

Winter 2020

MGT 290-4, 3 unit, Fridays 10:00-2pm, Classroom TBD

Office Hours: by appointment

Course Schedule:

Winter Quarter, 2020 (First class is scheduled for Friday January 3, 2020, optional but highly recommended for non-GSM students unfamiliar with energy sector and regulations)

Course Instructors:

- Nicole Biggart, Research Professor, Graduate School of Management
- Benjamin Finkelor, Executive Director, Energy and Efficiency Institute

Course Abstract:

The Sustainable Energy Industry Immersion program at the UC Davis Graduate School of Management (GSM) brings together graduate students from multiple departments who are interested in the energy industry and exposes them to significant managerial problems being faced in this transforming sector. The main objective of this program is to continue to build on the reputation and connections of UC Davis in sustainable energy and transportation by training students to examine problems comprehensively in interdisciplinary teams.

The increase in global population, alterations in climate patterns, increased risk of natural disasters, the need to decarbonize, and the on-going challenges around generation, transmission, and distribution, all while maintaining safe, reliable, affordable access to energy, are critical determinants of global development and security.

The impact of new technologies and other innovations in solving a wide array of problems in this industry opens possibilities for energy companies and for other companies that depend on stable energy supplies. Regulation of energy is a prominent policy conundrum that must balance economic, health, social equity and technology concerns.

The aim of the GSM program is to produce next generation leaders in this vital industry and other industries that depend on access to reliable energy stores. Participants will learn from business and policy leaders who will present current energy challenges. Students will work in interdisciplinary teams to find solutions to present for discussion. The program has several distinguishing features:

- Curriculum designed by both UC Davis faculty and industry executives to reflect the latest challenges in the industry
- Classes comprised of students from Graduate School of Management and the Energy Graduate Group

- Nine weeks of interactive classes on Fridays in Winter Quarter taught by senior executives from a select group of companies (Southern California Edison, SoCalGas, SMUD, Anheuser Busch, etc.)
- Group assignments in every class, examining potential solutions to management challenges
- Possible project work to follow in Spring Quarter, giving students more in-depth exposure to specific problems in a certain company
- Possible internship opportunities in the featured companies during Summer Quarter

Readings will be developed in conjunction with each week's executives. There is no required textbook.

COURSE REQUIREMENTS/GRADES

Because this is an interactive, group case analysis class attendance and participation are critical elements of successfully meeting three course requirements.

1. Nine weekly case discussions in class and presentation to the speaker: 1/3 of grade (drop lowest grade)
2. Eight weekly Reflection Papers of 500-1000 words submitted online. 1/3 of grade (drop lowest grade). There will be no reflection paper due on the last speaker/class.
3. White Paper done in a group with no less than one MBA student, 2500-5000 words uploaded as a file by the last day of class. Instructions on how to write a white paper are available on Canvas under Files. 1/3 of grade.

CODE OF ACADEMIC CONDUCT

We are committed to the promotion of absolute integrity and high ethical standards in academic work. More information about Code of Academic Conduct can be found at the Code's webpage (<http://sja.ucdavis.edu/files/cac.pdf>).

CLASS SCHEDULE

January 3

Introduction to Energy and Sustainability: Optional Orientation Class for non-Energy Students.

Nicole Biggart is former Faculty Director of the Energy Efficiency Center and **Benjamin Finkel** is current Executive Director of the EEI <https://energy.ucdavis.edu>. Ben and Nicole will do a broad overview of energy, its types, and historic trajectory. We will discuss the meaning of sustainability and how energy, sustainability and consumption connect in our choices every day. Chance to get to know other students who will be your partners in solving case problems.

January 10

Rob Hochstetler is CEO at Central Electric Power Collaborative, Inc. (CEPCI)

Central Electric Power Cooperative, the wholesale power aggregator for the 20 electric distribution cooperatives in South Carolina, named Rob Hochstetler President and CEO effective July 2014. Central Electric provides members over 18 million megawatt-hours annually via 453 delivery points.

