Course Description

Electrification, digitalization, and decentralization are transforming energy systems worldwide. This course will focus on the governance and policies impacting this transformation. It will cover approaches to integrated resource planning, rules around solar integration, rate setting, the 100% renewable energy movement, and the role of utility-scale power plants as well as resources on the customer side of the meter including roof-top solar, energy efficiency, demand response, and electric vehicles.

When: Mondays and Wednesdays | 3:00 - 4:30 pm
Where: ESM 212
What: PUBP 6352 & CRN 92040

Students will learn how to use analytical software tools and data sources to assess the cost-effectiveness of alternative electricity technologies and policies:

» The levelized cost of electricity from alternative resources, based on data from Integrated Resource Plans and associated legal filings

» How electric rates affect electric vehicle and solar economics, using NREL's solar System Advisor Model (SAM)

» Impact of carbon taxes on electric vehicles, fossil fuels and air quality based on EIA's National Energy Modeling System (NEMS)

» Role of integrated resource planning and utility costs tests, with a focus on the Georgia Power IRP.

Dr. Marilyn A. Brown

Marilyn Brown is a Regents' and Brood Byers Professor in the School of Public Policy. Her research focuses on the design and impact of policies aimed at accelerating the transition to a sustainable energy future, with an emphasis on the electric utility industry, the integration of energy efficiency, demand response, and solar resources, and ways of improving resiliency of the electric grid.

In 2010, she was appointed by President Obama to 2 terms as a regulator of the nation's largest public power provider, the Tennessee Valley Authority. From 2014-2018 she served on DOE's Electricity Advisory Committee where she chaired the Smart Grid Subcommittee. She has written 6 books on the clean energy transition and runs the Climate and Energy Policy Lab at Georgia Tech. In 2007 she became a Nobel Laureate for her work with the Intergovernmental Panel on Climate Change.