

PUBLIC UTILITY RESEARCH CENTER

WARRINGTON COLLEGE of BUSINESS

2020 **TRAINING PROGRAMS** for Utility Regulators and Professionals

LEADERSHIP IN INFRASTRUCTURE POLICY



WARRINGTON COLLEGE of BUSINESS



Take the next step. Become the expert!

How can you help your country and community build world-class infrastructure services? By being the world-class expert they need.

The Public Utility Research Center (PURC) is committed to you becoming just that. Too often countries rely on outside advisors for complex regulatory decisions and analyses. However, outsiders don't know your country like you do and can offer nothing better than best practices. What your country and community need are next practices - those ideas and studied innovations that are necessary for world-leading infrastructure.

You can obtain the training and tools to empower yourself and your organization with PURC. Join an upcoming training program and become a member of our extensive alumni network! You will engage with the best faculty, investigate current issues and trends, and look ahead to future challenges. We do this with one goal in mind: to provide an unparalleled experience for you to become the expert that people look to.





If you want to advance your country's infrastructure and take a giant leap in your career, PURC is where you belong. Alumni of PURC trainings tell us the benefits of attending last a lifetime and significantly impact nations.





TRANSFORMING THE WORLD THROUGH YOU & YOUR WORK

Improving people's lives for a lifetime

Only one year into her employment with the water and sanitation regulator of Zambia, the National Water Supply and Sanitation Council (NWASCO), Yvonne came to Gainesville in 2009 with an expectant heart that what she learns at PURC would empower her to understand utility regulation from diverse perspectives.

"As part of NWASCO's capacity building, staff were regularly sent to PURC for training," Yvonne said. "I was working in the inspectorate department which required staff to have good knowledge of different facets of regulation. I expected the PURC training to provide me just that."

Yvonne's favorite part of attending the PURC/World Bank International Training Program on Utility Regulation and Strategy was meeting professionals from around the world and listening to the similarities among challenges faced in regulation. She never knew there was a country called Belize until she came to the PURC training and met utility and regulatory professionals from there.



PURC/WB International Training Program Alumna – 2009 Zambia

"I was particularly fascinated to learn that despite regulating different sectors - whether water, energy, or telecom regulators had similar approaches to utility regulation such as tariff structure options and handling of consumer complaints. These lessons could be transported across sectors to improve regulation," she said. "The PURC experience really helped shape my work in regulation. I became open minded to learn all the different facets of regulation instead of limiting myself to one area of expertise."

After returning home, Yvonne's curiosity and genuine interest began to open more doors for her. Having been exposed to a wide variety of knowledge in regulation at the training program, Yvonne became more inquisitive in her colleagues' area of expertise and took time to gain knowledge in financial analysis and tariff models as well as benchmarking and consumer issues. She also took on roles and responsibilities that involved strategic planning and risk management for her organization.

"I became a 'jack-of-all-regulation-trades' since attending the training with PURC," she said. "Training is so important because regulators must be able to respond to the changing

environment. Regulators need to stay a step ahead of the regulated. This means being aware of the environment and how the different regulatory tools and instruments work together to improve service delivery. We all have an area of expertise, but in regulation, one must take time to acquire skills that will inform and enhance the expertise."

Yvonne also applied what she learned to her active membership with the Eastern and Southern Africa Water and Sanitation (ESAWAS) Regulators Association, which consists of members from Kenya, Tanzania, Zanzibar, Burundi, Mozambigue, Malawi, Uganda, Zambia, Rwanda, and



Lesotho. ESAWAS began in 2007 as an informal gathering of five regulators to share experience in regulation, and became a legal entity in 2011. Yvonne has spearheaded the growth of ESAWAS since its formation, and is now a fulltime project manager for the Association.

"For ESAWAS, I was able to oversee the implementation to offer professional training in the area where there is a of its strategic plans and support the development of a significant gap in regulation," she said. regional benchmarking framework for utilities," she said. "Learning from PURC also enabled me to design and oversee What drives Yvonne to continue growing and making an impact in the regulatory field is the lasting impact it has on the undertaking of peer reviews among the regulators in ESAWAS, covering regulatory governance, substance and people's lives. impact." In addition, she had no idea that a field visit to a "You're improving people's lives for a wastewater reclamation plant in Florida would provide useful lifetime," she said. "Once regulation is implemented background to her current role. well, the ripple effects trickle down to generations. What we do today as regulators continues to impact the future."

ESAWAS is currently working on a project supported by the Bill & Melinda Gates Foundation to integrate non-sewered sanitation in regulation. Sewerage coverage in the Eastern and Southern African region on average is below 15%, which means that over 80% of the population rely on non-sewered sanitation services which are not currently regulated.

"This poses a lot of challenges for health and environmental protection in terms of service quality." Yvonne said "ESAWAS is thus in the process of developing a regulatory framework and strategy to incorporate non-sewered sanitation service provision in regulation. This will involve the development of various tools such as standards, benchmarking framework, financing options, and more, which are concepts that we covered during the PURC training."

Public Utility Research Center





Yvonne has high hopes in collaborating with PURC's capacity building project in the sanitation sector and its key stakeholders, soon to be funded by the Bill & Melinda Gates Foundation.

"This presents a great opportunity to partner with PURC



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

47th offering: January 13-24, 2020

48th offering: June 8-19, 2020

Gainesville, Florida

This intensive program represents an exciting and significant opportunity to enhance the professional competence of utility regulators and senior company staff.

During the first program in 1997 and every program since, our course participants have learned about ongoing infrastructure reform programs, heard from some of the world's leading authorities, and offered their own insights on regulatory policies.

