European Energy Security Challenges
The Transatlantic Dimension

Laurentiu Pachiu
Energy Policy Group

Hudson Institute
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Despite Climate Change Policies, Oil & Gas will still have an important role in the short & medium term

European energy security – main challenges:

➢ **Classical security threats**: terrorism, WMD, regional conflicts, state failure, organized crime, climate change, cybersecurity (European Security Strategy 2003, 2008)

➢ **Internal dimension**: different energy mixes, import profiles, geography, foreign policies, building internal energy market (European Energy Union), different speeds in integration, hydrocarbon depletion, no “shale revolution”

➢ **External dimension**: dependence on a single NG supplier, different degrees (sensitivity and vulnerability) of energy interdependence, deterioration of geopolitical context, climate change policies and competitiveness
European energy import dependency

Source: Chyong and Tcherneva, European Council on Foreign Relations, 2015
European energy import dependency

**Supplier countries: % of total EU crude oil imports, 2013**

- Others: 9.0%
- Kazakhstan: 5.8%
- Nigeria: 8.1%
- Norway: 11.7%
- Russian Federation: 33.5%
- Other OPEC: 23.3%
- Saudi Arabia: 8.6%


**Supplier countries: % of total EU natural gas imports, 2013**

- Others: 8%
- Algeria: 13%
- Libya: 2%
- Nigeria: 2%
- Russian Federation: 39%
- Norway: 29%
- Qatar: 7%

European energy import dependency

- continued -

Supplier countries: % of total EU uranium imports

Source: World Nuclear Association 2015a

Supplier countries: % of Total EU solid fuels imports (mainly Coal), 2013

Source: Eurostat, 'Energy production and imports', 2015
European Security challenges

➢ Regional conflicts: Ukraine, Crimea, Syria
➢ Hybrid warfare/militarization
➢ Frozen conflicts: MD, GE, AZ
➢ EU centrifugal trends
➢ Migration
➢ Terrorism
➢ Nationalism/Populism
➢ Russian raising assertiveness

US military presence in CEE cannot alone compensate energy security challenges
Diversification of energy sources, suppliers and routes

Where from, where through?
“Give me a lever and a place to stand and I will move the earth.” Archimedes
Apparently plenty of suppliers, but supply route challenges
Probably just one route: Turkey (not EU, not Energy Community)
Does the EU have an energy strategy?
The soft law approach vs geopolitics

- Energy Charter Treaty, 1994
- Energy Community, 2005
- Lisbon Treaty, 2009
- Third Energy Package, 2009
- Regulation 994/2010 on security of gas supplies, 2010
- 2030 Climate and Energy Framework, 2014
Does the EU have a strategy?
The soft law approach

➢ European Energy Security Strategy, 2014

✓ Integration of EU gas and electricity markets-LNG, storage, interconnectors
✓ External energy diplomacy and one voice external energy policy
✓ Strengthening emergency and solidarity mechanisms
✓ Moderating energy demand
✓ Increase EU energy production
✓ Develop energy technologies
✓ DIVERSIFICATION OF IMPORT SUPPLY ROUTES

➢ European Energy Union 2014

✓ energy supply security, solidarity and trust
✓ internal energy market
✓ energy efficiency
✓ decarbonisation
✓ research&innovation
✓ DIVERSIFICATION OF EXTERNAL NATURAL GAS SUPPLIES
- **Pro-Russian** – Cyprus, Greece, Hungary, Czech R.
- **Strategic Partners** - Germany, France, Italy, Spain
- **Pragmatic Friendly Cooperation** - Austria, Belgium, Bulgaria, Croatia, Finland, Luxembourg, Malta, Portugal, Slovakia, Slovenia
- **Pragmatic distant ad-hoc cooperation** - Denmark, Estonia, Ireland, Latvia, Netherlands, Sweden, UK
- **Cold war relationship** - Poland, Romania, Lithuania

**Horizontal axis:** % of natural gas in the energy mix - **Vertical axis:** % of Russian natural gas in national natural gas consumption - **Size of the circles:** volume of imported Russian natural gas.
DIFFERENT ENERGY INTERDEPENDENCE LEVELS
RUSSIA-WE vs RUSSIA-CEE/SEE

Russia vs EU - highly complex realist symmetrical interdependence
Russia vs Western Europe - relative symmetrical interdependence, higher vulnerability on Russia
Russia vs CEE/SEE – highly realist asymmetrical interdependence; high vulnerability on CEE/SEE

