THE GEOPOLITICS OF ENERGY (SA.680.765)

Fall 2019 (Revised Oct. 17, 2019)

Mondays 2:00 - 4:30 pm, BOB 407

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COURSE DESCRIPTION

Energy and geopolitics are closely linked. Energy is a critical factor influencing a country's foreign, security and economic policies – both for import-dependent nations seeking to ensure sufficient, affordable supply, and for energy exporters seeking "security of demand." Energy can be a tool used by both importers and exporters to exercise and project power. In this course we will assess the profound transformations in the world energy landscape due to rapid technological change and concern about climate change. We will review global energy security and examine how key countries and regions view their energy challenges and strengths. We will evaluate how these considerations impact international relations and strategies, and how energy security can be shaped by geopolitical factors, e.g., the rise of nationalism and weakening of the post-World War II global order.

Among the topics we will examine are the evolving nature of energy security, global energy outlooks, the security considerations attached to different fuels and sources of energy, and the key issues impacting energy geopolitics in different regions of the world. The revolution in unconventional oil and gas production and the rapid growth in renewable energy will feature prominently in our analysis. Specific subjects we will discuss include the geopolitics of the energy transition, how major emerging economies expect to meet their energy needs, the impact of U.S. sanctions, European dependence on Russian gas, Saudi oil policy, the potential impact of natural gas discoveries in the Eastern Mediterranean, the "resource curse," energy poverty, the Arctic, and the energy-water nexus. We will also look at the global institutional framework for energy and climate.

Learning Objectives and Outcomes

By the end of the course students should be able to:

- Describe the major energy security issues facing the world and specific regions and countries today and how this may evolve going forward.
- Discuss how particular countries and regions view their energy strengths and challenges and how this perception impacts foreign and security policies.
- Explain how geopolitics might affect energy trends and how geopolitics could be impacted by energy developments.

COURSE REQUIREMENTS

Honor Code

Enrollment at SAIS requires each student to conduct all activities in accordance with the rules and spirit of the school's Honor Code and Academic Integrity Policy. Students are required to be truthful and exercise integrity and honesty in all of their academic endeavors. The Honor Code, which can be found in the SAIS Student and Academic Handbook (also known as The Red Book) covers all activities in which students present information as their own, including written papers, examinations, oral presentations and materials submitted to potential employers or other educational institutions. While the Honor Code goes well beyond plagiarism, it is important that each student understand what is and is not plagiarism. Plagiarism will result in failure of the paper or project and may result in failing the course.

Energy Background

While there are no prerequisites for this course, students are expected to have a basic knowledge of energy issues, including the uses of different fuels and their environmental impacts. This is not an Introduction to Energy course.

Students who are new to energy are strongly encouraged to review the background information and short, informative videos available at the <u>Student Energy Map</u>. Another good source of basic background on energy systems is the Energy Explained section of the <u>U.S.</u> <u>Energy Information Agency</u> web site. Review of these sources will give students a sufficient background knowledge for this course.

Course Participation and Readings

Students are expected to do the assigned readings prior to class, keep current on major energy issues in the news, attend all classes and participate in class discussions. The instructor will randomly call on students for their opinions during class, including on specific questions distributed in advance for discussion. Presentations by the instructor and guest speakers will be posted on Blackboard after the class session.

Required Books

• None. Some readings in this syllabus may change.

Guest Lectures

There will be several guest lecturers during the semester, to be identified early in the course. The availability of particular speakers may result in shifts in the order of the classes. Generally guest lecturers will participate only in the first hour of class.

