Ukraine and Security of Gas Supplies to Europe – Part II

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- The Winter Gas Deal
- Are European Gas Consumers Secure this Winter?
- Conclusions

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Winter Gas Deal

- Russia stopped supplying gas to Ukraine since mid-June due to the dispute over pricing of the 2009 supply contract
- Several rounds of talks mediated by the EC resulted in *"Winter Package"* signed by UA-RU on 31 Oct, effective until Apr-15:
  - Ukraine pays $1.45bn by Nov and $1.65 by end of Dec for accumulated debts
  - No ToP; Pricing: based on the 2009 contract formula minus $100/tcm discount by the RU government; $378/tcm in Q4-14 and $365/tcm in Q1-15 - - > oil prices have come down since then so for Q1-15 ca. $320-330/tcm
- After 13 hours of negotiations, Mr Oettinger, said: "*We can say to the citizens of Europe that we can guarantee security of supply over the winter.*"

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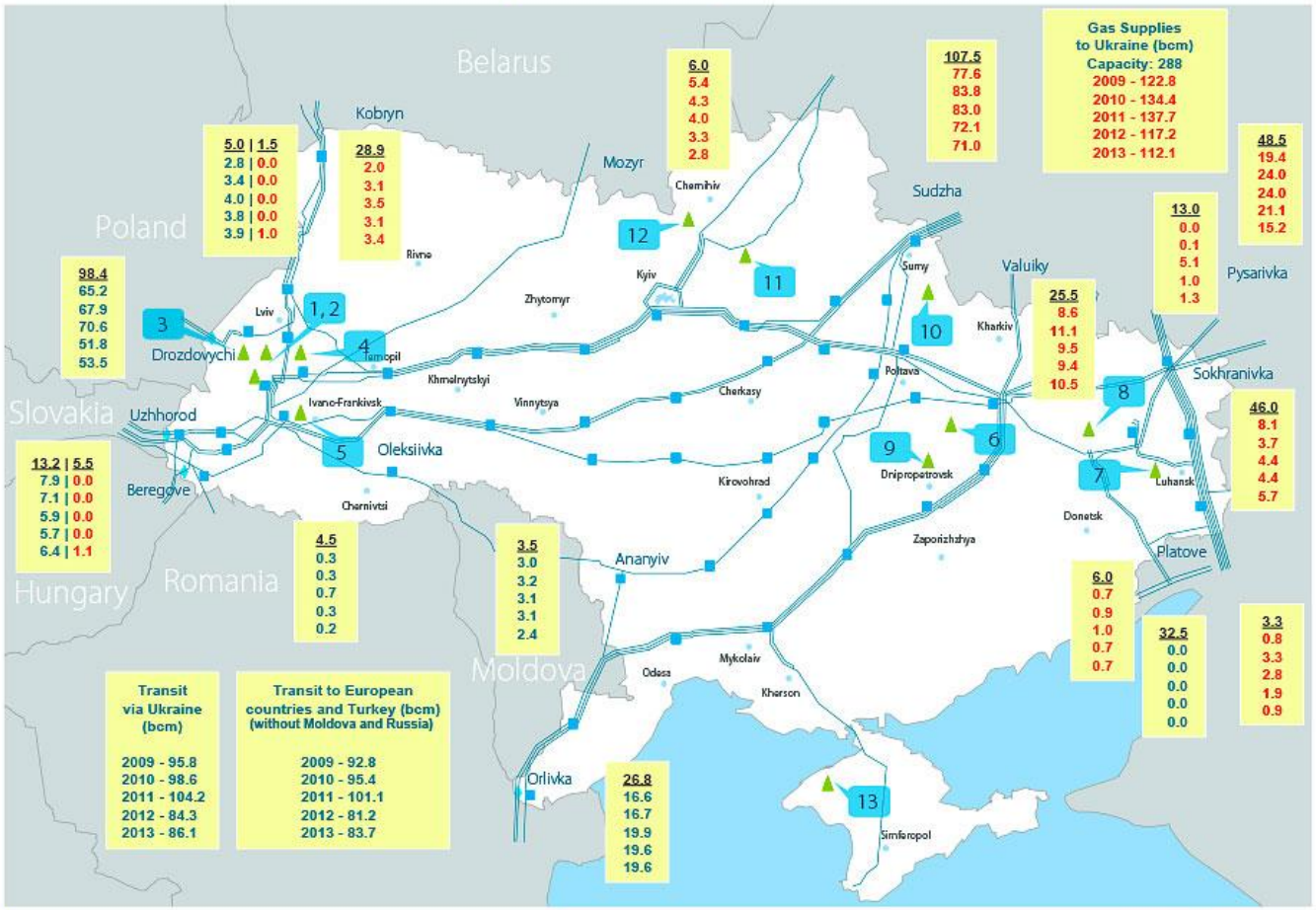
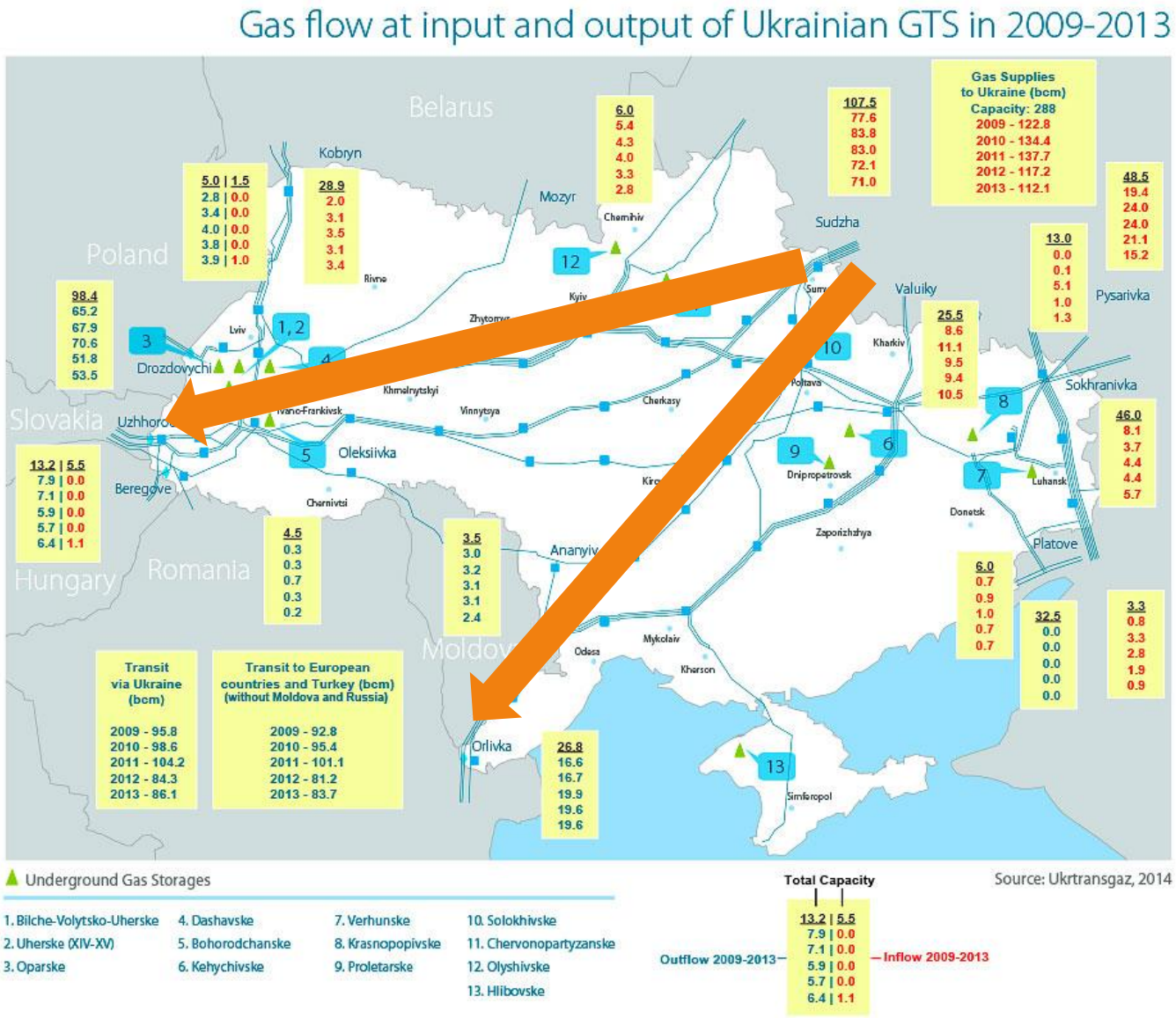
Ukrainian transit system and how it works

