From Centralization To… Centralization
A Short Story About Polish Energy Policy

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Prague, IEE, October 21st, 2013
AGENDA

1. CEC Background
2. Poland Overview
3. General information about:
   • Key institutions & people in Poland for E&E
   • State-owned energy companies
   • Energy market structure
4. Getting into details:
   • ETS & Backloading
   • Nuclear power
   • Renewable Energy Sources
   • Shale Gas
5. Conclusions:
   1. Regional consolidation
   2. Vertical integration
   3. Progressive centralization
CEC Government Relations was established in 1993 as the first independent Western-style lobbying firm in Central and Eastern Europe.

Today our wholly-owned and partner offices employ over 40 people across the region.

We have been known and respected players in the Central European business, diplomatic and political community for over 15 years.

*We are the lobbying company of choice for Western multinationals seeking to promote their public affairs agenda in Central Europe*
Our network:

- We remain wholly self-owned and independent,
- Core Offices in Poland, Czech Republic, Hungary and Slovakia,
- Partner Agencies in Romania, Bulgaria, the Baltic States and Ukraine,
- Individual Consultants in the Region,
- Relationships with the best-known UK, EU and US public affairs agencies,
- Over 15 years of cooperation with leading Polish and Warsaw PR and legal companies,
- Own network of high-level contacts in Brussels, London and Washington DC.
POLAND POLITICAL TIMELINE

• President Lech Kaczynski’s Death on April 10th 2010 Forces New Presidential Elections on July 4th 2010
• Bronislaw Komorowski (Civic Platform - PO) Wins Narrow Victory on July 4th 2010, Inaugurated as President August 6th
• Local elections in November 2010 Won by PO
• Poland Commences EU Presidency July 1st 2011
• Parliamentary Elections October 23rd 2011 Won by PO
• Government Coalition with PSL (Polish Peasant Party) Recreated, Albeit with Narrow Majority in Parliament
• European Parliamentary Elections the Next Political Test in June 2014
• Local Elections in Autumn 2014
• Presidential Elections in Summer 2015, Bronislaw Komorowski Likely To Seek Second Term
• Parliamentary Elections in Autumn 2015

Despite Tensions, Current Government will Likely Survive Until 2015
• Government Coalition (PO, PSL) Facing Challenges
  • Controversial Pensions Reform
  • Handling of Smolensk Air Disaster
  • Transport Infrastructure (Rail, Road) in Crisis
  • Economic Slowdown, Youth Unemployment
  • Public Criticism by Respected Economists
  • Frustration Among Youth Vote
  • Concerns About Budget Deficit
  • New Corruption Scandals

• Law and Justice (PiS) Closing in Polls

• Tusk Government Priorities
  • Maintain Foreign Confidence in Polish Economic Policy
  • Contain Budget Deficit in Context of Growth Slowdown
  • Focus on Infrastructure
  • Focus on Energy Security - Shale, Nuclear, LNG
  • Maintain Polish Role in EU, Campaign for Closer Political Union
  • Improve Relations with Russia
    • With Continued Focus on Eastern Partnership
  • “Normalise” Relationship with US
    • Three Pillars of Economic, Security and Democracy Links
### POLAND: OVERVIEW

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
<th>2Q2013</th>
</tr>
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<tbody>
<tr>
<td>GDP Growth</td>
<td>5,1%</td>
<td>3,9%</td>
<td>1,9%</td>
<td>0,8%</td>
</tr>
<tr>
<td>Unemployment</td>
<td>9,5%</td>
<td>12,4%</td>
<td>13,4%</td>
<td>13,2%</td>
</tr>
<tr>
<td>Inflation</td>
<td>4,2%</td>
<td>2,6%</td>
<td>3,7%</td>
<td>0,2%</td>
</tr>
</tbody>
</table>

