

12<sup>th</sup> Gas Forum  
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## Transit via Ukraine after 2019

**Sergiy Makogon**

Director of Business Development  
Ukrtransgaz  
Naftogaz of Ukraine Group

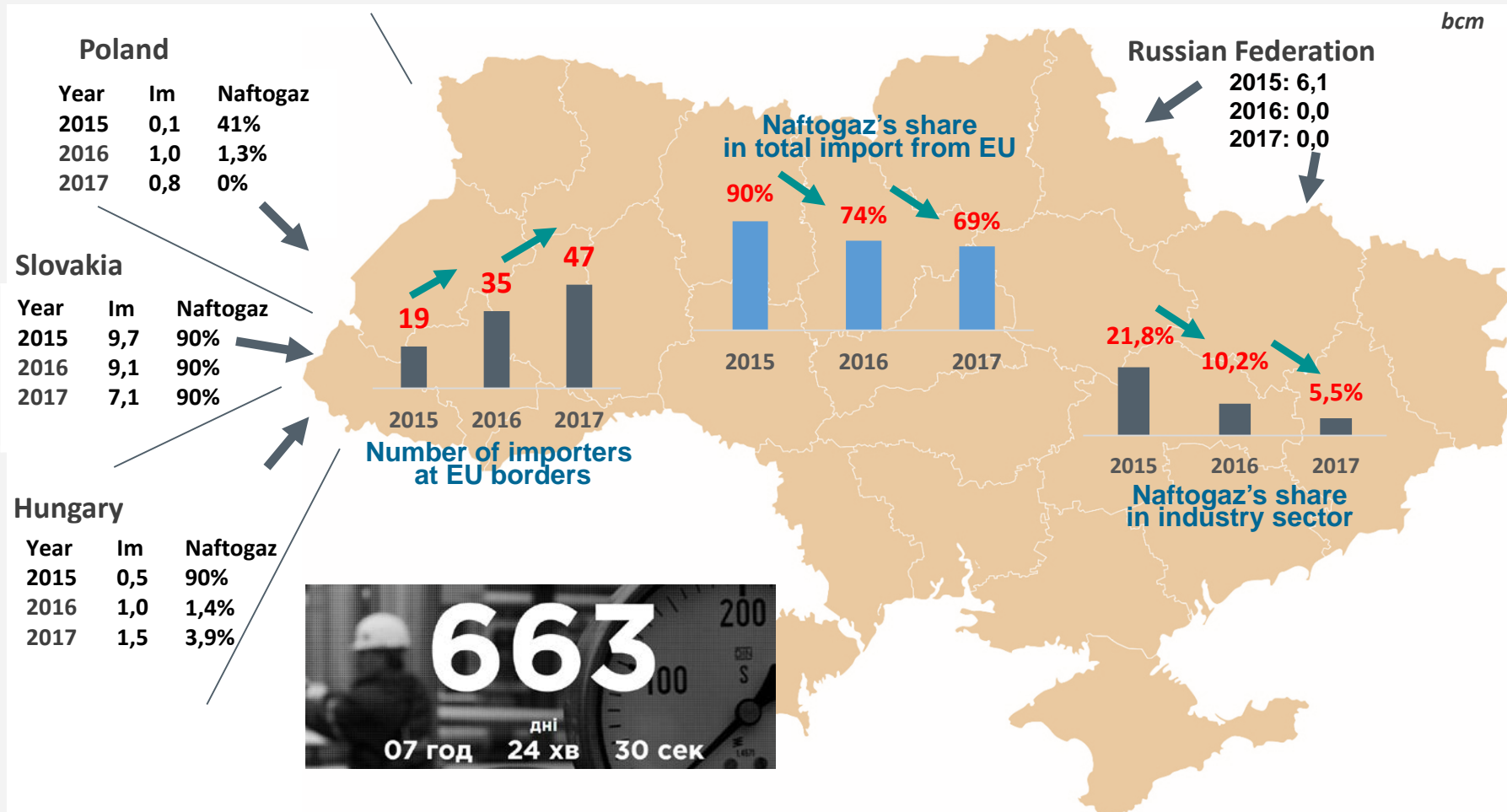


## Present day – what have been done

- |  |                           |
|--|---------------------------|
| ✓ Gas Law aligned with the 3 <sup>rd</sup> Energy Package            | DONE                      |
| ✓ Creation of the entry/exit system and VTP                          | DONE                      |
| ✓ Introduction of GTS Code (CAM, CMP codes)                          | DONE                      |
| ✓ Daily balancing (BAL Code)   | IN PROGRESS               |
| ✓ Improved interconnectivity   |                           |
| ✓ New interconnection points for gas flow to Ukraine (PL, SK, HU)    | DONE                      |
| ✓ Implementation of INT Code at the existing points (PL, SK, HU, RO) | <b>BLOCKED BY GAZPROM</b> |
| ✓ Unbundling of the TSO  | IN PROGRESS               |
| ✓ Corp Gov Reform  | IN PROGRESS               |



