other question that I think we are curious 5 about, and you have identified water as being of 6 major interest, and I am wondering if you see any 7 opportunity in some of your work, and I know this 8 nationally as well as being an issue, is whether 9 there is a transition or any analysis that can be 10 done on the transition between small private water 11 companies and long-term funding for infrastructure 12 improvement, or how -- what does the infrastructure 13 funding need, and whether there could or should be 14 a transition over from small private to municipal 15 companies, or municipal utilities or a 16 consolidation, what would be the appropriate way to 17 be looking long-term on how to address those needs, the financial needs of these small companies, and 18 19 where do you see that going? 20 Is there something you can add to that 21 discussion? And again, what would be the partners 22 to bring into that discussion? Can you give us 23 some insight on where you see that? 24 DR. JAMISON: Sure. I think there are two 25 things, maybe three.

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1 One is to know we've been down this road 2 We've been down this road with before. 3 telecommunications. We used to have -- I came from 4 the midwest. We had 40 small telephone companies 5 in Kansas, 140, I think, in Iowa, that consolidated 6 over time, just because it's hard sometimes to be 7 efficient with the small ones.

8 The facilitation of those discussions is 9 really critical. Something we did in the state of 10 Florida quite a few years ago now is we held 11 industry roundtables. And the purpose of the 12 roundtable was kind of like scenario planning. You 13 help people think, okay, what should the world --14 what could the world look like five years from now, 15 10 years from now, just pick a horizon? What would 16 you like for it to look like then? And then 17 looking backwards, what's the path that you took to 18 get there?

19And that helped us get through a lot of20competition issues in telecommunications, helped us21with some fuel diversity issues in the energy22sector as well. But primarily we used it in the23telecom space, and that was pretty helpful.24I think analytically, we would want to know25what are the financial implications of

consolidation. Whether it be a city purchasing the
 small, kind of mom and pop utilities, or an
 investor-owned.
 They are both treated differently in how rates

5 eventually get set, how costs are recovered. And 6 it would be nice if that weren't going to be the 7 case. If the financial opportunities were the 8 same, and all we are talking about is what's the 9 right management structure for that particular 10 system?

11 COMMISSIONER POLMANN: I would encourage some 12 thought on how to examine that. I mean, we don't 13 have an opportunity for us to delve into that until 14 we have a rate case to look at, and then I feel 15 like it's too late.

16 DR. JAMISON: I'm yeah, it is too late.

17 COMMISSIONER POLMANN: If we could have some

18 independent information that, really just for

information, because I --

DR. JAMISON: Yeah.

21 COMMISSIONER POLMANN: -- it's a problem, and 22 I don't -- I think everybody would agree it's an 23 issue. I don't want to call it a problem because a 24 problem arises case-by-case, and then -- and then 25 again, it's very specific, but it feels like it's

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too late. But we all know there are major infrastructure issues, water quality problems come up and, again, it becomes an infrastructure issue, and that's very, very costly.

5 So I feel like it's a big problem on the 6 horizon, and I would rather have folks like you 7 look at the big picture and maybe give some 8 guidance to the State.

9 And as I mentioned, I know there are many 10 other states we address in our water committee at 11 NARUC that everyone agrees they all have the 12 problem because there are very many underfunded 13 small utilities around the country, and especially 14 in the southeast where I am familiar we deal with.

15 The last point I would like he make is I only 16 see one item that you listed here where the word 17 stochastic shows up. Personally, in my background, 18 that's a very important word. So going forward, I 19 want to see that word appear in every single one of 20 these at least in the write-up, if not in the 21 title. So put that on your list of things to do. 22 DR. JAMISON: I know which summary you are 23 talking about. 24 COMMISSIONER POLMANN: Yeah. 25 DR. JAMISON: And it's there because I didn't

1 edit that one. 2 COMMISSIONER POLMANN: No. No. That needs to 3 occur as a requirement, from my perspective. And 4 my Commissioners, they have no idea what I am 5 talking about --6 COMMISSIONER BROWN: No. 7 COMMISSIONER POLMANN: -- and if they do, I 8 congratulate them. So I implore you --9 DR. JAMISON: It's an experience, right? 10 COMMISSIONER POLMANN: Yeah, I implore you, 11 that must be in there at least twice, and three 12 times, I will give you a gold star. So thank you. 13 Thank you, Mr. Chairman. 14 CHAIRMAN GRAHAM: Thank you, Commissioner 15 Polmann. 16 Commissioner Fay. 17 COMMISSIONER FAY: I know we are headed --18 well, some of us are headed to he see you 19 tomorrow --20 DR. JAMISON: Yes. 21 COMMISSIONER FAY: -- for your annual meeting. 22 You do -- we've talked a lot, you do a lot of 23 leadership training with, I guess I wouldn't call 24 them students necessarily, but international --25 DR. JAMISON: Right.

