

South Stream and Nabucco

Mikhail Korchemkin
East European Gas Analysis

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Does South Stream compete with Nabucco?



- South Stream **DOES NOT** compete with Nabucco.
- South Stream is designed to divert the contracted flows of Russian gas from existing routes (Ukraine) to the new route across the Black Sea.
 - According to the official presentation of June 25, 2011, “old gas” will represent up to 2/3 of the load.
 - In my view, the share of existing contracts will be closer to 100%.
- Nabucco is designed to deliver gas from new sources – Azerbaijan and Turkmenistan.

South Stream is a part of the new pipeline route from Yamal to Europe

Note: South Stream puts TAG out of business

This is not the shortest route from Turkmenistan to the EU

TAG
Arnoldstein
Baumgarten

Varna

Russkaya

Shah Deniz

Galkynys

Nabucco is a part of the Southern Corridor

Mikhail Korchemkin

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53 39 52.69° N, 39 35 53.75° E elev. 201 m

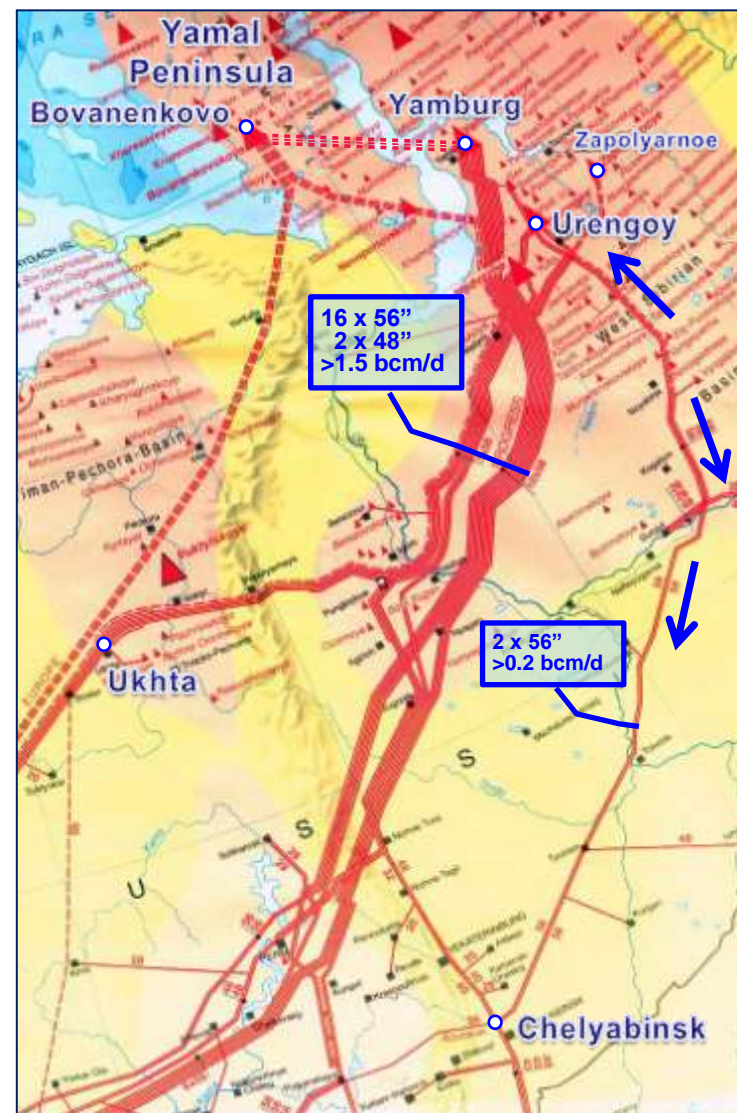
- Gazprom is still upgrading the “old” West-Siberian pipelines
- The “old” West-Siberian corridor will be replaced by the new one

- South Stream is hardly a short way from Yamal to Baumgarten
- It is free of “transit parasites”