Mr. Hochstetler has spent 30 years in the energy field working in diverse areas of the industry. Rob started out as a plant engineer and quickly progressed to a front-line supervisor before returning to engineering leading large capital projects at electric generating stations.

Mr. Hochstetler then became VP of Cinergy Solutions based in Rochester NY, running powerplants at Kodak Park. Kodak Park had two coal-fired power stations situated within an enormous industrial complex.

Next, Mr. Hochstetler was then moved to Cinergy's commercial asset management trading floor to work in risk management. In this role, Mr. Hochstetler tracked and managed risk positions in Power, Coal, Emissions, Natural Gas, & Commodities. Eventually, Mr. Hochstetler was asked to lead the Commercial Risk program for Duke Energy shortly after the merger with Cinergy.

Rob left Duke Energy in summer of 2007 to become VP of Power Production for Hoosier Energy. Hoosier Energy is a generation & transmission cooperative providing wholesale electric power and services to 18 member distribution co-ops in central and southern Indiana & southeastern Illinois. Based in Bloomington, Hoosier Energy operates coal, natural gas, and renewable energy power plants and delivers power through a 1,500-mile transmission network.

January 17

Sharon Tomkins is Vice President of Strategy and Chief Environmental Officer of Southern California Gas Company, a Sempra Energy regulated California utility. She is responsible for developing and delivering the information, products and services that meet customers' energy needs and support state environmental and social policy objectives. Tomkins' responsibilities include renewable natural gas, near zero emissions transportation, emerging technologies and energy efficiency. She joined SoCalGas in 2010 as regulatory assistant general counsel. Prior to this, Tomkins was a partner at O'Melveny & Myers LLP where she was a founding member of the firm's Energy, Natural Resources & Environmental Practice. Her energy focus began during her representation of various clients, including Sempra, during the California energy crisis. Tomkins serves on the board of directors of the California Minority Counsel Program, Los Angeles Library Foundation, Constitutional Rights Foundation and Civil Justice Association of California. She graduated Order of the Coif from the USC Gould School of Law and received her undergraduate degree in English, with High Distinction, from Pennsylvania State University.

January 24

Jill Anderson is vice president of Customer Programs and Services at Southern California Edison (SCE), one of the nation's largest electric utilities. She is responsible for leading SCE's energy efficiency, demand response and clean self-generation program portfolios as well as customer strategy, marketing, e-commerce and strategic alliance functions. Previously, Anderson was executive vice president and chief commercial officer at the New York Power Authority (NYPA), the country's largest state power organization. She directed all wholesale and retail operations. Anderson oversaw the marketing of NYPA's generation assets, trading, fuel operations, hedging and business development for new transmission and generation activities.

Before joining NYPA, Anderson worked for Hess Corporation, and for Consolidated Edison Company of New York, leading teams responsible for natural gas and electric substation construction and operation, redesign of the distribution system to improve efficiency and integrate new technologies, and electricity and natural gas procurement. Anderson received a Master of Business Administration degree from New York University and a Bachelor of Science in Mechanical Engineering degree from Boston University.

January 31

Paul Lau and Arlen Orchard at SMUD

Arlen Orchard is Chief Executive Officer and General Manager at Sacramento Municipal Utility District (SMUD).

Arlen is the general manager and CEO of the Sacramento Municipal Utility District. He joined SMUD in 1990 as a staff attorney and became CEO in April, 2014, after a global executive search.

Prior to moving to the top post, Arlen served as general counsel for SMUD for 14-years, managing a staff of attorneys and overseeing all matters in which SMUD has a legal interest.

Arlen serves on the Board of Trustees for the Northwest Public Power Association and as the general counsel for the California Municipal Utilities Association. In addition to his nonprofit board service to Valley Vision, Arlen serves on the boards of directors of Capital Stage, a nonprofit professional theater company, the Greater Sacramento Urban League, and the Sacramento Metro Chamber of Commerce.

Before joining SMUD, Arlen was an attorney with the Sacramento firm Downey Brand. He received his juris doctorate degree from the University of California, Davis School of Law, a bachelor's degree in political science from the University of Nevada, Reno, and attended UC Davis's Graduate School of Management. He is a member of the American Bar Association, the California Bar Association, and the Energy Bar Association, a Washington, D.C. -based organization of legal professionals in the energy industry.

