

# APARAJITA DATTA

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## EDUCATION

Ph.D. Candidate, Department of Political Science Expected May 2025  
College of Liberal Arts & Social Sciences, University of Houston

Dissertation Title - Towards Energy Justice: How is Policy Feedback Shaping Energy Equity and Climate Policies in the U.S.?  
Dissertation Committee - Dr. Ling Zhu (Chair), Dr. Tanika Raychaudhuri, Dr. Ramanan Krishnamoorti, Dr. Pablo Pinto, Dr. Jason Casellas, and Dr. Francisco Cantú (deceased)

Master of Public Policy, Hobby School of Public Affairs, University of Houston 2020

Master of Science, Energy Management, C. T. Bauer College of Business, University of Houston 2018

Bachelor of Technology, Computer Science and Engineering 2015  
University of Petroleum and Energy Studies, India

## PEER-REVIEWED PUBLICATIONS

- **Datta, A.** and Krishnamoorti, R. (2023). Analysis of Direct Air Capture Integrated with Wind Energy and Enhanced Oil Recovery. *Environmental Science and Technology*.
- **Datta, A.**, and Krishnamoorti, R. (2022). Understanding the Greenhouse Gas Impact of Deforestation Fires in Indonesia and Brazil in 2019 and 2020. *Frontiers in Climate*.
- Mallette, A., **Datta, A.**, and Krishnamoorti, R. (2021). Consolidated Nuclear Waste Storage in Andrews, Texas: An Integrated Technical and Policy Risk Analysis. *Energy and Environment*.
- **Datta, A.**, De Leon, R., and Krishnamoorti, R. (2020). Advancing Carbon Management through the Global Commoditization of CO<sub>2</sub> -The Case for Dual-use LNG-CO<sub>2</sub> Shipping. *Carbon Management*.
- **Datta, A.**, and Krishnamoorti, R. (2019). Opportunities for a Low Carbon Transition-Deploying Carbon Capture, Utilization, and Storage in Northeast India. *Frontiers in Energy Research*.

### *In Review:*

- **Datta, A.** Policy Feedback, Energy Equity, and Climate Justice: Can Existing Policies Improve Solar Access for Low- and Moderate-Income Americans?
- **Datta, A.**, Coates, S., Rossiter, A., and Krishnamoorti, R. Reskilling and Upskilling for the Energy Industry: The Role of Micro-credential Programs for Workforce Development.
- Carbon Utilization Infrastructure, Markets, Research and Development. National Academies of Sciences, Engineering, and Medicine. (Contributing Staff Member as Science and Technology Policy Fellow, Board on Energy and Environmental Systems).

### *Working Papers:*

- Race and Energy Insecurity: Is Inequality in Energy Affordability an Unintended Consequence of Home Energy Assistance Programs in the U.S.?

- Can LIHEAP be fixed? Understanding How Administrative Burden Impacts Participation in Home Energy Assistance Programs.
- Geographic Representation and Energy Equity: How does the Partisan Balance in the House impact States' LIHEAP Appropriations?

