

WINTER 2017 – University of British Columbia / MEL

## **CEEN 525 Energy Policy**

Course Syllabus – January 4, 2017 version

2016-17 Term 2, Tuesdays 2:30-5:30

C.K. Choi Building 120

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Office Hours: Tuesday 10:30-11:30, Wednesday 2-3

Course website: <http://ceen590a-forestry.sites.olt.ubc.ca/>

The course will address the energy policy process and governance, focusing on the opportunities for and constraints on the clean energy transition. Geographically the most focus will be on Canada, but there will also be a substantial amount of material from other jurisdictions.

Topics include:

- Opportunities and challenges for deep decarbonization
- Sustainable energy as a social and political challenge
- Policy analysis in a political context
- Policy instruments in energy policy
- Formal government structures and process
- Actors in the policy process (government and interest groups): interests, resources, strategies
- Energy planning and approval processes, and the challenge of social license
- The special challenge of addressing energy poverty
- International trade agreements as constraints to clean energy policy
- The implications of the Trump presidency for decarbonization

The major assignment for the course is writing a [policy brief](#) to the senior government official responsible for energy policy of a country (or state/province) on policies to achieve decarbonization of a major component of the energy system by 2050. Assessment will be based on four components:

- 3 mini-briefs (10% each for 30% total) – described below
- class participation (15%)
- class presentation (5%)
- policy brief (50%) – described below

Late assignments: There will be a penalty of 4% per calendar day for late papers.

Class participation will be assessed on the basis of quantity and, especially, quality of participation. Attendance is expected, and absences will affect the participation grade. Students are expected to do the assigned readings before coming into class, and be prepared to discuss them in a critical fashion.

**Students who are less comfortable speaking in class should see the professor about ways how to create more comfort or explore alternatives modes of participation.** All students are also expected to contribute to a 5 minute in-class presentation once during the term on one of the three mini-briefs.

**Schedule of Topics and Readings: subject to revision with notice. Check website for up to date readings.**

**January 10: Course overview: overview of the energy system from a policy perspective; roadmap for the course, introduction to case**

Deep Decarbonization Pathways Project, *Pathways to Deep Decarbonization – Executive Summary 2015 Report*. (SSDN and IDDRI).

**January 17: Sustainable Energy as a Social and Political Challenge**

David G. Victor, *Global Warming Gridlock*, (Cambridge: Cambridge University Press, 2011), Chapter 2, "Why global warming is such a hard problem to solve." (on-line UBC Library <http://site.ebrary.com/lib/ubc/docDetail.action?docID=10460494>)

Dan Kahan, et al, "The polarizing impact of science literacy and numeracy on perceived climate change risks," *Nature Climate Change* 2 (October 2012), 732-5.

Gregory C. Unruh, "Understanding carbon lock-in," *Energy Policy* 28 (2000) 817-830.

*Further information*

Delucchi, M.A. and Jacobson, M.Z., "Providing all global energy with wind, water, and solar power, Part II: Reliability, system and transportation costs, and policies," *Energy Policy* 39 (2011) 1170–119.

Chris Mooney, "The Science of Why We Don't Believe Science," *Mother Jones*, May/June 2011, <http://motherjones.com/politics/2011/03/denial-science-chris-mooney>

**January 24: The Policy Analysis Framework**

Carl Patton and David Sawicki, *Basic Methods of Policy Analysis and Planning*, (Englewood Cliffs, NJ: Prentice Hall, 1993), 2nd Edition, selected pages.

4 tutorials on policy analysis provided by the professor Tutorial text <http://frst523.forestry.ubc.ca/simulation/tutorials-text/> or Tutorial videos <http://frst523.forestry.ubc.ca/simulation/tutorials-video/>

Case study TBA

*Further information*

Eugene Bardach, *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, 4th Edition (CQ Press, 2011). Intro and Part 1 only.

David Weimer and Aidan Vining, *Policy Analysis: Concepts and Practice*, 4th ed. (Upper Saddle River, NJ: Pearson-Prentice-Hall, 2005).

