Energy-driven geopolitical considerations are
• a pronounced, common feature of many countries’ national security policies.
The topic of this class (energy geopolitics) is unique to the global security framework of the 21st century.
The class is a big-picture, research-driven look at the field of energy geopolitics.
1950s: US President Eisenhower’s “atoms for peace” program; above ground nuclear testing; proliferation of nuclear weapons
"...the United States pledges before you -- and therefore before the world -- its determination to help solve the fearful atomic dilemma, to devote its entire heart and mind to find the way by which the miraculous inventiveness of man shall not be dedicated to his death, but consecrated to his life."

Dwight D. Eisenhower
President of the United States
Addressing the General Assembly of the United Nations, December 8, 1953
1960s: nuclear test-ban treaty & nuclear non-proliferation treaty

1970s: Western industrialized world awakened to oil vulnerability [energy insecurity] by Arab oil embargo; environmental issues (acid rain)
The pH Scale

Acidic
pH 0 = Battery Acid
pH 2 = Lemon Juice
pH 2.5 = Soda
pH 4.3 = Acid Rain
pH 5.6 = Clean Rain
pH 7 = Distilled Water

Neutral
pH 7.4 = Blood
pH 8.1 = Sea Water
pH 9 = Baking Soda

Alkaline
pH 11 = Ammonia
pH 12.6 = Bleach
pH 14 = Liquid Drain Cleaner
1980s: collapse of Soviet Union and its control over Central and Eastern Europe; cessation of favorable Soviet energy pricing to Warsaw Pact allies (in return for political subservience)

1990s: emergence of the European Union, US Clean Air Act (mainly to curtail acid rain)
2000s: energy hostilities between Ukraine and the Russian Federation (over price mechanisms and strategic concessions)
2010s: European Union’s geopolitical battle over Russian gas dependence; support of construction of new infrastructure to diversify markets and reverse gas flows; Energy Union; Arab Spring (as OPEC producers feared losing control over own civil societies).
So, **Geopolitics of Energy** examines the intersection between

- international **security**
- **politics**
- **energy**.
Geopolitics of Energy implies a twin recognition

- **energy** has long been a major determinant of **power** in the international system
- shifts in global energy patterns bring with them changes in international politics.
We explore how

- countries shape their **grand strategies** to meet their **energy** needs
- such actions have implications for other **countries** and **global politics**.
Pressing contemporary issues relate to

- **peak oil**
  - oil’s leverage derived from virtual monopoly as transportation fuel

- **political** reform and energy

- **pipeline** politics

- aggressive pursuit of oil and gas worldwide.
The example of Iran:

- derives influence by its threat to shut-down the **Persian Gulf** transit spigot (through which 20% of the world’s oil passes daily)
- funds its nuclear ambitions with **Chinese** and **Indian** dollars
- this is how it builds its geopolitical influence.
The example of the **Arctic**:

- historically apolitical region, resource reserves now politicize the polar tundra

- Arctic resources traditionally handled by littoral states

- **China** wants to get into the act by building infrastructure to allow navigation in a region where it has no sovereign presence.
“China is an important stakeholder in Arctic affairs. Geographically, China is a ‘Near-Arctic State’, one of the continental States that are closest to the Arctic Circle ... The natural conditions of the Arctic and their changes have a direct impact on China’s climate system and ecological environment, and, in turn, on its economic interests in agriculture, forestry, fishery, marine industry and other sectors.”
### YAMAL LNG

<table>
<thead>
<tr>
<th>Transportation costs to Asia(^{(2)})</th>
<th>Navigation via NSR 5 months</th>
<th>Navigation via NSR 9 months</th>
<th>Navigation via NSR 12 months (Kamchatka)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$/mmBtu</td>
<td>Costs</td>
<td>Costs</td>
<td>Costs</td>
</tr>
<tr>
<td>Western route via transshipment</td>
<td>2.49</td>
<td>2.49</td>
<td>NA</td>
</tr>
<tr>
<td>Eastern route via NSR</td>
<td>1.84</td>
<td>1.84</td>
<td>1.65</td>
</tr>
<tr>
<td><strong>Average costs to Asia</strong></td>
<td><strong>2.22</strong></td>
<td><strong>2.00</strong></td>
<td><strong>1.65</strong></td>
</tr>
<tr>
<td><strong>Average costs across the portfolio including sales to France and Spain</strong></td>
<td><strong>1.40</strong></td>
<td><strong>1.32</strong></td>
<td><strong>NA</strong></td>
</tr>
</tbody>
</table>

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\(^{(1)}\) Including costs for passage through the Suez Canal
\(^{(2)}\) NOVATEK
We could also look at

- new **technologies** and innovations such as those
  - making the extraction of **shale** gas economical
  - assisting in the growth of **renewables** such as solar power
- how they are changing patterns of **trade** and could shape new **alliances**.
The unconventional oil/gas findings in the US:

- have enhanced its energy security
- have provided Europe with access to LNG as an alternative to Russian gas
- show how a technologically driven revolution may have global geopolitical implications.
Finally, Geopolitics of Energy

- considers the consequences of a successful shift away from petroleum based economies
- anticipates how a new energy order will alter global politics in fundamental ways.
Geopolitical twist on Carl von Clausewitz’s quote:

- energy is the continuation of politics by other means (especially in the energy-politics nexus of this first part of the 21st century).
Platias
- big-picture guy
- grand strategy
- qualitative approach

Paravantis
- details guy
- specific research topics
- quantitative approach
Sources