### WHITE PAPERS AND RESEARCH REPORTS

- **Datta, A.** Climate Change and Energy Vulnerability of the American Poor. 2023.
- Krishnamoorti, R., and **Datta, A.** Net Zero in Texas: The Role of Transportation. 2023. (Supported by the Cullen Trust for Higher Education).
- Krishnamoorti, R., and **Datta, A.** Climate Resilience in Houston: Implications of IPCC's 6th Assessment Report for Houston's Climate Action. 2022.
- Krishnamoorti R., Radhakrishnan, S., and **Datta, A.** Overview of Reporting of ESG Metrics by the Upstream Oil and Gas Industry. 2021.
- Krishnamoorti, R., **Datta, A.**, Lawnin, J., Lewis, P., and McConnell, C. Advancing Sustainable Low-Carbon Energy through Convergence. 2020. (For the NSF Convergence Accelerator 2020 Workshop)
- Spitzmueller, C., Flinn, R., Krishnamoorti, R., and **Datta, A.** The Energy Workforce and COVID-19: Data-driven Policy Recommendations. 2020. (For the Offshore Mindfulness and Safety Initiative supported by the Gulf Research Program, National Academies of Sciences, Engineering and Medicine)
- Krishnamoorti R., Radhakrishnan, S., and **Datta, A.** Opportunities and Challenges in the Permian. 2019.
- Buttorff, G., Kennedy, R., Krishnamoorti, R., Pinto, P., **Datta, A.**, and Banda, K. Environmental Stewardship and Employment Choices in Energy. 2022.
- Buttorff, G., Cantú, F., Krishnamoorti, R., Pinto, P., **Datta, A.**, and Olapade, Y. Climate Change and Carbon Management: Has the U.S. Transcended Partisanship? 2021.
- Buttorff, G., Cantú, F., Krishnamoorti, R., Pinto, P., **Datta, A.**, and Olapade, Y. Carbon Management: Changing Attitudes and an Opportunity for Action. UH Energy. 2020.

### OTHER PUBLICATIONS - Op-Eds

- Krishnamoorti R., and **Datta, A.** (2023, June 9). UH Researchers: Zero emissions by 2050 won't be easy. Texas better get started. Houston Chronicle.
- Krishnamoorti R., and **Datta, A.** (2022, Jan 9). Carbon ships? Path to net-zero may take an overlooked approach by sea. Houston Chronicle.
- Krishnamoorti R., **Datta, A.**, and Mallette, A. (2020, Nov 11). Nuclear waste - Texas may not be the solution. The Hill.
- Krishnamoorti R., and **Datta, A.** (2020, June 8). The Smart Bet for Carbon Neutrality. Houston Chronicle.

### CONFERENCE PAPERS, PRESENTATIONS, AND INVITED TALKS

- **Datta, A.** (2024 and 2023). Who Gets to Keep the Lights On? LIHEAP's Burden & Racial Marginalization. In Midwest Political Science Association Annual Meeting 2024, Southern Political Science Association 2024 Annual Meeting, and American Political Science Association 2023 Annual Meeting.
- **Datta, A.** (2023) Energy Justice Win? Evaluating the Adoption and Diffusion of LMI Solar Incentives. In Midwest Political Science Association Annual Meeting 2024, Association of Public Policy Analysis and Management 2023 Fall Research Conference.

- **Datta, A.**, and Krishnamoorti, R. (2023). The Role of Micro-credential Programs for Workforce Development. In American Council for an Energy-Efficient Economy 2023 Industry Summer Study.
- **Datta, A.** (2022). Market-based Energy Policies as Promoters of Policy Diffusion: Evidence from Low- and Moderate-Income (LMI) Solar Incentives in the U.S. In Climate Pipeline Project Conference. Weatherhead Center for International Affairs. Harvard University.
- Meehan, N., Jenvey, N., **Datta, A.**, and Uppati, S. P. (2020). Carbon Intensity of Unconventional and Latin American Oil Plays. In Society of Petroleum Engineers Latin American and Caribbean Petroleum Engineering Conference.
- De Leon, R., **Datta, A.**, and Krishnamoorti, R. (2019). Techno-Economic Modeling of Dual-Purpose LNG CO<sub>2</sub> Shipping.” In Carbon Management Technology Conference, 2019.
- De Leon, R., **Datta, A.**, and Krishnamoorti, R. (2019). Modularization & Intensification of Carbon Capture Technologies. In 11<sup>th</sup> AIChE Southwest Process Technology Conference. American Institute of Chemical Engineers.