## First results of the reforms

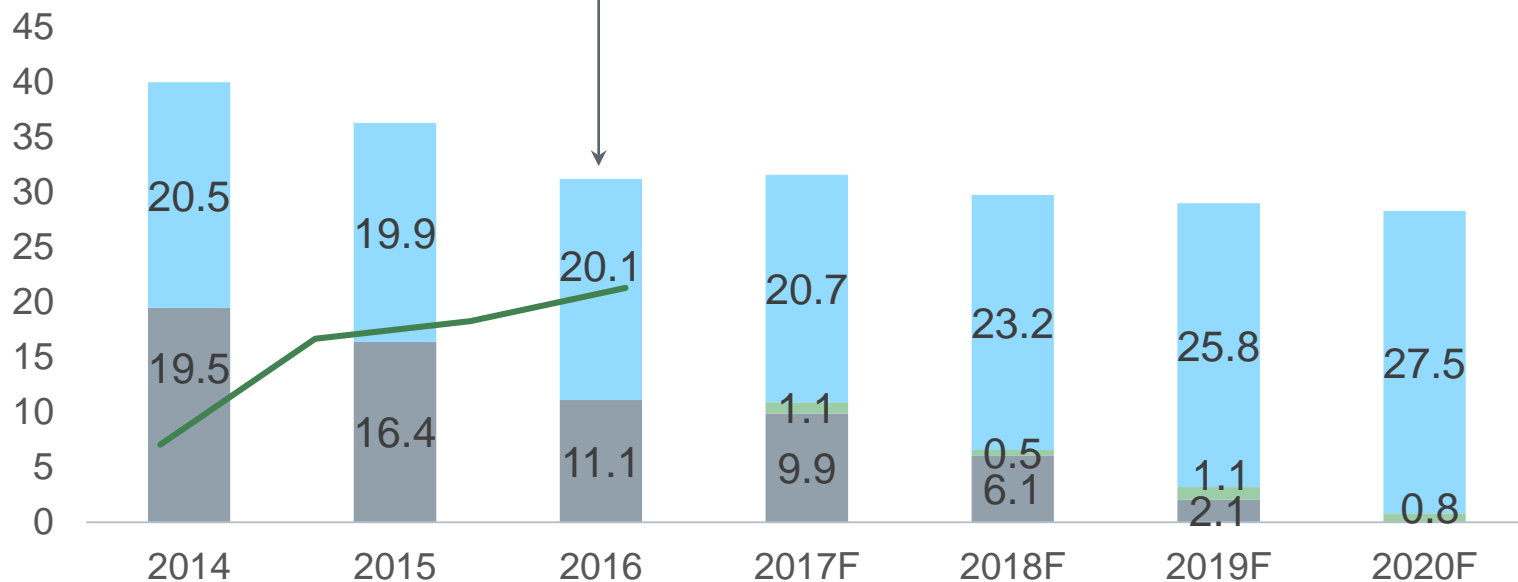


# On the way to gas independence

“Available capacity/  
Import needs”  
ratio in 2016:  
= 1.93

Comfortable ratio with  
achievable at zero  
investments in infrastructure:  
= 3.45