**Mini-brief 1: Define your policy problem. Specify 3-4 criteria and 3-4 alternatives (begin in class January 24, due January 31 by noon).**

**January 31: Policy Instruments – the range of policy instruments relevant to energy and how they compare on a variety of criteria**

Mark Jaccard, *Sustainable Fossil Fuels*, (Cambridge University Press, 2005) pp. 270-290 (on-line through UBC library).

Ecofiscal Commission, [Choose Wisely: Options and Trade-offs in Recycling Carbon Pricing Revenues](#), April 2016.

Mark Jaccard, Mikela Hein and Tiffany Vass, "[Is Win-Win Possible? Can Canada's Government Achieve Its Paris Commitment . . . and Get Re-Elected?](#)" School of Resource and Environmental Management, Simon Fraser University, September 20, 2016 (focus especially on pp. 1-9)

*Further information:*

William Nordhaus, *The Climate Casino: Risk, Uncertainty, and Economics for a Warming World*, (New Haven: Yale University Press, 2013), Chapters 19, 20, 22.

Robert Stavins, "Addressing Climate Change with a Comprehensive U.S. Cap-and-Trade System," *The Oxford Review of Economic Policy* 24 (2) (2008): 298-321

Jaccard, M., L. Agbenmabiese, C. Azar, A. de Oliveira, C. Fischer, B. Fisher, A. Hughes, M. Ohadi, Y. Kenji and X. Zhang, 2012: [Chapter 22](#) - Policies for Energy System Transformations: Objectives and Instruments. In *Global Energy Assessment - Toward a Sustainable Future*, Cambridge University Press, Cambridge, UK and New York, NY, USA and the International Institute for Applied Systems Analysis, Laxenburg, Austria, pp. 1549-1602.

**February 7: Formal Government Processes – division of powers, parliamentary government, the legislative process, the regulatory process**

George Hoberg, "[Forces at Work in Natural Resource Policy](#) – A Hoberg Course Brief," February 6, 2015.

Legislative Assembly of Alberta, [Bill 25 Oil Sands Emissions Limit Act](#).

Nigel Bankes, "[Oil Sands Emission Limit Legislation](#): A Real Commitment or Kicking It Down the Road?" (3 November, 2016), on-line: ABlawg.

George Hoberg, "[Formal Government Processes](#) for Policy Production in Canada – A Hoberg Course Brief," Greenpolicyprof, September 21, 2015.

Nathalie Chalifour, "[The feds have every legal right to set a carbon price](#)," *iPolitics* October 4, 2016.

George Hoberg, "[What is the Role of First Nations in Decision-Making on Crown Government Resource Development Projects?](#) – A Hoberg Course Brief," January 19, 2015.

*Further information*

Monica Gattinger, "A National Energy Strategy for Canada: Golden Age or Golden Cage of Energy Federalism?" Forthcoming in Loleen Berdahl and André Juneau, eds., *Canada: The State of the Federation 2012-13*

Normal Ruff, "Executive Dominance: Cabinet and the Office of the Premier in British Columbia," in *British Columbia Politics and Government*, Micheal Howlett, Dennis Pilon, and Tracy Sommerville, eds, (Toronto: Edmond Montgomery, 2010).

Monica Gattinger, "Canada-United States Energy Relations: Making a MESS of Energy Policy," *American Review of Canadian Studies* 42 4 (2012), 460-73 (on line through UBC Library)

**Mini-brief 2: Your minister has been asked to give a presentation to the International Energy Agency, which has just decided to conduct a review of your country's energy system and policies. You are tasked with providing an overview of your system of government according to the following template (due February 7 in class)**

**February 14: Actor Dynamics – actors in the policy process (government and interest groups): interests, resources, strategies**

Rachel Thompson, "[Stakeholder Analysis](#): Winning Support for Your Projects," Mindtools

George Hoberg, "The Battle Over Oil Sands Access to Tidewater: A Political Risk Analysis of Pipeline Alternatives." *Canadian Public Policy* Volume 39, No. 3, pp. 371-391.

Paul Burnstein, "The impact of public opinion on public policy: A review and an agenda," *Political Research Quarterly* (2003) 56: 29-40.