#### Other key economic indicators

<table>
<thead>
<tr>
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<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public finances deficit</td>
<td>3,9%</td>
</tr>
<tr>
<td>Public debt</td>
<td>55,6%</td>
</tr>
<tr>
<td>Trade balance (PLN bn)</td>
<td>-22</td>
</tr>
<tr>
<td>Currency exchange rate (PLN/EUR)</td>
<td>4,1</td>
</tr>
<tr>
<td>Foreign Direct Investments (EUR bn)</td>
<td>2,9</td>
</tr>
<tr>
<td>Main trading partners (exports)</td>
<td>Germany (25%), UK (6,7%), Czech Republic (6,3%), France, Russia</td>
</tr>
</tbody>
</table>
Energy Security and Energy Diversification is the Strategic Priority of the Polish Government

- Desire to End Dependency on Russian Monopoly Supply
- Lessons of PGNiG/Gazprom Negotiations 2009-2010
- International Efforts to Unlock EU Southern Corridor
- Intense Efforts to Move Forward on LNG Terminal (Swinoujscie-Krk Axis), Enabling Liquefaction Capabilities
- Government’s Support for Domestic Energy Diversification Projects
  - Shale Gas and Domestic Production of Hydrocarbons
  - Alternate Energy
  - Clean Coal Technologies
  - Nuclear
- Efforts Within EU to Move Forward Common Energy Policy
  - Priority of Polish 2011 EU Presidency
  - Lobbying in Brussels for Greater EU Energy Funds in MFF 2014-2020
- Support for Greater Regional Cooperation
  - Interconnectors (Germany, Czech, Slovakia, Lithuania)
  - Nabucco
  - Visaginas (Lithuania)
  - Lotos/MOL?
- Support for US Efforts
  - Engagement of Obama Administration
ONE MAN TO RULE THEM ALL
1980s – 5 state-controlled Energy Districts

early 1990s – market fragmentation

Generation
17 power plants
14 heat & power plants

Transmission
PSE grid operator

Distribution
33 enterprises

2008 – 4 state-owned integrated energy groups
ONE MAN TO BRING THEM ALL…
AND BIND THEM

PAK SA
Generation
Capacity: 2457 MW
generation: 11.2 TWh

ENEA SA
Generation
Capacity: 3109 MW
generation: 12.6 TWh

TAURON SA
Generation
Capacity: 5574 MW
generation: 24 TWh

ENERGA SA
Generation
Capacity: 1151 MW
generation: 4.7 TWh

PGE SA
Generation
Capacity: 13 000 MW
generation: 61.7 TWh

WARSAW • VILNIUS • PRAGUE • BRATISLAVA • BUDAPEST • BUCHAREST • SOFIA • KIEV
CEZ Group
70% State share
27 thousand employees
EBITDA: EUR 3.5bn
Capacity: 15.8 GW
Generation: 68.8 TWh

PGE SA
62% State share
41 thousand employees
EBITDA: EUR 1.7bn
Capacity: 13 GW
Generation: 61.7 TWh
ONE MAN OR...THE TRINITY?

**Donald Tusk**  
Prime Minister since November 16, 2007  
PO Chairman since June 1, 2003  
Co-founder and leader of the Liberal-Democratic Congress  
Graduated from Gdansk University in 1980

**Jan Krzysztof Bielecki**  
Head of Prime Minister’s Economic Council since 2010  
Prime Minister in 1991  
Co-founder of the Liberal-Democratic Congress  
Lecturer at Gdansk University from 1973-81

**Krzysztof Kilian**  
CEO of PGE since March 2012  
Head of the Cabinet of Minister of Privatization in 1991  
Member of the Liberal-Democratic Congress  
Graduate of Gdansk University of Technology in 1983
Electricity generation structure - energy sources:

Total installed power (2012) = 38 GW
- Coal 53%
- Lignite 25%
- RES 7%
- Industry 6.5%
- Hydro 6%
- Gas 2.5%

Electricity consumption (2012) = 157 TWh

Electricity demand is growing:
- 2015 = 153 TWh
- 2020 = 170 TWh
- 2025 = 195 TWh
- 2030 = 217 TWh
### OFF