Different foreign policy groups towards Russia

EU 28 NG imports from Russia 2014 - 37.5%
EU 28 NG general import dependency 2014 - 67.4%
EU 28 NG consumption in energy mix 2014 – 21%
In asymmetrical interdependence: fewer incentives for stronger party to cooperate
Current status/trends

CEE “Gas hub” competition

Slow motion market integration (storage, interconnectors, LNG)

Gazprom-signs of commercial flexibility, but aim is to lock in market share at higher volumes

Diversify NOT away from Russia but from Ukraine
Take the North and South flanks

TOTAL Russian NG exports to EU 2014 – 115 bcm

Transit - 39% through Ukraine, 30% through Nord Stream 1, 29% through Belarus

Nord Stream (I and II)/EUGAL – capacity 55 bcm/yr x 2 = 110 bcm
Turkish Stream (capacity 31.5 bcm)/yr

VS

Ukraine (transit 82 bcm/yr; capacity 151 bcm/yr; 39% of Russian NG export to EU)
SGG-TANAP (capacity 16bcm; 6bcm for Turkey; possible extension 31bcm), TAP (capacity 10bcm)
Gazprom current and proposed pipeline capacity to Europe

Current
- Ukraine
- Yamal Europe 1
- Nord Stream 1&2
- Blue Stream

Proposed
- Ukraine
- Yamal Europe 1
- Nord Stream 3&4
- Black Sea Pipeline*
- Yamal Europe 2

Source: Gazprom, Naftogaz
## Comparison of scenarios for Russian export pipeline expansion to Europe

<table>
<thead>
<tr>
<th>Scenario</th>
<th>No Nord Stream expansion</th>
<th>Nord Stream-3</th>
<th>Nord Stream-3 and 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Turkish Stream</td>
<td>Transit through Ukraine ~ 60 bcma</td>
<td>Transit through Ukraine ~ 30 bcma</td>
<td>No transit through Ukraine if NS is completely utilized, otherwise limited Ukraine transit</td>
</tr>
<tr>
<td>Turkish Stream 1</td>
<td>Transit through Ukraine ~ 45 bcma</td>
<td>Transit through Ukraine ~ 20 bcma</td>
<td>No transit through Ukraine</td>
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<tr>
<td>Turkish Stream 1 and 2</td>
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<td>No transit through Ukraine</td>
</tr>
<tr>
<td>Turkish Stream 1,2,3</td>
<td>Transit through Ukraine ~ 10-15 bcma</td>
<td>No transit through Ukraine</td>
<td>No transit through Ukraine</td>
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<td>Turkish Stream 1,2,3,4</td>
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</tbody>
</table>

Nord Stream (I and II) & Turkish Stream

LEFT OUT OF EU ENERGY REGULATORY REGIME
✓ Concentration of supply routes & sources - pipeline politics
✓ Impact on competition and integrated market
✓ Divide EU gas market - NW Europe vs CEE
✓ Undermine investment in new infrastructure (N-S corridor and LNG)
Transatlantic Energy Security

Valuable and effective precedents

✓ U.S. support for the creation of the European Coal and Steel Community
✓ NATO security umbrella for EU peace of mind
✓ U.S. involvement in the Middle East
✓ U.S. securing choke points and critical energy infrastructure (CEI)
✓ Successful U.S. support for BTC pipeline
✓ EU-US Energy Council

NABUCCO PIPELINE
Transatlantic Energy Security
To do list

➢ U.S.-EU & Energy Community to revive political and energy security dialogue-a Transatlantic Energy Security Charter?
  ➢ Intensify dialogue under US-EU Energy Council and improve framework
  ➢ U.S. re-engage U.S.-Russia Energy Forum (climate, LNG, upstream, CEI?)
  ➢ Include EU dedicated energy security concerns in the DOE Strategic Plan
➢ Develop action plan for the EU dedicated energy security concerns in the US National Security Strategy
  ➢ Support rule based, competitive and transparent energy markets
➢ Support energy efficiency, CCS, renewable energy projects, energy R&D, fight energy poverty
  ➢ Push for conclusion of TTIP (with or without energy chapter)
  ➢ Innovative approach on Turkey—a key country for EU energy security
➢ Support development of new energy transport, storage and LNG infrastructure-diversify CEE (US, EastMed, Azerbaijan, Turkey, Iran)
➢ Encourage US LNG exports to EU/CEE (pricing issue/long term effects; no Russian substitute short term)

Adequate, firm, innovative US-EU planning, diplomatic and economic involvement in energy security

Reduce CEE-Russia energy security asymmetries
THANK YOU!

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