Gas flow at input and output of Ukrainian GTS in 2009-2013



Ukrainian transit system and how it works



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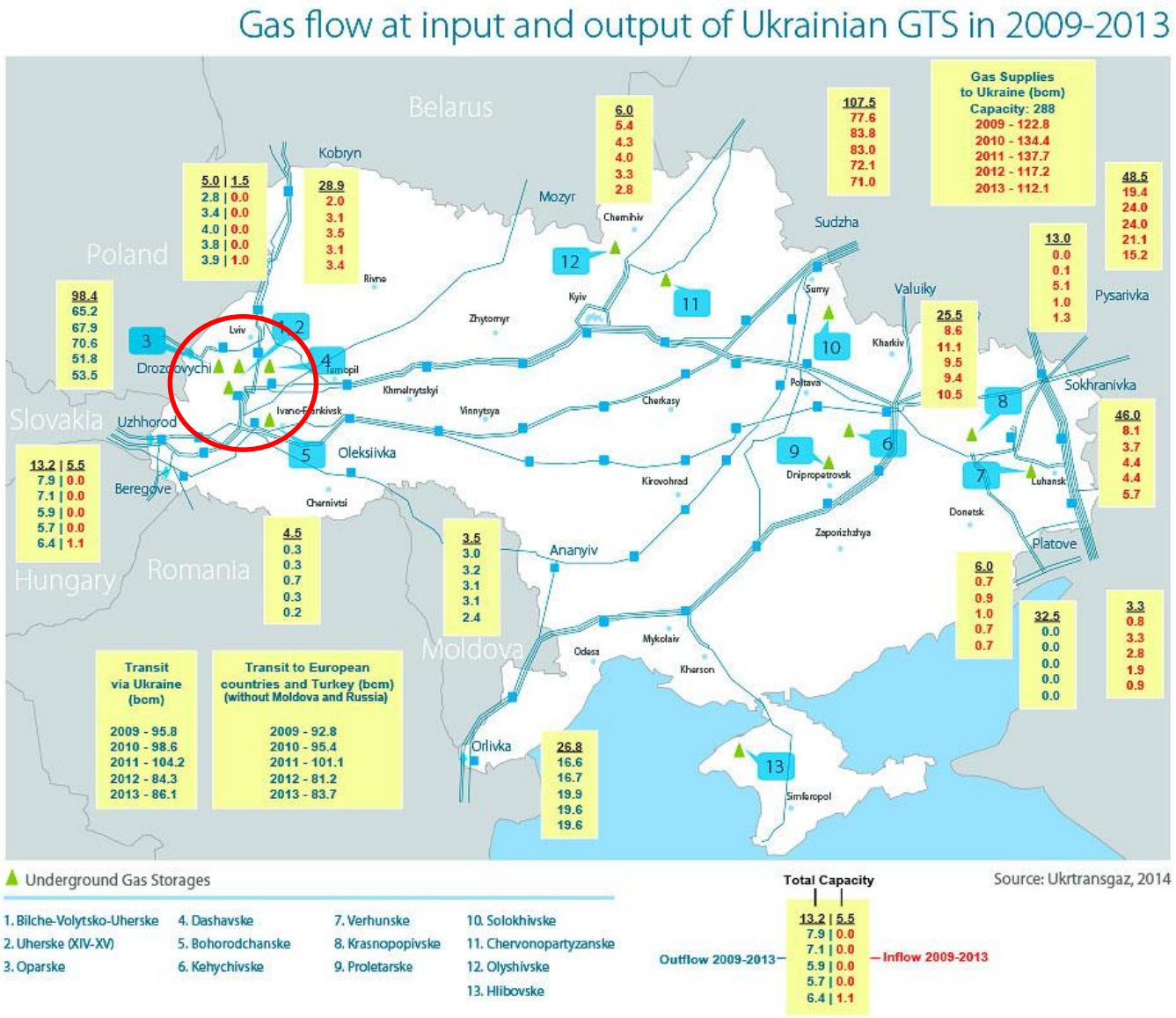