<u>Grading</u>

- Class participation 10%. Students are expected to do the assigned readings prior to class and may be called on for their reactions to the readings. Questions also will be sent to students prior to each class that they should be prepared to discuss in that class.
- Policy Memos 60% (30% each). Students will write two three-page policy memos. The first memo will be on an international energy issue (suggested topics will be provided), the second memo will be directed to the leader of a country recommending a policy to address an energy challenge faced by that country. Both topics need to be approved by the instructor in advance. More information will be provided during the first class.
- Final Research Paper and Presentation 30%. Each student will be part of a team
 responsible for writing a research paper of a maximum length of 20 pages. These teams
 will make presentations on their findings during the last class. The topics for these
 group projects will be chosen by the instructor. More information will be provided
 during the first class.
- NON-ERE STUDENTS: Instructor is open to modification of the assignments for students who are not ERE concentrators in order for those students to receive credit for this course as part of their concentration. Please contact the instructor to discuss. Auditors are welcome, space permitting.

Expectations

Policy memos and the final research paper are to be submitted on time. Assignments submitted after the due date will incur a half-grade penalty per day. The only acceptable reasons for turning in an assignment late are illness or death in the family. Illness significant enough to prevent a student from submitting an assignment on time requires a note from a doctor. Plagiarism will not be tolerated and will result in a failing grade.

A tentative calendar for the class follows; there may be adjustments as the class moves forward:

Geopolitics of Energy	Assignment	Date
Class 1: The Evolution of Energy Security and the Geopolitics of Energy		Sept. 9
Class 2: The Global Energy Outlook		Sept. 16
Class 3: The United States – From "Begging for Oil" to Resource Abundance	Topics for first policy memo agreed.	Sept. 23
Class 4: Has the Oil Market Changed Forever?		Sept. 30
Class 5: Natural Gas - The Changing Global Order	Groups and topics assigned for final paper and presentation.	Oct. 7
Class 6: Nuclear Power and Electricity	First policy memo due.	Oct. 14
Class 7: The Energy Transition and Renewables – The End of Energy Geopolitics or a New Phase?	Topics for second policy memo agreed.	Oct. 21
Class 8: The Big Emerging Consumers – China and India		Oct.28
Class 9: Climate Change and Geoengineering	Drafts for group project due.	Nov. 4
Class 10: The Arctic plus Latin America	Second policy memo due	Nov. 11
Class 11: Energy as a Weapon, Energy for Peace		Nov. 18
Class 12: Africa & Energy Access		Dec. 2
Class 13: Group Project Presentations	Final papers due with group presentations in class	Dec. 9

READINGS AND FOCUS OF CLASSES

CLASS 1: The Evolution of Energy Security and the Geopolitics of Energy

What do we mean by energy security? By the geopolitics of energy? We will examine the evolving nature of energy security, how it differs across regions and some of the major intersections of geopolitics and energy.

REQUIRED READINGS (approx. 90 pages)

- "The Concept of Energy Security: Beyond the 4 As," Cherp and Jewell in Energy Policy, December 2014, 9 pages
- "Energy Security and Markets," Daniel Yergin, Chapter 2 in *Energy and Security:* Strategies for a World in Transition, Jan Kalicki and David Goldwyn, eds., 2013, pp. 69-87
- "Introduction: An Energy Revolution" in *The Risk Pivot: Great Powers, International Security, and the Energy Revolution,* Bruce Jones and David Steven, pp. 1-18
- "Geopolitical Landscapes," Chapter 4 in *Energy and Society: A Critical Perspective*, Gavin Bridge et al., 2018, 20 pages
- "10 Indicators to Predict the Geopolitics of Energy," Steve Levine, Quartz, October 18, 2012 -- plus "An 11th Indicator," Quartz, Nov. 24, 2012, 5 pages
- "What is geopolitics?' Osterud and Mayer, Geopolitics in the High North, 3 pages
- Tracking SDG7: The Energy Progress Report, 2019; Executive Summary, pp. 1-11

CLASS 2: The Global Energy Outlook and the Global Energy Architecture

We will review outlooks of global energy supply and demand, including how the energy landscape may be impacted by geopolitics. Then we will look at the international institutions that address energy issues and how they might evolve going forward given geopolitics and the changing global energy picture.