*in bcm, annually*



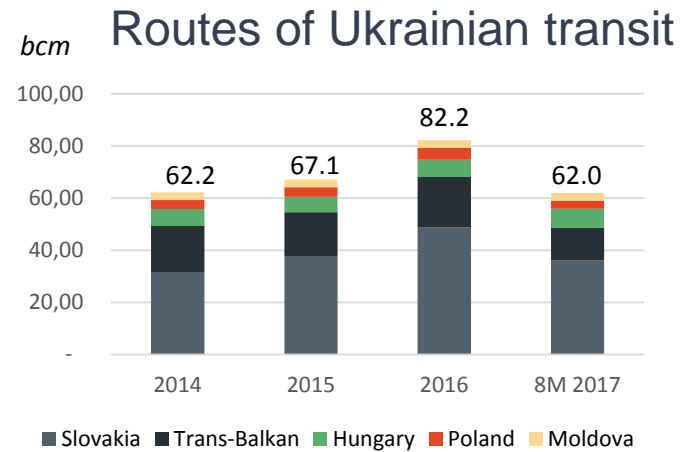
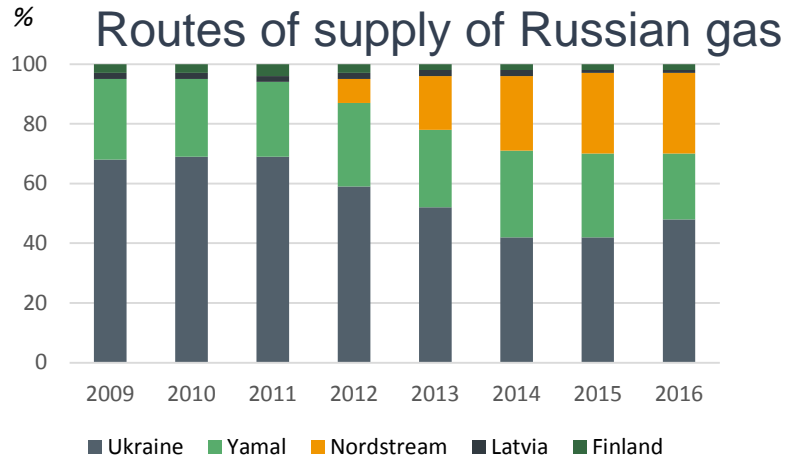
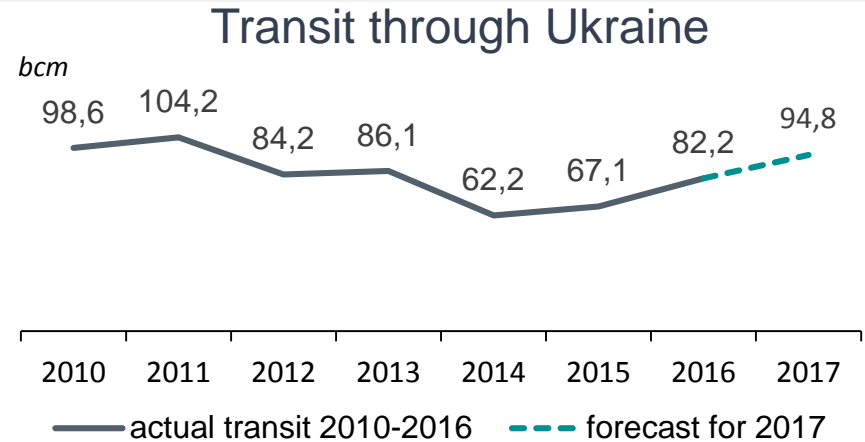
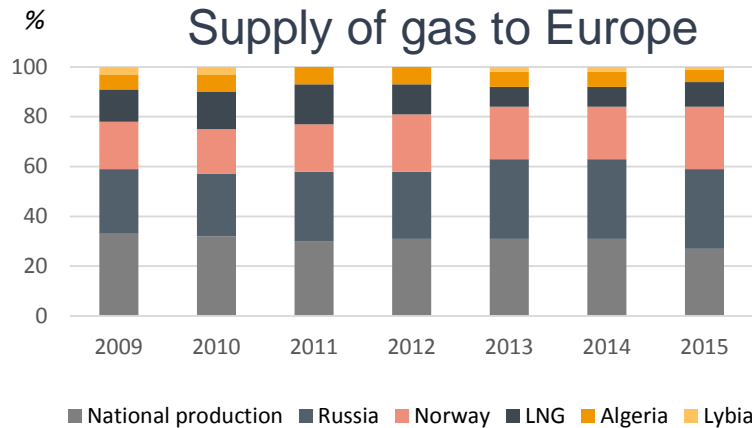
- Production
- Additional imports under "Low energy efficiency" scenario
- Imports ("Expected Energy Efficiency" scenario)
- Available entry capacities from Europe to Ukraine

Notes: own estimates as of Jan-2016.

\* – “Import needs” is calculated as the estimated import volumes of the natural gas required to be injected to the underground gas storages during the three months period of lowest gas prices (summer) to satisfy expected annual needs