- Storages are key to security of supply – 32 bcm
- Peak flow (design) – 322 mmcm/d
- 5 storages in the western part of UA (near Slovakia) – 82% of total working volume
- 7 other storages - 18%

Ukrainian transit system and how it works

- System works from east to west
- Western storages therefore are part of the transit system to Europe
- Most of gas consumption is in the East of Ukraine - - > in order to use western storage capacity Ukraine must do swaps:
  - Take Russian gas transit in the east for own consumption and replace this volume from western storages to deliver to Slovakia/Poland/Hungary
- **36 hours** physical gas flows from east to west vs. **24 hours** of contractual obligation to deliver upon request from Gazprom
- The cost of this service has been remunerated by the 2010 balancing agreement btw GPM and NFG (cancelled in Jun-14 by Gazprom)

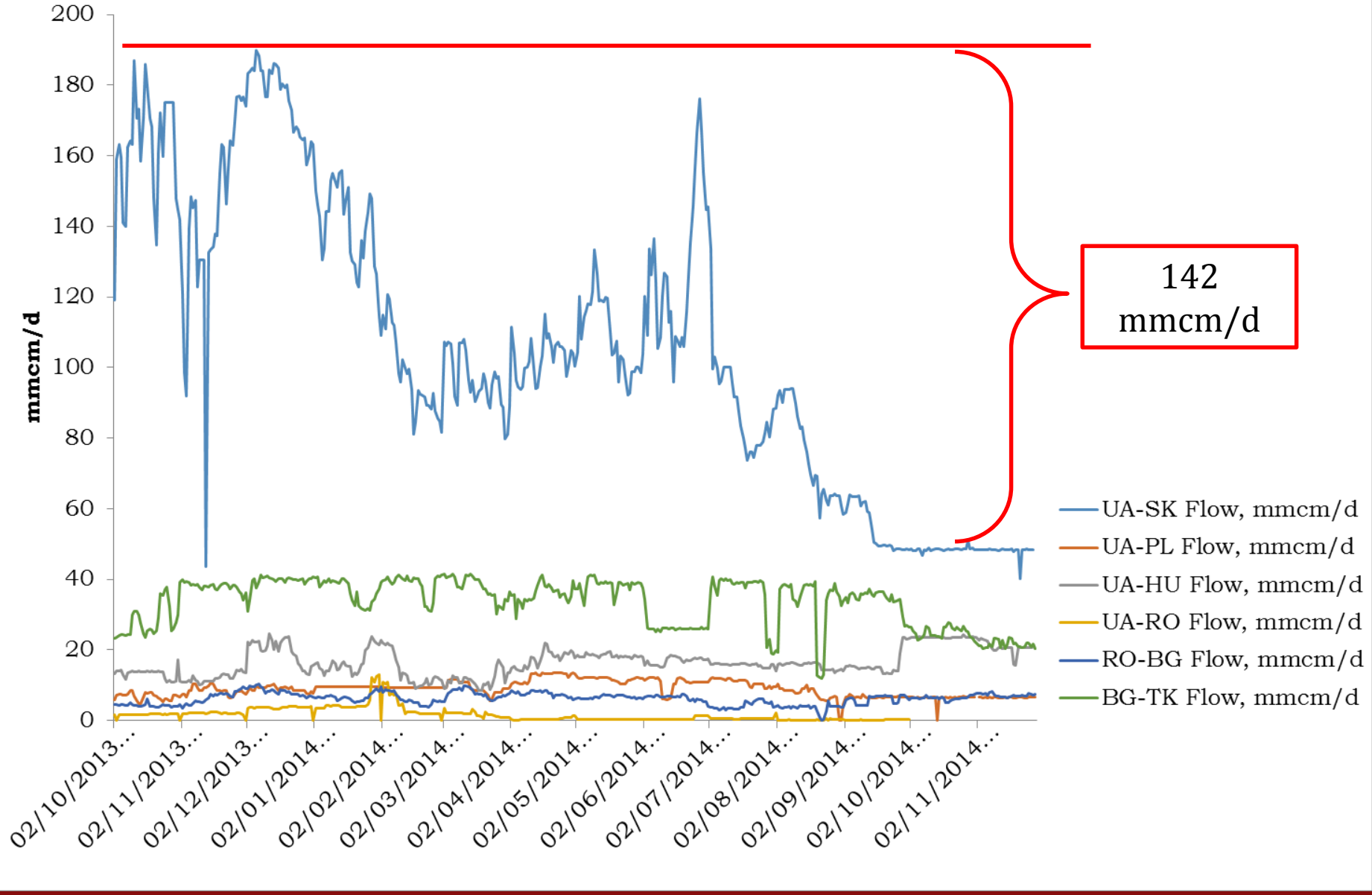
Ukrainian transit system and how it works

