# I. Meeting Packet



#### State of Florida Public Service Commission INTERNAL AFFAIRS AGENDA Tuesday – January 23, 2024 9:30 AM Room 105 – Gerald L. Gunter Building

- 1. Public Utility Research Center 2023 Annual Report to the Florida Public Service Commission by 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



WARRINGTON COLLEGE of BUSINESS

# ANNUAL REPORT 2023

#### **Update on PURC Research and Outreach**

This update on PURC research and outreach is intended to serve as on 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 www.purc.ufl.edu. We truly appreciate the support of the FPSC and wecome opportunities for future collaboration.



# PURC 2023 Annual Report to the Florida Public Service Commission

#### UPDATE ON PURC RESEARCH AND OUTREACH

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# PURC 2023 Annual Report to the Florida Public Service Commission

UPDATE ON PURC RESEARCH AND OUTREACH

#### STATISTICS AND HIGHLIGHTS

#### **Statistics**

- 8 Training Courses providing 235.5 hours of in-person classroom instruction
- 31 blog posts
- 13 working papers, journal articles and book chapters
- 6 opinion editorials
- 14 presentations, panels, and events

#### Plans for 51<sup>st</sup> Annual PURC Conference, February 21 - 22, 2024

We are excited to host our 51<sup>st</sup> Annual Conference, Beyond Convergence: Designing Florida's Utility Future, in Gainesville, Florida. The conference will serve as a crucial platform for utility and regulatory professionals to engage in insightful discussions, share ideas for next practices, and explore strategies to navigate the complexities of technological adoption. We look forward to seeing you in Gainesville next month!

#### 52<sup>nd</sup> and 51<sup>st</sup> PURC/World Bank International Training Program on Utility Regulation and Strategy

We hosted our flagship PURC/World Bank International Training Program on Utility Regulation and Strategy, October 16 - 25 and June 5 - 14, 2023. We welcomed 96 participants from 26 countries to Gainesville for these two programs. Since its inception in 1997, this program has educated more than 3600 professionals representing 156 nations. In addition, 53 participants completed the **PURC** Leadership Workshop: Practicing Leadership in a Political Environment on October 22 and June 11, 2023.





#### **Student Engagement**

As a research center at a top-ranking public university, PURC is committed to engaging students across disciplines. Students are invited to attend our annual conference each year at no-charge, and we sponsor students to attend the *Florida* Women in Energy Leadership Forum annually. Both events provide students the opportunity to network with leaders and learn about the robust utility industry. Both Mark and Ted are serving on the dissertation committee for Benjamin Morris, a doctoral student in business administration (DBA) exploring the connection between regulatory decisions and utility stock prices. PURC also employs two part-time student assistants who gain professional experience in office administration, event management, marketing, and social media.

#### Digital Markets Initiative (DMI)

DMI examines the business and regulatory implications of the growth of digital markets. In 2023, PURC faculty engaged with various media outlets and podcasts, which can be viewed online in the Warrington newsroom. DMI research on competition between the Apple and Google app ecosystems became three working papers for the American Enterprise Institute. The papers were widely circulated on Capitol Hill and received top ten download awards from the Social Sciences Research Network (SSRN). Other research is examining how broadband subsidies affect school performance, how broadband adoption affects entrepreneurship and employment by gender and race, and guidance on broadband pricing. New work is examining privacy and data sharing issues.

#### **Op-Ed Snapshot & Popular Blogs**

- "Maine Voters Don't Like Their Electric Utilities, but They Balked at Paying Billions to Buy Them Out," The Conversation
- "Economics Lost: The Unraveling of Antitrust at the DOJ and FTC," National Review
- "Maximizing Value and Minimizing Myths in Broadband Expansion," RealClearPolicy
- "The Biden Administration Embraces a Backward Approach to Economics," National Review
- "The Problems at the FTC Go Beyond Losing Merger Battles," National Review
- "Why Christine Wilson's Resignation from the FTC Matters," The Hill
- "Google's Antitrust Trial Is a Misguided Crusade Threatening Innovation and Consumer Choice," RealClearPolicy



#### PRIMARY RESEARCH PROJECTS

#### ENERGY

#### Preparing to Harden Electrical Resources for Hurricane Season

Communities that are likely to suffer effects of significant damage from named storms need to have confidence that cost estimates and projected benefits are reliable. This transparency to administrators, political leaders, and planners conveys a public message that utility hardening policies such as undergrounding cables and vegetation maintenance reflect a broad consensus among diverse experts. Collaboration among varied planners also ensures that widely noticed disparities among individual estimates do not confuse concerned public observers of the decision-making process.

#### 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.

#### Load-Following Forward Contracts

Load-following forward contracts (LFFCs) are becoming increasingly popular in the electricity sector. A LFFC obligates an electricity supplier to deliver at a pre specified unit price a fraction of the buyer's ultimate demand for electricity. This paper shows that relative to more standard ("swap") forward contracts, LFFCs can increase the expected wholesale price of electricity and thereby reduce expected consumer and economic benefits.

#### Market Structure, Risk Preferences, and Forward Contracting Incentives

This paper examines the distinct impacts of forward contracting on generators and buyers of electricity. Increased forward contracting systematically reduces the variance of a generator's profit, but can increase the variance of a buyer's profit. Consequently, increased risk aversion or market uncertainty can lead buyers, but not generators, to prefer reduced levels of forward contracting. This paper examines how the extent of equilibrium forward contracting varies with industry conditions, including the number of generators, the number of buyers, their aversion to profit variation, and the structure of retail electricity prices.

#### Vertical Integration and Capacity Investment in the Electricity Sector

This paper examines the incentives for and the effects of vertical integration in the electricity sector. It finds that vertical integration often reduces retail prices and increasess industry capacity investment, consumer surplus,



and total welfare. Unilateral vertical integration often is profitable. However, ubiquitous vertical integration can reduce aggregate industry profit.

#### **Energy Blogs**

Dr. Kury blogs on energy issues for The Conversation. He addresses issues of storm hardening, taxes, and grid security. His blogs are available at <u>https://theconversation.com/profiles/theodore-j-kury-406888/articles</u>.

#### ICT AND TELECOM

#### **Broadband Pricing Under BEAD**

This paper examines how price restrictions on broadband would impact broadband deployment and adoption. The federal government's preference for extensive price controls would be counterproductive as they would decrease investment, innovation, and new technology adoption. If states find themselves in situations where subsidized broadband providers are monopolies, deployment and adoption obligations would be more effective than price controls.

#### Comparison of Business Choice of Mobile Platforms: U.S., Japan, and India

This paper examines business preferences for choosing whether to use Apple's iPhone platform, Google's Android platform, or both. The research found that businesses find the platforms to be substitutes for each other, except in rare instances.

#### Platform Competition and Differentiation: Developer Choices in Mobile Platforms

This paper examines how app developers and other tech companies choose whether to build on the Apple platform, the Android platform, or both. It finds that the platforms compete for these businesses and differentiate primarily in "thin" markets where it is uneconomical for more than one platform to accommodate specialized needs.

#### Comments filed with states regarding competition and rules for broadband subsidies

PURC researchers participated in comments filed with various state broadband offices regarding their plans for broadband subsidies. The comments emphasized lessons from research regarding imposing price constraints and how to have effective competition for grants.



**Regulatory and Broadband Industry Responses to COVID-19: Cases of Uganda, Peru, and the Caribbean** The COVID-19 pandemic was particularly challenging for developing countries because of pre-existing poverty and severe inequality. Governments tended to set public safety as a primary goal, but it could not be their singular goal. Broadband was an important feature of any policy solution. Business lockdowns, school closures, and social distancing led to an unprecedented acceleration in the demand for broadband. But the government restrictions on social and economic interactions made it difficult to maintain and expand broadband networks. Governments quickly grew to believe that it would need cooperative relationships among multiple government agencies and private businesses to answer what appeared to be a broadband shortage. Regulatory controls over broadband providers were quickly suspended in favor of developing common goals and coordinated efforts.

#### Net Neutrality in the USA During Covid-19

The COVID-19 pandemic provides an opportunity to review policy assertions about net neutrality. There was an expectation that without ex ante FCC net neutrality rules, there would be harmful demonstrations of market power and anticompetitive conduct. This paper offers a review of the evidence. Given that little to no incidence of net neutrality violations could be uncovered for the period, the paper suggests some explanations as to why broadband providers behaved opposite to predictions. Contrary to many policy assertions, broadband providers did not block or throttle service, nor did they increase prices arbitrarily or decrease quality. In fact, broadband providers appeared to take significant efforts to expand availability, lower broadband prices, and make more networks available, in many cases without charge.

#### 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.

#### Comments filed with the FCC regarding net neutrality

PURC researchers contributed to two sets of comments filed with the Federal Communications Commission regarding net neutrality. Both sets emphasized findings in the economics literature regarding the impacts of such regulations on consumers, investment, service quality, and service providers.

#### 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 American Enterprise Institute website at <a href="http://www.aei.org/scholar/mark-jamison-2/">http://www.aei.org/scholar/mark-jamison-2/</a>.



#### WATER

#### Performance Assessment Using Key Performance Indicators (KPIs) for Water Utilities: A Primer

Key Performance Indicators (KPIs) are widely recognized as a basis for evaluating water utility operations in developing countries and for designing both regulatory and managerial incentives that improve performance. A number of methodologies can be used for assessing performance. However, regulatory oversight requires data analysis of trends, current performance, and realistic targets. Quantitative studies can provide clues regarding the extent of economies of scale, scope, and density, but policy-makers need much more detail and specificity than most scholars provide. Here, the focus is on information systems that provide accurate, reliable, and relevant data.

#### **MULTISECTOR**

#### 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.

#### Principles and Strategies for Effective Leadership in the "New Normal"

To lead effectively during times of constant change and uncertainty, leaders should: (1) Lean into the uncertainty (Learning to live in the discomfort of uncertainty will free up some space for clearer thinking.); (2) Recognize that it is all about experimentation (It is about "next practices" rather than best practices.); (3) Embrace mistakes (Mistakes are a necessary part of this evolving process and need to be used as learning tools and experiments.); and (4) Lead with a focus on empathy and communication (In a time in which so many are struggling and uncertainty is king, we must ensure people know you are "there" for them.)

#### **Inspiring Leadership for Innovation**

This book chapter examines communication and cultural strategies for companies to provide industry-leading innovations.



#### OUTREACH

#### **Broadband Barometer Project**

PURC collaborated with the American Enterprise Institute to launch the Broadband Barometer Project. This initiative provides guidance to state broadband offices and issues report cards on the quality of their efforts. The program is overseen by scholars from PURC, Duke University, Pepperdine University, Stanford University, the University of North Texas, and the Technology Policy Institute. This 5-year project has conducted events on state broadband development and released videos and papers on best practices.

#### **Regional Webinar on Electricity Price Determination Methodology**

On November 23, NERSA (South Africa) hosted a regional webinar on the implications of their Electricity Price Determination Methodology. PURC Director of Energy Studies Ted Kury joined presenters from Denmark, Namibia, South Africa, and the US in addressing the implications of this methodology as Southern Africa transitions to a more liberal market for electricity. His own session focused on creating incentives for efficiency in generation, transmission, and distribution of electricity. He focused on understanding your definition of efficiency, crafting incentive mechanisms and how these mechanisms differ within the supply chain, and mitigating unintended consequences.

