

FINA 7377 Electric Power Markets
University of Houston
Summer 2023

Amy Gasca
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The course provides an understanding of the US Power Markets. It offers students the opportunity to examine the history of the power markets and the fundamental concepts of power. Students will obtain detailed knowledge of the US Power Grid including regional analysis, generation, load, and transmission. Students will also study the significance of the power markets in the economy and investigate the environmental impacts and weather impacts on the market. Once the background has been laid we will analyze the trading of power and discuss the corporate trading risks.

Instructor

Ms. Amy Gasca, S&P Global Senior Director, leading Commercial team within the Utility sector, Power, Natural Gas, LNG and Energy Transition, Other role held within S&P Global, I was the Managing Editor Global Power, managing electricity, RECs, Hydrogen, RGGIs, and California Carbon Allowance prices, indices, assessments and content published in European Power Daily, Energy Trader and Megawatt Daily. Prior to S&P Global, I spent 30 years within the Energy industry with Shell, BP, Constellation New Energy among others in wholesale, Retail and trading roles. In addition, I have been an Adjunct Professor for the past 5 years at University of Houston part of the Executive MBA Energy Program, teaching a course, “Power and Alternative Solutions”, and MBA Finance Energy certificate “Electric Power Markets”

Grading Policy

Presentation/Report	60%
Pop Virtual Quizzes	15%
Participation	25%

Classes

Class participation is mandatory. I expect students to login to class prepared having read the assigned readings prior to class.

Make-up Work

If you think you will miss class or miss a homework deadline, discuss with me PRIOR to the missed deadline. **If you must miss a class, you can request an assigned research paper that can make up the class; otherwise, your absence will be counted as no participation.**

Equipment

Ability to access Class via Zoom

AMY GASCA is inviting you to a scheduled Zoom meeting.

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Topic: Power Markets

Time: Jun 5, 2023 06:00 PM Central Time (US and Canada)

Every week on Mon, Wed, until Jul 12, 2023, 12 occurrence(s)

Jun 5, 2023 06:00 PM

Jun 7, 2023 06:00 PM

Jun 12, 2023 06:00 PM

Jun 14, 2023 06:00 PM

Jun 19, 2023 06:00 PM

Jun 21, 2023 06:00 PM

Jun 26, 2023 06:00 PM

Jun 28, 2023 06:00 PM

Jul 3, 2023 06:00 PM

Jul 5, 2023 06:00 PM

Jul 10, 2023 06:00 PM

Jul 12, 2023 06:00 PM

Please download and import the following iCalendar (.ics) files to your calendar system.

Weekly: <https://zoom.us/meeting/tJwrde2qrDIqH9bddZVWpyTrD-3AU8iXoZbg/ics?icsToken=98tyKuCgqDkuGNacsByFRow-BIjoLOrzplhfgvpfmBvfNRdDezfkEq8RE4cnGeDf>

Join Zoom Meeting

<https://zoom.us/j/98624229052?pwd=UGJQbGtKVkp3czlINW5nYW5JZS8zQT09>

Meeting ID: 986 2422 9052

Passcode: 467921

One tap mobile

+13462487799,,98624229052#,,,,*467921# US (Houston)

+16699006833,,98624229052#,,,,*467921# US (San Jose)

Meeting ID: 986 2422 9052

Passcode: 467921

Find your local number: <https://zoom.us/u/acMaBdsID0>

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Join Zoom Meeting

Contact Info

The easiest way to reach me is via email: amy.gasca@cgaenergy.com. I do not have an office at the University and therefore do not have scheduled office hours. I will be available before class or by appointment.

Academic Misconduct

Academic Honesty: The University of Houston's Academic Honesty Policy is strictly enforced by the Bauer College and by this professor. A discussion of the policy is included in the UH Student Handbook, <https://www.uh.edu/dos/publications/handbook.php>. It is your responsibility to fully understand and comply with all principles contained within this Handbook. Please make sure you understand this policy and in particular, you understand the meaning of plagiarism.

University of Houston Power Markets Course

Objective: Obtain a thorough understanding of the US Power Markets.

6PM-9:30PM

Class 1 – June 5

- Course overview
- History of the power markets
- Market Participants
- Power – How is it produced?
 - Natural Gas, LNG, Coal, Nuclear, renewables, others

Reading:

- <http://instituteforenergyresearch.org/history-electricity/>

Class 2 – June 7

- Regulation
- Deregulation
- Power Grids- ISO/RTO

Reading:

[http://www.eia.gov/energyexplained/index.cfm?page=electricity_in_the_united_state](http://www.eia.gov/energyexplained/index.cfm?page=electricity_in_the_united_states)
[s
http://americanhistory.si.edu/powering/generate/gnmain.htm](http://americanhistory.si.edu/powering/generate/gnmain.htm)

Class 3 – June 12

- Demand
- LMP – Price Relationship – Supply and Demand
- Natural Gas and Other Commodities Power Price impacts
- Guest Speaker – Blass Pina
- Reading:

- <http://science.howstuffworks.com/environmental/energy/power.htm>

Class 4 – June 14

- Transmission

- Storage
- Efforts to decarbonize, Alternatives: Renewables: RECS, Solar, Wind, Hydrogen, Battery, Etc
- Why is Hydrogen a key component in current Energy Transition?
- Reading
 - http://en.wikipedia.org/wiki/Electric_power_transmission
 - http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/environmental-impacts-solar-power.html

Class 5 – June 21

- The E of ESG - Sustainability
- Renewables and Hydrogen
- Carbon Markets
- Hedging and Risk Management
- Reading
 - <http://www.epa.gov/cleanenergy/energy-and-you/affect/>
 - http://premiacap.com/publications/EDHEC_Working_Paper_Case_Studies_and_Risk_Management.pdf

Class 6 – June 21

- Hydrogen
- Carbon M
- arkets
- Retail Electric Suppliers
- Green Trading

Class 7 – Monday, June 26

- Pricing Fundamentals
- Presentations
- Reading
 - <http://www.epa.gov/cleanenergy/energy-and-you/affect/>
 - http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/environmental-impacts-solar-power.html

Class 8 – Wednesday, June 28

- Energy Transition – Is it real?
- Presentations

Class 9 – Wednesday, July 3

Class Evaluation –

- Presentations
- Environmental Impacts
- Emissions