- Huge financial cost for Ukraine:
  - Buy gas in the low demand season for usage during the high demand season
  - This winter, Naftogaz has no commercial incentives to use storages (western) to meet Gazprom's peak demand – no balancing agreement in place btw GPM and NFG

What does it actually mean when Gazprom accuses that Ukraine is stealing its gas for European customers?

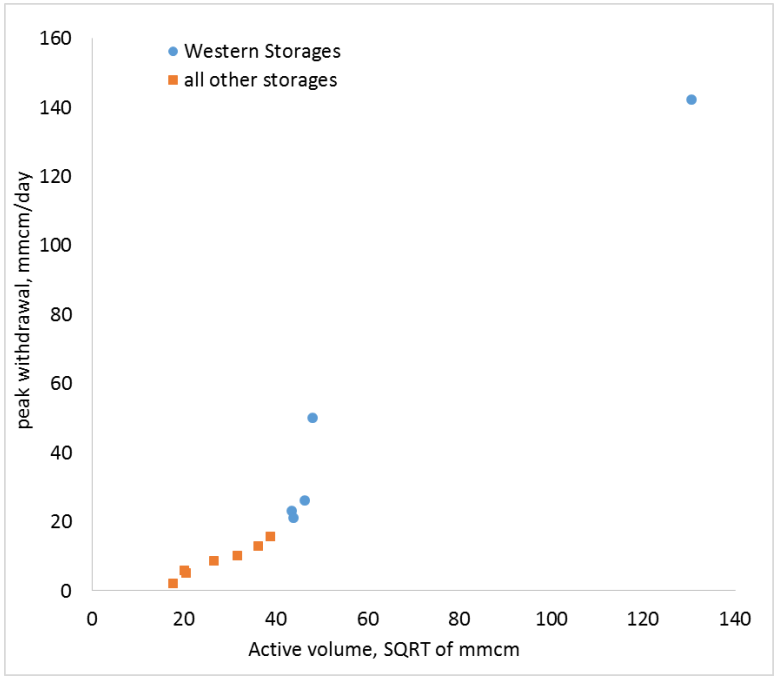
- Meeting peak demand in Western Europe (Slovakia, Poland and Hungary routes) is a function of:
  - Peak demand in Russia
  - Peak demand in Ukraine
  - Ability of western storages to **"ramp up"** withdrawal rate within 24 hours
- If Ukraine does not meet its transit obligations, what are Gazprom's options?