**By 2020 – 6.6 GW**

- **By 2028 – 10 GW**

### ON (2011 – 2025)

<table>
<thead>
<tr>
<th>Source</th>
<th>MW 2011</th>
<th>MW 2025</th>
</tr>
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<tbody>
<tr>
<td>Biogas</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Biomass</td>
<td>470</td>
<td>342</td>
</tr>
<tr>
<td>Gas</td>
<td>8222</td>
<td>16</td>
</tr>
<tr>
<td>Nuclear</td>
<td>4600</td>
<td>0</td>
</tr>
<tr>
<td>Lignite</td>
<td>1318</td>
<td>1318</td>
</tr>
<tr>
<td>Coal</td>
<td>10601</td>
<td>1562</td>
</tr>
<tr>
<td>Wind</td>
<td>4217</td>
<td>212</td>
</tr>
<tr>
<td>Hydro</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>Co-firing</td>
<td>1318</td>
<td>957</td>
</tr>
<tr>
<td>Other (PV)</td>
<td>1158</td>
<td>0</td>
</tr>
</tbody>
</table>

### TOTAL

- **32 GW**
- **4.4 GW**
- The most effective and cost-efficient instrument
- Market-based scheme
- High CO2 allowances prices = investments in low-emissions tech
- EU -> global leader for fighting climate change
• But no-one predicted the crisis
• Production goes down = emissions go down
• Lower incomes for pension funds…?
• Why not changing the rules? Who can stop us?
• Poland – The Great Roadblocker
• Protecting local goods

Maybe we should stick to coal after all?
1972 – site selected for the first Polish NPP: Żarnowiec
1982 – Government decision to build the plant (4 VVER-440 units built by Skoda)
1986 – regulatory framework adopted
1986 – Chernobyl
1989 – fall of communism and democratic elections
1990 – local referendum and termination of the project

2009 – Government decision to launch the nuclear program
2011 – three sites proposed, including Żarnowiec
2011 – Fukushima
2013 – regulatory framework adopted
2013 – site characterization launched
2016 – site and vendor (3 GW) selection to be completed
2025 – launch of the first unit
NUCLEAR POWER - REALITY

• Just a power plant, only a bigger one?
• “Modernization project of the century”
• Nuclear Renaissance buried by tsunami in Fukushima.
• Why build a nuclear plant at current carbon price?
• Who's got all the money?
• Long-term contracts and contracts for difference

Maybe we should stick to coal after all?
• RES as a part of industrial policy (green jobs, local R&D)
• Climate change – call for action!
• The Targets
• First - gas deal with Russia, then RES
• CO2 allowances getting expensive? – how about RES?
• RES Directive 2009/28/EC: never-ending story of implementation
• A great anticipation for RES boom
• Hopes die last: expectations management…
• New proposal: how to put together a complex puzzle
• Maybe some CAPEX financial support?
• Start from the bottom: role of local authorities

Maybe we should stick to coal after all?
Shale Gas Fever spread in 2008: Poland as the new Kuwait
Early estimates of 3TCM of recoverable reserves (200 years)
Extension of the LNG terminal with the liquefaction module
Blow against Russia and the Nord Stream project
IEA enthusiasm: Poland as a litmus test
SHALE GAS - REALITY

• Geology: no Texas, no Pennsylvania.
• Taxation: sheep shearing. We won't give away our silverware.
• Marry the state: NOKE, or the Norwegian model.
• Shrinking resources: 0,3-0,7TCM
• Environment: Natura 2020 and the Greens
• Risk-aversion: 105 concessions and 48 wells
• Impatience: flight of foreign investors
• Brussels: clouds gathering
• Money: who is going to pay for development?

Maybe we should stick to coal after all?
ALL ROADS LEAD TO
OTHERS SAY THAT TOO

AFTER ALL, LET’S STICK TO COAL!
THANK YOU

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