#### United States Energy Association Advanced Energy Technology Forum

On November 14, USEA held their 5<sup>th</sup> Annual Advanced Energy Technology Forum. PURC Director of Energy Studies Ted Kury moderated and presented in the University and National Lab panel. On the panel, he was joined by Rob Stoner from MIT, John Wagner from Idaho National Lab and Doug Arent from NREL in discussing the latest developments at the Universities and Labs. His presentation discussed the challenges and opportunities in Al-focused initiatives, but the broad scope of issues being addressed across the country will help to ensure that the future electricity system remains safe and reliable.

#### Powering the Community AI Design Contest

On November 9, UF's School of Engineering and Duke Energy hosted the Powering the Community Al Design Contest for area high school students. PURC Director of Energy Studies Ted Kury gave the keynote address before the student teams began their presentations. He talked about the challenges and tradeoffs in the electricity sector and how the skills they developed for the contest could be used to address not only the particular problem they faced, but related questions far beyond energy. The students then presented their algorithms for storm restoration focusing on customer characteristics, priorities, and needs of the system in their hometowns.



#### Net Neutrality: Revisiting the Repeal

On October 12, 2023, PURC's Mark Jamison hosted an event to discuss net neutrality following Federal Communications Commission (FCC) Chair Jessica Rosenworcel's proposal to reinstate the policy. Net neutrality mandates that internet providers treat all bits the same, and its repeal in 2017 alarmed advocates who warned the internet would no longer be fair, open, or safe. However, the internet thrived after the rollback, and US consumers experienced better broadband than did their counterparts in more regulated countries. The American Enterprise Institute sponsored the event.

#### Will Broadband Be Affordable? Assessing Regulations for Broadband Subsidies

On October 2, 2023, PURC's Mark Jamison hosted an AEI panel of experts to discuss how price controls would affect broadband affordability and ways to ensure broadband is affordable for all Americans. Dr. Jamison began with an overview of the National Telecommunications and Information Administration's (NTIA) low- and middle-income pricing requirements for broadband expansion. The panel then discussed the program's affordability; the Broadband Equity, Access, and Deployment (BEAD) Program's ability to attract private capital; ways of promoting structural competition; and the impact subsidies might have on accessibility. The panel concluded with each panelist offering advice to states dealing with the NTIA's price requirements, including building program assessment into broadband rollout, collecting accurate data, and sticking to a clear objective.

#### How Are States Managing the Broadband Billions?

On September 29, 2023, AEI's Mark Jamison hosted an expert panel of state broadband officers and academics to discuss states' plans for the billions of taxpayer dollars allotted to broadband expansion. Dr. Jamison kicked off the conversation with an overview of broadband initiatives, BEAD funding; and the political pressures and tight deadlines that can affect effective allocation. The state broadband officers unpacked their broad, overlapping concerns—including permitting, workforce, and affordability—and their plans to overcome obstacles such as working with local communities, encouraging competition among providers, and enforcing accountability and compliance measures.

#### Revising the Horizontal Merger Guidelines: The Path Forward

PURC's Mark Jamison and NRRI's Jeffrey Eisenach gathered economic and legal experts to discuss the Federal Trade Commission's (FTC) controversial proposed Draft Merger Guidelines. FTC Director of Bureau of Economics Aviv Nevo started the economics panel by outlining the merger guidelines' goals: to guide the FTC, inform businesses, and serve as a court reference. Sharing comparisons about the new guidelines versus the old ones, Carl Shapiro of the Haas School of Business expressed concerns about treating vertical and horizontal mergers under one framework, and Bruce Kobayashi of the Antonin Scalia Law School agreed that combining complements is inherently different than combining competitors. AEI's Robert Kulick added that the FTC's efforts to consider new sources of information might serve useful in adding rigor to antitrust. AEI hosted the event.



#### The Future of Independent Agencies: Fallout from Problems at the Federal Trade Commission

On May 25, 2023, PURC's Mark Jamison hosted an AEI panel discussion on the future of independent regulatory agencies in light of recent activity of the Federal Trade Commission (FTC), which is reversing decades of precedence and established procedures. The panel discussion featured former FTC Commissioner Maureen Ohlhausen, former Federal Communications Commission Commissioner Michael O'Rielly, and AEI's Adam J. White. Ms. Ohlhausen began by recalling that the FTC wasn't always like it is today. It formerly had a culture of consensus and a desire for bipartisanship in enforcing the law. In some sense, the agency is weaponizing legal uncertainty to prevent corporate mergers. Mr. White highlighted similar concerns with the Consumer Financial Protection Bureau, but these agencies' discretion may be diminished if the Supreme Court abolishes the Chevron doctrine. Mr. O'Rielly discussed how Congress hasn't necessarily helped due to it diminishing its lawmaking role and relying on oversight. Also, proximity to elections has had a chilling effect on relations between the administration and Congress. Reestablishing such relations would be crucial to steering independent agencies toward their actual goals. Dr. Jamison closed by making the point that regulators must carefully consider how regulation affects the perception of risk.

#### Where's the Broadband Money Going? Tracking Impact and Accountability

On May 24, 2023 PURC's Mark Jamison hosted an AEI panel discussion on keys to broadband program efficiency, transparency, and accountability, previewing a rubric for forthcoming work that grades states on their progress. The panel discussion featured University of North Texas's Janice Hauge, Pepperdine University's James Prieger, Stanford University's Greg Rosston, and the Technology Policy Institute's Scott Wallsten. Dr. Wallsten emphasized the efficiency of reverse auctions, explaining that states can get twice as much broadband per dollar using auctions instead of traditional grant systems. Dr. Prieger explained that the National Telecommunications and Information Administration's (NTIA) previous Broadband Technology Opportunities Program provided almost no incremental broadband. He also explained that regulating broadband prices and opening networks, which NTIA recommends, will decrease investment. Dr. Rosston described why low-income individuals do not respond to price discounts. Comcast's Internet Essentials program's adaptability and customer focus have been more effective. Dr. Hauge offered the tenets of the forthcoming rubric that will serve as a guide for states to implement their broadband plans. There's a lot at stake with this much funding, but there is hope that with such guidance, the money will be spent well.

#### **AEI Section 230 Spring Summit**

On April 19, the AEI Section 230 Spring Summit gathered together policy, economics, and legal experts to discuss the implications of the two recent Supreme Court cases regarding Twitter's and Google's alleged liability for hosting content posted by third parties. Section 230 of the Communications Decency Act is often referred to as the "26 words that created the internet." Now, those words are the subject of a growing debate about their application and efficacy. From Supreme Court cases to state and national legislative proposals, the future of Section 230 is in question. PURC's Mark Jamison moderated portions of the event.

#### Do Apple and Google Discriminate Against Rivals in Their App Stores?

Not according to research presented by Dr. Jakub Tecza at the Regulatory Law & Economics Workshop organized by the Center for Growth and Opportunity in Seattle in March 2023. The purpose of the ongoing



project of the Digital Markets Initiative is to understand how app markets respond to applications launched by mobile platforms such as Apple or Google. Results show that the introduction of Apple applications has mostly positive effects on rival apps in terms of downloads, active users and updates of existing apps, as well as on the development of new apps. In contrast, the introduction of Google applications has no economically meaningful negative or positive effects. The research findings suggest that vertical integration of mobile platforms is not harmful to competition in the mobile app markets, and sometimes has positive effects.

#### What Does Sustainable Mean in the Energy Sector?

It can mean doing the things we want to do, when we want to do them, for as long as possible. This was the subject of a talk that PURC director of energy studies Ted Kury delivered during a panel session organized by the Green Gators. He talked about not only the costs of using energy, but the costs of not using energy as well, and the impact they have on productivity, comfort, and convenience of society. He also talked about the need to study these costs objectively and in consideration of their interaction with other sectors. The consequences of not understanding these tradeoffs is potentially severe, but the benefit is that we get to keep doing what we want to do, when we want to, for a long time.

#### 50th Annual PURC Conference – Getting to Zero: Creating New Ways Forward

Utilities and policy makers are making concrete plans to achieve three zeros: Zero (or net zero) carbon emissions; Zero Floridians without broadband; and Zero water problems. New technologies promise to make zero carbon emissions an economic reality. Florida's new broadband plans promise to offer connectivity to all Floridians. And the water sector is evolving to put quality and investment problems behind us. What are the paths forward for utilities and policy makers? "Getting to Zero - Creating New Ways Forward" was the focus of the 50th Annual PURC Conference, hosted in-person from February 22-23, 2023.

#### Neo-Brandeisian Antitrust: Repeating History's Mistakes

On February 1, 2023, PURC's Mark Jamison moderated an AEI discussion between former chairmen of the Federal Trade Commission, AEI's Timothy J. Muris and Deborah Platt Majoras, on how the Biden administration has returned to the neo-Brandeisian tradition of antitrust policy. Mr. Muris began by reflecting on his recently published research that analyzes the legal and intellectual path of antitrust policy and how the Biden administration's current reversion to the framework that dominated before the 1980s hurts consumers. Ms. Majoras expressed concern that if the FTC moves away from the consumer welfare standard that has been used for the past several decades and stops using an approach using economics, then the agency will have little grounding when enforcing antitrust policy. She then discussed the role that the employees of large companies play in enforcing antitrust law and how this reversion to an antitrust mindset that "big is bad" will turn into greater costs for companies and, thus, higher prices for consumers. Finally, Mr. Muris and Ms. Majoras fielded questions from the audience, particularly addressing concerns about large technology companies and Amazon. Mr. Muris emphasized that the antitrust policy should be focused on the consumer, not the competitor.



#### Annual PURC Award for Best Paper in Regulatory Economics

The 2023 Public Utility Research Center Prize for the best paper in regulatory economics was awarded to Phoebe Tian (Bank of Canada) and Chen Zheng (Brattle Group) for Unintended Consequences of Policy Interventions: Evidence from Home Affordable Refinance Program.Training and Development.

#### TRAINING AND DEVELOPMENT

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

Fifty-three (53) regulatory and utility professionals participated in our June and October 2023 Leadership Workshop. Throughout the workshops, they identified and developed their individual leadership profiles; examined personal practices of successful leaders to develop vision, resolve conflict and set priorities; analyzed what is different about practicing leadership in a political environment; and developed their own personal action plans and an accountability system to address their unique challenges.

#### 52<sup>nd</sup> & 51<sup>st</sup> PURC/ World Bank International Training Program on Utility Regulation and Strategy

Ninety-six (96) regulatory and utility professionals from around the world travelled to the University of Florida for PURC's flagship program! The international training program is an intensive course specifically tailored to the professional requirements of utility regulators and regulatory staff. The course is designed to enhance the economic, technical, and policy skills required for implementing policies and managing sustainable regulatory systems for infrastructure sectors. This training was held in-person from October 16 - 25 and June 5 - 14, 2023.