This is an unparalleled experience to learn problem-solving techniques complemented by an international exchange of ideas and experiences. The program offers an international forum for the dissemination of relevant best practices and research. It is specifically tailored to the professional requirements of utility regulators and service provider regulatory staff. The program is designed to enhance the economic, technical, and policy skills required for managing sustainable regulatory systems for infrastructure sectors.

The program is a collaborative effort between the World Bank and PURC and is offered each January and June in Gainesville, Florida, home of the University of Florida and the foundation for the Gator Nation. Each program encompasses more than 50 sessions that include case studies, practical exercises and panel discussions with leading experts and international faculty.









YOU are the difference maker

We have more than 3,600 alumni from 156 countries who dedicate their time and effort to make a difference in their organizations and communities. Their passion and commitment are what makes our training programs so unique and special. It is a once-in-a-lifetime opportunity to collaborate with colleagues from around the world, forge meaningful bonds and create a personal and professional network. The relationships built during this program last a lifetime. You are our inspiration, and we are honored to work alongside you to build a world with expanded deployment and efficient delivery of utility services in all countries.

Don't miss out on this exciting opportunity! Apply now at www.purc.ufl.edu





Program structure and topics:

The training program involves 10 full days of lectures, sector-specific case studies, practical exercises, and discussions with leading utility experts. Short breaks in between sessions as well as meal times provide additional opportunities for participants to share expertise and experiences with one another.

Based on discussions with representatives from regulatory institutions in more than 100 countries and a continuous needs assessment, the World Bank and PURC have identified broad topics that will be covered during this two-week training course:

- i. Market Reform and Regulation of Network Industries
- ii. Financial Analysis for Utility Regulation
- iii. Principles and Application of Incentive Regulation
- iv. Non-Price Aspects of Utility Regulation
- v. Managing the Introduction of Competition in and for the Market
- vi. Rate Structure
- vii. Managing the Regulatory Process
- viii. Public-Private Partnerships

A number of topics require a basic understanding of economic and financial analysis while others present an overview of comparative administrative law and rule-making procedures. A complimentary, optional Basic Economics Training is offered to attendees on check-in day, Sunday, January 12, 2020/Sunday, June 7, 2020. Sectoral and country cases are also used throughout the course.

The overall number of participants is limited in order to give individuals substantial opportunities to interact with faculty and peers during the training course. A certificate of completion with CEUs (Continuing Educations Units) will be presented to all participants recognizing their training experience and commitment to continued learning.

All participants will also have the option to sit for APMG's Foundation Level CP3P Certification Exam at the end of the training program. This optional certification exam is timed and paper-based with multiple choice questions. More information about APMG's CP3P Certification and the exam can be found at https://ppp-certification.com.







Public Utility Research Center









Our International Faculty

The international faculty has been assembled from regulatory institutions, the World Bank, leading universities, infrastructure companies, financial institutions, and other international organizations. Faculty are selected on the basis of expertise, experience and communications skills.

FROM THE BEST - BOTH WAYS."

- Dr. Mark Jamison

Listed below are some of our faculty from past programs:

- → Ronald Brisé, Former Commissioner, Florida Public Service Commission → Dr. Johannes Bauer. Professor and Chair of the Department of Media and
- Information, Michigan State University
- → Dr. Roxana Barrantes-Caceres, Professor, Pontifica Univeridad Catolica del Peru → Dr. Sanford Berg, Senior Fellow, Public Utility Research Center, University of Florida

- ➔ Dr. Theodore J. Kury, Director, Energy Studies, Public Utility Research Center, University of Florida
- Organization (ITSO)
- → J. Paul Morgan, Former Director General, Office of Utilities Regulation (OUR), Jamaica → Carlos R. Gutierrez, Independent Regulatory Consultant, Costa Rica
- → Dr. David Sappington, Eminent Scholar, Director, Robert F. Lanzillotti Public Policy Research Center, University of Florida
- → Peter Twesigye, Regulatory Affairs Manager, Umeme Limited, Uganda
- Bahamas
- → Darick Jonis, Chief Executive Officer, Aqualectra
- → Dr. Anton Eberhard, Emeritus Professor and Senior Scholar, University of Cape Town and former Board Member, National Energy Regulator, South Africa
- World Bank
- University of Florida

- Commerce

Our presenters have extensive professional experience in over 70 countries. A comparable faculty will make presentations during our 2020 programs.

"WE ARE FORTUNATE TO ATTRACT WORLD-CLASS FACULTY IN NO SMALL PART BECAUSE OF THE OUALITY OF OUR PARTICIPANTS. WE GET TO LEARN

- → Dr. Mark Jamison, Director, Public Utility Research Center, University of Florida → Dr. Lawrence Kaufmann, Partner, Pacific Economics Group
- → Dr. Michael Klein, Senior Adjunct Professor, Johns Hopkins University
- → Patrick Masambu, Director General, International Telecommunications Satellite

- → Stephen Bereaux, CEO, Utilities Regulation and Competition Authority (URCA), The
- → Dr. Vivien Foster, Global Lead and Practice Manager Energy & Extractives, The

→ Cedric Wilson, Deputy Director General, Office of Utilities Regulation (OUR), Jamaica → Araceli Castaneda, Director of Leadership Studies, Public Utility Research Center,

→ Rauf Tan, Former Commissioner, Energy Regulatory Commission, Philippines → Dr. Rajnish Barua, Executive Director, Delaware Public Service Commission → Silvia Alvarado de Cordoba, Energy Intelligence Consulting, Guatemala → Sudharma Yoonaidarma, Dean, Faculty of Law, University of the Thai Chamber of

Here's what a few alumni are saying:

"PURC is a pace setter in regulation. I do not know of any other institution that builds capacity of participants on regulatory issues for infrastructure as PURC does. As an alumnus, I will carry the banner of PURC with passion."