*Further information*

Stefan Olander, "Stakeholder impact analysis in construction project management," *Construction Management and Economics* (March 2007) 25, 277–287

George Hoberg and Jeffrey Phillips, "Playing Defence: Early Responses to Conflict Expansion in the Oil Sands Policy Subsystem," *Canadian Journal of Political Science* 44 (2011): pp 507-527.

**February 21: Midterm Break**

**February 28: Energy Planning and Approval Strategies, and the Challenge of Social License**

Mark Jaccard, Noel Melton, and John Nyboer, "Institutions and Process for scaling up renewables: Run-of-river hydropower in British Columbia," *Energy Policy* 39 (2011): 4042-4050. (available through UBC library on line)

Michael Cleland et al, [A Matter of Trust: The Role of Communities in Energy Decision-Making](#), University of Ottawa and Canada West Foundation, November 2016.

Suggested:

Penny Becklumb and Tim Williams, Canada's New Federal Environmental Assessment Process, Publication no. 2012-36-E. Parliamentary Information and Research Service, Library of Parliament, 28 August 2012 <http://www.parl.gc.ca/Content/LOP/ResearchPublications/2012-36-e.pdf>

Meinhard Doelle, "CEAA 2012: The End Of Federal EA As We Know It?" *Environmental Law and Practice* [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2104336](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2104336)

Kevin Hanna, "Environmental Impact Assessment: Process, Setting, and Efficacy," In Kevin Hanna, ed., *Environmental Impact Assessment: Practice and Participation*, (Don Mills, ON: Oxford University Press, 2009).

### **March 7: Energy Poverty – The Challenge and Case Studies**

Antoine Halff, Benjamin K. Sovacool, and Jon Rozhon, [Energy Poverty](#): Global Challenges and Local Solutions, Oxford Scholarship Online, Introduction and Chapter 1, and pick one of Chapters 10-14.

**Mini-brief 3: Your minister has been asked to give a presentation to the International Energy Agency, which has just decided to conduct a review of your country's energy system and policies. You are tasked with providing an overview of existing energy policy in your jurisdiction as it relates to decarbonization.(due March 7 at noon).**

### **March 14: Trump, California, and Energy Policy in the United States**

Read one of the following:

Ryan Lizza, "The President and the Pipeline," *The New Yorker*, September 16, 2013 (on Keystone XL)

Ryan Lizza, "As The World Burns," *The New Yorker*, October 11, 2010 (on the Senate failure to adopt cap and trade legislation)

**Other readings TBA**

### **March 21: Case Study in Policy Innovation: Germany's Energiewende**

E Schmid, A Pechan, B Knopf, "Putting an energy system transformation into practice: The case of the German Energiewende", *Energy Research & Social Science* 11 (2016): 263–275 [DOI:10.1016/j.erss.2015.11.002](https://doi.org/10.1016/j.erss.2015.11.002) open access post-print [PDF](#)

Erik Laes, Leon Gorissen, and Frank Nevens, "A Comparison of Energy Transition Governance in Germany, The Netherlands and the United Kingdom," *Sustainability* 2014, 6, 1129-1152.

Denny Ellerman, Claudio Marcantonini and Aleksandar Zaklan, "The European Union Emissions Trading System: Ten Years and Counting," *Rev Environ Econ Policy* (Winter 2016)10 (1): 89-107. doi:10.1093/reep/rev014

### **March 28 – International Trade and Clean Energy Policies**

Joanna I. Lewis, "The Rise of Renewable Energy Protectionism: Emerging Trade Conflicts and Implications for Low Carbon Development," *Global Environmental Politics* 14:4, November 2014, doi:10.1162/GLEP\_a\_00255

Joel P. Trachtman, "[WTO Law Constraints on Border Tax Adjustment](#) and Tax Credit Mechanisms to Reduce the Competitive Effects of Carbon Taxes," Resources for the Future Discussion Paper, RFF DP 16-03, January 2016.