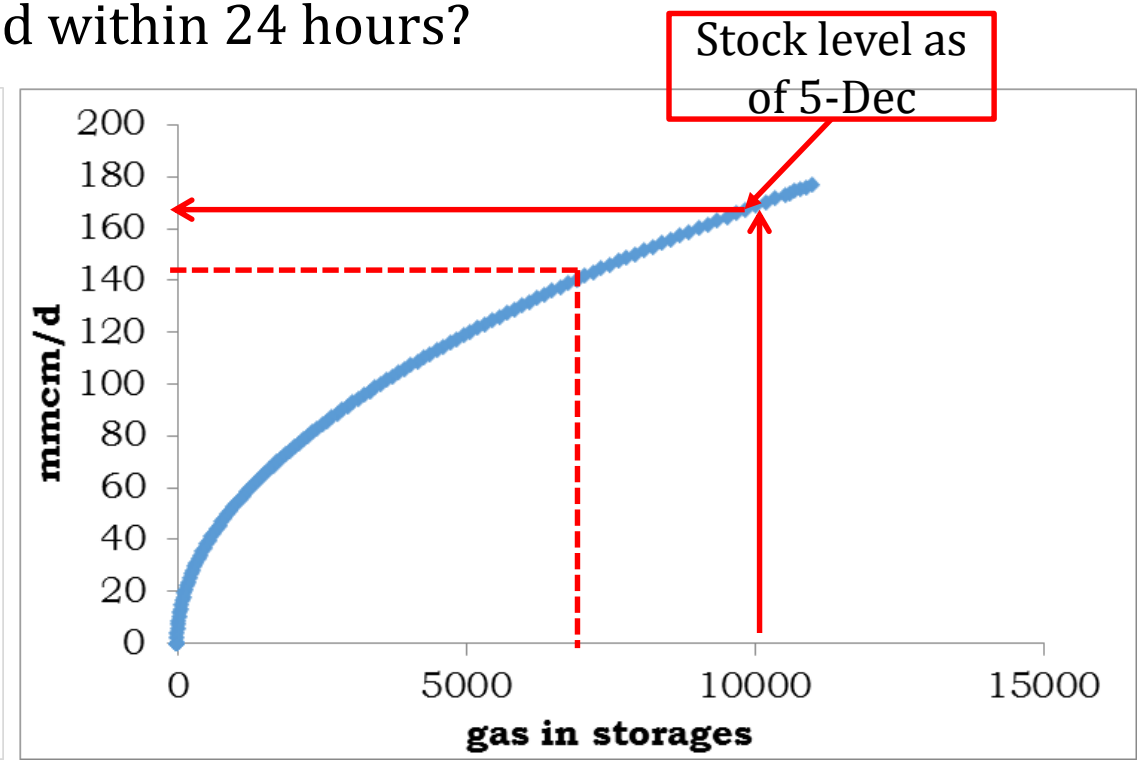
What does it actually mean when Gazprom accuses Ukraine of stealing its gas for European customers?



What does it actually mean when Gazprom accuses Ukraine of stealing its gas for European customers?

- Can western storages ramp up quickly to meet additional demand of 142 mmcm/d within 24 hours?