## Ukraine's place in gas supply to the EU



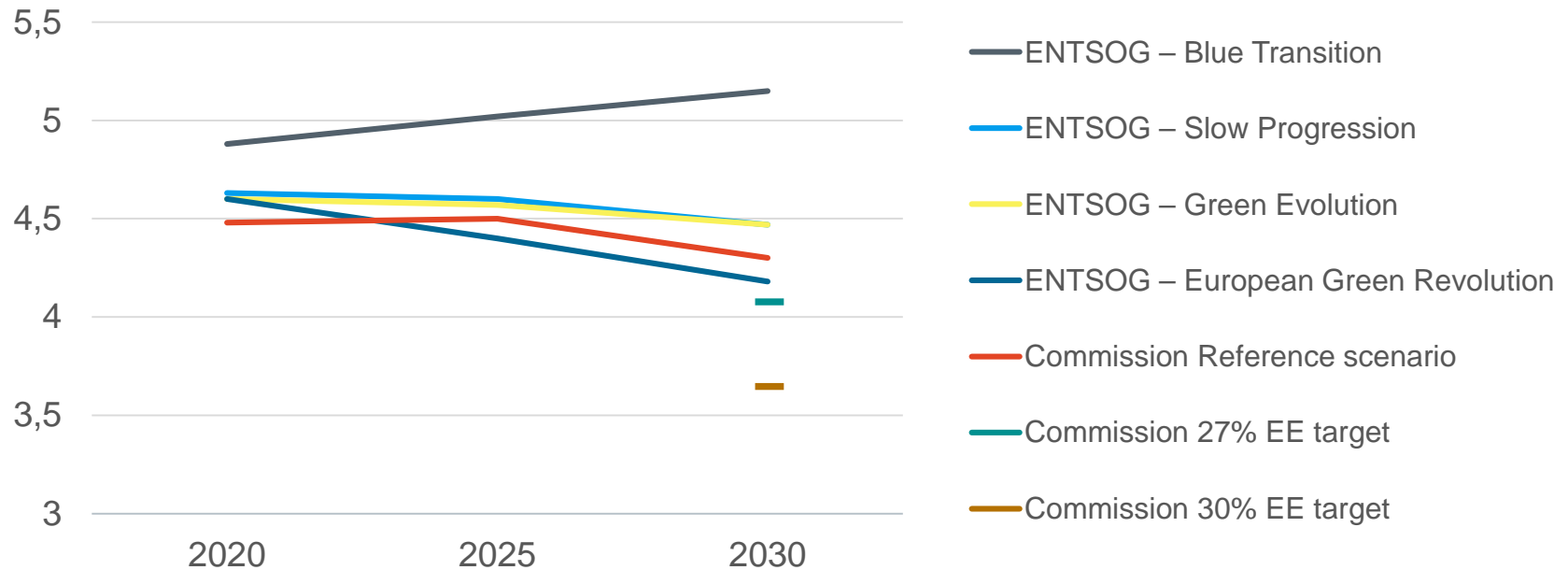
## To transit or not to transit? Economics vs politics



## Current infrastructure plans are out of line with EU climate and energy targets New gas infrastructure assets are likely to become stranded by 2050

Projected EU gas demand under different scenarios to achieve climate and energy targets:

TWh/yr



Source: E3G, ENTSOG TYNDP 2017, EU Reference Scenario 2016, Impact assessment for EED revision

Isn't it better to treat energy efficiency as infrastructure instead of building excessive infrastructure? For every 1% of increase in energy efficiency, gas imports fall by 2.9%

# Build new pipes or unblock existing ones?

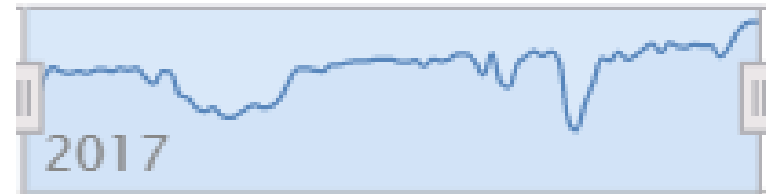


Interconnection points, at which the TSO offers:

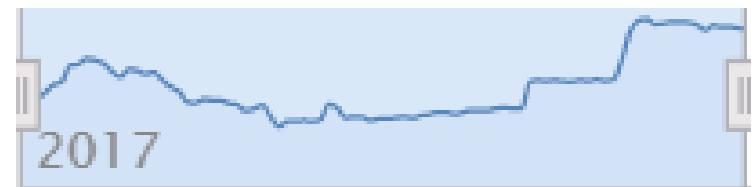
- Firm capacity in one direction
- Physically bi-directional
- Firm capacity in one direction, virtual backhaul capacity in the other

At SK-UA border out of almost 93 bcm/y of the existing capacity, in 2016 only 48.8 bcm were in fact used for transit to Europe.