1 COMMISSIONER FAY: -- folks who work in the 2 industry, and it seems like you do that very 3 well --4 THE WITNESS: Thank you. 5 COMMISSIONER FAY: -- I think the feedback you 6 get from that is very good. 7 When you meet with those folks and do the 8 trainings, is it -- I mean, do they perceive it as, 9 you know, the United States government, the State 10 of Florida, the University of Florida? I mean, 11 where do they see kind of them getting their 12 training from and their assistance from? 13 DR. JAMISON: We are -- we are known primarily 14 as the PURC course, and so they -- they look at us 15 They don't look at us as being that way the. 16 anything tied to the U.S. government, or 17 governments. 18 Some people will see us sometimes as tied to 19 the World Bank because we include the World Bank's 20 name on two of our courses. And we do that because 21 the World Bank provided seed money back in 1996, 22 and we just kept the name on it ever since then, 23 although they have no involvement. 24 So they -- it's my experience in talking with 25 them, they see us primarily as people that have

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1 both academic and practical experience that can 2 bring 30 countries in a room at the same time and 3 have a substantive discussion, and learn from that 4 discussion. That's how they describe me to me. 5 COMMISSIONER FAY: Yeah. And this is just my 6 opinion, but, you know, I think Florida regulates 7 utilities very well, and I think the Commission 8 does a very good job with the staff and the 9 complicated issues that they have. 10 Do you -- are some of the discussions showing 11 kind of the things that we do well in Florida to 12 influence kind of what they are doing, or is it 13 more of a broader, you know, nationally here's kind 14 of what the U.S. is doing with their grid, and --15 because some of these nations have very little

16 infrastructure, so...

17 DR. JAMISON: Yeah. You will hear more about 18 Florida than the U.S. We tend not to talk about 19 the U.S. system very much, because most people 20 can't imitate it anyway --21 COMMISSIONER FAY: Yeah. 22 DR. JAMISON: -- so. 23 COMMISSIONER FAY: Just because of the 24 infrastructure investment? 25 DR. JAMISON: And the government systems, the

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1 business systems, just it's very different wherever 2 you go in the world. And so what we try do is help 3 them take the different snapshots of the case 4 studies, whether it be in Florida, Brazil, the UK, Uganda wherever that might be. 5 6 I would say one of the principles we see 7 driving things -- every case is different, but they 8 all have underlying principles. What are those, 9 and how do you apply those in your situation? 10 So you don't want to take a solution and say 11 can I transplant that into my system? Why does 12 this solution, or why does this failure exist, and 13 what's that tell me about what I can do? 14 COMMISSIONER FAY: Yeah, I appreciate that. 15 And then finally, would you say there is a 16 panel or part of your agenda that would be the best 17 thing to attend to your conference in the next two 18 days? 19 You are putting him in a bad CHAIRMAN CLARK: 20 spot. Aren't we both on one? 21 There is one that we have this DR. JAMISON: 22 very bright commissioner monitoring to let you 23 know. 24 COMMISSIONER FAY: Okay. I appreciate that. 25 I know we were looking at the agenda. Is

1 there sort of a fuller agenda that's coming out 2 I know we had seen kind of a skeleton -todav? 3 DR. JAMISON: Oh, the one on-line is 4 up-to-date. 5 COMMISSIONER FAY: Okay. 6 DR. JAMISON: So, yeah, I was just looking at 7 it this morning. It's fully up-to-date. 8 COMMISSIONER FAY: Got you. Okay, great. 9 Look forward to it. 10 DR. JAMISON: Thank you. 11 CHAIRMAN CLARK: Just two questions I had. 12 No. 1, I want to key off of Commissioner 13 Brown's comments regarding blockchain, because I 14 guess my understanding kind of is a little bit 15 different. 16 Can you give us a little bit about how 17 development is going to be integrated into the 18 cybersecurity side? I mean, I know we talked about 19 protecting data and that kind of stuff, but how is 20 blockchain going to be integrated in our utility 21 world to give us the type of cybersecurity that we 22 are looking for to protect the system? Or am I 23 totally off base? 24 DR. JAMISON: Yeah. 25 I hear that a lot. CHAIRMAN CLARK:

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1 DR. JAMISON: My yes was I am confirming Yes. 2 I heard what you said. 3 I have not heard people talking about 4 blockchain in cybersecurity context very much. Ιt 5 shows up more in business management than it does 6 in cybersecurity. It certainly could play some 7 role because it makes data harder to corrupt, but 8 it's still not -- not perfect in that regard. 9 CHAIRMAN CLARK: Okay. 10 Because see, cybersecurity is DR. JAMISON: 11 oftentimes about who can walk into your building 12 and do something. It's not about the technology. 13 It's about the people? 14 CHAIRMAN CLARK: And my second question is, I 15 am kind of looking for the spoiler alert here for 16 the entire conference. You have talked about the 17 innovations that are coming down in rate-making, 18 and how that's -- how the changes occur. 19 If you had to pick one thing to kind of hinge 20 on that's going to be the deal changer for the 21 state of Florida in rate-making, what's the one 22 issue we need to be looking out for? 23 I am not sure about the direct DR. JAMISON: 24 answer to your question on what's the issue that 25 would change things for Florida.

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1 What we are looking forward to, and what I am 2 particularly looking forward to, Carl McDermott is 3 our keynoter. I don't know if you know Carl or 4 not. He was an academic in Illinois and became a 5 commissioner and went back to academia, is also a 6 consultant with National Economic Research 7 Associates, amazingly bright and capable guy.

8 He's going to go back in history and say, 9 here's what got us to this point. Here are the 10 forks in the road. And given where we are today, 11 do we want to go back and revisit some of those 12 forks?

And I don't know exactly how -- what he is going to say about that, but I think that's really important to keep in mind; because as I alluded to at the start, regulation the way we know it in the U.S. evolves step-by-step. There wasn't a grand vision.

19I went back and read all the stuff many years20ago of people trying to figure out how do we do21things. It was done step-by-step. And so22understanding what those steps were and what they23tell us about what we should do for our next step24would be really important.25And that's actually one of the things in some

1 of the courses we teach on leadership, is about how 2 do you think about next steps, because there -- a next practice is what we call it, because there is 3 4 no Best Practice going into the future. There is 5 only what are you going to try next? How are you 6 going to learn from it? 7 COMMISSIONER GRAHAM: Okay. Thank you. 8 Any other questions? 9 Commissioner Brown. 10 COMMISSIONER BROWN: Just one last one 11 regarding storm hardening, you are going to 12 continue to focus a lot of your research and your 13 efforts on storm hardening in Florida, and you are 14 familiar, obviously, with the Storm Protection Plan 15 rule --16 DR. JAMISON: Yes. 17 COMMISSIONER BROWN: -- that has been rolled 18 out by the Commission. 19 At our last IA, or the one before, we were 20 talking about gas pipelines, and distribution 21 lines, and excavators' ability, and we were -- the 22 discussion kind of grew and we started talking 23 about how undergrounding is going to occur in 24 certain areas. 25 What is your involvement and role going to be

1 as we start looking at those storm protection plans 2 with regard to undergrounding? 3 DR. JAMISON: Yeah, we have no direct 4 involvement in the rule-making and such as you had, 5 and how you are implementing those. Our role in 6 storm hardening is to help the utilities coordinate 7 their work on the research side. We are scholars. 8 That's our space. 9 So we've developed the computer models that 10 can be used to help understand what are the 11 economics of undergrounding in a particular 12 situation? How to not just what the costs might 13 be, but what might be the consequences for storm 14 damage going down -- going into the future. 15 So we will continue to play that role. And if 16 there are other things that we can do to be 17 valuable, would be glad to do it. That's -- that's 18 where we are at this moment. 19 COMMISSIONER BROWN: Thank you. 20 CHAIRMAN CLARK: Any other questions? 21 Well, we look forward to seeing All right. 22 vou in Gainesville tomorrow. 23 Thank you very much. Appreciate DR. JAMISON: 24 it. 25 CHAIRMAN CLARK: All right. The next item is