REQUIRED READINGS (approx. 120 pages)

- Equinor's Energy Perspectives 2019, 64 pages FOCUS ON THE RIVALRY SCENARIO
- *BP Energy Outlook 2019 Edition* Overview and Global Backdrop (pp. 11-25) and Alternative Scenarios: Less Globalization (pp. 73-75)
- IEA World Energy Outlook 2018, Executive Summary, 6 pages
- "The Next Energy Revolution: The Promise and Peril of High-Tech Innovation," David Victor and Kassia Yanosek, Foreign Affairs, July/August 2017, 9 pages
- "Reform of the Global Energy Architecture," David Goldwyn and Phillip Cornell, Atlantic Council, April 2017, 16 pages

• "The Resource Nationalist Challenge to Global Energy Governance," Jeffrey Wilson, in Handbook of the International Political Economy of Energy and Natural Resources (2018), eds. Goldthau, Keating & Kuzemko, pp. 50-59

CLASS 3: The United States – From "Begging for Oil" to Resource Abundance

U.S. energy diplomacy has shifted from "Begging for Oil" to seeking to take advantage of an abundance of resources to advance foreign policy and geoeconomic goals – even to talk of "Energy Dominance." What leverage does the United States have? Is the United States still hostage to developments in the global energy market? Have U.S. energy sanctions been successful?

REQUIRED READINGS (approx. 100 pages)

- "The American Energy Superpower," Jason Bordoff, Foreign Affairs, July 6, 2017, 3 pages
- White House Fact Sheet "President Donald J. Trump Unleashes America's Energy Potential," June 27, 2017
- "Embrace Energy Dominance," U.S. National Security Strategy, December 2017, pp. 22-23
- Secretary of State Pompeo's Keynote Address at CERAWeek, March 12, 2019
- "The Energy Dominance Agenda: Myth vs Reality," Douglas Hengel, World Energy #41, December 2018, pp. 16-20
- "Geopolitical Dimensions of U.S. Oil Security," Jim Krane & Kenneth Medlock, in Energy Policy 114 (2018) pp. 558-565
- Testimony of Kenneth Medlock to the House Committee on Foreign Affairs, Hearing on Geopolitics of U.S. Oil and Gas Competitiveness, May 22, 2018, 11 pages
- "Rethinking Energy Statecraft: United States Foreign Policy and the Changing Geopolitics of Energy," Bazilian, Sovacool & Moss, in Global Policy (2017), 3 pages
- "Increasing Pressure, Increasing Uncertainty: A Discussion Paper on the Contemporary Effects of Sanctions on Energy Interests," Elizabeth Rosenberg, Edoardo Seravalle & Neil Bhatiya, Draft Energy Futures Forum Paper, 25 pages
- "Iran Sanctions," Kenneth Katzman, Congressional Research Service, July 2019, Summary plus pp. 12-24 and 63-67
- "U.S.-Russia Policy Hits European Energy Supply: The Consequences of Unilateral Sanctions and Growing Market Competition," Lohmann and Wesphal, SWP Comment, February 6, 2019, 8 pages
- "Impact of the 2017 Sanctions on Venezuela: Revisiting the Evidence," Brookings Policy Brief, May 2019, 9 pages

CLASS 4: Has the Oil Market Changed Forever?

The surge in unconventional oil production in the United States is having a profound influence on energy markets and geopolitics. We will review how the sharp increase in U.S. oil supply from tight oil formations has transformed the oil market, as well as how the major international oil and gas companies are positioning themselves for "peak oil demand" and to address growing concerns about climate change. What are the longer-term implications of these developments on OPEC and other major oil producers, and on global power relationships?