Paul Lau is Chief Grid Strategy & Operations Officer at Sacramento Municipal Utility District (SMUD). He is responsible for the operations of SMUD's power markets, transmission

and distribution grids, including the Balancing Authority of Northern California (BANC), the development of a holistic smart grid strategy and SMUD's research & development programs. Lau directs a number of departments and is the executive sponsor of SMUD's deployment of advanced metering infrastructure and smart grid initiatives. Prior to this appointment, he was the Assistant General Manager of Power Supply & Grid Operations. Lau is active in international energy issues and serves as a delegate with the United States Energy Association. He is a registered professional electrical engineer in the state of California and has more than 30 years of utility experience. Lau received his bachelor's degree in electrical power engineering from California State University, Sacramento. He also is a Senior Fellow of the American Leadership Forum.

February 7

Carl Belshause is the General Manager at Anheuser-Busch in Fairfield, CA and has been with the company for over 7 years and most worked as a Senior Brewmaster. He has previously worked as a manufacturing engineer and a mechanical engineer. He holds both a bachelor's degree and a master's degree in Mechanical Engineering from Georgia Institute of Technology.

February 14

TBD

February 21

Larry Kellerman is Managing Partner of TFC Utilities, an investment platform for acquiring and leveraging regulated utilities to take advantage of their access to low cost capital and large customer bases. TFC uses a "Million Rate Base" model to provide customers with the lowest possible cost solar panels or other energy technology using low cost financing. Regulated customers can choose their preferred source of energy and have access to the latest battery systems and energy devices such as charging stations for vehicles. Larry Kellerman has worked in energy finance at Goldman Sachs and Quantum Utility Generation. He is an alumnus of UC Davis and he holds an MBA from West Coast University.

February 28

Phil Hopkins is Managing Director and Head of Renewable Energy & Environmental Finance at Wells Fargo

Philip Hopkins is a managing director and the head of Renewable Energy & Environmental Finance (REEF) for Wells Fargo Commercial Capital. He previously co-led the REEF team for more than a decade, building the business into one of the largest and most consistent tax-equity investors in the U.S.

Based in San Francisco, Phil now leads a team of more than 30 professionals who make direct investments in large-scale renewable energy projects. His team's activities are a key part of Wells Fargo's Sustainable Finance Commitment, which includes a focus on providing capital to environmentally beneficial businesses and projects in several industry sectors, including

renewable energy, energy efficiency, and real estate. To date, his team has invested more than \$7.5 billion in wind and solar projects throughout the U.S.

Phil joined Wells Fargo in 2005 after spending more than 15 years in the power and energy sectors. Prior to joining Wells Fargo, he was director of strategy and business analysis at independent power producer Mirant Corporation in Atlanta, where he also managed complex power sector transactions in the U.S. and Germany. Earlier, Phil worked for the New England Power Company as a senior engineer and as a field engineer for Schlumberger Well Services.

Phil earned a master's degree in nuclear engineering and a bachelor's degree in mechanical engineering from the Massachusetts Institute of Technology (MIT) and during that time, he was a Nuclear Regulatory Commission-licensed senior reactor operator at MIT's Nuclear Reactor Laboratory. He and his wife live in San Francisco, where they support local children's programs.

March 6

Ari Halberstadt is Co-Founder and CTO of Extensible Energy is an experienced business professional, software engineer & architect, and technical analyst focused on energy innovation and strategy. Mr. Halberstadt has developed advanced approaches to integrating renewable generation into legacy systems. He contributed to guidelines for utilities to implement high-value community solar projects that integrate advanced energy management technologies with local shared solar energy generation. Mr. Halberstadt has also provided policy and technical analyses to San Francisco for an ordinance that requires the installation of solar power in new construction. Ari holds an MS in Biochemistry and Biophysics from University of North Carolina, Chapel Hill and an MBA from UC Davis. He completed his undergraduate work in Biology from the University of Massachusetts.