UA-SK Utilization in 2017 53.5%



UA-HU Utilization in 2017 50.0%



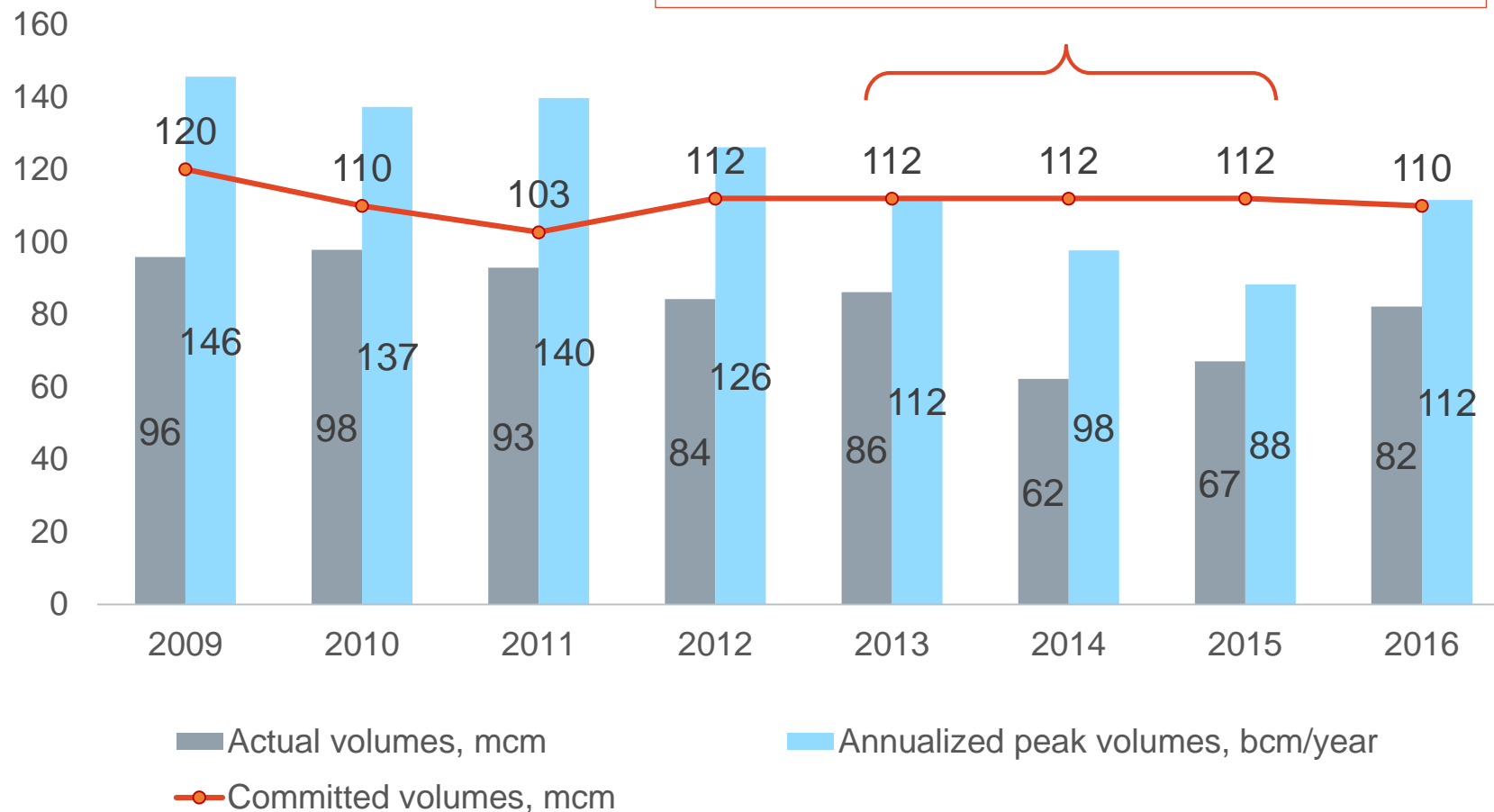
UA-PL Utilization in 2017 89.0%



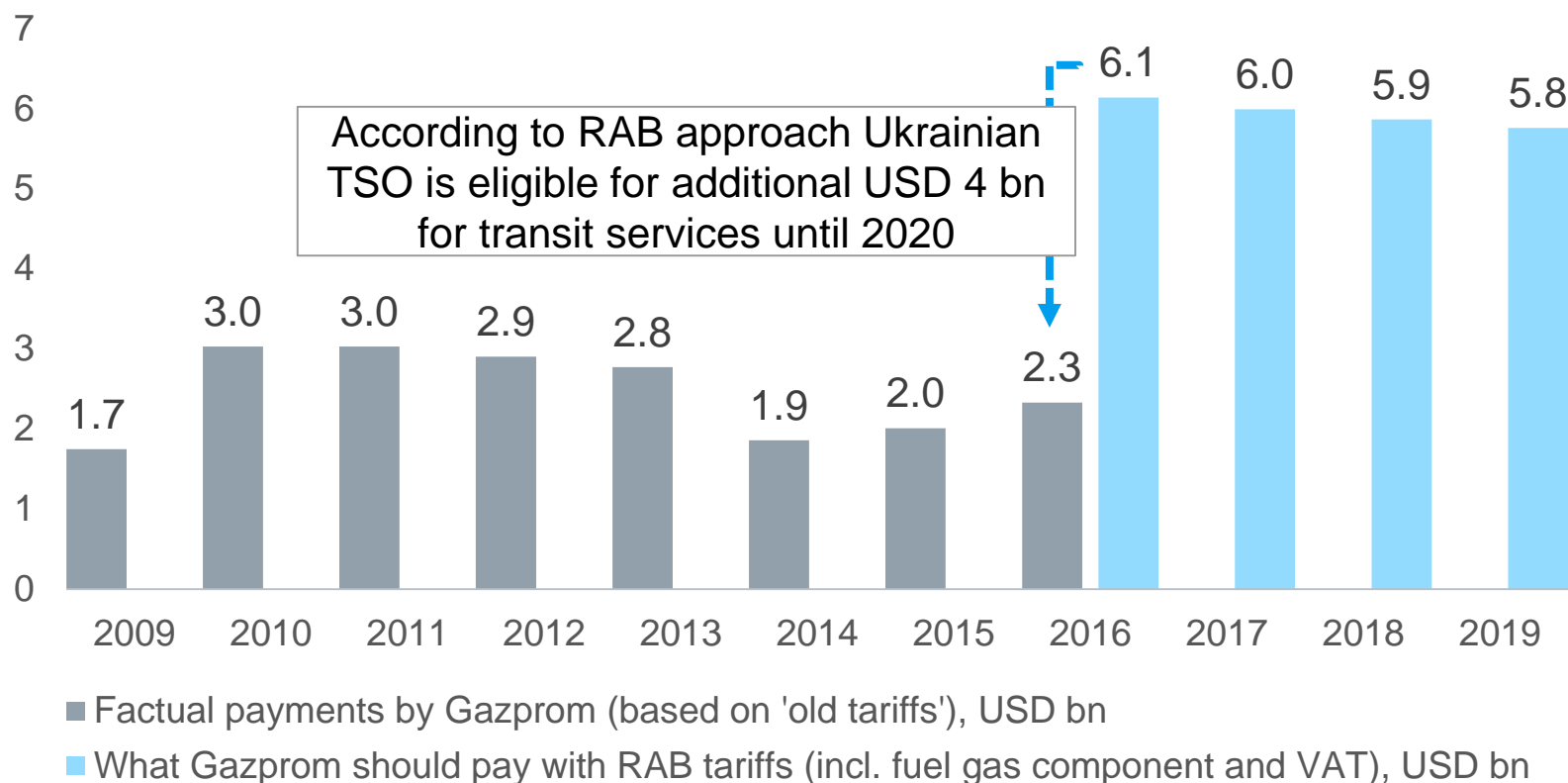


# Transit through Ukraine: peak vs. committed volumes

On an annual basis, historically only in three years (2013-'15) committed capacities were not exceeded by Gazprom