REQUIRED READINGS (approx. 100 pages)

- "This Isn't Your Father's OPEC Anymore," Jason Bordoff, Foreign Policy, June 26, 2018, 5 pages
- "The New Economics of Oil," Spencer Dale, Oxford Institute of Energy Studies, October 2015, 9 pages
- "Peak Oil Demand and Long-Run Oil Prices," Spencer Dale & Bassam Fattouh, Oxford Institute of Energy Studies, January 2018, 11 pages
- "Global Trends in Oil and Energy: Implications for the GCC and Foreign Policy Responses," Oxford Institute for Energy Studies and Emirates Diplomatic Academy, June 2017, 8 pages
- "World Oil Transit Chokepoints," U.S. Energy Information Administration, July 25, 2017, pp. 1-13
- "The Evolution and Prospects of Saudi Arabia Russia Oil Relations: A Saudi Perspective," Bassam Fattouh, Oxford Institute for Energy Studies, October 2018, slide show, 24 slides
- "Why the Global Energy Transition Does Not Mean the End of the Petrostate," Andreas Goldthau et al, Global Policy Vol. 10, Issue 2, May 2019, pp. 279-282
- "Oil and Gas Company Strategies Regarding the Energy Transition," Ensieh Shojaeddini et al, Progress in Energy 1, July 2019, 14 pages

CLASS 5: Natural Gas – The Changing Global Order

The shale gas revolution in the United States triggered the most profound shift in global energy and energy geopolitics in recent years. The techniques that unlocked vast quantities of shale gas were then applied to tight oil formations leading to a similar expansion of oil production. We will evaluate the ongoing impact of the shale gas revolution and the growing role of liquefied natural gas (LNG) on global natural gas markets. We will also examine the global prospects for shale gas and tight oil.

REQUIRED READINGS (approx. 90 pages)

- "The New International Political Economy of Natural Gas," Tim Boersma and Akos Losz, in *Handbook of the International Political Economy of Energy and Natural Resources* (2018), eds. Goldthau, Keating & Kuzemko, pp. 138-149
- *IEA Gas 2019: Analysis and Forecasts to 2024,* Executive Summary (3 pages) and Trade, pp. 113-142
- "A Changing Global Gas Order 3.0," Akos Losz, et.al., Columbia Center on Global Energy Policy, April 2019, 14 pages
- "Resilient Qatar's Natural Gas Development Policy and Energy Situation Under Its Crisis," Makoto Nakamura, Institute of Energy Economics of Japan, May 2019, 4 pages
- "The Problem of Plenty," Chapter 1 (pp. 1-24), in *The Geopolitics of Gas: Common Problems, Disparate Strategies,* Shebonti Ray Dadwal, 2017, 24 pages
- "Outlook for Competitive LNG Supply," Claudio Steuer, Petroleum Review, July 2019, pp. 21-23
- "Understanding a New Study on Oil and Gas Methane Emissions," Raimi and Aldana, RFF Blog, June 25, 2018, 7 pages
- "Argentina Seeks to Replicate Success of U.S. Shale Boom," Benedict Mander, Financial Times, August 6, 2019

ADDITIONAL READING

• "The New Dimensions of Geopolitics" by IFRI/CEIP for the International Gas Union 2015, 31 pages

CLASS 6: Nuclear Power and Electricity

Are the risks associated with nuclear power offset by nuclear's contributions to meeting growing electricity demand and addressing climate change? We will review the outlook for nuclear power globally and the possible impact of a reduction in the number of suppliers of nuclear technology. Then we will turn to the increasing importance of electricity in energy security and discuss the cyber threat.

REQUIRED READINGS (approx. 80 pages)

- *IEA World Energy Outlook 2018,* Part B: Special Focus on Electricity, Read the 2 page summaries for Chapters 7-10, 8 pages
- "The Geopolitics of Electricity," Banks and Ebinger, Brookings, 2010, 2 pages
- "International Political Economy of Nuclear Energy," Elina Brutschin & Jessica Jewell, in Handbook of the International Political Economy of Energy and Natural Resources (2018), eds. Goldthau, Keating & Kuzemko, pp. 322-336
- "U.S. Nuclear Power Leadership and the Chinese and Russian Challenge," Robert Ichord, Atlantic Council Global Energy Center, March 2018, 10 pages