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1 legislative agenda. Mr. Potts. 2 MR. POTTS: Good morning. 3 CHAIRMAN CLARK: Good morning. 4 MR. POTTS: It's UF day at the Capitol. 5 COMMISSIONER BROWN: I know. 6 COMMISSIONER FAY: Maybe Bob Vila will be 7 there. 8 Where is my gavel? MR. POTTS: 9 COMMISSIONER FAY: I moved it. 10 So we are in the sixth week of MR. POTTS: 11 session now. Counting today, there is 25 days 12 left, and it's looks on track that it will be just 13 that. 14 House and Senate have both passed their 15 budgets off the floor, so they are going to be in 16 position to go to conference soon. Our budget 17 looks good in both, actually both match up our the 18 LBR, so we seem to be in a good spot right now. 19 7018, which was the electric vehicle charging 20 infrastructure bill by -- by -- sorry -- Senate 21 Infrastructure and Security, it passed its second 22 committee last week, and --23 COMMISSIONER BROWN: Did it pass unanimously? 24 MR. POTTS: There was two no votes. Yeah. 25 It added a strike all amendment. And the

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1 strike all included a title change. So now the 2 bill is relating to essential state infrastructure. 3 The first change was to 337.401. It adds --4 it allows for a shot clock for permitting. So it 5 sets the times that the municipality has to get 6 back to them in the permitting process. 7 This is piggybacking off of language that has 8 passed previous sessions that was used by the 9 telecoms for the small cell technology, so they are 10 piggybacking off of that in this bill. 11 The second change states that agricultural 12 land that is being used for a conservation easement 13 can be negotiated by the owner to be used for 14 construction, operation of any public or private 15 linear facilities and related access. 16 So those were the two changes that 17 necessitated the title change to the bill. 18 The original language that instructs the PSC 19 to come up with a plan for current and future 20 development of the charging infrastructure for 21 along the state highway system is still in place, 22 so nothing has changed there. So that's where that 23 bill stands. 24 There are some other vehicles in the House. 25 The companion bill for this that has just the

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1 original language did not -- has not gone through 2 committee, but there is some other vehicles, so we 3 will have to see how that moves forward. 4 The other bill that I just wanted to bring up 5 was the House Bill 207 and Senate Bill 658. That's 6 the acquisition of water and wastewater systems. 7 So 658, the Senate Bill passed its first 8 committee yesterday. There was an amendment. It 9 also included a title amendment. It removed 10 acquisition and just changed to water and 11 wastewater systems, and added an amendment at the 12 end to it that has to do with municipalities, the 13 rates that they can charge other customers in other 14 municipalities that are getting their water and 15 sewer sys-- sewer services. 16 The bill has two -- has two stops left, and 17 then the House bill is -- has just commerce left 18 before it goes to the floor. 19 So we are watching those two. We don't have a 20 position, but we are just paying close attention. 21 CHAIRMAN CLARK: I wanted to make two points 22 on 658, the amendment that was proposed, I quess 23 was it yesterday --24 MR. POTTS: Yes? 25 CHAIRMAN CLARK: -- that the amendment got

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stuck on it? Just a very quick review of that.

2 It basically implies that if you are 3 providing -- if a municipality is providing water 4 services, sewer services to a residence in another 5 municipality, they can't have a surcharge. 6 However, if they are connected and serving rural 7 residents that are between those two 8 municipalities, those rural residents could have a 9 surcharge.

10 I think that's unfair, would be the best way 11 to describe it to begin with. And I think that's 12 something that needs to be pointed out to those 13 that are considering supporting this bill, that 14 there is a problem with that, and there is a 15 disparity between the rates of those that live 16 inside the municipality and outside. And you can't 17 argue that tax dollars in the municipality that's 18 providing the initial service are subsidizing that 19 because the other municipality is not paying an 20 additional surcharge, so I think it's something 21 that certainly needs to be looked at. 22 Also, on the, basically the acquisition 23 adjustment that we've talked about in 658, or

24 that's being proposed in 658, I know staff did a 25 great job on the bill analysis. I certainly concur

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with your analysis and your position.

I would state that I do have some serious concerns about the adjustment. If it passes the way the bill is proposed right now, basically you could end up carrying 100 percent of an acquisition adjustment in the rates. You have absolutely no idea what the rate impact on these customers would be.