#### Executive Retreat for the Utilities Regulation and Competition Authority (URCA)

How can an executive team design the best future for their institution, understand stakeholders, and ensure the organization is ready for this future? How can the executive team learn about its members' leadership styles, use everyone's strengths to support the organization, and plan their next steps? These are the challenges addressed by the Executive Team of the Utilities Regulation and Competition Authority (URCA) during the retreat conducted by PURC director of leadership studies Araceli Castaneda, and PURC director Mark Jamison in The Bahamas October 5 - 6, 2023.

#### Advanced International Practices Program: Benchmarking Infrastructure Operations course

We hosted thirteen utility and regulatory professionals from the energy and water sectors for an intensive fourday technical course in benchmarking. Participants analyzed the benefits, best practices and pitfalls of benchmarking utilities. After completing the course, participants were able to understand why benchmarking is essential for improving the performance of infrastructure organizations. They could analyze the implications of partial, limited, or incorrect information as well as assess how information on trends in key performance indicators helps decision-makers. They could understand how model specification and data outliers affect performance comparisons as well as identify the strengths and limitations of alternative quantitative





methodologies and how to communicate results. This course was held in-person on the University of Florida campus from August 7 - 10, 2023.

#### Advanced International Practices Program: Energy Pricing course

We hosted twenty-nine utility and regulatory professionals from the energy and water sectors for a week-long technical course in pricing. Participants discussed the challenges and best practices in pricing; the innovative ideas to addressing efficiency and environmental issues; and the core principles in pricing. After completing the course, participants were able to prepare for and perform price reviews, develop economic incentives appropriate for utilities in small economies, evaluate market competition and develop remedies for market failure, analyze financial statements for rate setting and evaluating sector performance, and develop innovative price structures that create incentives for consumers and producers to behave in a manner consistent with your utility policy. This course was held in-person on the University of Florida campus from July 31 – August 4, 2023.

#### **Customized PURC Training in Water Regulation for ANA**

Key personnel from the National Water and Sanitation Agency of Brazil (ANA) travelled to PURC for a customized 8-day training program designed to prepare them with the knowledge and skills needed to establish a water tariffing system. ANA is charged with setting guidelines for states and municipalities to follow when regulating water utilities. The program covered all aspects of ratemaking, from accounting systems to final prices. This program was delivered July 12 - 21, 2023 at the University of Florida.



#### 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 Organization 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 broadband development, market competition, innovation, 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 four current issues confronting energy markets: the impacts of distributed generation, the efficacy of relocating power lines, the complexity in determining optimal levels of carbon dioxide abatement, and the effects of restructured electricity markets. Analyses on the impacts of distributed generation have exhibited notable gaps. First, current policy analysis makes the implicit assumption that distributed generation has no impact on consumption. Dr. Kury, along with Dr. Michelle Phillips and Dr. Mark Jamison,

studied the impact of distributed generation on consumption in a single-utility sample and found that consumption increased 8-14% for customers that installed solar panels. While this result may not scale to larger samples, it certainly is evidence that the standard assumption that distributed generation has no impact on consumption is suspect. Further, as more countries move away from net metering as a compensation mechanism for distributed generation, they create an incentive for unregistered installations. Present detection methods involving satellite photos and image processing software are expensive with low detection rates. Dr. Kury is developing a machine learning algorithm for detecting unregistered installations from simple billing data. 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 emissions. 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.





#### Araceli Castaneda, Director of Leadership Studies

Ms. Castaneda contributed to a number of PURC in-person programs through the delivery of training sessions such as Effective Independence, Country Lessons from the Pandemic, Thinking Strategically, Balcony Perspectives in ICT Strategies, or Taking a Balcony View Point on Energy Pricing. She ran peer consulting groups to address participants' pressing issues and leadership challenges. Ms. Castaneda also co-delivered PURC's one-day leadership workshop Practicing Leadership in a Political Environment in June and October of 2023.



#### 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**

**Aytug, Haldun, Anuj Kumar, and Xiang Wan.** 2022. "Estimating Optimal Recommendation Policy Under Heterogeneous Treatment Effect of Product Recommendation" In Information Systems Research Journal.

**Bandyopadhyay**, **Subhajyoti.** 2022. "The Streaming Games: Analyzing the Revenue Models of Online Media Firms" University of Florida, Warrington College of Business, PURC Working Paper.

**Barrentes, Roxana, David Cox, Mark Jamison, and Dorothy Okello.** 2023. "Regulatory and Broadband Industry Responses to COVID-19: Cases of Uganda, Peru, and the Caribbean." In Beyond the Pandemic? Exploring the Impact of COVID-19 on Telecommunications and the Internet, ed. Jason Whalley, Volker Stocker, and William Lehr, 169-193. Bingley, UK: Emerald Publishing.

**Bet, Germán, Shana Cui, and David E. M. Sappington.** 2021. "The Impact of Vertical Integration on Losses from Collusion." *The International Journal of Industrial Organization*, Vol. 77, June 2021, Article 102756.

**Brown, David P., and David E. M. Sappington.** 2022. "Vertical Integration and Capacity Investment in the Electricity Sector," *The Journal of Economics and Management Strategy*, forthcoming.

**Brown, David P., and David E. M. Sappington.** 2022. "Load-Following Forward Contracts," University of Florida, Department of Economics, PURC Working Paper.

**Brown, David P., and David E. M. Sappington.** 2022. "Market Structure, Risk Preferences, and Forward Contracting Incentives," University of Florida, Department of Economics, PURC Working Paper.

**Castaneda**, **Araceli**. 2021. "Principles and Strategies for Effective Leadership in the 'New Normal' " University of Florida, Warrington College of Business, PURC Working Paper.

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# 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



"Abnormal Shareholder Returns Around United States Regulated Utility Rate Case Filing and Decision Events"

### A Dissertation Proposal by:

Benjamin Buxton Morris Doctor of Business Administration Student

# UF WARRINGTON COLLEGE of BUSINESS

**Florida Public Service Commission** 

Internal Affairs Meeting January 23, 2024

### **Introduction** Why Is This Topic Worth Researching?

- In 2022, net income of 229 U.S. electric and natural gas regulated utility operating companies totaled ~\$53 billion<sup>1</sup>
  - Of which, ~\$51 billion consolidated into publicly traded parent companies<sup>1</sup>
- Profit-amount that utilities recover on equity-funded capital investments is stipulated by utilities' economic regulators in "rate cases"
  - New information from rate case proceedings can impact utility share prices
- Understanding relationship between rate case information and utility share price movements (i.e., shareholder returns) is important for:
  - 1) <u>Regulators</u>: to provide insight into how to position jurisdictions to attract capital for increasing reliability and resiliency of utility infrastructure
  - 2) <u>Shareholders/Management</u>: to anticipate impact of regulatory outcomes
  - 3) <u>Scholars</u>: to further knowledge in finance and legal/regulatory domains

<sup>1</sup> Federal Energy Regulatory Commission "Form 1" Filings (2022). Retrieved from S&P Capital IQ Pro.

# **Theory** Efficient Markets Hypothesis & Event Studies

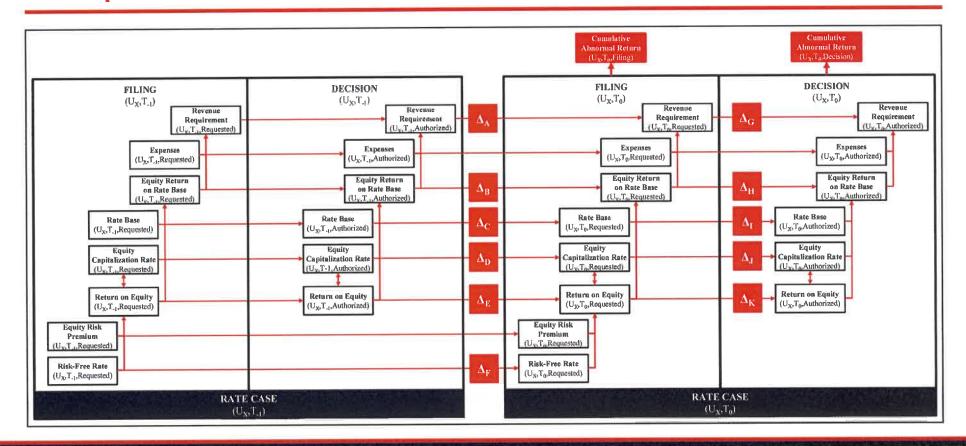
- Market is efficient in pricing information such that it is fully incorporated into securities market prices<sup>1,2,3</sup>
  - Implies that old/known information cannot be used to generate trading profits
- "Semi-strong" form of hypothesis states that securities prices should (a) experience no change prior to the release of new information and (b) change when new information is released<sup>2</sup>
  - Share price changes reflect investors placing value on new information
- "Event studies" are research methodology used to evaluate whether markets are efficient by detecting unexpected price-changes (i.e., abnormal returns):

(Return<sub>Abnormal</sub>) = (Return<sub>Actual</sub>) - (Return<sub>Normal/Expected</sub>)

If  $(Return_{Abnormal}) \neq 0$ , implies that markets have incorporated new information

<sup>1</sup> Lim & Brooks (2011)	<sup>4</sup> Corrado (2011)	
<sup>2</sup> Fama (1970)	<sup>5</sup> Strong (1992) 3	
<sup>3</sup> Fama (1991)	요즘, 영양하면 방법, 이상 방법, 방법, 이상 방법, 이상 방법, 영상, 영상, 영상, 영상, 영상, 영상, 영상, 영상, 영상, 영상	

### **Hypotheses** Conceptual Framework & Variables of Interest



Note: New information comes in the form of requested/authorized changes (i.e., "Δs") in customary rate case dataelements (e.g., Revenue Requirement), and these changes (e.g., "Δ<sub>A</sub>") are the variables proposed for analysis **4** 

# Methodology Study Design

### Event Study<sup>1</sup>

- This research treats rate case (a) filings and (b) decisions as "events" around which impacts on share prices of utilities' publicly traded parents are studied
  - Historical rate case data between 1980-present from S&P Capital IQ Pro (fka SNL Financial, fka Regulatory Research Associates) data-set
- Normal/expected returns calculated using four different financial models:
  - 1) Market Model
  - 2) Market-Adjusted Model
  - 3) Fama-French 3-Factor Model<sup>2,3</sup>
  - 4) Fama-French 3-Factor + Momentum (i.e., Carhart) Model<sup>4</sup>
- Presence of abnormal returns enables linear regression of shareholder returns against rate case variables to identify correlated relationships



### Methodology Robustness Checks

- "Robustness" (i.e., consistency) of any relationships identified between variables can be tested by varying data systematically to see if correlated relationships still hold
- Proposed robustness checks for this research include:
  - Varying time-periods (e.g., rate cases in different decades)
  - Varying utility-types (e.g., electric vs. natural gas rate cases)
  - Varying case resolution-types (e.g., litigated vs. settled rate cases)
  - Varying regulatory jurisdictions (e.g., Texas vs. Massachusetts)

6

# **Next-Steps**

- Formal approval and execution of proposed research plan over 2024
- Academic leadership and advising provided by:
  - **Dr. Joel F. Houston** (Dissertation Committee Chair)
    - Eugene F. Brigham Chair in Finance, Warrington College of Business
  - Dr. Mark Jamison
    - Director, PURC; Gerald L. Gunter Memorial Professor and Lecturer, Warrington College of Business
  - Dr. Ted Kury
    - Director, Energy Studies, PURC; Lecturer, Warrington College of Business