- "Will the West Let Russia Dominate the Nuclear Market?" Nick Gallucci and Michael Shellenberger, Foreign Affairs, Aug. 3, 2017, 4 pages
- Nuclear Power in a Clean Energy System, IEA Report, May 2019, Executive Summary 3 pages
- "Electricity as Coercion: Is There a Risk of Strategic Denial of Service?" Joshua Busby et al, Council on Foreign Relations Guest Blog, Aug. 20, 2019, 5 pages
- "Water Disputes in the Mekong Basin," European Parliamentary Research Service, April 2018, 2 pages
- "Water Wars on the Nile," Daniel Benaim and Michael Wahid Hanna, Foreign Affairs, Aug. 9, 2018, 3 pages
- "The Renaissance Dam Crisis," Shaul Shay, Herzliya Conference Papers, April 2018, 10 pages
- "Energy Governance and China's Bid for Global Grid Integration," Philip Cornell, Atlantic Council, May 30, 2019, 6 pages
- "A Cyberattack on the U.S. Power Grid," Robert Knake, Council on Foreign Relations, April 3, 2017, 10 pages
- *Cybersecurity White Paper*, Appendix B: Cybersecurity Threats and Vulnerabilities; Cyril Draffin, Jr., MIT Energy Initiative Utility of the Future, December 15, 2016, pp. 28-33

CLASS 7: The Energy Transition and Renewables – The End of Energy Geopolitics or a New Phase?

This class will look at the geopolitics of the energy transition, including resource issues related to renewable energy and other low-carbon technologies. Does the growth of renewables mitigate the significance of energy geopolitics?

REQUIRED READINGS (approx. 115 pages)

- A New World: The Geopolitics of the Energy Transformation, Part 2: Redrawing the Geopolitical Map; IRENA, 2019, pp. 26-60
- "Geopolitics of the Renewable Energy Game and its Potential Impact Upon Global Power Relations," David Criekemans, Chap. 2 in *The Geopolitics of Renewables*, ed. Daniel Scholten, 2018, pp. 37-70
- "The Geopolitics of Renewable Energy: Debunking Four Myths," Indra Overland, Energy Research & Social Science 49 (2019), pp. 36-40
- "How the Energy Transition Will Reshape Geopolitics," Andreas Goldthau et al., Nature, May 2, 2019, pp. 29-31
- "Whatever Happened to the Rare Earths Weapon?" Jeffrey Wilson, in Asian Security, Nov. 27, 2017, 14 pages

• "Explainer: These six metals are key to a low-carbon future," Jocelyn Timperley, Carbon Brief, April 12, 2018, 20 pages

ADDITIONAL READING

- "The Geopolitics of Renewable Energy" Working Paper, O'Sullivan, Overland, Sandalow; Columbia/SIPA, Harvard/Belfer Center, Norwegian Institute of International Affairs; June 2017, pp. 11-32 and 40-49
- "Rare Earth Elements and National Security," Eugene Gholz, Council on Foreign Relations, October 2014, 16 pages

CLASS 8: The Big Emerging Consumers – China and India

China and India are expected to be the main drivers of energy demand in coming years. Their strategies to ensure access to resources and choices of energy supplies and suppliers could be the principal shapers of energy geopolitics.

REQUIRED READINGS (approx. 120 pages)

- "China's Grand Strategy and Energy: Markets, Infrastructure and Global Ambitions" Andrew Pickford, Perth USAsia Centre, May 2017, 16 pages
- "The Role of Energy in Disputes over the South China Sea" by Mikkal Herberg, Maritime Awareness Project, June 28, 2016, 6 pages
- "Energy Rivalry in Southeast Asian Region," Robert Johnston, World Energy #43, June 2019, pp. 51-55
- "China's Maritime Silk Road and Energy Geopolitics in the Indian Ocean: Motivations and Implications for the Region," Christopher Len, The National Bureau of Asian Research, NBR Special Report #68, Nov. 2017, pp. 41-53
- "Markets or Mercantilism? How China Secures its Energy Supplies," Lind and Press, International Security, Vol. 42, No. 4 (Spring 2018), pp. 170-204
- "U.S.-China: The Great Decoupling," Michal Meidan, Oxford Institute for Energy Studies, 10 pages
- "Green Giant: Renewable Energy and Chinese Power," Amy Myers Jaffe, Foreign Affairs, March/April 2018, pp. 83-93
- "Materials, Markets, Multilateralism: A Strategic Approach to India's Resource Challenges" by David Steven and Arunahha Ghush, Chapter 3 in *The New Politics of Strategic Resources (2015)*, David Steven et al, eds., pp. 40-60
- "Indian Energy Security Status: What are the Economic and Environmental Implications?" Nathaniel Babajide, IAEE Energy Forum, 2018, 5 pages