### POSTER PRESENTATIONS

- Climate Change and the Energy Vulnerability of the American Poor. 2023 Energy Research Day. University of Houston.
- The Impact of State Policies on Household Energy Burden. 2021 Graduate Research Showcase. Department of Political Science, University of Houston.
- Overcoming the Climate Policy Impasse in the United States through (Bi)partisan Motivated Reasoning. 2021 Graduate Research Showcase. Department of Political Science, University of Houston.
- Affordable Distributed Direct Air Capture: Policy Pathways. 2020 Research Day - Center for Carbon Management in Energy. University of Houston.
- Global Commoditization of CO<sub>2</sub>: The Case for Dual-Use LNG-LCO<sub>2</sub> Shipping. 2020 Research Day-Center for Carbon Management in Energy. University of Houston.

### TEACHING EXPERIENCE

- Instructor of Record, UH Energy Micro-credentialing Programs, 2020- present
  - Sustainable Energy Development
  - The Hydrogen Economy
- Teaching Assistant, C.T. Bauer College of Business
  - Strategic Management for the Oil and Gas Industry, 2018-2019
  - Strategic Leadership in the Energy Sector, 2018-2019
  - Enterprise Resource Planning, 2016-2018
- Invited Lectures
  - Arguments, Data, and Politics, 2023 and 2022
  - Strategic Leadership in the Energy Sector, 2020

### WORKSHOPS, SYMPOSIA, AND WEBINAR CONTRIBUTIONS

- Leveraging Community Benefit Frameworks: Empowering Communities to Benefit from Federally Funded Projects. National Academies of Sciences, Engineering, and Medicine, 2024.
- Global CO<sub>2</sub> Initiative Workshop on Harmonizing Techno-Economic Assessments and Life Cycle Analyses for CCUS, University of Michigan, 2023

- Climate Pipeline Workshop, Weatherhead Research Cluster on Climate Change, Harvard University, 2022

#### *University of Houston*

- Net Zero in Texas by 2050, UH Critical Issues in Energy Symposium Series, 2022
- Carbon Management Webinar, Hobby School of Public Affairs and UH Energy, 2020
- ESG in the Energy Industry Workshop, Consortium for Energy Corporate Social Responsibility, University of Houston, 2020
- Interdisciplinary CCUS Workshop, Petroleum Research School of Norway, NorTex Petroleum Cluster and University of Houston, 2019
- Electric Vehicle Road-mapping Workshop, City of Houston, CenterPoint Energy, and University of Houston, 2019

### **PROFESSIONAL SERVICE**

- Journal Reviewer: Energy & Environment, Urban Governance, Energy Research and Social Science
- Member
  - Scholars Strategy Network
  - Climate Social Science Network, Institute at Brown for Environment & Society, Brown University
  - Consortium on American Political Economy, Institution for Social & Policy Studies, Yale University
- AAPOR Programming Committee (Reviewer), AAPOR Annual Conference 2024
- Discussant (Panel on Everyday Concerns: Housing and Transit Policy Causes and Consequences), APSA Virtual Meeting 2024
- Discussant (Panel on Public Technologies and Institutional Behavior), APPAM Annual Meeting 2023

### **COMMUNITY ENGAGEMENT**

Texas Energy Poverty Research Institute 2023-Ongoing  
 Collaborated on research and science communication on energy burdens in Texas. The research work is based on a survey of 7,500 low-moderate income households to evaluate how disparities in energy assistance and equity are currently impacting civic engagement across socioeconomic and racial groups in the state.

Houston Energy Transition Initiative 2023  
 Facilitated the Houston Energy Transition Innovation Ecosystem Collaborative Session for academia, industry, and community partners to establish the roadmap for Houston to be a neutral player capable of addressing across the value chain of innovation and funnel from early stage to commercialization, enabling connections with the four critical elements: Talent, connections, resources and (use-inspired) ideas and solutions, and seamless interaction with digital, medical, aerospace and technology innovation ecosystems.

EVolve Houston 2021-2022  
 Quantitative Research Support for EVolve Houston, a non-profit founded by the University of Houston, City of Houston, Shell, CenterPoint Energy, and NRG, to advance clean, equitable, and accessible transportation for Houston.