Aminu A. Gital Nigeria

"The PURC training was **an extraordinary experience**. The topics discussed were real and we were able to find solutions for our own situations. I am 100% recommending this course to other colleagues for number of reasons: transparency, quality learning, exceptional faculty, and multicultural learning environment."

Muhammad Bilal Pakistan

"I have worked in the utility space for twenty-five years as an operator and thought I knew over 90% of the industry. After attending this course, I now see that I have much more to learn about the industry. But above everything else, the knowledge I received in the two weeks will propel my country forward."

P.C. Kgomotso Botswana



How to apply and pay for the course

Application can be made online through our website www.purc.ufl.edu. Selection of participants will be made by the program's Admissions Committee. Criteria for selection will be based on the applicant's current position, relevant professional expertise, and on achieving a balanced cross-sectoral, cross-regional, and national representation.

Each applicant must submit a completed application form by or before the application deadline (shown below.) Qualified applications received after the application deadlines will be accepted based on availability. Sessions will be conducted in English, so participants should have a good command of the English language.

Program	Application Deadline	Payment Deadline	Hotel Nights	Basic Economics Training 2:00pm-5:30pm	Cancellation Deadline
January 2020	November 15, 2019	November 29, 2019	January 12 - 24, 2020	January 12, 2020	December 6, 2019
June 2020	April 10, 2020	April 24, 2020	June 7 - 19, 2020	June 7, 2020	May 1, 2020

companies.

The fee includes:

- → Program tuition
- → Living accommodations for 13 nights
- → Daytime meals Monday Friday including breakfast, refreshment breaks and lunch
- → Welcome Reception, social dinner and Awards Dinner
- → Reading and classroom material
- → Plant visit, campus tour and transportation to local shopping area
- → Basic Economics Training
- → APMG's CP3P Foundation Level Certification Exam fee

**Note: Trips to Orlando, Florida and Kennedy Space Center will be organized during the middle weekend for interested participants. The cost is not included in the program fee.

Venue:

The training will be hosted at the Warrington College of Business at the University of Florida.

Apply for acceptance at www.purc.ufl.edu

Course fee is US \$7,200 for utility regulators or US \$8,400 for staff from private or public infrastructure

Preliminary Course Calendar: PURC/World Bank International Training Program on Utility Regulation and Strategy

1st Monday	1st Tuesday	1st Wednesday	1st Thursday	1st Friday
Session 1 8:30-10:15	Session 6 8:30-10:00	Session 12 8:00-10:15	Session 16 8:30-10:15	Session 21 8:30-10:15
Welcome and Overview I. Market Reform: Fundamentals of Regulatory Systems	I. Market Reform: Sectoral Experiences in Reform	t - WRUF & WUFT Studio Tour 8:30-10:15 e & w - III. Financial Techniques: Rate of Return Tools	IV. Incentive Regulation: Price Cap Regulation	e & w - IV. Incentive Regulation: Case Study in How to Conduct a Price Review t - Consumer Protection
Session 2 10:30-12:00	Session 7 10:15-11:30	Session 13 10:30-12:00	Session 17 10:30-11:45	Session 22 10:45-12:00
I. Market Reform: Cases in Building Regulation	l. Market Reform: Establishing Regulatory Policies	III. Financial Techniques: Determining Cost of Capital III Financial Techniques: Elements of Finance	IV. Incentive Regulation: Performance Based Regulation	e & w - IV. Incentive Regulation: Techniques for Improving Utility Efficiency t - I. Market Reform: Interconnection Laws
Session 3 1:45-2:15	Session 8 11:45-1:00	Session 14 1:00-2:45	Session 18 1:00-2:00	Session 23 1:00 -2:30
I. Market Reform: Case Study on Choosing Regulatory Priorities	l. Market Reform: Issues in Sectoral Reforms	III. Financial Techniques: Case Study and Analyzing Financial Statements	V. Incentive Regulation: Sector Cases	e & w - V. Non-Price Issues: Performance Standards and Social Considerations
				t - Interconnection Dispute Resolution
Session 4 2:15-3:30	Session 9 2:00-3:15	Session 15 3:00-4:30	Session 19 2:15-3:45	Session 24 2:45-4:00
I. Market Reform: Improving Sector Performance	e & w - l. Market Reform: Practices in Sectoral Reforms	e & w IV. Incentive Regulation: Rate of Return Problem	IV. Incentive Regulation: Risk Mitigation Strategies	VII. Regulatory Process: Independent Management Issues
	t - Interconnection Pricing	t- Radio Spectrum Management		
Session 5 3:45-5:00	Session 10 3:30-4:45	Afternoon Activities:	Session 20 4:00- 5:45	
e & w - I. Market Reform: Options in Market Reform	e & w - II. Competition: Economics of Market Structure	•Campus Tour and/or •Trip to Shopping Center	IV. Incentive Regulation: Case Study in the Design and Implementation of Hybrid Systems	
t - ICT Strategies	t - Net Neutrality			
	Session 11 5:00-6:15			
	e & w - II. Competition: Cases in Market Reform			
	t - Over The Top Services			