9 Right now it's at the Commission's discretion 10 if we see it economically viable, economically 11 sound, we can make that adjustment. We have that 12 That discretion goes away if this bill discretion. 13 passes, and I think that it's going to be putting 14 that -- the bulk of that acquisition adjustment 15 into the rates, and I don't see that as being a 16 fair.

17 So if you get asked opinions on this, at least 18 have -- have -- be able to present both sides of 19 There is going to be potentially the issue. 20 substantial rate impacts for those systems that get 21 purchased. 22 Commissioner Brown. 23 COMMISSIONER BROWN: Mr. Chairman, excellent 24 points to raise. Thank you for providing that. Ι 25 didn't know those two points.

1 Has staff provided this analysis to the 2 Legislature, to the --3 MR. POTTS: Yes. 4 COMMISSIONER BROWN: Okay. And you pointed 5 out those concerns as well? 6 MR. POTTS: Yes. 7 COMMISSIONER BROWN: Is there anything else 8 you can do? 9 CHAIRMAN CLARK: And I would ask -- I would 10 ask Director Braulio if that's a fair assessment of 11 staff's analysis as well? 12 It is -- absent -- absent the MR. BAEZ: 13 opinion, Chairman, with all due respect, it is 14 accurate. I mean, we've -- we've tried to be 15 very --16 And y'all did a great job CHAIRMAN CLARK: 17 presenting the information. That's what staff 18 should do. 19 The staff's analysis -- and thanks MR. BAEZ: 20 to the folks at IDM and other parts of the 21 building, because it really is a team effort on 22 these bill analyses all around the building. 23 We've done our hardest not to take an official 24 position, but in that -- in doing our work, you 25 have to point out what the affects are. And those

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1 affects that you pointed out, think of them what 2 you may, are contained in our national. They speak 3 for themselves, I think. 4 CHAIRMAN CLARK: And the problem occurs if no 5 one is there to speak to or address the issues, 6 those things tend to get glossed over. So I just 7 want to sure -- I have expressed my opinion in 8 several locations, so we will see what that 9 carries. Probably not much. 10 Commissioner Polmann. 11 COMMISSIONER POLMANN: Thank you, Mr. 12 Chairman. 13 Could you please clarify the issue of the 14 surcharge? 15 The surcharge, okay. MR. POTTS: COMMISSIONER POLMANN: 16 On the --17 Municipality? MR. POTTS: 18 COMMISSIONER POLMANN: Municipality and how 19 that worked. 20 Okay. So what this amendment MR. POTTS: 21 does, it states that anybody who is living in a 22 municipality that is serviced by another 23 municipality will pay the same -- the same rates. 24 There won't be -- there can't be a surcharge. 25 COMMISSIONER POLMANN: Municipality, is that

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1 specifically a city, or is that a city/county 2 relationship also? 3 MR. POTTS: I -- I can find out --4 MR. BAEZ: Well --5 MR. POTTS: -- in this regard what the 6 definition is. 7 MR. BAEZ: I am not fully conversant with the 8 amendment, but if I hear the Chairman's comments, 9 it looks like if you are within the corporate 10 limits of another municipality, that creates the 11 safe harbor, or the parity. 12 CHAIRMAN CLARK: As I read the bill, you are 13 defining the resident as living in a municipality, 14 meaning an incorporated area. 15 And what that -- what that creates MR. BAEZ: 16 is -- if you -- if you think back, for instance, to 17 the Vero Beach issues that were rolling around here 18 for several years, one of the conditions that 19 existed was that, you know, the Vero Beach utility 20 at the time was serving outside its corporate 21 limits, right? So that's the first part of the 22 equation. And they were imposing a surcharge on 23 customers that were outside its city limits. And 24 that's sort of the scenario that that amendment is 25 trying to add -- address, rather; however it seems

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1 to be leaving out -- it seems to be only creating a 2 safe harbor or a parity conditions for folks that 3 are within any corp-- within any municipal 4 corporate limits. It doesn't take in folks that live in unincorporated areas, and that's where 5 6 the -- that's where I would -- what we've called 7 the orphans are now located. 8 So if you look at it, they've sort of moved --9 expanded the prohibition or the protections, but 10 with limitations. And that leaves, in any given 11 case, a fair number of people that are outside and 12 exposed to the surcharges as they've existed for 13 years. 14 COMMISSIONER POLMANN: Well, I am certainly 15 familiar with water and wastewater systems, 16 municipal systems --17 MR. BAEZ: Sure. 18 COMMISSIONER POLMANN: -- that have a defined 19 urban service area but provide services beyond that 20 in a county --21 Yes, sir. MR. BAEZ: 22 COMMISSIONER POLMANN: -- I think that exists 23 in many places around the state. 24 It's a common -- it's a common MR. BAEZ: 25 occurrence.