### **April 4: Transitions, Synthesis, Reflections**

Ezra Markowitz and Azim Shariff, "Climate Change and Moral Judgement," *Nature Climate Change* vol 2 (April 2012)

Vaclav Smil, "A Global Transition to Renewable Energy Will Take Many Decades," *Scientific American* January 1, 2014. <https://www.scientificamerican.com/article/a-global-transition-to-renewable-energy-will-take-many-decades/>

Benjamin K. Sovacool, "How long will it take? Conceptualizing the temporal dynamics of energy transitions," *Energy Research and Social Sciences* <http://dx.doi.org/10.1016/j.erss.2015.12.020>

## Description of Assignments

### **Mini-brief 1: Define your policy problem. Specify 3-4 criteria and 3-4 alternatives (begin in class January 24, due January 31 by noon).**

Using the Bardach reading and discussion in class, provide a 2-3 paragraph overview of your policy problem with the problem stated in one synthetic sentence. In addition, specify 3-4 criteria and suggest possible indicators to gauge the performance of alternatives against on the criteria. Specify 3-4 specific alternatives that either were considered or should plausibly have been considered in your case. Do not exceed 800 words. We will workshop these in class, with the paper due several days later, but please come into class with a draft one-sentence problem statement.

### **Mini-brief 2: Your minister has been asked to give a presentation to the International Energy Agency, which has just decided to conduct a review of your country's energy system and policies. You are tasked with providing an overview of your system of government according to the following template (due February 7 in class)**

In 500-1000 words, explain how the formal machinery of government in your jurisdiction works, and include several other contextual indicators. In particular, address each of the following in some way:

1. Is your jurisdiction generally considered to be democratic or authoritarian? You might find [this](#) data set useful.
2. What electoral system does your jurisdiction use?
3. Is the legislative-executive system presidential or parliamentary?
4. What party or parties have been in government (i.e., held executive authority) over the past decade?
5. Is the system unitary or federal? If federal, give an 2 examples of how the division of authority between national and subnational governments influences energy policy.
6. Where does your jurisdiction stand on widely cited indices of [corruption](#) and [ease of doing business](#)?
7. Where does your jurisdiction rank in [UN Human Development Index](#)?

Notes (1) if your jurisdiction is subnational, use the national framework for this paper, (2) if your jurisdiction is an international organization, we will need to agree on an alternative classification of the governance structure.

### **Mini-brief 3: Your minister has been asked to give a presentation to the International Energy Agency, which has just decided to conduct a review of your country's energy system and policies. You are tasked with providing an overview of existing energy policy in your jurisdiction as it relates to decarbonization (due March 7 at noon).**

In 600-800 words, address the following three issues:

1. Does your government have a formal energy policy? If so, briefly describe its most important components.
2. Describe the most important objectives of your jurisdiction's INDC or NDC under the U.N. Framework Convention on Climate Change (UNFCCC)
3. What laws are most relevant to the decarbonization agenda in your jurisdiction?

**Policy Brief: Write a policy brief to the senior government official responsible for energy policy of a significant jurisdiction on policies to achieve decarbonization of a major component of the energy system (e.g., electricity generation, passenger transportation, buildings, etc) by 2050 (or earlier). Due**

April 14 by noon. You must get the instructor's approval of the topic. You are strongly encouraged to get this approval before submitting your January 31 mini-brief, but for certain approval will be required once you get feedback on that assignment. The brief must apply the 6-step policy analysis framework developed in the course. Length should be between 6000 and 7000 words excluding references (no longer). You are encouraged to incorporate all or parts of your mini-briefs in this final brief. Further details will be provided in due course.

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## **General UBC Course Rules**

### **Academic Integrity**

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0>.

### **Access & Diversity**

Access & Diversity works with the university to create an inclusive living and learning environment in which all students can thrive. The university accommodates students with disabilities who have registered with the Access & Diversity unit: [ <http://www.students.ubc.ca/access/drc.cfm> ]. Students must register with the Disability Resource Centre to be granted special accommodations for any on-going conditions.

### **Religious Accommodation**

The university accommodates students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations. Students should let their instructor know in advance, preferably in the first week of class, if they will require any accommodation on these grounds. Students who plan to be absent for varsity athletics, family obligations, or other similar commitments, cannot assume they will be accommodated, and should discuss their commitments with the instructor before the course drop date. UBC policy on Religious Holidays: <http://www.universitycounsel.ubc.ca/policies/policy65.pdf>