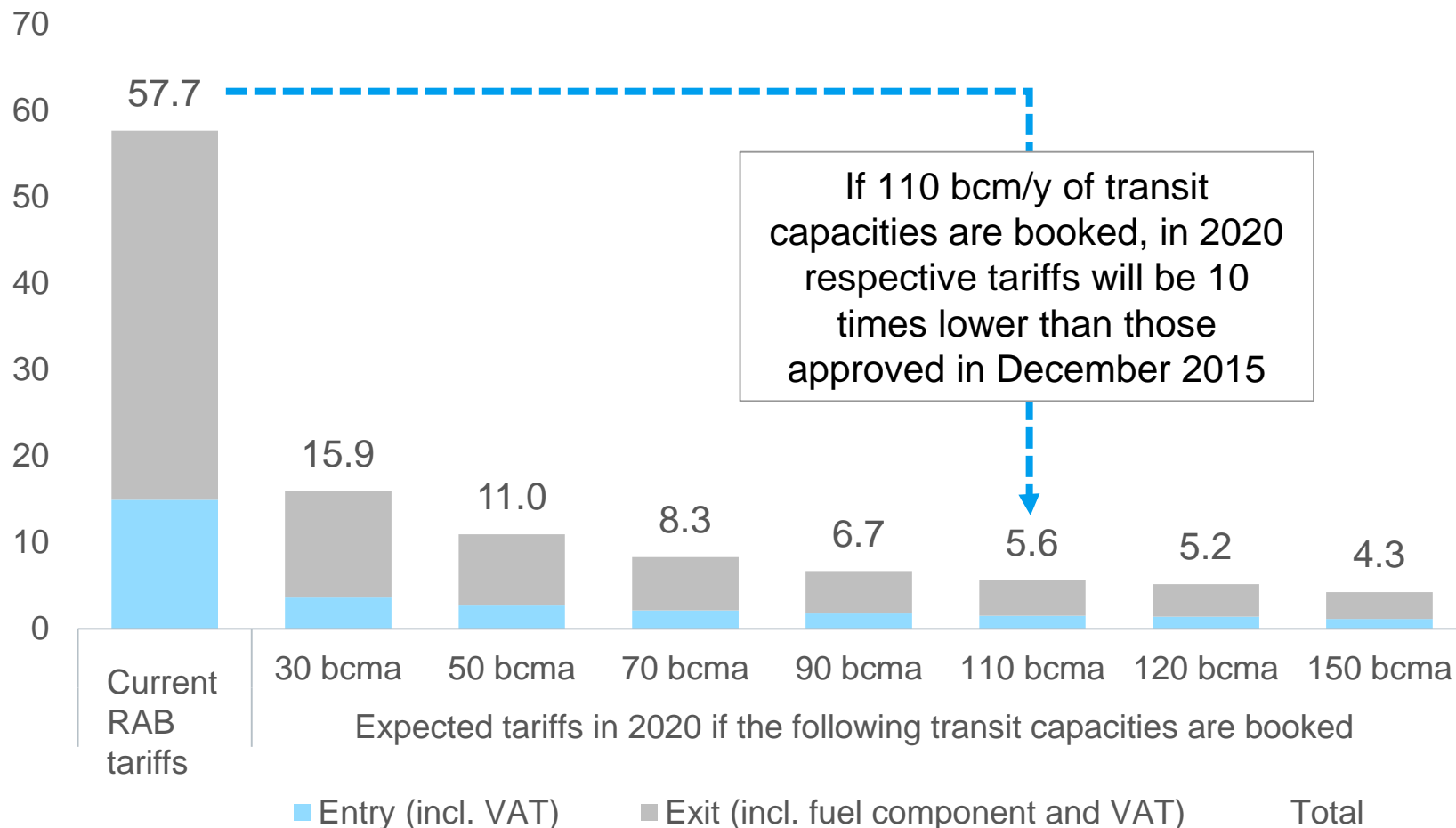
Following the transposition of the EU energy regulations on October 2015, Ukraine switched to regulated entry/exit capacity-based tariffs. 3EP compliant tariff methodology, agreed with the ECS, ensures that TSO earns adequate return on the capital employed and covers reasonable operating costs, incl. depreciation.