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- Lisa Polak Edgar
  - Senior Fellow, PURC; Associate in Law, Levin College of Law; Former President, NARUC; Former Chair and Commissioner, Florida PSC

# **Questions?**

# IV. Transcript

1		BEFORE THE
2	FLORIDA	PUBLIC SERVICE COMMISSION
3		
4		
5		
6		
7	PROCEEDINGS:	INTERNAL AFFAIRS
8 9	COMMISSIONERS PARTICIPATING:	CHAIRMAN MIKE LA ROSA COMMISSIONER ART GRAHAM
10		COMMISSIONER GARY F. CLARK COMMISSIONER ANDREW GILES FAY COMMISSIONER GABRIELLA PASSIDOMO
11	DATE:	Tuesday, January 23, 2024
12 13	TIME:	Commenced: 9:30 a.m. Concluded: 10:32 a.m.
14	PLACE:	Betty Easley Conference Center
15		Room 148
16		4075 Esplanade Way Tallahassee, Florida
17	REPORTED BY:	DEBRA R. KRICK Court Reporter and
18		Notary Public in and for the State of Florida at Large
19		the state of Fiorida at harge
20		
21	п	PREMIER REPORTING CALLAHASSEE, FLORIDA
22	L	(850) 894-0828
23		
24		
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1	PROCEEDINGS
2	CHAIRMAN LA ROSA: All right. All right.
3	Good morning. Welcome to our Internal Affairs
4	meeting.
5	If you heard a little bit of music in the
6	background, right, I know it's kind of it was
7	subtle. It was intended to be subtle. We are
8	going to start something a little bit different, so
9	a little bit new at the Internal Affairs meetings,
10	right. So if you heard the music, you heard that
11	there was maybe an electric touch to it, kind of in
12	the realm of obviously something we do. So I
13	thought about maybe bringing something a little bit
14	unique to our Internal Affairs meetings, a little
15	bit, of course, a little bit more laid back and
16	relaxed.
17	So this week's this month's song is picked,
18	of course, by my office. I told the folks that we
19	are doing this. My hope and intentions are that
20	others within the agency, maybe some divisions can
21	get together suggest a song for our next Internal
22	Affairs meeting. I already had some songs thrown
23	at me when it got leaked that we would be doing
24	this. So my intention here is to have a little bit
25	of fun, create a little bit of comradery in our

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2

meetings.

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15

So if you heard that music, and you heard that song, and we will announce what that song is in the meeting a little later today, that's what the intentions were, and that's what was behind it. So that's the answer -- that's the question we were surprised.

8 Today is January 23rd, so let's officially 9 call this meeting to order.

10 Commissioners, you know, one of the most 11 important things we do here is recognize our 12 Employee of the Month. So I see her, I think -- I 13 do see her out in the crowd. Ms. Daisy Rojas is 14 our employee of the month for December.

(Applause from the audience.)

16 CHAIRMAN LA ROSA: I would like to just kind
 17 of read a few quick words from Daisy's director.

18 Daisy's dedication to the Commission is 19 evident through her command of material and her 20 work product, however, the quality that she truly 21 sets her apart and willingness to go above and 22 beyond to assist her coworkers in anyway possible. 23 She has a genuine desire to help others 24 succeed in their position, which in turn 25 contributes to the success of the entire division.

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1 Daisy's also an outstanding steward on the 2 intangible elements that make the Commission such a 3 great place to work. She is also friendly, and is 4 one of the principles behind decorating the AFD 5 office every holiday season. I will tell you, as I spoke to her director 6 7 and others, one of the elements that I consistently 8 heard was that she makes those around her better, 9 and I think that's an important element. Not just 10 as an employee and for a division, but for the 11 entire agency, and that's what stood out. 12 So, Daisy, congratulations for being Employee 13 of the Month in December. 14 MS. ROJAS: Thank you. 15 (Applause from the audience.) 16 CHAIRMAN LA ROSA: So if you haven't noticed 17 already, we are not in the hearing room. We are in 18 I quess what's called the Internal Affairs room. 19 It's new for me. I think it's also new for 20 Commissioner Passidomo. We have not been in this 21 room at least in a regular meeting, right? 22 So my intentions are to not necessarily 23 downplay the material which we are talking about. 24 That's, of course, extremely important, but maybe 25 casualize the discussion, casualize the elements.

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Of course, we are also talking about happenings within the agency, and I just felt like this was kind of a unique opportunity to bring us back to something that we did before. I know COVID kind of disrupted things, and I just thought maybe the timing was right.

7 So my hope is that this is not the Commission versus staff, which is on the other side. 8 We don't 9 necessarily have to sit here. We can sit kind of 10 I am right-handed. The gavel was here, anywhere. 11 so I chose to sit here. But, yeah, that's the 12 That's the reason that we are here. purpose. So 13 hopefully it engages a little bit more 14 conversation, decasualizes or casualizes the 15 elements of what's in front of us in our agenda.

So -- and with that, let me say that there has 16 17 been a few trial runs to make sure that today 18 operates correctly since it's been a little bit of 19 time. So thank you staff for working hard. 20 Literally last week, and up to yesterday, we were 21 still testing making sure that the room works 22 correctly. So thank you for all of those that have 23 been working behind the scenes to make sure that 24 today's meeting is efficient and runs smooth. 25 With that, let's move forward to our agenda.

1 Today we've got Mr. -- or Dr. Mark Jamison from 2 PURC here to give us a presentation. 3 Mr. Jamison, you are recognized to come and 4 join us here at the table. 5 DR. JAMISON: Thank you. No problem. 6 CHAIRMAN LA ROSA: And the floor 7 I know you got a presentation that we is yours. 8 will either put up in the screens or it out in 9 front of us in print, so you are recognized, my 10 friend. 11 DR. JAMISON: Thank you. 12 You don't have a presentation from me. You 13 have some from some students, but you do have our 14 annual report that we have given to you. 15 Let me start by first thanking the Commission 16 for being a sponsor for a very long time now, over 17 50 years. And we appreciate working with you and 18 the support, the ideas, and the challenges that you 19 give us to work on. 20 I also wanted to thank the Chairman for some 21 ideas about how we might do this presentation 22 differently. Engage some of our students. I think 23 you will find that very interesting. 24 And before I jump on to just some summary 25 ideas from our report, I just wanted to compliment

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1 the agency for your emphasis on recognizing your 2 staff. I have been fortunate to work with, like, 3 160 countries around the world on regulation 4 issues. I have yet to see a regulatory agency 5 succeed without a strong staff. You have to have that, and this agency has been very good focusing 6 7 on that, so you are to be commended for it.

8 I am just going to summarize a few of the 9 things in our report. It's there for you to look 10 at. Then I am going to introduce a couple of our 11 students that have been working with PURC for some 12 time. I will introduce those later. Let me just 13 highlight things that we are up to.

14 Next month, we will have our annual 15 conference. It will be our 51st, I think. And 16 this conference we have been listening to people 17 for the past few years, understanding that we are 18 leaning on technical innovations to solve a lot of 19 our problems in regulation and utilities. And so 20 we thought it might be a good discussion to have 21 about what are the barriers to doing that, and 22 doing that well. 23 So we are going to have, as a keynote, the new

24 CEO of the U.S. Energy Association. That's

25 something he has thought about and he is working on

1 around the world. After that, we will have an 2 executive panel of utilities talking about that 3 here are some of the challenges we have faced, and 4 how we've gone about trying to solve those. We 5 will be talking about grid innovations as well. What the impacts will be as the state expands its 6 7 broadband platform through some of the new programs 8 that are going on, and then some of the concerns 9 with technology. Some people have concerns about, 10 for example, what is our official intelligence 11 really going to do? So we have a panel of experts 12 talking about those kind of things as well.

You will see also in our report some of the research items we have been doing, and presentation we have been doing in the energy space. You will see a lot of papers. We are talking about energy markets. These are the work largely of a former student, David Brown.

19 If you have hung around our conferences very 20 long, you might have the noticed a few years ago a 21 young man carrying around this big pad of paper, 22 and he was always doing math equations on it. That. 23 was David Brown. David was always trying to fix 24 his economic models. He does really, really well. 25 So he is now in Alberta Canada, and the regulatory

agency there, the utilities are leaning on him to analyze their markets for them. He does great work, so you will see some of the papers there that he has been involved in.

5 You will see also presentations by our own Ted Kury, our Director of Energy Studies on Artificial 6 7 He did one for the ESEA. Intelligence. He also 8 did one at the event at the University of Florida 9 and Duke Energy sponsored for high school students 10 in the area, challenging the high school students 11 to figure out how you could use artificial 12 intelligence to deal with storm recovery better, 13 understanding who the customers were and what they 14 were experiencing. And it was a really, really 15 good event. So hats off to the Energy Department 16 at UF plus Duke for putting that together. The 17 students did a really good job on that.

18 In the information technology area, a big 19 thing we have been launching this year has been our 20 broadband barometer. This is a project we have 21 where we are watching what's going on in the states 22 as they deploy broadband. You might recall that 23 there was about 42-and-a-half-billion-dollars in the infrastructure bill a couple of years ago for 24 25 broadband development. All the states are involved

1 in doing that. So we've set up a group of people, 2 scholars from Duke, Stanford, North Texas, 3 Pepperdine, and I think tanks -- a couple of think 4 tanks in DC just to watch, educate, help people 5 So we issue kind of reports on how the with it. different states are doing, and have had a lot of 6 7 events, produced research papers on it. Having had 8 a good competitive processes, hold people 9 accountable. If you are going to be involved in 10 pricing, how you get that right. So we've got a 11 big effort on that. That will go on for another 12 four years.

13Then also in that space -- well, let me see,14let me jump ahead to one other thing that we have15been doing.

16 You have might have noticed in the news over 17 the past couple of years, there has been a lot of 18 turmoil at the Federal Trade Commission. And that 19 raises some issues about independent regulatory 20 That's been an item of debate in DC for agencies. 21 some period of time. So this keyed up how is an 22 independent agency really supposed to work, and 23 what are going to be its boundaries of its 24 authority. So we've had some events on that, three 25 all together in Washington, DC, where we have

discussed that. It's been a really good
 discussion, and I think people have come away with
 some good lessons.

4 One of the interesting things from it is that 5 as much as I tried to encourage people in DC to 6 look at the experiences of the states with 7 independent regulatory agencies, they weren't so 8 interested in that. So I have talked with NARUC a 9 little bit. I couldn't get NARUC stirred up about 10 it.

11 If you get an opportunity maybe over this next 12 year, because the role of independent agencies will 13 show up in the presidential election at some point, 14 maybe there will be a good opportunity to have a 15 discussion about, yeah, you guys in DC may be 16 struggling, but we in the states, we have figured a 17 lot of things out. We kind of know how to do them. 18 So think there would be some good lessons for 19 people from that.