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1 COMMISSIONER POLMANN: And there is the higher 2 rate charge to the county citizens than the city. 3 MR. BAEZ: Yes. And --4 COMMISSIONER POLMANN: So this --5 MR. BAEZ: -- if I recall, the statute has an 6 upper limit to that. I don't -- was 25? 7 CHAIRMAN CLARK: Yeah. 8 MR. BAEZ: So there are limitations to how 9 large that surcharge can be, but still the 10 condition persists. And I think that the 11 amendments that we are discussing here sort of take 12 a certain sector of that universe to parity with 13 the original system, with the municipal system. 14 CHAIRMAN CLARK: So in fairness -- in fairness 15 to staff, this amendment just came out yesterday as 16 well --17 Yeah, we really haven't had a MR. BAEZ: 18 chance --19 CHAIRMAN CLARK: -- so making sure everybody 20 understands that. 21 COMMISSIONER POLMANN: In the language, this 22 presumably would protect a city serving an adjacent 23 city. 24 CHAIRMAN CLARK: Yes. 25 MR. BAEZ: Yes. That's as I understand it.

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1 COMMISSIONER POLMANN: Not a city serving an 2 unincorporated county. 3 MR. POTTS: Right, in light of that --4 COMMISSIONER BROWN: Very specific. 5 MR. BAEZ: I think that the limitations on the 6 surcharges are the only thing -- the only 7 protection that remain for -- or that exist for 8 those remaining customers, at this moment, again, 9 if I am understanding how the amendment is set up. 10 We will look at it and we will, you know, we 11 can come and talk to you if --12 COMMISSIONER POLMANN: Well, I am not saying 13 that we have an interest, because we don't 14 regulate, but in most cases --15 MR. BAEZ: Yeah. 16 COMMISSIONER POLMANN: -- and I would imagine 17 there is many counties that would have an interest. 18 MR. BAEZ: Invariably, it will come above 19 before us in some form or another I hate to say, 20 but right now we don't have --21 CHAIRMAN CLARK: Until one of them sells to a 22 private. 23 All right. Any other questions on 24 legislative? 25 MR. HETRICK: Adam, how long -- when do

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1 committees end, substantive committees, when do 2 they --3 MR. POTTS: Substantive committees end this 4 week, I believe. 5 MR. HETRICK: This week? 6 MR. POTTS: Yeah. 7 MR. HETRICK: Okay. 8 COMMISSIONER BROWN: Thank you. 9 CHAIRMAN CLARK: Thank you, guys. 10 All right. Mr. Hetrick, General Counsel report. 11 12 MR. HETRICK: No report, Mr. Chair. 13 COMMISSIONER GRAHAM: Well, that was brief. 14 Very good. 15 COMMISSIONER FAY: Well done. 16 CHAIRMAN CLARK: Give Keith a gold star for 17 the day. All right. Mr. Executive Director. 18 19 Thank you, Mr. Chairman. MR. BAEZ: Good 20 morning Commissioners. 21 Real briefly. You heard the presentation of 22 Dr. Jamison. And I will remind you again, PURC 23 starts tomorrow afternoon, February 19th through 24 20th. 25 Our next Agenda is March 3rd, and

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1 recommendations will be filed at some point late 2 this week. I know some of the items are stretching 3 on into early next week. 4 You heard Adam mention that the budget is 5 tracking right now as we expected, and we hope, you 6 know, knock on wood, that that will continue. 7 And lastly, just a quick recap. We did 8 have -- we held a staff workshop to discuss the 9 damage prevention, which Commissioner Brown had 10 alluded to earlier, and it was well attended. Ι 11 know many of you were able to either attend or 12 listen in. 13 We had several speakers, and certainly all of 14 our Florida regulated IOU gas utilities were 15 present, including Florida Gas Transmission, and 16 then the natural gas -- well, the Florida Natural 17 Gas Association also made a presentation. 18 And I think they went through -- it was a 19 great opportunity because everyone got to lay out 20 relevant issues on the day, have discussions and 21 have a good guestion and answer. 22 At this point, where our posture is, we are 23 sort of waiting. There is legislation out there 24 that addresses at least some of the issues, 25 although not necessarily the Commission's issues as

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they stand right now. That's House Bill 1095 and Senate companion is 1464.