2nd Monday	2nd Tuesday	2nd Wednesday	2nd Thursday	2nd Friday
Session 25 8:30-10:15 VI. Rate Structure: Pricing Objectives and Options in Network Industries	Session 30 8:00-10:00 w- Water Reclamation Facility Tour 8:30-10:15 e- VI. Rate Structure: Sector Issues: Basic Techniques t - Emerging Spectrum Issues: 5G and Pricing	Session 35 7:45-9:30 and 8:30-9:45 e- Energy Tour t- Infrastructure Sharing w- Roundtable with Sandy Berg	Session 40 8:30-11:30 VIII. Regulatory Process: Lessons in Establishing Regulation	Session 45 8:30-10 :00 VIII. How a PPP Project is Financed
Session 26 10:15-12:00 VI. Rate Structure: Pricing Objectives and Options in Network Industries - Continued 12:00 Introduction of Harborco Case	Session 31 10:30-12:15 e & w - VI. Rate Structure: Sector Issues in Rate Design t & w - Universal Service and Access	Session 36 10:45 -12:00 VII. Regulatory Process: Thinking Strategically	Session 41 11:30 -2:30 VIII. Motivation and Caveats of PPP Session 42 VIII. Harborco Negotiation Exercise	Session 46 10:15-12:00 VIII. Cause of Project Failure
Session 27 1:00-3:00 Vli. Regulatory Process: Case Study in Manging the Political Environment	Session 32 1:30-3:00 e - VI. Rate Structure: Sector Issues in Rate Design - Continued t & w -Universal Access Simulation	Session 37 1-2:15 VII. Regulatory Process: Legal Frameworks of Regulation	Session 43 2:45-4:00 VIII. Basic Structure of a PPP Project	Session 47 1:30 -2:45 VIII: Key lessons from the Program and Action Plans
Session 28 3:15-4:30 e - VII. Case Studies in Rate Design t - ICT Vertical Markets w - Non-Revenue Water	Session 33 3:15-4:30 e - VI. Rate Structure: Overview of Transmission & Transportation Pricing t & w - Individual Cases	Session 38 2:30-4:00 VIII. Introduction to PPP	Session 44 4:15-5:30 VIII. PPP Framework Concept and PPP Process Cycle	Session 48 3-4 VIII. PPP Foundation Level Examination
Session 29 4:45-6:00 VI. Rate Structure: Sector Issues in Rate Design	Session 34 4:45-6:15 e & w - Implementing Renewable Energy t - Individual Cases	Session 39 4:15-5:45 VIII. Types of PPP; Infrastructure Finance and Procurement		

PURC Leadership Services

Transformation starts here!

PURC Leadership Services help you transform your agency or company by identifying what is truly holding it back from realizing its goals and by providing the tools to solve your challenges. We equip professionals at every level of the organization by leveraging their talents, creativity and energy to take charge of their own future. PURC's interactive, case-oriented approach is designed for our clients to become world-class leaders.

PURC Leadership Services include our standing one-day workshop *Practicing Leadership in a Political Environment*, customized leadership training for your organization, and one-on-one coaching to make progress on the challenges you face.

Practicing Leadership in a Political Environment

A One-Day Intensive Training for Leaders in Utility Policy

Saturday, January 25, 2020

Saturday, June 20, 2020

Many people are called upon to provide leadership. Some succeed. Many fail... In this workshop you will examine the activities, behaviors, mindsets and skills of a successful leader.

As a participant, you will learn and practice the following:

- → Identify and develop your own leadership profile. Learn to create leadership in others.
- Examine personal practices of successful leaders in developing vision, resolving conflicts and setting priorities. Create a strategy for managing the relationships that are critical to your success.
- Discover opportunities for growth in your organization and intervention methods that encourage collaboration and team cohesiveness. Learn how executive leaders create an organizational focus around the most important priorities.
- → Analyze what is different about practicing leadership in a political environment.
- Develop a personal leadership action plan and an accountability system for addressing your most important challenges. Receive feedback to develop skills for managing yourself and others.

Workshop fee is US \$595 for the 47th & 48th PURC/World Bank International Training Program Participants and US \$695 for all others.

**Note: Applicants to the PURC/World Bank International Training Program may simply check a box in the online application to add this workshop.

The fee includes:

- ➔ Tuition, reading and classroom material
- Continental breakfast, refreshment breaks, and lunch

Apply for acceptance at www.purc.ufl.edu

Here are what our clients have to say...

"The Leadership Workshop experience has been rewarding. The workshop has set the perspective to provide for improvement in areas of self-development as well as organizational development, working in a political environment and managing the regulatory process."

Sundhia Ben

Manager - Regulated Industries, Fiji Commerce Commission, Fiji

"The Leadership Workshop provides you with a clear understanding of your leadership role within your organization, how you can use tools to enhance your leadership skills, and be a better leader in your organization."

Stephen Ofori

Manager, Corporate Strategy, Volta River Authority (VRA), Ghana

"Being able to discuss issues and challenges with colleagues from around the world is a priceless experience. We were able to discuss political, regulatory, and leadership issues with others in a very safe environment. Highly recommend this workshop to all level of leaders whether you are seasoned or new to the industry."

Alexander Washington

Chief Policy Advisor, Mississippi Public Service Commission, USA









Customized Leadership Training

Take your team, your agency or company to the next level

Our clients typically reach out to us when they:

- 1. Want to develop a robust leadership culture
- 2. Find themselves failing to reach aspirations
- 3. Are preparing for a significant change
- 4. Want individuals or groups to take ownership of the organization's success

In our customized leadership training, we develop tailored programs and tools to meet your specific needs. We work with individuals and groups at every level of the organization to affect the necessary change and move forward in your challenges.

Are you ready to move to the next level? Email us at purcinfo@warrington.ufl.edu or call us at +1 352-392-6148.

Coaching Services

Go from where you are to where you want to be

Our one-on-one coaching is designed to help you move from where you are to where you want to be. Whether you're struggling with your own individual challenges, need to create a holding environment for change in your team or organization, or have to mobilize other in difficult situations, our practice will coach you through the process to achieve your goals. Together we will explore your issues, discover what may hold you back and study the best possible interventions for your context. Whether you are at the top of the organization or practice leadership at any level, our coaching services are for you.