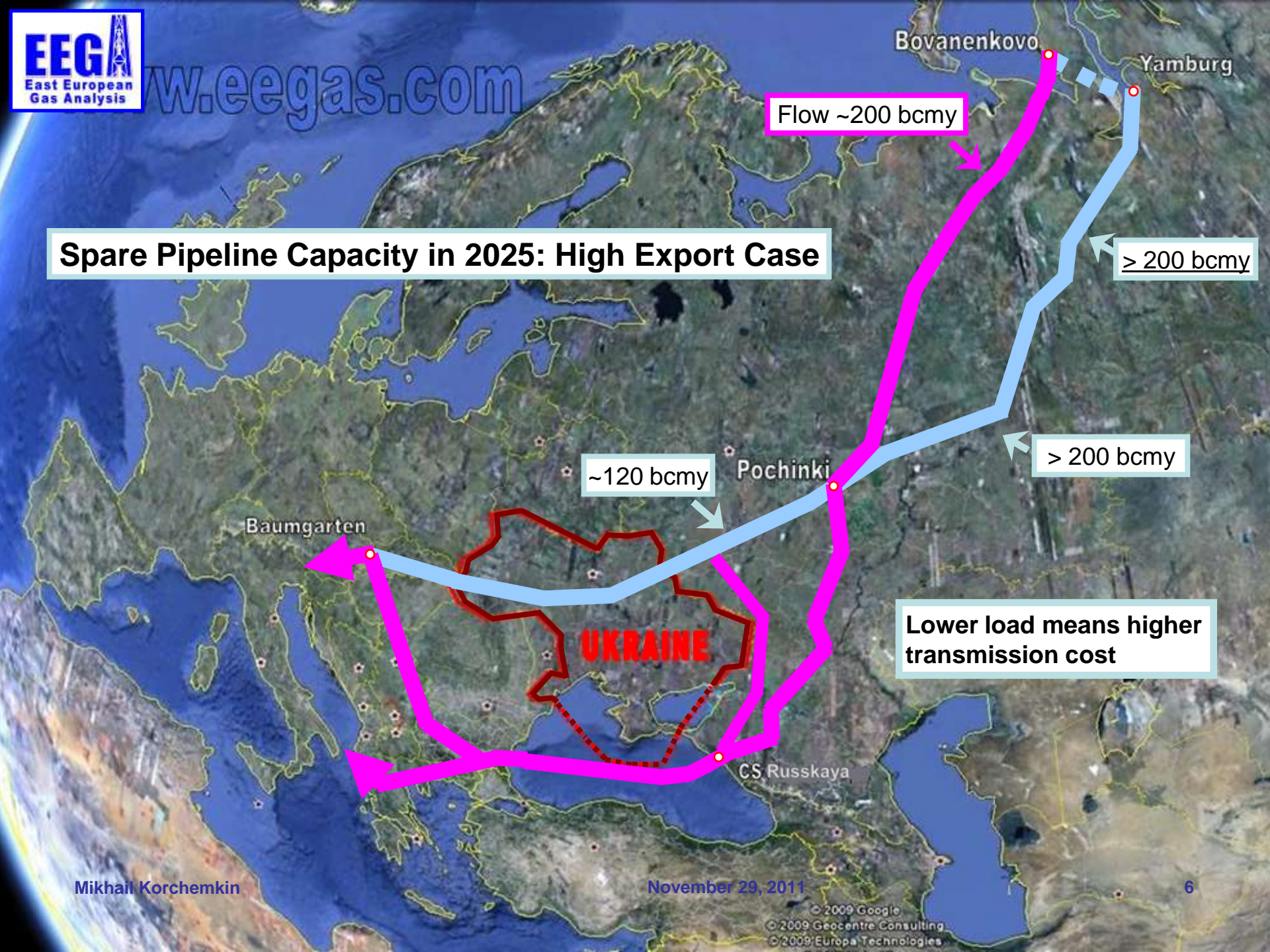


West Siberian Pipeline Corridor

- West Siberian gas is evacuated by 18x56" and 2x48" pipelines.
 - This is enough for a winter daily flow of over 1800 mmcm (excl. East Siberia).
- Gas storage expansion program of Gazprom for 2005-2010 was supposed to increase Max daily withdrawal by 200 mmcm (equivalent of 2x56" lines from West Siberia to Central Russia).
- The existing lines could evacuate all gas produced in W.Siberia, including Yamal (perfect synchronization).
 - Gazprom needed to build only the Bovanenkovo-Yamburg link (450 km).
- Gazprom dumped both the low-cost plan and storage expansion program (for the Bovanenkovo-Ukhta route).
 - Bovanenkovo-Ukhta hits the fully loaded "Northern Lights" corridor.
 - New lines have to be built from Ukhta.
 - It is good for pipeline contractors.