20 So those are some of the highlights. I would 21 be glad to answer any questions you might have. 22 CHAIRMAN LA ROSA: Members, so the intentions 23 are is that we just have an open discussion. I 24 don't need to necessarily recognize anybody unless 25 it's something specific from ourselves or from

staff. I will start with one.

1

2 So what do you see maybe some of the larger 3 hurdles where the federal government has this out 4 view of the role of the state. Is there something 5 that's kind of specific that you see consistently 6 across other states that are either being ignored 7 or not being fully utilized?

8 DR. JAMISON: My basic observation is, is the 9 people in DC spend a lot of time there, and they 10 don't see what happens outside very well. So when 11 I have talked to people. People I know. They are 12 qood friends of mine. I have great respect for 13 They just don't know what's going on in the them. 14 And I think that is the biggest hurdle. states.

15 So I tried to put together a panel of, like, 16 state regulators in DC to talk about, okay, you 17 have got these challenges. Here is how we address 18 those, because we have been through it before. 19 Just couldn't get it quite get it all put together 20 That may be sometime this year. yet. 21 In my previous life, I also CHAIRMAN LA ROSA: 22 saw similar traits where we would take the lead on 23 something and didn't feel like the federal was

24 really paying a whole lot of attention, maybe it 25 wouldn't recognize what it was that we were doing.

Any other questions or thoughts? Please.
 COMMISSIONER GRAHAM: You were talking a lot
 about broadband.

DR. JAMISON: Yes.

4

5 COMMISSIONER GRAHAM: For the longest time, 6 the university service fund, we have always been a 7 donor state before and after bringing in broadband, 8 and I assume, I don't know if we are still as much 9 of a donor state as we were before, do you know off 10 the top of your head?

11 DR. JAMISON: I don't know off the top of my 12 head. Most of the money now is taxpayer money, and 13 there is work being done in DC, I don't know how 14 much success it will be, to do away with having the state telecommunications fund the universal 15 16 service, to try and get more broad-based. I don't 17 know if they will be successful with that or not, 18 but there is some effort that that would resolve at 19 least some of Florida's problem. But Florida, with 20 a successful economy, is going to tend to support 21 places that have less successful economies. 22 COMMISSIONER GRAHAM: Do you know something --23 is there anything we should be doing now so we 24 could be less of a donor state? Like, now that 25 it's widened out to broadband, are there

opportunities we should be looking into as things we should be pushing for to allow us to use some more of those funds, rather than it all just going to DC and staying there?

5 Yeah. What you would want to do DR. JAMISON: is get involved in the discussions about how the 6 7 FCC's universal service efforts will be funded. 8 That's where Florida has been a payer. Okay, the FCC has funded universal service by a tax on 9 10 interstate telecommunications. That's the --11 that's what's becoming incredibly problematic. So 12 there is some movement, a discussion to change 13 The question is how would that change? that.

14 The FCC doesn't really have authority to get 15 money from some place else. In fact, there is some 16 discussion about does the FCC really have authority 17 do to do what it's doing?

18 So things may change, maybe not this year 19 because of the elections and such, but maybe 2025. 20 Get involved in the discussions and know what you 21 would like to have, you know, what makes sense? 22 COMMISSIONER GRAHAM: I mean, broadband is 23 nothing that we even touch, but I just hate seeing 24 those funds go to waste all the time. 25 DR. JAMISON: Yeah. I understand. Yeah, that

1 would be my thoughts, try to get involved in the 2 discussion, but certainly know what you would want. 3 COMMISSIONER GRAHAM: Thank you. 4 COMMISSIONER FAY: Do we need these on? 5 COURT REPORTER: Yes. 6 COMMISSIONER FAY: Yours isn't on. I just 7 didn't --I think folks hear us at 8 CHAIRMAN LA ROSA: 9 the table fine, but with the microphones on, then 10 we are picked up with folks that are zooming in. 11 COMMISSIONER FAY: Gotcha. Great. 12 First of all, thanks for being here. You come 13 Thank you for your engagement on the every year. 14 I think you and I have talked a lot. NARUC side. 15 I see no reason that Florida, both on a research 16 and academic position, can't be highly engaged in 17 what's done on a national level. I think, to your 18 point about what we do -- or what states do and 19 trying to translate that to DC, I mean, we all kind 20 of joke about how dysfunctional DC is, but I think 21 the reality is some of what we have done on the 22 national level, the NARUC level, has been somewhat 23 limited because we have a specific type of model 24 for our utility regulation in Florida that, for the 25 most part, has proven to be extremely successful.

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1 So I think that is different when some other states 2 look what they do, and their structures, and their 3 markets.

And so I appreciate you getting involved in NARUC, because I know that that's not necessarily historically a lane that you guys have operated in, but you spent time last time, it's always fun on Sundays to come meet with us in the Education Committee --

10 DR. JAMISON: Sure.

11 COMMISSIONER FAY: -- but you took the time to 12 come up with and do that, and so I appreciate that.

13 I will ask you on the FCC stuff. I know you 14 quys are doing a lot of research in that realm. Ι 15 think it's significant. I think the sort of 16 philosophical debate, and the chevron, and 17 independence, and all of these discussions that are 18 having, I think of legally some of that will play 19 out and the courts will weigh into that. But I am 20 curious, the research sort of wades into the 21 reality that just the way the FCC operates for the 22 mergers and the reviews is essentially killing the 23 ability for companies to be able to do that type of 24 acquisition.

25 And so that might be more of a philosophical

and less an academic debate, but I am just curious if it's, you know, if the research of those changes, and independence, and things that you are seeing, is this essentially going to lead towards a result that minimizes the ability for companies to do that?

7 DR. JAMISON: Sure. There are basically two 8 areas of research that have been done that inform 9 And then I have two students, one is a us. 10 post-doc, doing research on the merger analyses, 11 and specifically want to look in the energy sector 12 and see what some of those -- the consequences have 13 been for, like, green energy and such.

14 But more to your question, we know from about 15 30 years of research, some of which was done at UF, 16 some good research, that if you have a good, 17 predictable, operating by rule of law regulatory 18 agency, you get more utility investment than if you 19 have -- don't have that. And that's true anywhere 20 That's been really, really you go in the world. 21 strong research.

And that's been my concern with the FDC. Those of you don't know me, I used to work in the regulatory agencies in Kansas and Iowa, so I have got a lot of background in it, and it just bothers

1 me when I see things start falling apart. 2 COMMISSIONER FAY: Well, you served on 3 advisory groups. 4 DR. JAMISON: Yes. Yes, for a long time. 5 So we know that a strong regulatory agency 6 matters. It matters a great deal, because 7 investors know that they can predict what's going 8 to happen in the future, and that's why it's so 9 important. 10 So that then also plays into what's going on 11 with some of the merger regulations, and they 12 become less predictable, because in some ways, they 13 are going back to things done in the 1930s, which 14 were fairly arbitrary. The economists working in 15 it have thought back, and we'll see how well that 16 But that's -- that's where we have been in qoes. 17 our research and where we are going. We are going 18 to see what some of the affects are going to be. 19 COMMISSIONER FAY: And when will you see some 20 of that, do you think, as far as conclusions of 21 that research? Is that --22 That will probably take us about DR. JAMISON: 23 The data acquisition is really difficult. a year. 24 It's there, it's just really hard for my students 25 to get.

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1COMMISSIONER FAY: Okay. That's great. Thank2you.

3 CHAIRMAN LA ROSA: Any thoughts, questions? 4 COMMISSIONER PASSIDOMO: Thank you, Chair. 5 Thank you, Dr. Jamison for being here, and 6 always Go Gators. I feel like I represent up here. 7 So I kind of want to -- I was thinking about 8 when I was looking through when -- or these 9 research projects that you give us in your annual 10 I had spent some time working at the report. 11 Department of Energy, and then they have just got 12 an influx of grant opportunities, and I am kind of 13 curious -- I don't know how those are -- if they 14 are available for academic purposes as well as also 15 for, you know, utility-scale, you know, deployment 16 of new resources and things like that. Do vou have 17 an, you know, some sort of liaison that helps you 18 look into those opportunities?

19I am always just, like, hopeful that we can20get those, because in a lot of ways, we are a donor21state just generally into the federal government,22and so we want those -- those are our dollars that23are going into those opportunities, so bringing it24back to sour universities for research for our25state is really important, so I didn't know, like,

1 do you get to look -- do you get any of those 2 opportunities to come to UF and you get to use them 3 in any way? 4 DR. JAMISON: A lot do come to the university. 5 They are largely in engineering, is That is true. where most of the funding is, and the engineering 6 7 college -- all engineering colleges is well 8 equipped to pursue all of that. 9 We have collaborated some with the engineers 10 schools on some of the research. Sometimes they 11 like economists, sometimes they don't. Ι 12 We don't do a great deal of that. understand. As 13 you might imagine, the regulations around those 14 research projects are really intense, and so 15 it's --16 COMMISSIONER PASSIDOMO: Right. Yeah. 17 DR. JAMISON: -- you got to understand, you are subsidizing the project there is so much 18 19 regulation to it. 20 COMMISSIONER PASSIDOMO: Absolutely. Well, I 21 appreciate it. Anything, you know, if we can do to 22 help facilitate that process. 23 Okay. I am glad. DR. JAMISON: Thank you so 24 much. 25 The university does have people sitting in

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1 Washington to help with a lot of that. Thank you. 2 CHAIRMAN LA ROSA: Awesome. 3 Not seeing anything else, I asked Dr. Jamison to invite a few of his students that have, either 4 5 working with PURC or impacted by some of the work So I will toss back over to you to 6 that's there. 7 introduce who you have got with us today. 8 DR. JAMISON: All right. Thank you. 9 We have two people with us. One is Justin 10 Justin is an undergraduate at the Brock. 11 university. He is finishing up, I think, this 12 semester. He is going to be talking about his 13 experiences working with us, and how it's played 14 into things he has learned along the way. He will 15 also ask you for some advice, so please be ready 16 for that. 17 You will also hear from Benjamin Morris. He 18 is a DBA, Doctor in Businesses Administration 19 student. He is doing some research on the effects 20 of regulatory decisions. I will let him explain 21 that. 22 And so then we had a third student that was 23 going to present, a law student, but she had class, 24 and for some reason that was just more important, 25 and I don't understand. But

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1 I don't believe it. COMMISSIONER FAY: 2 CHAIRMAN LA ROSA: We understand, though. 3 DR. JAMISON: So we won't have her. But we 4 will have Justin and Benjamin. 5 So let me start with Justin. Would you lead 6 off, please? 7 MR. BROCK: Hello, everyone. As Dr. J said, I 8 am Justin, and I am a fourth year student here at 9 UF studying environmental science, and I have been 10 working with PURC for over three years now. 11 During my time here at PURC, I have gotten to 12 learn a lot about an industry that I am hoping to 13 enter in the next coming few months, and I have had 14 a lot of amazing opportunities, like particularly 15 meeting hundreds of different utility regulators 16 from around the world at our biannual PURC World 17 Bank program, and hearing what they have to say 18 about the challenges that they faced and the 19 milestones that they have overcome in their work, 20 which has been really interesting and really 21 impactful to learn about. 22 I am also very appreciative for the exposure 23 PURC has given me to the utility sector here in 24 I have heard many of you Commissioners Florida. 25 speak before, including Commissioner -- or Chairman

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La Rosa, Commissioner Passidomo and Commissioner Fay, speak on numerous occasions across the state on energy issues, which has been very insightful.