To learn more about our coaching services, email us at purcinfo@warrington.ufl.edu or by phone at +1 352-392-6148.



Academy of Regulatory Professionals

The Academy of Regulatory Professionals is a community of recognized experts who dedicate themselves to the understanding of regulatory issues and practices, developing new knowledge, and mutual professional growth. Membership is extended to professionals that are committed to advancing the ideas and practice of effective infrastructure regulation.



Members of the Academy...

- regulatory research

- → Receive electronic documentation of their membership

The Fellows Program...

- Academy Fellows are individuals who have chosen to engage in a program of study and research that continual progress on that program of study
- indicate their achievements
- studies and to engage with PURC program participants from around the world

Join today at http://bit.ly/regulationacademy Please note that the link is case sensitive Questions? Contact us at purcadmin@warrington.ufl.edu

→ Contribute to the collective knowledge about regulation by providing examples of interesting ideas for addressing regulatory challenges, explaining their own experiences, advising peers, and commenting on and contributing to

→ Exchange lessons and ideas on new ideas and basic fundamentals of regulation from faculty and their peers

→ Advance their careers by being recognized as an Academy member, and when they earn a Fellows designation

will significantly enhance their ability to perform as a regulatory professional, and who are making

Fellows that have completed their program of study, including successful conclusion of a capstone presentation and defense of their work before faculty and their peers, receive special designations that

→ Academy Fellows also have an opportunity to serve as Visiting Scholars at PURC to engage in focused

10th PURC Advanced International **Practices Program**

The program features two different course tracks for 2020:

→ Energy Pricing (tentatively August 2 - 7, 2020)

→ Benchmarking Infrastructure Operations (tentatively August 10 - 13, 2020)

The PURC team is excited to host the advanced courses at the University of Florida, Warrington College of Business! You will learn problem-solving techniques through case studies, exchange ideas and experiences with your course colleagues, and engage and debate with our world-class faculty. These advanced courses provide you with the technical and strategic skills needed to address the complex infrastructure issues of today and tomorrow.

Who Should Attend?

The courses are designed for mid- to senior-level utility regulators and regulatory strategy executives from utility companies with at least three years of professional regulatory experience or have participated in a price review. Alumni of the PURC World Bank International Training Program on Utility Regulation and Strategy are strongly encouraged to apply.



ENERGY PRICING COURSE, TENTATIVELY AUGUST 2 - 7, 2020

What are the challenges and best practices in electricity and gas pricing? What are the innovative ideas for addressing efficiency and environmental issues? This course addresses these questions and more as you engage in a case study in energy pricing. You will learn how to obtain relevant financial information, determine cost of capital, adjust financial statements, and assess the financial effects of regulatory policies, allocate costs across the utility and build rate structures necessary to recover those costs.

After completing the course you will be 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
- Develop price structures that create incentives for consumers and producers to behave in a manner consistent with your utility policy

The course fee, US \$4,900, includes program tuition, hotel accommodations for six (6) nights, daytime meals Monday - Friday (breakfast, lunch and breaks), welcome and closing receptions, and reading and classroom material.

Apply for acceptance at www.purc.ufl.edu

Sunday Session 1 3:30-6 Economics of Pricing Introduction Refresh of the principles of market economics in English; non-technical explanation of economic concepts used during the program; overview of Rate of Return, Price Caps and Revenue Caps	Preliminary Course Calendar: Energy Pricing			
Monday	Tuesday	Wednesday	Thursday	Friday
Introduction, Purpose and Objectives Description of the cost allocation methods and pricing models to be used throughout the course	Session 6 9 - 10:45 Establishing the Revenue Requirement Choosing methods of regulation; analyzing investments; asset valuation; moving from financial statements to revenue requirement	Session 10 9 – 10:45 Case Study in Adjusting Financial Statements Identifying trends and inconsistencies; comparing financial results with operating facts; analyzing financial performance; cross sector lessons	Session 14 9 – 10:45 Rate Investigations and Settlements Considerations for a rate proceeding; the settlements process	Session 18 9 – Operational Perspective on Ratemaking Operator's perspective on the features of financial targets, r design and political environme
Structure of the electric and natural gas industries	Session 7 11 - 12:30 Demand and Load Forecasting Purpose of demand and load forecasting; identifying load drivers; forecasting techniques and applications	Session 11 11 - 12:30 Cost of Service Approaches in Energy Determine customer classes; identifying costs and assignment methods; policy and social considerations; introduction of case study	Session 15 11 - 12:30 Economics of Rate Design Calculating multi-part tariffs; developing a menu of tariff options; pricing by time and/or location; distributed generation tariffs in an island system (also includes DSM deployment); accounting for incentives for efficiency and conservation; rate design considerations for renewable energy	Session 19 11 – Challenges in Environmental I Impacts of regulation on rene energy use and energy efficie example policies for renewabl energy and efficiency; policy o and impacts of climate change
Setting the Base for Regulating Monopoly Prices and Sector Performance: Analyzing and Using Financial Statements Establishing and enforcing uniform systems of accounts; establishing accounting separations procedures; priorities in auditing and review	Session 8 1:30 - 3 Adjusting Financial Statements for Ratemaking Standards for accepting investment, revenue and expense data for ratemaking purposes; cases and examples of regulatory decisions; setting investment benchmarks; making financial adjustments; introduction of energy case study	Session 12 1:30 - 3 Organizational Challenges and Price Reviews Identifying challenges with price reviews; small group exchange of ideas; small group presentations	Session 16 1:30 - 3 Team Exercise in Electric Rate Design Teams complete their decisions and calculations for case study and report their results; teams must consider revenue sufficiency of tariffs; teams must consider cross-subsidies and potential consequences	Session 20 1: Action Plans Develop and presentation of individual action plans; think strategically about your relationships; develop a syster accountability; give and receiv critical feedback
Taking a Balcony Point of View Seeing beyond your vision in stakeholder perceptions; stepping back while staying in the action; mapping stakeholder interests; understanding players' pressures and responses	Session 9 3:15 - 5 Thinking Strategically About a Price Review Identifying relationships with stakeholders; developing and implementing stakeholder strategies; understanding the roles and perspectives of those in authority; staying independent while engaging the stakeholders	Session 13 3:15 - 5 Team Exercise in Electric Cost of Service Teams work with model cost of service study; determine appropriate cost allocators; determine proper cost categories; allocate costs between customer classes	Session 17 3:15 - 5 Electric Case Study Debriefing Group discussion of electricity study results; compare and contrast different rate designs	Session 21 3: Tying the Pieces Together and Lessons