# What would be after 2019?

Decision of Russia to bypass Ukraine leads to requirement to apply accelerated depreciation to gas transit assets. Therefore these assets will be almost fully amortized in 2020, tariff will decrease, our route will become the cheapest

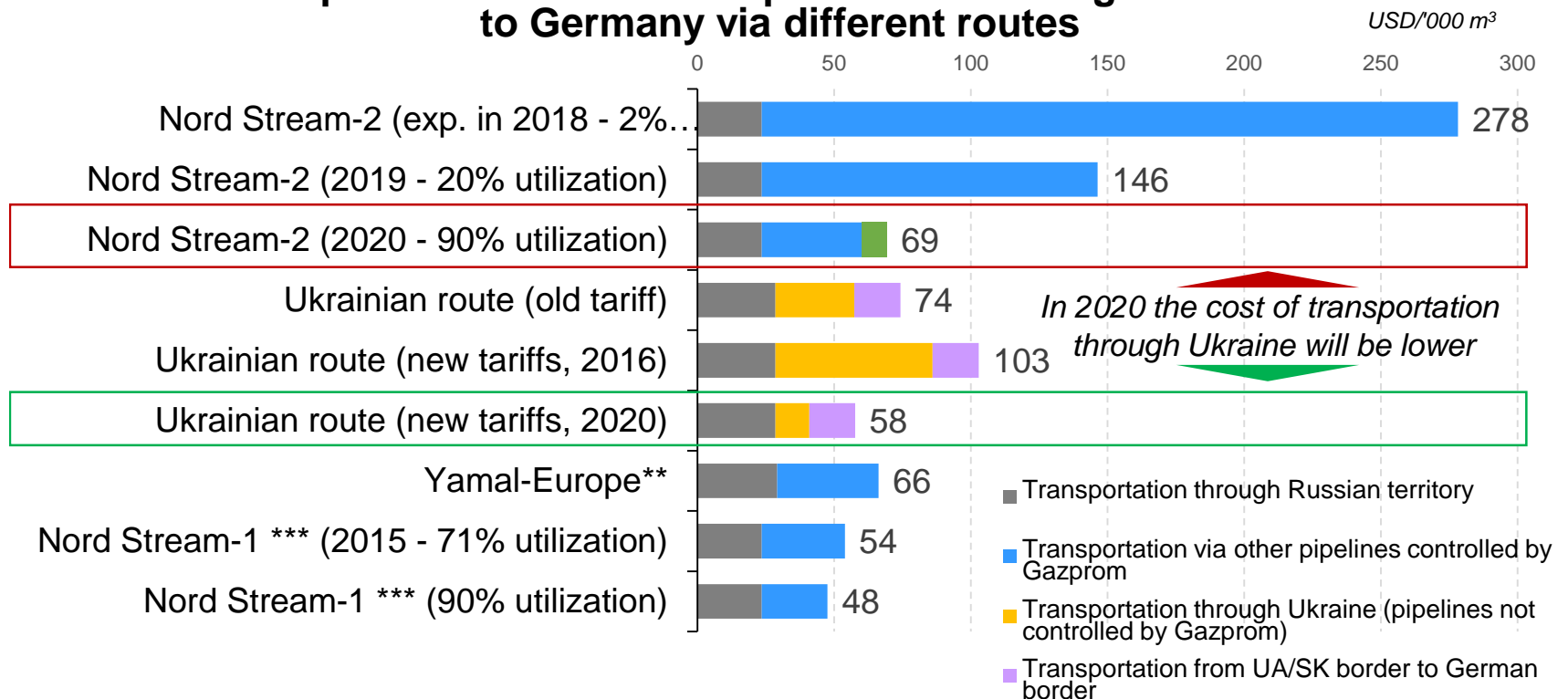
in USD/'000m<sup>3</sup> (incl. VAT)



