A new narrative for gas

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EU sentiment changed vis-à-vis gas

- Gas demand growing since 2014
- Gas infrastructure is the batteries of the new energy system
- Complete electrification will not work
- Gas is not just a bridge fuel for renewables, but it has its own future in Europe
- EU hasn’t stopped already all public funding for new interconnections

Source: Florence School of Regulation
“We need a new narrative for gas”

- If the 2006-2014 efficiency boost can’t be repeated, coal & oil will have to leave EU energy mix much faster...

- Europe could profit from becoming the worldwide energy storage provider
  - Change Directive 2009/119/EC designed at a time when oil was more relevant than today, the energy transition hadn’t really started, and energy markets were not fully functional
  - This Directive is neither fuel- nor technology-neutral

- Additional data:
  - Foreign dependency
  - LNG tightness
  - Spare capacity
2006-2014 efficiency boost

Source: BP Statistical Review, RichesFlores Research, Macrobond, thierrybros.com

If this efficiency boost can’t be repeated, coal & oil will have to leave EU energy mix much faster...
**CO₂ linked more to total demand than mix**

**CO₂ vs Primary energy**

**CO₂ per unit of energy used**

Source: BP Statistical Review, thierrybros.com
LNG supply growth

- Customers are always better off
- Suppliers have to select low cost projects to be profitable

Even if more expensive than pipe, a low cost LNG project can thrive

- More buyers & sellers
- Increases global liquidity

- 32% of trade and growing
- Impacts also storage

Competition
Optionality
Diversification
Security of Supply
EU LNG use is already changing

What matters is not the net but the gross load regas factor

Source: Cedigaz
Europe should use its storage differently

EU & Ukraine gas storage

- EU used: 57%
- Ukraine used: 9%
- Ukraine that could be used: 8%
- Ukraine unused: 6%
- EU unused: 20%

Source: GIE, thierrybros.com
Brexit’s impact on foreign dependency

Foreign dependency pre and post-Brexit

Can this impact perceived SoS?

Source: BP Statistical Review June 2018, thierrybros.com (Norway is foreign for all)
Gazprom exports and Europe dependency

Source: Gazprom Export, BP Statistical Review, thierrybros.com
Fictional 2021 scenario
Nord Stream 2 full (55 bcm) & 50 bcm transit via Ukraine

No demand growth - Gazprom pipe replaces Groningen cut (-12 bcm), Algerian pipe exports drop (-6 bcm) and displaces other pipe and LNG (-10 bcm)

Source: Gazprom Export, BP Statistical Review, thierrybros.com
Month-Ahead Gas Prices

Source: Argus Media, thierrybros.com

All contracts roll on 16th - month 1 (1-15) month 2 (16-31)
Major projects to come on-line (until 2021, on a FID basis)

LNG capacity

- Russia: 18%
- Ukraine: 7%
- US: 52%
- Australia: 23%

Pipe gas capacity

- Russia: 30%
- Oman: 5%
- Israel: 6%
- Iran: 10%
- Azerbaijan: 9%
- Others: 16%

LNG only for North America & Australia
No upstream project in Trinidad and Tobago & Peru (LNG producers)

Source: thierrybros.com
Gas spare production capacity

Assuming transit via Ukraine unaffected, Groningen cap at 12 bcm/y & no major unconventional gas production in China

Source: thierrybros.com
Boom & Bust

Short
- Increase producer’s rent 2008, 2011-2014, 2018
  - Very good

Med.
- Demand destruction 2007-2014
  - Impact on export volumes?

Long
- New suppliers entering the market
  - New competitors from 2016

After
- Lower prices & higher demand 2015-2017
  - Delayed FID
Thank you

Quarterly Gas Review
Analysis of Prices and Recent Events

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