• "When Black Meets Green: A review of the four pillars of India's energy policy," Maciej Sokolowski, Energy Policy 130 (2019), pp. 60-68

ADDITIONAL READINGS

- "China's Search for Oil Security: A Critique," by Andrew Kennedy, Chapter 2 (pp. 23-36) in *The New Politics of Strategic Resources (2015)*, David Steven, Emily O'Brien and Bruce Jones eds., 13 pages
- "The Geopolitics of Energy Cooperation in China's Belt and Road Initiative," Kaho Yu, The National Bureau of Asian Research, NBR Special Report #68, Nov. 2017, pp. 29-39
- "The Black Hole of Coal," in the Economist, August 4, 2018, pp. 18-20
- "Why Energy Will Determine India's Future," Stratfor, April 8, 2016, 6 pages

CLASS 9: Climate Change and Geoengineering

What are the geopolitics involved in curbing emissions to address climate change? We will look at the road ahead in international climate negotiations. What might be the impacts of climate change on energy systems and energy security? What are the potential geopolitical implications of seeking to modify the climate to cool the earth? We will examine the debate about geoengineering.

REQUIRED READINGS (approx. 90 pages)

- "Warming World: Why Climate Change Matters More Than Anything Else," Joshua Busby, Foreign Affairs, July/August 2018, 7 pages
- "The Two Degree Delusion: The Dangers of an Unrealistic Climate Change Target," Ted Nordhaus, Foreign Affairs, February 8, 2018, 4 pages
- "National Security and the Accelerating Risks of Climate Change," Center for Naval Analysis, May 2014, Executive Summary, 5 pages
- "The Significance of the US Withdrawal from the Paris Agreement on Climate Change," David Robinson, Oxford Institute for Energy Studies, June 2017, 12 pages
- "The Geopolitics of the Paris Talks," Nick Mabey, Foreign Affairs, Dec. 13, 2015, 8 pages
- "Climate Impacts on Energy Systems: Key Issues for Energy Sector Adaptation," World Bank, 2011, Executive Summary, pp. xv-xxxiii, 19 pages
- "Geoengineering: The Next Era of Geopolitics?" Simon Dalby, Geography Compass, Sept. 4, 2015, pp. 190-201
- "Governance of the Deployment of Solar Geoengineering," Harvard Project on Climate Agreements, February 2019, Compilation of Key Points pp. 5-16
- "One Way Geoengineering Might Get Started," Oliver Morton, Slate, Jan. 28, 2016, 10 pages

ADDITIONAL READINGS

- "Undiplomatic Action: A Practical Guide to the New Politics and Geopolitics of Climate Change," David Victor & Bruce Jones, Brookings, Feb. 2018, 19 pages
- "Carnegie Climate Geoengineering Governance Initiative," Carnegie Council for Ethics in International Affairs, March 2018, 17 pages

CLASS 10: The Arctic plus Latin America

The Arctic is emerging as a new frontier in energy geopolitics. We will analyze how the various actors involved view Arctic energy issues and governance challenges. We will also review efforts in Latin America to capitalize on its abundant energy potential. We will discuss the emerging energy producers there and the implications for global markets and geopolitics.