And in addition to the several PURC annual 4 5 conferences that we have put together, including the one in February that I invite you all to come 6 7 to, I had the opportunity last August to attend the 8 Florida Women in Energy Leadership Forum as a student investor, and Lila Jaber did an amazing job 9 10 putting that conference together, just -- as well 11 as making it an opportunity for students to really 12 dive deep into concerns about our future, both 13 ecologically, as it relates to climate change, and 14 economically, as it relates to making sure that we 15 can ensure that all Floridians have equal access to 16 affordable and reliable utility services.

17 These conferences have really allowed me to 18 see how big of an industry the utility sector is, 19 even beyond everything that you do here at the PSC, 20 hearing from private energy companies, consulting 21 firms and legal groups on how they all work 22 together has really enlightened me to a myriad of 23 people who come together to make Florida's 24 infrastructure strong. 25 In addition, particularly someone who studies

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climate change pretty much day in and day out as a part of my degree, it was really cool for me to see how Florida is utilizing federal investments from the IIJA and the IRA to expand alternative energy sources across the state, especially solar, but also more new sources like hydrogen fuel, which I think is really interesting.

8 It was also very insightful for me to learn 9 that Florida leads the nation in transition fuel 10 infrastructure, particularly natural gas, which 11 releases significantly less carbon dioxide when 12 combusted as opposed to oil, and definitely coal.

13 On that note, thanks to your efforts, as well 14 as that of regulatory groups across the nation, 15 coal is now projected to make up just over 14 16 percent of U.S. energy generation in 2024. The 17 lowest it has ever been. It is now lower than the 18 generation share produced by both renewables and 19 nuclear energy individually, which is really just 20 crazy to think about considering that was not the 21 case two years ago.

Overall, my time here at PURC has added a lot of nuance to my studies, and it's given me incredible exposure as to how environmental issues and regulatory issues overlap in several different

ways.

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And then as I enter the workforce, I am excited to continue learning and working towards new ways of ensuring quality of service, portal pricing and also reducing the ecological footprint of the utility sector. And I just want to say thank you so much for giving me this opportunity to speak with you.

9 I do have a few questions before I go. If you 10 have any questions for me, I would definitely take 11 them as well.

12 But first and foremost, as a prospective 13 applicant to both public and private sector jobs in 14 the industry, I was wondering, as professionals, 15 what advice do you have for me to stand out in my iob application, job interviews, and if I do get 16 17 the job, in my work as well? 18 CHAIRMAN LA ROSA: Who wants to take a stab at 19 that? 20 COMMISSIONER FAY: The most experienced. 21 It's been longer since I COMMISSIONER GRAHAM: 22 have had to --

COMMISSIONER PASSIDOMO: Most recent, yeah.
 Well, first off, I am just so excited that you
 are entering this industry. I will say, I am

1 always -- I love it so much, and I have said that 2 there is the opportunities are endless. And I am 3 glad you mentioned FWELF. That was something I was 4 going to say. I mean, I couldn't believe being 5 there just the opportunity you get do meet industry Lila does an amazing job and really gets 6 leaders. 7 -- makes great connections, so I think continuing 8 to be a part of that process, showing, like, actual 9 engagement.

10 I found when I was entering this industry, I 11 started when I was in law school, and decided where 12 I wanted to be in it. As you understand, it's 13 really diverse. You can be -- so I tried the 14 upstream side of what, like, basically ENP, natural 15 gas extraction, things like that it, working in 16 that realm, realizing that wasn't necessarily where 17 I wanted to be, and then all the way down to the 18 regulatory side.

19 So very different -- you can get engaged in a 20 lot of different ways. So kind of finding which 21 area of the industry you want to be in. Regulation 22 is -- it's a lot different of a process, a lot more 23 legalistic, so, you know, understanding --24 understanding the rules and regulations that kind 25 of drive this whole process is really important, so

putting that foot forward -- and you already mentioned, you know, the biggest federal energy policies that just came out. Understand the Energy Policy Act is really important as well. That really, and the Federal Power Act, that really guides our industry on a federal level, and interstate commerce level.

8 So those are kind of the things -- I mean, I 9 haven't been much of a -- you know, I would looked 10 to my colleagues for, like, the actual what 11 employers would be looking for because I am more of 12 on the applicant side, but I found it was 13 successful for me to show my enthusiasm and broad 14 knowledge base of the industry as a whole because 15 it will give you -- just going in and feeling like 16 you are the most prepared person in the room is 17 always good advice for anything you are doing, I 18 think.

19 CHAIRMAN LA ROSA: I feel like I am going to
20 transition to Gary. Gary, you look like you are
21 ready to say something.

22 COMMISSIONER CLARK: Well, I would add, 23 Justin, there is a couple of things that I would 24 suggest to you, and number one is be willing to do 25 any job. Don't ever consider yourself above any

responsibility. And as a -- as someone what who has employed a lot of people in my work history, that's kind of the thing that I am always looking for, is the attitude, and that's someone who is willing to take on any responsibility that is given to them.

7 There is probably nothing -- you can take 8 someone with a -- with decent skills that has the 9 right positive work attitude and this person can go 10 along way. Where you start out is not going to be 11 where you end up. Be willing to look at those 12 diverse opportunities that are out there.

And I would say this as well. Go into things with an open mind. Be willing to look at the reality sometimes as opposed to the perceived, and look at things from your employer's perspective as well as the world perspective, and be able to make the necessary adjustments there to what you see in reality.

That would be my advice starting out.

21 CHAIRMAN LA ROSA: Yeah, Justin, I will just 22 piggyback a little bit on what Commissioner Clark 23 just said.

I think dedication and commitment is what a lot of organizations, or companies, or whatever it

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may be that you are applying for, are really
looking for. Understanding what their mission is,
and being able to take that the next level is
equally as important.

5 You know, the advice I always, you know, offer to my kids, or my niece or nephews that may be 6 7 looking for different opportunities, I would say, 8 how do you -- how can you separate yourself from 9 the rest? You dug into some of your experiences, 10 which are immense for an individual your age. Ι 11 think highlighting those, and you may be able to 12 use that and pivot on that to show your dedication, 13 show your interest. And I think that's -- that's 14 what opens folks' eyes.

15 A lot every folks will say the right things on 16 a resume. They will put the right references. All 17 of those things, of course, always check out. But 18 really, how do you separate yourself, and how do 19 you make yourself a little bit different, and how 20 are those -- maybe keep of that team in mind as you 21 are filling out applications, having discussions, 22 whatever you may be doing to get to where you are 23 heading, so my thoughts. Any others? 24 I wouldn't cut your hair. COMMISSIONER FAY: 25 That hair --

1 MR. BROCK: Thank you. 2 COMMISSIONER FAY: -- solid. Yeah. 3 CHAIRMAN LA ROSA: I second that, by the way. 4 I wish I had that. 5 COMMISSIONER FAY: No, I mean, I think having some balance of academic and work is really key, 6 7 I mean, I think all of our divisions would right? 8 tell you that. Sometimes we have folks come 9 straight out of school, especially Commissioner 10 Passidomo, I know in law school, they will be top 11 of their class but have never worked. They have 12 never had actual experience of being in-house 13 somewhere, and understanding kind of what that 14 looks like. And so I think the more you can do 15 that in addition to all the academic qualifications 16 that you are building, I think that's probably 17 helpful for you in the future, depending on where 18 you want to go. 19 And if you want to stay in Florida, you have 20 got some pretty good exposure being on this IA,

21 which is recorded and saved in the archives, and so 22 it might be something you will be able to bring up. 23 So I appreciate your time. That's right. 24 Thank you all so much. MR. BROCK: 25

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I do have one more question, if you guys have

1 It's a little bit more specific, so if you time. 2 don't have an answer, then I completely understand. 3 But in my studies, one thing that I focused on 4 a lot is the environmental impact of lithium 5 mining, and for lithium ion batteries specifically. And given that they are one of the more viable 6 7 sources for energy storage and photovoltaics, and 8 they are already primarily used in the electric 9 vehicle infrastructure, research suggests that 10 global annual production of it will have to 11 increase, like, by over 10 times what it is today 12 in order to satisfy a fully carbon neutral society. 13 So I was just asking, have you put any 14 thought, or who do you believe has put the best 15 thought into how to regulate the energy market 16 and/or lithium mining itself in order to not create 17 any new ecological issues while we are trying to 18 solve another one? 19 CHAIRMAN LA ROSA: That's a great question. 20 MR. BAEZ: Phone a friend. 21 T will throw kind of a CHATRMAN LA ROSA: 22 perspective at you. So unique, because, right, so we are talking 23 about an issue that we don't regulate, right, but 24 25 impacting something that may, you know, somewhat

fall into our regulations. You know, I don't know that the verdict is out 100 percent of what we -the direction we go, and what we look at, and what we trust, but at the end of the day, we got to look at evidence. And I think that's important to continue as these new technologies are, you know, continuing to evolve.

8 We know that battery storage is a major factor 9 to the production of some renewables. So I think, 10 as time goes on, it's important to, you know, keep 11 our ear close to the ground, pay attention to 12 what's actually happening. But I think you -- in 13 your question, you answered part of it, is what is 14 And there is probably an the overall impact? 15 impact that is an unintended consequence to solve 16 one problem that might be creating another problem.

17 So I know for us, that makes our job a little 18 bit -- not a little bit. It makes our job very 19 difficult as we try to balance that, because I just 20 kind of feel like the last 10, 15 years are very 21 different from the 10 or 15 years previous to that. 22 And the 10 to 15 years ahead of us have are going 23 to be very different from the last that we've just 24 seen. 25 So it's something that I think we need to

1 continue to watch, because we need to pay close 2 attention to it, and make sure we don't deviate 3 from what our ultimate mission may be to create a 4 further harm than maybe what we are intending to, 5 so --Well, thank you so much. 6 MR. BROCK: Yes, 7 that was very insightful. CHAIRMAN LA ROSA: 8 Awesome. 9 Dr. Jamison, I will throw it back to you if 10 you want to make an intro -- Justin, I didn't mean 11 to cut you off if you have further questions. 12 MR. BROCK: No. All good. I was saying thank 13 you again, and I will turn things over to Dr. 14 Jamison now. 15 CHAIRMAN LA ROSA: Awesome. 16 DR. JAMISON: Thank you, Justin. 17 Ben, I am just going to hand it to you. 18 MR. MORRIS: Good morning. Hopefully the 19 group can hear me, but please just let me know if 20 you cannot. And thank you very much, Dr. Jamison. 21 And to the Commission and staff, I am very 22 honored and very grateful for the opportunity to 23 speak about my research today. 24 So my name is Ben Morris. I am a doctoral 25 student within the business school at the

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University of Florida. By day, I am a senior director at American Water in Camden, New Jersey. But my legal colleagues have kindly reminded me that the work products and opinions that I presented as a researcher are my own and really do not reflect my work as an American Water employee.