BENCHMARKING INFRASTRUCTURE OPERATIONS COURSE, TENTATIVELY AUGUST 10 - 13, 2020

How can utilities be benchmarked for efficiency? Which types of comparisons are valid and which are invalid, possibly leading to significant errors? This course address these questions and more through hands-on engagement in case studies. You will learn how benchmarking can improve operational performance, help in the design of incentives, promote transparency, and lead to more effective regulation.

After completing the course you will be able to:

- → Understand how benchmarking can improve the performance of infrastructure organizations
- → Analyze the implications of partial, limited, or incorrect information
- → Assess how information on trends in key performance indicators helps decision-makers
- → Understand how model specifications and data outliers affect performance comparisons
- → Identify the strengths and limitations of alternative quantitative methodologies and how to communicate results

The course fee, US \$3,900, includes program tuition, hotel accommodations for five (5) nights, daytime meals Monday - Thursday (breakfast, lunch and breaks), welcome and closing receptions, and reading and classroom material.

**We offer special pricing for attending both Energy Pricing and Benchmarking courses! US \$8,600 includes program tuition, hotel accommodations for twelve (12) nights, weekday daytime meals (breakfast, lunch and breaks), welcome and closing receptions for both courses, and reading and classroom material.

Apply for acceptance at www.purc.ufl.edu



"Faced with responsibility for conducting benchmarking, I needed tools and approaches to give me confidence in the outcome of my research. The course addressed these and more in terms of process, communication, and stakeholder engagement on outcome."

Johanna Mulaudzi

Manager - Industry Development Ports Regulator of South Africa

Preliminary Course Calendar: Benchmarking Infrastructure Operations

Monday	Tuesday	Wednesday	Thursday
Session 1 9 -10:30	Session 5 9 - 10:45	Session 9 9 - 10:45	Session 13 9 - 10:45
Overview of Program Understanding the political economy of benchmarking; who supports benchmarking; who is threatened by comparisons; how can studies be misused; sources of conflict and sector performance: the role of evidence.	Alternative Methodologies for Measuring Performance Beyond key performance indicators; Metrics and productivity trends; statistical analysis (OLS and COLS); data envelopment analysis (DEA), and Stochastic Frontier Analysis (SFA). Strengths and Limitations of alternative methodologies.	Case 5: Utilizing Available Software: DEA Using data from cases 1 and 3, participants will develop performance indicators; results will be shared and evaluated; what are the strengths and limitations of statistical methods?; how sensitive are results to selection of inputs and outputs?	Performance Assessment and Performance Improvement Data acquisition and validation; best practice examples; pre-analysis (clustering, sensitivity analysis, KPIs); tables, scatter diagrams, figures; studies with data from participants.
Session 2 11 - 12:30	Session 6 11 - 12:30	Session 10 11 - 12:30	Session 14 11:00 - 12:30
Case 1: Selecting Data Productivity, efficiency and effectiveness; identifying inputs and outputs, stocks and flows; prioritizing data needs; implications of partial, limited or incorrect information; conditioning and environmental variables.	Case 4: Utilizing Available Software: Statistical Analysis With data from cases 1 and 3 participants will utilize the Analysis ToolPak in Microsoft Excel to estimate productions and cost functions; evaluating analyses; what are the strengths and limitations of statistical methods?; how sensitive are results to model specifications?	Case 5: Continued – Group Work Participants will utilize DEA software to compute performance scores for the sample utilities; specifications of cost and production relationships will be evaluated.	Case 6: Communicating Results Should the analyst present scores or rankings?; who are the different audiences for performance studies?; each team will prepare a Press Release or Executive Summary for a different audience (sector ministry, regulator, top management, the press, consumer's association).
Session 3 1:30 - 3	Session 7 1:30 - 3	Session 11 1:30 - 3	Session 15 1:30 - 3
Case 2: Confidence in Performance Comparisons Additional inputs and outputs; additional years (trends); context and governance variables; introduction to robust comparisons. Moving from KPIs to Overall Performance Indicators.	Case 4 Continued – Group Work Each participant will practice using Analysis ToolPak in Microsoft Excel to analyze the efficiency of utilities in the sample; results of different specifications will be used to strengthen abilities to interpret empirical results.	Benchmarking Studies: Engaging Stakeholders Participants will develop stakeholder maps, identifying groups with high/low influences and high/low interest in improving sector performance. Opponents of change will be identified.	Action Plans Presentation of individual Action Plans; think strategically about your relationships; develop a system of accountability; give and receive critical feedback.
Session 4 3:15 - 5 Case 3: Back to the Basics Data definitions; Total Factor Productivity (TFP); evaluating company information systems (sensors, data capture, data consistency, storage, analysis, decisions); checklist for conducting benchmarking studies.	Session 8 3:15 - 5 Review of Statistical Analyses Determining scale economies; economic vs. statistical significance; evaluating the robustness of results.	Session 12 3:15 - 5 Using Benchmarking Results Public awareness (transparency and public acceptance/legitimacy); internal incentives (efficiency); regulatory incentives (effectiveness); price reviews (x-factors); baselines, trends and targets.	Session 16 3:15 - 5 Next Steps and Key Lessons Current capabilities; adequacy of data system; developing strategic plans for engaging allies, opposition and other important players; next steps for your organization; prerequisites to successful benchmarking; planning the next study.