REQUIRED READINGS (approx. xxx pages)

- "Energy Development in the Arctic: Resource Colonialism Revisted," Daria Gritsenko, in Handbook of the International Political Economy of Energy and Natural Resources (2018), eds. Goldthau, Keating & Kuzemko, pp. 172-181
- "The New Geopolitics of the Arctic: Russia, China and the EU," Andreas Osthagen, Martens Centre Policy Brief, April 2019
- "China's Arctic Plan Spreads a Chill," Humphrey Hawksley, Nikkei Asian Review, February 16, 2018, 5 pages
- "The Waning of Petrocaribe? Central America and Caribbean Energy in Transition," Goldwyn and Gill, Atlantic Council, May 2016, pp. 3-8
- "The Collapse of the Venezuelan Oil Industry and Its Global Consequences," Francisco Monaldi, Atlantic Council, March 2018, 8 pages
- Mexico Energy Reform: World Energy Outlook Special Report, IEA, 2016; Executive Summary, 4 pages (also worth reading Chapter 3)
- "Between Global Aspirations and Domestic Imperatives: The Case of Brazil," Flavio Lira, in *Handbook of the International Political Economy of Energy and Natural Resources* (2018), eds. Goldthau, Keating & Kuzemko, pp. 354-366
- "The Country That Wasn't Ready to Win the Lottery: Guyana Just Discovered it Owns Enough Oil to Solve all its Problems – and Cause Even Bigger Ones," Micah Maidenberg and Manuela Andreoni, Foreign Policy, June 19, 2018, 10 pages

CLASS 11: Energy as a Weapon, Energy for Peace

We will review efforts to use energy as a political tool and whether energy can be an incentive for peace. We will focus on Russia's use of energy for geopolitical ends and the potential for natural gas discoveries in the Eastern Mediterranean to contribute to the resolution of deeprooted political conflicts.

REQUIRED READINGS (approx. 110 pages)

- "Russia's Use of the 'Energy Weapon' in Europe," Gabriel Collins, Baker Institute for Public Policy, July 18, 2017, 7 pages
- "The Case Against Nord Stream 2," Dimitar Lilkov and Roland Freudenstein, Martens Center, April 2018, 15 pages
- "Who's Afraid of Russian Gas? Nikos Tsafos, CSIS, May 2018, 6 pages
- "Russia's National Oil Champion Goes Global," Edward Chow & Andrew Stanley, CSIS, February 2018, 7 pages
- "Russia's Energy Relations with China: Passing the Strategic Threshold?" Tom Roseth, Eurasian Geography and Economics 58:1 (2017), pp. 23-55
- "The Geopolitics of Eastern Mediterranean Energy," Simone Tagliapietra, in *The Arc of Crisis in the MENA Region (2018),* Mezran and Vavelli, eds, pp. 173-184
- "The Eastern Mediterranean's New Great Game Over Natural Gas," Stratfor, February 22, 2018, 10 pages
- "Can New Energy Supplies Bring Peace?" Brenda Shaffer, Policy Brief, German Marshall Fund of the United States, March 2014, 6 pages

CLASS 12: Energy Access in Africa (plus tbd)

The resource curse has been a significant problem in some of the major hydrocarbon producers in Africa. We will review progress on addressing energy poverty there and how Africa can capitalize on its energy resources.

REQUIRED READINGS (approx. 85 pages + IEA chapter)

- IEA 2019 World Energy Outlook Chapter on Africa to be provided
- "The Resource Curse," National Resource Governance Institute, March 2015, 6 pages
- "Scaling Power for Global Prosperity," Herrling and Moss, Stanford Social Innovation Review, Spring 2019, 5 pages
- "Power to the Poor," Morgan Bazilian, Foreign Affairs, March/April 2015, pp. 133-139
- "The Big Squeeze: Nigeria on the Brink," Mark Weston, Chapter 5 in *The New Politics of Strategic Resources*, David Steven, et al eds., 2015, pp. 89-108
- "Can Nigeria Solve its Energy Crisis?" Moss and Devermont, Foreign Affairs, September 25, 2018, 4 pages

CLASS 13: Group Project Presentations