7 So what we are presenting here today is, as a 8 doctoral student, I am preparing my dissertation, and I am on the front end of that. And so what I 9 10 wanted to review with you is my dissertation 11 proposal, and the topic of it is Abnormal 12 Shareholder Returns Around U.S. Regulated Utility 13 Rate Case Filing and Decision Events. And I know 14 that's a mouthful, but we will get into a little bit more detail around what that means. 15 But it's 16 certainly relevant to your work, and that's why we 17 are discussing it here today.

18 So maybe before we get into the research 19 itself, I just wanted to address the question of 20 why is this worth researching at all. And so maybe 21 just to grab it in a fact.

In 2022, of the 229 U.S. electric and gas utilities who filed FERC Form 1, their net income totaled \$53 billion. Of that 53 billion, the vast majority, the vast majority, so 51 billion,

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ultimately consolidates up into the financial
 statement of publicly traded utilities in the U.S.
 or abroad.

4 And so I know that this group knows that the 5 profit amount that utilities recover under equity funded capital investments ultimately is stipulated 6 7 And this might seem obvious, but by rate cases. the new information that comes out of rate cases 8 9 ultimately can impact utility share prices and 10 shareholder value. And so understanding that 11 relationship between shareholder value and utility 12 rate base information is interesting to different 13 stakeholders.

So from a regulator perspective, it provides insight into how to position jurisdictions to attract capital for increasing reliability and resiliency of the utility infrastructure in that jurisdiction.

From the utility side for shareholders and management, understanding that relationship really allows them to anticipate the impact of regulatory outcomes.

And then lastly, from an academic perspective, understanding that relationship between rate case information and share price impacts for utilities

simply furthers the knowledge base within finance
 and the legal domains.

3 So that's why we are looking into it, and why, 4 for this group as regulators, it should matter to 5 you hopefully.

6 So just maybe a little bit in theory. There 7 are two things that I wanted to cover, which are 8 the efficient markets hypothesis from a finance 9 perspective, and then the research methodology of 10 event studies.

11 So the efficient market hypothesis ultimately 12 says that information is priced fully into the 13 share prices of different securities. And so what 14 that implies is that old, or known information, 15 ultimately can't be used to generate trading 16 profits or create shareholder return.

17 The semi strong format of this hypothesis 18 states that in the absence of information, no 19 change should happen in the share price prior to 20 the release of new information; and 21 correspondingly, that share prices change when new 22 information is released, and so as an example in 23 the context of rate cases.

24Share price changes ultimately reflect25investors placing new value on information, and

we'll get into that in a rate case compact.

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2 Methodologically, event studies are research 3 methodology used to evaluate whether markets are 4 efficient by detecting unexpected price changes, 5 which are known as abnormal return. And abnormal 6 returns, as a concept, are really quite easy. It's 7 simply the difference between actual real life 8 returns that you can see in the stock market, and 9 then expected returns, which are generated from 10 different financial models. And in this research, 11 we test four different financial models, but we 12 will speak about that.

Ultimately, if there is a difference between the actual return and the expected return, that indicates that the markets have incorporated new information, and the value of that can be used to test hypothesis in a research study. And so that's really the theoretical setup what we are going to be looking at in research.

20 So this diagram, although there is a lot of 21 activity, should be well within your comfort zone. 22 What's being presented here are two different rate 23 cases of the same utility. So on the left-hand 24 side is a prior rate case, and on the right-hand 25 side is a current rate case. And within that, I am

presenting the filing and the decisions, and the different data elements that build up to the revenue requirement. So we have the revenue requirement itself, recovery expenses, equity return on rate base, rate base itself, the equity capitalization rate and return on equity.

7 Now, thinking back to the efficient market 8 hypothesis, it's all about new information. So in 9 a rate case context, what represents new 10 information is the change in these data elements. 11 And so those changes could happen between rate 12 As an example, the authorized revenue cases. 13 requirement of one rate case and the requested 14 revenue requirement in a different rate case, or it 15 could happen within rate cases simply between the 16 filing and the decision for those same data 17 elements.

18 What we are testing and analyzing within this 19 research are those changes. And so as an example, 20 if you can see that the delta A right in the middle 21 of the screen, that represents the change in the 22 revenue requirement from a prior rate case to the 23 current rate case. And we use that as a variable 24 to compare it to changes in utility share prices to 25 understand if there is a relationship, and to

1 quantify that relationship. And so that's really 2 the basis of how the research will proceed. 3 In terms of a study design, methodologically, 4 again we are applying the event study methodology. 5 And we are looking at the filings of rate cases and the decisions as events around which we are 6 7 studying the impact of utility share prices. 8 So the rate case data set is coming from S&P 9 Capital IO Pro, but it's really ranging from 1980 10 to today in terms of rate cases in the electrical 11 and natural gas fields. 12 And then we have spoken about really how do we 13 really calculate that expected return. The four 14 financial models that we are using to look at that 15 are the Market Model, the Market Adjusted Model, 16 Fama and French's 3-Factor Model, and 3-Factor 17 Model plus Momentum as a different factor, a fourth 18 factor, which is the Carhart Model.

19So that's a little esoteric finance, but those20are the different finance models that we are21looking at. And ultimately, the presence of22abnormal returns enables linear regression of23shareholder returns against these rate case24variables that we've seen on the prior page, all of25those different deltas. So we are looking at

identifying and quantifying those correlated relationships. Apart from identifying those relationships, once we have identified them, we then ultimately try to road test them.

5 So robustness checks and research are really doing looking at the consistency of relationships 6 7 when you slice and dies the data in different 8 manners. And so in this research, we are proposing to really slice and dice the data in four different 9 10 By varying the time period, so looking at ways. 11 rate cases in different decades; by varying the 12 utility types, so comparing electric and natural 13 gas; by varying the rate case resolution types, and 14 so that means litigated and settled in this case; 15 and then varying the regulatory jurisdictions. 16 Just an example would be Texas versus 17 Massachusetts.

18 So that's how we are looking to vary the data 19 in order to see if the relationship holds true. 20 And if we can, that's an empirically strong 21 relationship, which a good finding. 22 So I mentioned that I'm on the front end of my 23 research at this point I'm proposing. That's easy 24 Over the course of 2024, I will be doing the part.

25 difficult part of actually executing that research

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Fortunately, I am being advised by a very strong group. So my dissertation committee chair is Professor Houston within the finance department at the business school. And from the PURC side, or the industry side, Dr. Jamison, Dr. Kury, and then Former Chair and Commissioner Lisa Edgar, who I suspect you all know well, is advising as well.

9 So from this point forward, it's just really 10 working on the work plan. And hopefully, maybe a 11 year from now, we can talk about some interesting 12 results.

So that's what I prepared for you today, but Iwould be very happy to take any questions.

15 CHAIRMAN LA ROSA: Ben, I think I can probably 16 speak for all of us to say very impressive with 17 what you are going to continue studying. I am 18 interested to hear your findings once, you know, 19 once you have concluded or gotten your conclusion, 20 especially when you are talking about the abnormal 21 rate impact or, you know, really the abnormal, you 22 know, return on the stock -- on the stock from the 23 entities. I am curious, an element that I am 24 curious about, which I am sure you will come 25 across, is when is it outside of regulation? When

is it outside of some of the things that you wrote
down, maybe folks are trying to hedge with the
expectations of leadership coming into an area, or
a new technology that might be evolving, that might
be a little bit outside that new cycle, but very
impressive and interested to hear how your research
continues and concludes.

8 Commissioners, any thoughts or questions? 9 COMMISSIONER FAY: I -- just a quick question. 10 After reading this, I did wish the law student 11 would have showed up too. This seems very complex 12 on the economic side, so I wish you best of luck in 13 your journey.

But just a quick question, kind of the descrip -- just on the title and the description of what you are looking at, is the approach from your standpoint to work towards sort of a validation of that hypothesis, or is it more just to make a determination maybe there is something, you know, valid there or not?

21 MR. MORRIS: So I would say it's really two 22 things. It's, first, identifying the relationship, 23 which I think would be the validation. But the 24 second part, which is really the more -- the more 25 useful part, but for all stakeholders is, once a

1 relationship has been validated, if we can measure 2 it, what the different stakeholders then can do is 3 say that -- I will use an example.

If the ROE, the authorized ROE for a given utility changes by half a percent up or down, what can we anticipate that that will do to the equity value, or the market capitalization of a publicly traded utility?

9 So what that begins to get into is, if you are 10 a regulator, as an example, and you are thinking 11 about making those decisions, you might have the 12 foresight to understand what the impact of that 13 would be on the utility. And then ultimately, 14 longer term, beyond that single utility, what sort 15 of messages does that send to the broader market, 16 which becomes a question of how do you -- how 17 attractive or unattractive is a given regulatory 18 jurisdiction for bringing capital in for --19 ultimately for funding infrastructure.

And so I think the real value, apart from validating the hypotheses, are the ability to measure and ultimately apply the predictability about how changing some of those data elements will impact the value of the utility.

25 COMMISSIONER FAY: Great. Yeah. And

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honestly, I probably wouldn't have asked you that question a few days ago, but I'm sure you are aware of Freakonomics, and they review all of these sort of economic models, and they have been looking at academic publications and kind of how it validates or doesn't validate something, and so it's just interesting to hear your approach.

8 There is a broader question than kind of a yes 9 or no analysis for the research. So I appreciate 10 your work. Thanks.

11 COMMISSIONER PASSIDOMO: Thank you, Mr. 12 Morris. I actually -- I -- this is -- I, as well 13 as Chairman La Rosa, I am interested to see what 14 your findings come out of this.

I think it's generally assumed if you are a publicly traded company, that in some regard your share price will be subject to -- there is -- it's impacted in some way by regulatory decisions no matter -- whatever the regulatory body is, and so that's sort of embedded in the share price and the risk associated with it.

I -- like I -- I think for coming from the State, a state regulatory, for our perspective, you know, when we are talking about rate cases, we have, you know, our standard is setting fair, just

1 and reasonable rates it's going to be -- I am 2 curious in that this is more of maybe a legal 3 philosophical sort of situation that the courts 4 will come up with figuring out, it's like, if that 5 -- we do have that information. I think it's But whether that falls into our 6 useful. 7 jurisdiction to be able to incorporate that in our 8 decision-making. That's obviously, like, 9 theoretical at this point, but more -- I come from 10 more information is always better. We want to hear 11 as many -- as much, you know, as put into the 12 record as possible.

13 So I think going forward, this will definitely 14 get incorporated into, you know, for I think all 15 states will find this information useful. To what 16 extent we can actually -- it can be applicable is, 17 you know, to be determined. But I appreciate the 18 work, and I look forward to your findings.