Regulatory Impact Analysis

Are your utility regulations achieving desired results? Do you have the proper tools to analyze their impacts?

Don't guess or remain in the dark about possible regulatory effects! Learn how to effectively and rigorously analyze and communicate the impacts of regulation.

The **Comprehensive Regulatory Impact Analysis (RIA)** curriculum provides tools and approaches for RIA, a systematic appraisal of the potential impacts of a regulatory decision to assess whether the decision is likely to achieve the desired objectives and at what costs. You will learn how to identify key questions, identify stakeholders and engage them in analysis, use appropriate analytical techniques, and communicate their findings.

RIA Online Training Program

Next offering: September 30, 2019

Submit your application at www.purc.ufl.edu

Comprenehsive RIA is available online... wherever you are! Balancing work, professional development, and personal lives is tough. The course is delivered entirely online over six weeks.

Learn how to effectively and rigorously analyze and communicate the impacts of regulations. The course is delivered through the University

of Florida's course management system, Canvas. In Canvas, you will access video lectures, course materials, course case study and additional resources. Activities will consist of watching lectures, discussion posts, self-tests and assignments with various case studies.

Active participation with the discussion forums and assignments is incredibly important to your success in the courses. The discussion forums provide an opportunity for you to engage with your course colleagues as well as the PURC faculty on the course material.

These are NOT self-paced courses. A new learning module will be released every Monday by 12pm Eastern Standard Time. It is recommended that participants complete the module by the following Sunday (one-week). All course work must be completed in order to receive the Certificate of Completion.

At the conclusion of the course, you will be able to:

- Project impacts of alternative regulatory policies
- → Analyze actual impacts based on historical evidence
- Develop strategies and systems for tracking results
- ➔ Communicate analysis to decision makers and stakeholders

Application and more information can be found at www.purc.ufl.edu

Customized RIA Training

PURC delivers in-country training tailored to your organization's needs! In-country training programs are individually designed to provide the best solutions to the pressing issues your team is facing today. Contact us at purcinfo@warrington.ufl.edu or by phone at +1 352-392-6148 to inquire about a customized training option for your organization.

Certified PPP Professional Program

PURC is the first academic institution in the US to become an Accredited Training 200 professionals worldwide.

The PPP has great potential for addressing the infrastructure gap present in every country. However, these arrangements are easily misunderstood and fraught with challenges related to their financing, legal structure, management, and allocation of risk. A thorough understanding of these concepts and their applications is necessary for improvements in the access to, and effectiveness of, the crucial services that these assets provide.

The Foundation level is the first level of the Certified PPP Professional (CP3P) program, promoted by the World Bank and other MDBs, and managed by APMG International. (https://ppp-certification.com)

After completing this course, you will be able to:

- Understand the advantages and disadvantages of different project structures
- → Understand stakeholder rights and responsibilities in project finance
- Choose between different types of projects
- Maximize positive outcomes for your project
- → Obtain the APMG's PPP Foundation Level Certificate with a passing exam score



PURC is now offering the second level of the CP3P program - Preparation Level Certification Training. Candidates interested in pursuing this certification must obtain a passing score on the Foundation level certification exam. If your organization would like to inquire about the Preparation Level Certification Training, please contact us at purcinfo@warrington.ufl.edu.

Public-Private Partnerships (PPP/P3) Certification

Organization (ATO) of the APMG's Public-Private Partnerships Certification Program. With our two in-house accredited training experts, we have delivered PPP training to more than

PURC Customized Training Programs

Facing unique challenges in utilities policy?

Are traditional solutions failing to meet your needs? Customized training programs by PURC are individually designed to help you identify the best solutions to the pressing issues your organization faces today. By working with you to design the program, PURC can deliver the most relevant curriculum, expand upon your organization's existing competencies, and develop tailored strategies using the right tools for the job.

PURC experts have delivered custom capacity building for organizations in countries including Antigua, Argentina, Australia, the Bahamas, Bolivia, Botswana, Brazil, Bulgaria, Cambodia, China, Ghana, Ireland, Jamaica, Moldova, Montenegro, Namibia, Nigeria, Panama, Peru, Portugal, South Africa, St. Kitts & Nevis, Thailand, Trinidad & Tobago, Turks & Caicos Islands, Uganda, United States, Uruguay and Zambia.

Current and recent individualized programs in energy, telecommunications and water include courses which addressed these specific objectives for the client:

Improving leadership and organizational performance

Leadership, strategic planning, independence, transparency, stakeholder involvement, negotiating skills, benchmarking, economic and financial analysis

Expanding understanding of the pricing of infrastructure services

Electricity transmission and distribution, water and wastewater, natural gas, telecommunications retail and interconnection services

Developing skills for price reviews and rate cases

Practical, strategic and technical aspects of conducting rate reviews

Enhancing knowledge of market structure and design

Removing barriers to entry in telecommunications, facilitating competition for concessions, assessing market competition and designing electricity markets, including models and case studies

Building capacity to address environmental considerations

Siting issues, emissions programs, rate treatment

Increasing knowledge of sector issues

Technology issues, best practices, stakeholder perspectives and relationships

Improving policy-making and implementation

Formulating and implementing efficient infrastructure strategies, stakeholder involvement, public consultation, media relations

Our programs teach the principles and practices that support effective utility policy and regulation. Instructional approaches include case studies, lectures, client problem-solving, simulations, video, e-learning, and site visits. Training is rigorous, but practical. We are passionate about designing and delivering a training program to help your organization.