Spare Pipeline Capacity in 2025: High Export Case



• Yamal - South Stream - Europe

- Proven reserves – 16 tcm
- High production cost
- Pipeline construction cost in Russia (56", including CS):
 - € 12.4 Mill/km – Yamal - Ukhta (120 bar)
 - € 3.5-4.9 Mill/km – in existing ROW
- Cost of South Stream - € 15.5 bn

• Turkmenistan gas field can get a higher netback and a better return on investment

- Assuming Nabucco doesn't hire Gazprom's contractor

• Trans-Caspian link – a way to Nabucco-2

• Galkynys - SD - Europe

- Proven reserves – 17+ tcm
- Closer to Europe
- Production and pipeline construction costs:
 - Much lower than in Russia

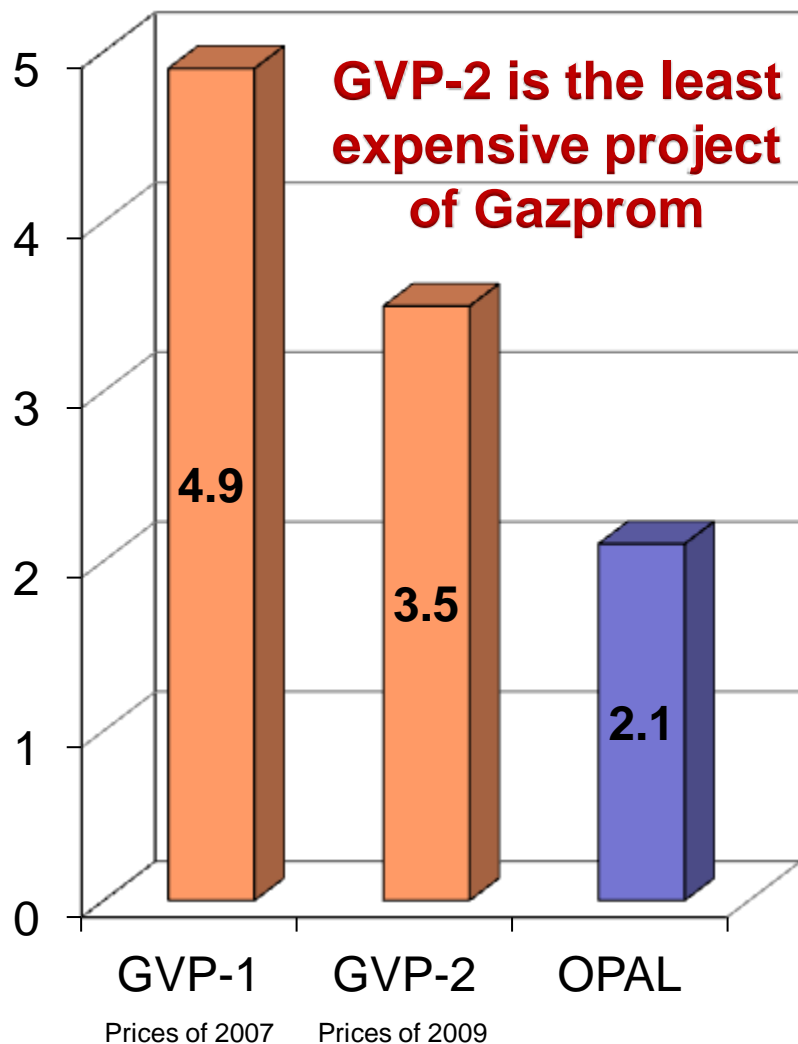
Mikhail Korchemkin

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Pipeline Cost, EUR Mill Per 1 km, incl. CS