NSF Convergence Accelerator 2020  
 Facilitated the Advancing Sustainable Low-Carbon Energy through Convergence National Science Foundation Convergence Accelerator Workshop at the University of Houston to identify 18 tracks across the topic areas

of a) Greenhouse gas mitigation through carbon capture, utilization, and storage; (b) Process efficiency and process electrification; (c) Integration of renewable energy and incorporation of alternate fuels; and (d) Circular plastics and chemicals.

### **UNIVERSITY SERVICE**

- Researcher, University of Houston for the Texas Higher Education Coordinating Board's Accelerating Credentials of Purpose and Value Grant to UH, 2022-ongoing
- NASPAA Accreditation Alumni Committee, Hobby School of Public Affairs, University of Houston, 2022
- Critical issues in Energy Symposium Series - Planning Committee, 2020-ongoing
- Research and Logistics Support, Energy Subcommittee Field Hearing - The Future of Advanced Carbon Capture Research and Development, House Committee on Science, Space, and Technology, 2019
- Founding Dean Hiring Committee, Hobby School of Public Affairs, University of Houston, 2019-2020
- Student Mentor Program, Hobby School of Public Affairs, University of Houston, 2019-2020
- Supported the Center for Carbon Management in Energy, UH Energy Transition Institute, Consortium for Energy Corporate Social Responsibility, and Subsea Systems Institute by serving as a PI and as a mentor for graduate and undergraduate students, facilitating workshops, serving as a member of research focus groups, collaborating with program directors, research administrators, the media and marketing team, and other University of Houston staff for program implementation, logistics, student success and support, outreach, tracking impact metrics, and the writing and dissemination of research communication, 2018-ongoing
- Energy Fellow - Staff Contributor, UH Energy Forbes Blogs, 2018-ongoing

### **AWARDS, FELLOWSHIPS, AND HONORS**

- Christine Mirzayan Science and Technology Policy Graduate Fellow, National Academies of Sciences, Engineering, and Medicine, 2024
- Chevron Energy Graduate Fellow, 2023
- American Political Science Association Travel Grant, 2023
- Cullen Graduate Student Success Fellow, Cullen Foundation, 2022
- Climate Pipeline Project Harvard Radcliffe Institute Travel Support, Harvard University, 2022
- Second Position, Coogs Energizing the Energy Transition, The Green Insider, Podcast Competition by eRenewables, 2022
- Carbon Dioxide Capture & Conversion Program Research Scholarship, The Catalyst Group, 2021
- Graduate Tuition Fellowship, College of Liberal Arts and Social Sciences, 2020-ongoing
- Garnett Coleman Award for Student Excellence, Hobby School of Public Affairs, 2020
- Hobby Excellence Scholarship, 2018-2020
- NASPAA Batten Simulation Competition, Regional Site Winner, 2020
- President, Pi Alpha Alpha – UH Chapter, University of Houston, 2019-2020

### **PROFESSIONAL MEMBERSHIPS**

American Political Science Association  
 Association for Public Policy Analysis and Management  
 Southern Political Science Association  
 Western Political Science Association

## **RELATED INDUSTRY EXPERIENCE**

Policy Analyst, Carbon Management, Baker Hughes

July- November 2019

- Analyzed the carbon intensity and quantified the associated policy and regulatory risk of unconventional oil plays in Latin and Central America;
- Lead the investment analysis for the International Finance Corporation's proposed financing of associated gas recovery, capture, and utilization projects in Iraq;
- Supported data and policy analysis for the National Petroleum Council's Roadmap on Carbon Capture, Use and Storage for at-scale CCUS deployment in the U.S.

Regulatory Analyst, L&M Environmental Response LLC

May-August 2017

- Assisted clients with specialized compliance and reporting on federal and state methane emission regulations and Leak Detection and Repair (LDAR) programs. The compliance data was used to design a proprietary app- NVIROleaks, featured in the New Orleans Entrepreneur Week, to help predict and monitor methane leaks, and assist with response in case of a methane leak.