

BUSINESS MODELS FOR THE ENERGY TRANSITION – FINA 7397

FALL 2022, Session 3

CLASS INFORMATION

- Day and Time: Wednesdays 6-9 pm from August 24th, 2022 – October 5th, 2022
- Location: TBD
- Office Hours: By appointment

INSTRUCTOR

Dr. Zin Smati brings over 35 years of U.S. and international experience in the energy and private equity sectors.

He is a Senior Advisor to Private Equity and a member of the board of directors of Ercot, Boralex and SNC Lavalin. He is also a member of the Advisory board of the University of Houston's Bauer College of Business.

Until recently, Dr Smati served for over 10 years as *President and CEO* of Engie NA – a \$10 Billion North American energy company and part of ENGIE, one of the world's leading energy groups. Prior to ENGIE, He served as *President and CEO* of BP Global Power, part of the BP group. There, he oversaw all gas to power generation developments worldwide. He started his career in the electric utility industry in the United Kingdom. Dr. Smati holds a Ph.D., an MBA, an MSc and a B.Eng., all from universities in the United Kingdom.

SUMMARY

This course introduces students to the emerging business models and strategies in light of the shift towards energy transition.

In the future, the world will need less energy. It will decarbonize with energy mix split between fossil and non-fossil fuels. Also, electricity consumption will increase with wind and solar providing most of this increase.

We will review the current energy environment, the existing business models and the current positioning of some energy players. We will then review how the energy landscape is rapidly changing and how new business models are emerging. Finally, we will discuss how some existing energy companies are reinventing themselves and how new companies are emerging, adapting and redefining the rules of the new energy game.

Will the new energy company of the future be an existing energy company? A technology company who is heavily investing in renewable and knows how to better serve a more demanding and technically savvy customer? Or could a new startup emerge, rewrite the rules and then dominate the new energy landscape?

COURSE OBJECTIVES

- Understand the trends shaping the energy transition
- Investigate the impact of shale gas, oil and energy policies
- Investigate disruptive technologies (renewables, smart grid and digitization)
- Define existing electric energy value chain
- Assess emerging business models (from pure plays to customer centric models)
- Assess potential winning models and strategies

COURSE APPROACH

The course will include a variety of learning activities including lectures, classroom discussion, reading assignments, podcasts, and individual and team projects.

GRADING

Grades will be based on class participation, an individual student paper, and a team project.

CLASS DETAILS-TENTATIVE

Date	Topic	Notes
08/24/2022	Course Introduction: Trends shaping the energy transition and the resulting business models	
08/31/2022	Shale Oil and Gas - The first disrupter	
09/07/2022	Disruptive Technology 1 - Distributed Generation	
09/14/2022	Disruptive Technology 2 - Renewable Energy	
09/21/2022	Disruptive Technology 3 - Smart Grid & Digitization	
010/28/2022	Energy Value Chain and emerging business models	
10/05/2022	Presentation of Team project- Select winning business model	

PROJECT ASSIGNMENTS

Projects	Topic	Description	Deliverable
Individual	Most Impactful trend for the Energy Transition	Students will select & discuss one trend that could have the most impact on energy transition and will influence business models & strategies	5-10 page white paper
Team	Winning business model	Student teams will identify and build a case for the winning business model in light of energy transition	20-minute presentation

ADDITIONAL POLICIES