## Ukrainian route vs Nord Stream 2: economics should come first

**Doubling of Gazprom's Nord Stream pipe is a politically motivated concept. Calculations show that by the time the Nord Stream 2 becomes fully operational, taking gas to Germany through Ukraine will cost 20% less. Route through Ukraine remains the only one fully operational and not controlled by Gazprom**

### Transportation costs for Gazprom of Russian gas delivered to Germany via different routes



Notes: own preliminary estimates as of Feb-2016 (including fuel component)

\* - Calculations assume that in 2020 under the ship-or-pay clause Gazprom will pay for capacity booked with SK and CZ TSOs. This is the opportunity cost of the Nord Stream-2

\*\* - Though Gazprom pays app. 0 for transit through Belarus, these costs are estimated given "hidden subsidy" for Russian gas (i.e. import price for Belarus is much lower)

\*\*\* - Costs of fuel gas used for Portovaya Compressor Station (pumps gas through Nord Stream -1) are artificially allocated to Russian consumers thus decreasing transit costs

# Nord Stream 2 distorts the idea of the efficient EU market



**...is abusing EU competition law (Antitrust Case)**

**...is abusing EU energy law**

EU energy and competition rules are transposed in Ukrainian legislation

**...is abusing Ukrainian law**

Ukraine is a member of Energy Treaty just as other European countries

As a result, natural gas across all Eastern Europe is priced at least at "Hub plus" level\*

If Europe jointly does not let Gazprom 'cast its shadow' on all relevant EU legislation, natural gas markets would become more efficient. As a result, wholesale prices in Eastern Europe should quickly converge to "Hub minus" level\*\* (on average, 30-40% lower than "Hub plus" prices), resulting in annual savings of up to USD 7 bn for the whole region

\* price of gas at liquid natural gas hubs (like TTF and NCG) plus cost of gas transportation to particular Eastern European Country

\*\* price of gas at liquid natural gas hubs (like TTF and NCG) minus cost of gas transportation from particular Eastern European country to these hubs

## SOLUTION: Change of delivery point to UA-RF border

European off-takers from Gazprom, such as Eni, OMV, Engie, Uniper, BOTAS, and others could **enjoy more flexibility** receiving gas at UA-RU border, **especially given that starting from 2020 tariffs will be 10x lower than currently making Ukrainian route extremely attractive for the EU shippers.**

Benefits to CESEC counties:

- “Hub -” pricing
- Price depends only on transportation costs from UA-RF border. No possibility to use gas price as a political level
- No need for investments in new infrastructure (EUGAL, Eastring etc.) to bring gas from NS-2
- More liquid markets. Free gas flows.

Above 80 bcm of gas, procured by the EU shippers could be delivered at UA-RU border, providing options for:

- flexibility to send gas to different markets;
- fair gas price (“Hub –”);
- access to huge storage capacities in Ukraine;
- low transmission costs

Mandatory step – **engaging an international partner for partnership is gas transmission**

There are strong economic reasons for European off-takers to request from Gazprom to move delivery points to the UA-RU border. In case Gazprom refuses, it can be considered as anti-competitive behavior and then DG-Competition can help.

## UKRAINIAN SIDE

- **Most powerful** transit system in Europe:
  - **300+** bcm/y entry capacity
  - **146** bcm/y exit capacity to Europe
- Gas transited through Ukraine is:
  - supplied to **18** countries
  - **18%** of Europe's consumption (**36%** of imports)\*
- Alignment with 3EP
- Contracting-party of the EnC
- EBRD and EIB are onboard

**Unbundled  
TSO  
in partnership  
with the  
European  
Operator**

## PARTNER

- Trust from EU off-takers of Gazprom => Additional argument to **move delivery points** to the UA-RU border
- Commercial and technical **know-how** to enhance **efficiency**
- Promote **standard European practices** on the gas market
- Fight corruption and fraud