Reported Full Costs of Russian and German Projects



GVP = Gryazovets-Vyborg Pipeline

Pros and Cons of South Stream

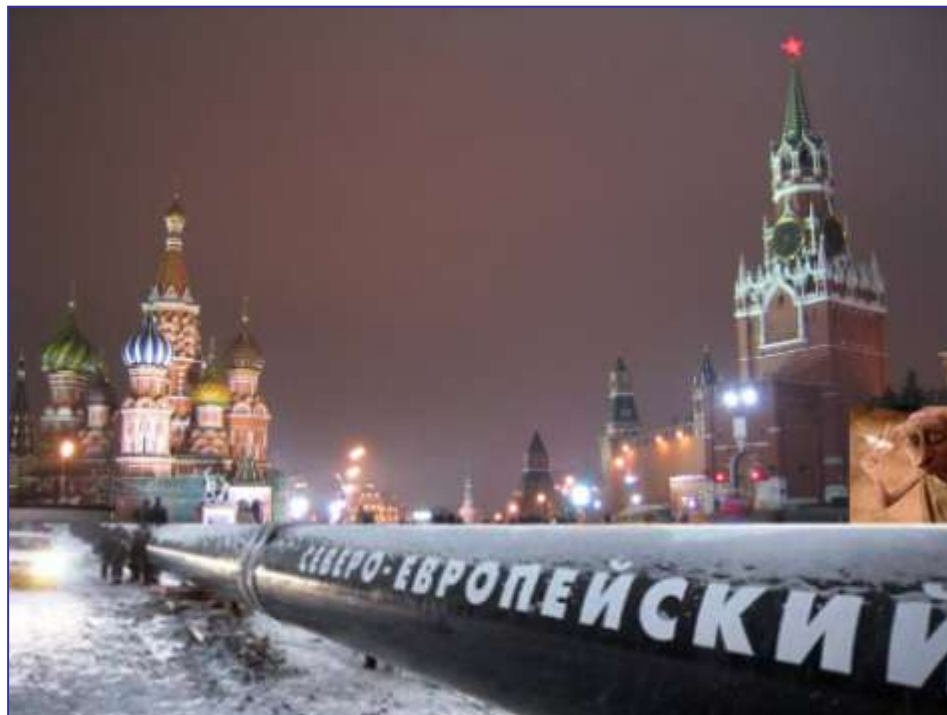


- **South Stream is risky and unprofitable project for Gazprom**
 - Gas flows are diverted from less expensive routes via Ukraine.
 - Same as Nord Stream, South Stream effectively reduces exports of Gazprom.
 - Instead of exporting fuel gas for compressor stations of Ukraine, Slovakia and Romania, Gazprom will burn it at its own CS.
 - Actual Ukrainian transit cost is lower than the nominal one (fuel gas factor).
 - Worst case – re-exports of foreign gas.
 - South Stream lowers the overall efficiency of Gazprom pipeline system.
- **South Stream is safe and profitable for other shareholders**
 - Gazprom provides full load of the pipeline.
 - Gazprom is likely to secure a termination fee (€ 12 bn in case of Nord Stream).

Excessive Security at Excessive Cost

- With South Stream, the combined annual capacity of European export pipelines of Gazprom is to reach **318 bcm**.
 - Gazprom reports **158 bcm/y** of guaranteed exports for the period of 2020-2025.
- Pipeline contractors are the real beneficiaries of the project.
- According to the press-release of Gazprom, the project implementation should proceed regardless of market conditions.
<http://www.gazprom.ru/press/news/2009/april/article56993/>
- Risk of bankruptcy of Gazprom.
- There is an inexpensive solution to the problem of security of supply: **follow the 2000-years-old advice.**

Thou shalt love thy neighbour as thyself.



THANK YOU