For more information on how we can help with your unique needs, please fill out our Customized Training form at www.purc.ufl.edu

Email: purcinfo@warrington.ufl.edu

Or call our office at: +1 (352) 392-6148



Recent PURC Customized Trainings Include:

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

April 1-5, 2019, Kampala, Uganda

How can regulatory systems adapt and thrive during times of constant change? That was the central question for a one-week training program at the Uganda Communications Commission (UCC). The course addressed governance, leading change, next practices in regulatory strategy, content regulation, evolving business modles, radio spectrum management, competition, postal regulation, regulatory sandboxes, and institutional capacity and development. Board members and staff of the UCC, telecom and

postal operators, ministray personnel, private attorneys, and members of parliament attended the course.

PURC Training on Utility Regulation for the Energy and Water Utilities Regulatory Authority (EWURA) Staff

April 30 - May 11, 2018, Dar es Salaam, Tanzania

What are the regulatory challenges faced by multi-sector regulators? How do pricing challenges differ when regulators oversee different sectors? These were just a few of the questions addressed when PURC delivered a two-week training program for the staff of EWURA. Throughout the first week of the course, PURC Director of Energy Studies Ted Kury and PURC Director Mark Jamison worked with the EWURA staff on utility and industry structure, regulatory models, and incentives and strategies for improving utility performance. During the second week, Kury and PURC Senior Fellow Raj Barua detailed each step of the utility pricing process for both the energy and water sectors and participants implemented this process with PURC's hands-on computer models.

PURC Regulatory Training for the Members of the Office and Senior Managers at the Office of Utilities Regulation (OUR) Part I and Part II

March 16-17, 2018 & September 15-16, 2017, Kingston, Jamaica

Part II: How can a regulatory board prepare itself for effectiveness? This was the question addressed in a PURC leadership course provided for the Jamaican Office of Utilities Regulation (OUR). The board members studied analyzing their political context, defining their roles relative to their relationships with the agency staff and with outside stakeholders, leadership frameworks and styles, and thinking strategically about regulatory challenges. PURC's director of leadership studies, Araceli Castaneda, led the two day program. PURC director Mark Jamison assisted.

Part I: How can regulators adapt to changes in policy and technology on island systems? PURC Director of Energy Studies Ted Kury and Senior Fellow Raj Barua conducted a two-day program for the Members of the Office and key staff. The program addressed the changing role of the OUR in light of new legislation and a change in regulatory regime from a price cap to a revenue cap. The course built on an earlier program to incorporate the challenges faced by island systems, independent power producers, risk control and mitigation, and the regulatory process.

Leadership Development Program for Aqualectra

On-going through 2016 - 2017, Curacao

How is a leadership culture developed within an organization? When Aqualectra CEO posed this question to PURC, Mark Jamison and Araceli Castaneda designed a multiple-phase executive and leadership program for the utility. During Phase I of this program, Jamison and Castaneda worked with the executive team of the company to create an innovative and business-mind leadership culture to help them thrive in their difficult context. Phase II of this program deepened this type of leadership among the executives of the company and extended this leadership style among the unit directors and company's upper management.

Body of Knowledge on Infrastructure Regulation

www.regulationbodyofknowledge.org

Created with funding from the World Bank and PPIAF, the Body of Knowledge on Infrastructure Regulation (BoKIR) site is a comprehensive online resource for utility and regulation professionals, policy makers, and academics focusing on regulatory reform and the promotion of strong performance in energy, telecommunications, transportation, and water sectors.

With users from more than 190 countries, BoKIR site contains summaries of regulatory literature, tutorials, and more than 500 downloadable references for regulatory reform and performance improvements in infrastructure industries. The online glossary has been translated from English into 11 different languages including French, Russian, Portuguese, Chinese and Arabic. The site also provides guidance regarding Frequently Asked Questions related to social pricing, price levels and tariff design, regulating state owned enterprises, private-public partnerships, and other topics. In 2011, the Norwegian Trust Fund for Private Sector and Infrastructure supported the addition of FAQs related to renewable energy and energy efficiency.

In 2015, the Public-Private Infrastructure Advisory Facility (PPIAF) at the World Bank and the Public Utility Research Center embarked on a new initiative entitled "Improving Infrastructure Regulation for Low-Income, Fragile and Low-Capacity Countries Program." This PPIAF-led initiative aimed to support the development of sustainable regulatory systems and improve the delivery of infrastructure services by building regulators' capacity to design and implement regulatory functions. This new section, "Launching or Revitalizing Regulatory Systems," includes an overview of how regulatory systems can be built in fragile situations, self-diagnostic tools, a review of the best literature on the topic, FAQs and an annotated reading list.





About the Public Utility Research Center

PURC is an internationally recognized academic center dedicated to research and to providing training in utility regulation and strategy, as well as the development of leadership in infrastructure policy.

Founded in 1972, PURC is located in the Warrington College of Business at the University of Florida. We strive to enhance the understanding of issues confronting public utilities and regulatory agencies through conferences, seminars and training programs; through research covering the energy, telecommunications, and water sectors, and by preparing our participants for careers in infrastructure industries.

Our programs teach the principles and practices that support effective utility policy, regulation, management, and leadership. With these tools, we help government and industry officials develop efficient utility infrastructure to better meet the needs of their customers.

PURC is part of the University of Florida, one of the largest universities in the nation with 50,000 students and a distinguished faculty of more than 5,000.

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