19 MR. MORRIS: Thank you. I appreciate your 20 points certainly on really fair returns, and to 21 what extent, as an example, can be used as a policy 22 tool, versus simply reflecting the cost of equity. 23 So it -- good considerations, and I appreciate the 24 point. 25 Any thoughts? CHAIRMAN LA ROSA:

1 All right. Ben, thank you. Again, I am very 2 impressed with the work that you are doing, and 3 looking to obviously continue to do. So look 4 forward to hearing from you down the road and in 5 the future, and I will throw it back to Dr. 6 Jamison, any --7 DR. JAMISON: That wraps us up, Chairman. Thank you. 8 9 CHAIRMAN LA ROSA: Awesome. Awesome. Let's 10 not also forget about the PURC conference next 11 week. So thanks again, guys. 12 Next month. I'm sorry. 13 COMMISSIONER PASSIDOMO: That's okay. 14 CHAIRMAN LA ROSA: I don't know what I am 15 doing tomorrow. But, yeah, next week, next month, 16 so, yeah, that's right, PURC conference the end of 17 February, so some point in there. 18 Let's move on to our legislative Awesome. 19 update. I believe we've got Lance. All right, 20 yeah, Lance is approaching, so that means he is 21 going to come join us. 22 Lance, you are recognized to give us an 23 Make sure to turn on that mic. update. I see it 24 off. 25 All right. Mr. Chair, good MR. WATSON:

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morning. Commissioners, good morning.

Week three of session started off to busy this year, a lot of things in our silo that we are taking a look at, so I'm just going to briefly walk through some bills we are looking at if that's all right with you guys, and then open you up to questions at the end.

8 The first one I wanted to take a look at, 9 Senate Bill 366 and House Bill 81. This in the 10 civil penalties under the Gas Safety Law of 1967. 11 This pretty much is just taking the state amounts 12 to near what the federal penalties amounts are.

I will note on the House bill last night, there was a delete all filed that would basically put a Sunset on those to June 30th, 2025, and then moving forward would task the PSC by rule to come up with what those new amounts are going to be. And then for us to take a look at that annually and revise it if necessary.

20 Next -- and then to that point, we've got 21 House Bill 81 is on the agenda today at 12:30, and 22 its companion in the Senate is on its second stop 23 tomorrow. So we will see what happens with those. 24 I will note that the delete all is only to the 25 House Bill and not to the Senate Bill at this time.

Next is Senate Bill 364 and House Bill 229. That, of course, is our agency bill this year. The RAF bill is in the Senate, it's up this week in its last committee stop in Rules on Wednesday, and over in the House it's been heard in one committee, and we are working to get it up again hopefully soon.

Moving on to our designation of ETCs, that's 7 Senate Bill 478 and House Bill 551. 8 The Senate 9 Bill is on the Rules agenda for Wednesday. This is 10 its last stop before the floor. And then House Bill 551 is up in Commerce on Tuesday, today, and 11 12 also its last stop before it goes to the floor. So 13 A lot of things we are looking have we will see. 14 already moved a good bit through the process.

Next, we are looking at Senate Bill 480 and House Bill 683, that's the RNG bill, very similar to what, you know, we looked at last year. Really, the only difference is the hydrogen piece that we talked about last year is not included in the bill this year.

The Senate Bill is on its last committee stop in the Senate Fiscal Policy, and as of today, there is still no movement on the House bill. Same sponsors as last year as well. And then that's really -- that's really it

1 other than, of course, there is the energy package 2 out there. It finally got released a couple weeks 3 That's Senate Bill 1624 and House Bill 1645. aqo. 4 I will note that there has been no movement yet, 5 other than it's been referenced through its three 6 committees. And just from what I am hearing, it 7 looks like it will be a pretty -- revised pretty 8 heavily. I don't have any other specifics other 9 than that.

10 And that really wraps up, you know, bills that 11 we are tracking that are moving through the process 12 right now. And other than that, certainly, you 13 know, at this time of year, just a big thanks to 14 staff who are easy to reach and quick to respond, 15 whether it's an analysis request we need a quick 16 turnaround on, or a question from downtown, or more 17 typically probably a dumb question that I have, they are quick to help, and that certainly is 18 19 beneficial to me and the folks downtown this time 20 of year. 21 So that's really all I have today, unless you 22 all have any questions for me. 23 COMMISSIONER CLARK: Lance, when can we expect 24 the bill analysis on the energy bill from staff?

MR. WATSON: I would anticipate sometime this

25

1	week. I will defer to
2	UNIDENDIFIED SPEAKER: Not this week.
3	MR. WATSON: Okay. Maybe next week then.
4	There are I will say there is probably three or
5	four analyses outstanding that we are still waiting
6	on, but certainly have been working on it, so
7	CHAIRMAN LA ROSA: Outside of the analysis, I
8	am assuming that there is discussions and questions
9	going back and forth. That's the not one all
10	portal that we communicate through.
11	MR. WATSON: That's right.
12	COMMISSIONER FAY: Thank you for wearing your
13	Tomohawk to offset Mr. Jamison.
14	MR. WATSON: Go Noles, Commissioner Passidomo.
15	CHAIRMAN LA ROSA: Lance, thanks for
16	certainly, you know, being there for us out there.
17	Of course, you know, obviously a lot is going on
18	this time of year, so there is plenty of things
19	moving and coming at you, and I am sure there is
20	technical questions, and I appreciate staff behind
21	you, you know, obviously backing you up, so thank
22	you for all of that.
23	MR. WATSON: Sure. Thank y'all. I appreciate
24	it.
25	CHAIRMAN LA ROSA: I look forward to your

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1 updates, and thank you for all the emails. 2 MR. WATSON: Yes, sir. 3 CHAIRMAN LA ROSA: All right. We will move on 4 to the General Counsel's report. 5 MR. HETRICK: Yes. Good morning, Mr. Chairman and Commissioners. 6 7 I would just like to introduce, we have three 8 new employees, all in Adria's section, two of whom 9 are here today. I would like to introduce them do 10 you. 11 Lanisha Thornton is our new Senior Legal 12 Assistant in Adria's section. She rounds out our 13 entire senior legal staff, so it took us a year to 14 get her, and we are finally fully staffed for 15 senior legal assistants, and we are really excited 16 to have her. 17 She has 10 years of experience as a legal 18 assistant with the DOR and private law firms. She 19 has a BS degree from Florida International 20 University and an AA Degree in Paralegal Studies from Kiser. So welcome, Lanisha. You will be 21 22 seeing a lot of her, and she's going to be a 23 tremendous help in our hearings. 24 We have Saad Faroogi who joined us on Tuesday, 25 this past Tuesday, in Adria's section as a Senior

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1 Saad was employed with a private law Attorney. 2 firm in West Palm Beach, and previously with the 3 Department of Health. He attended law school at 4 Drexel University's School of Law in Pennsylvania, 5 but was a Seminole in undergrad, so welcome Saad. The one that's not here today, Hunter Hurley 6 7 is our part-time law clerk. Adria is going to 8 bring her around to you all if she hasn't already. 9 He is -- he has graduated from -- he will graduate 10 from the FSU School of Law in May of 2025, and most 11 recently has experience as a law clerk with the 12 City of Tallahassee as a landuse expert. So we are 13 equal opportunity hires. He is a diehard Gator as 14 an undergrad. 15 COMMISSIONER PASSIDOMO: Yes. 16 MR. HETRICK: We are excited to have Hunter. 17 He is extremely bright and extremely motivated to 18 be here, and is going to add a lot of value over 19 the next couple of months. 20 So congratulations, Adria, for filling out her 21 section finally, and we are looking in good shape. 22 CHAIRMAN LA ROSA: Awesome. Well, good to see 23 the team getting stronger. Thanks. Welcome, 24 folks. 25 All right. I think we can -- let's move on to

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the Executive Director's report.

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2 MR. BAEZ: Thank you, Mr. Chairman. I don't 3 have anything official to report today, but I did 4 want to say it's nice to see FIU in the house. I 5 don't even know what they are now. Are think still 6 the Panthers?

MS. THORNTON: Yes. Bias.

MR. BAEZ: All right. They were the Sun Blazers when I was there. The sun burned out.

You have seen the legislative -- you heard the legislative update. We are -- I want to reiterate Lance's big thanks to staff for their hard work and their quick responses, not just on bill analyses, but on, as Lance put it, stupid questions of which I share many with them.

16 I did -- Commissioner Clark, your question on 17 when. Those are big packages that are, at this 18 point, somewhat disjointed, and that's the reason 19 -- that's the reason it's kind of taken a little 20 bit -- a little while to digest. If you -- and 21 I -- my great fear is that our analysis will be all 22 for naught in the end because, at this point, there 23 is no telling what's going to be in a reissue. 24 They are going to be heavily, heavily rewritten 25 from what I am hearing downtown.

1 Not to discount the work that's being done 2 already. We do have some -- I was talking to the 3 Chairman yesterday, and I called them hotcakes, and 4 they are just -- they are just mine and mine alone, 5 but we do have some -- we are trying to take an angle of how it really affects the agency in 6 7 particular, and there are some, a lot of -- quite a 8 few studies, at least I think three, maybe a handed full of studies that are contained within the 9 10 legislation that the Commission is tasked to at 11 least ride herd over, and we are trying to figure 12 out whether the timelines that are expected, at 13 least in the current versions, are reasonable 14 enough for us to be able to do our best work for all involved. 15

16 So when you do see the analyses, you will see 17 some kind of perspective in that sense as to how 18 the work is going to flow as well. That's 19 certainly my main concern at the moment, without 20 passing judgment as to whatever substantive content 21 there may be. But like I said, we do expect that 22 to change. 23 If -- I know that -- I know that Mark sent you 24 all, like, a thumbnail sketch of a summary of the 25 legislation for what it's worth, and that's

1 something to wet your appetite, but the analyses, 2 as you heard, are coming soon. 3 Beyond that, if you all have any questions, by 4 all means, fire away, or I would be happy to come 5 and talk to you on it. 6 CHAIRMAN LA ROSA: Commissioners, questions? 7 Thoughts? 8 Okav. Thank you for that, and certainly input and thought behind it. 9 10 Any other matters that need to be discussed 11 before us? Staff? Commissioners? 12 I will just kind of note that next month, in 13 addition to PURC, is also NARUC, and I know that 14 many of us attend, or play a unique role in that 15 organization, of course, part of their annual 16 conference, or one of their annual conferences, I 17 think their policy conference is next month. So I 18 know I will be attending and participating in a few 19 different events there. 20 So it's important to note, not just our role 21 here in Florida, but obviously the impact we have 22 nationwide, unique, that was discussed today with 23 Dr. Jamison, was the role of the state, and I think 24 that's where that's ultimately highlighted. It's 25 my hope, is maybe what we all come to the

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1	conference with is discussing how do we elevate
2	that, right? And how do we get maybe start to
3	change the mindset, which I know is difficult, of
4	those in DC.
5	So I think we are doing a lot of things great
6	here, and I think we can use that platform to
7	highlight that.
8	So seeing no further business, I will
9	officially call this Internal Affairs meeting
10	adjourned.
11	Thank you.
12	(Proceedings concluded.)
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2	STATE OF FLORIDA )
3	COUNTY OF LEON )
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5	I, DEBRA KRICK, Court Reporter, do hereby
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11	and that this transcript constitutes a true
12	transcription of my notes of said proceedings.
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16	attorney or counsel connected with the action, nor am I
17	financially interested in the action.
18	DATED this 2nd day of January, 2024.
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24	DEBRA R. KRICK NOTARY PUBLIC
25	COMMISSION #HH31926 EXPIRES AUGUST 13, 2024