It does some work on the penalty side, and it does beef up enforcement with some -- with some available infrastructure. I think it's DFS, if I'm not mistaken, that would take over.

But other than that, we are sort in a holding pattern when and if the legislation passes, again, in its final form, which we don't know how that ultimately turns out, we will regroup and figure out what our participation, or what our obligations or responsibilities may be, and how we -- how we integrate ourselves into the process.

I am sure we will have a role. We have many of the -- obviously, many of the utilities that are working in the trenches are part of our universe, so I foresee our participation in some way, shape or form. That, yet, is undefined.

19 CHAIRMAN CLARK: I want to just make a couple20 of observations.

I know that several of us were here and sat through the workshop, and I think were somewhat -personally, let me speak for myself, I was enlightened at how big of an issue this really was. I think, for some reason, I did not see the

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full picture prior to the workshop. So I want to thank staff, number one, for putting this together and putting the investment and time into making us -- helping us to understand this better.

5 I think my observation that came away from 6 there personally that the Commission probably has a 7 much greater role that they could play depending on 8 how this body felt as a whole. We do have a larger 9 role that we could play in making sure that there 10 was a higher level of safety preparedness, that 11 there was more monitoring, and that there was a 12 system that provides some sort of punitive effort 13 against those who were continuing to violate.

I respect the fact that we got into the game late. I think the bill was already -- had been filed for some time, and had already directed the enforcement mechanism to the fire chiefs, is where the proposal is right now.

We are not going to -- my plan was not to try to impose our will into that. See how that plays out; but at the same time, to at least offer up that if there was any interest in having a discussion with the Commission about where real enforcement authority ought to be, that I think we would certainly be willing to listen to a proposal

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1 and to work with whatever parties were involved to 2 see if there is a real role we could play. 3 I got that feedback from all of you guys in 4 that meeting that day that everybody had a higher 5 level of interest than I thought was really there. 6 So I think everybody has a real feeling that 7 the Commission does have -- this is an area that we 8 should be, or should have some sort of involvement 9 So I just want to throw that on the table. If in. 10 there is anyone that has a strong opinion either 11 way, kind of share that with us and we will proceed 12 from there. 13 Strong opinion, I agree. COMMISSIONER BROWN: 14 CHAIRMAN CLARK: Thank you. 15 COMMISSIONER POLMANN: Ditto. 16 CHAIRMAN CLARK: Good. 17 Thank you, Commissioners. MR. BAEZ: 18 CHAIRMAN CLARK: Okay. Thank you, sir. 19 MR. BAEZ: That's all. 20 CHAIRMAN CLARK: All right. Any other matters 21 to come before us at this time? Any Commissioner, 22 any comments? 23 All right. If not, we stand adjourned. 24 Thank you. 25 (Proceedings concluded at 10:21 a.m.)

(850)894-0828

1	CERTIFICATE OF REPORTER
2	STATE OF FLORIDA) COUNTY OF LEON)
3	COUNTI OF LEON)
4	
5	I, DEBRA KRICK, Court Reporter, do hereby
6	certify that the foregoing proceeding was heard at the
7	time and place herein stated.
8	IT IS FURTHER CERTIFIED that I
9	stenographically reported the said proceedings; that the
10	same has been transcribed under my direct supervision;
11	and that this transcript constitutes a true
12	transcription of my notes of said proceedings.
13	I FURTHER CERTIFY that I am not a relative,
14	employee, attorney or counsel of any of the parties, nor
15	am I a relative or employee of any of the parties'
16	attorney or counsel connected with the action, nor am I
17	financially interested in the action.
18	DATED this 25th day of February, 2020.
19	
20	
21	Debbri R. Kuci
22	DEBRA R. KRICK
23	NOTARY PUBLIC COMMISSION #GG015952
24	EXPIRES JULY 27, 2020
25	

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