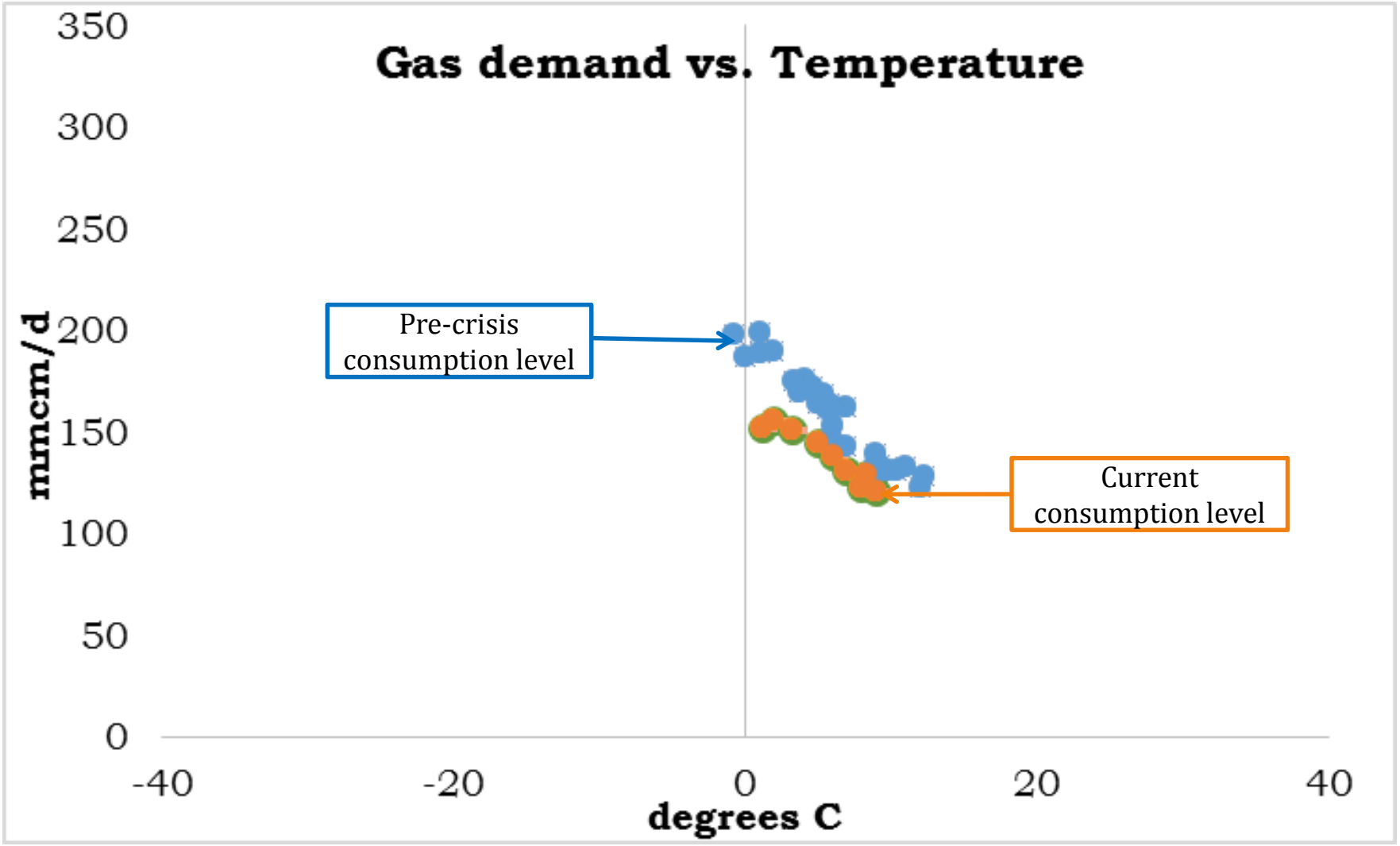




What does it actually mean when Gazprom accuses Ukraine of stealing its gas for European customers?

- Can western storages ramp up quickly to meet additional demand of 142 mmcm/d within 24 hours?
- If not, what this could mean for Gazprom:
  - Gazprom injects additional 142 mmcm/d at the eastern border and demands that this additional 142 mmcm/d should be delivered within 24 hours at the western border
  - If western storages are depleted to the extent (less than 7.06 bcm) that they would not be able to deliver those 142 mmcm/d, Gazprom could:
    1. Breach of contracts – *"we'll fine Ukraine"*
    2. Or yet better – Ukraine is stealing gas – *"look, we injected 142 mmcm/d but are not receiving this amount according to our contracts with Ukraine at the western border"*
  - Is the second option possible?
    - Ukraine and Russia are at war over eastern part of Ukraine
    - Anti-Russian sentiment in Ukraine is highest since 1991 and so does Russian citizens' support for Putin's actions in Ukraine - - > certainly does not help to settle this issue contractually (fines)

Will we have another gas crisis?



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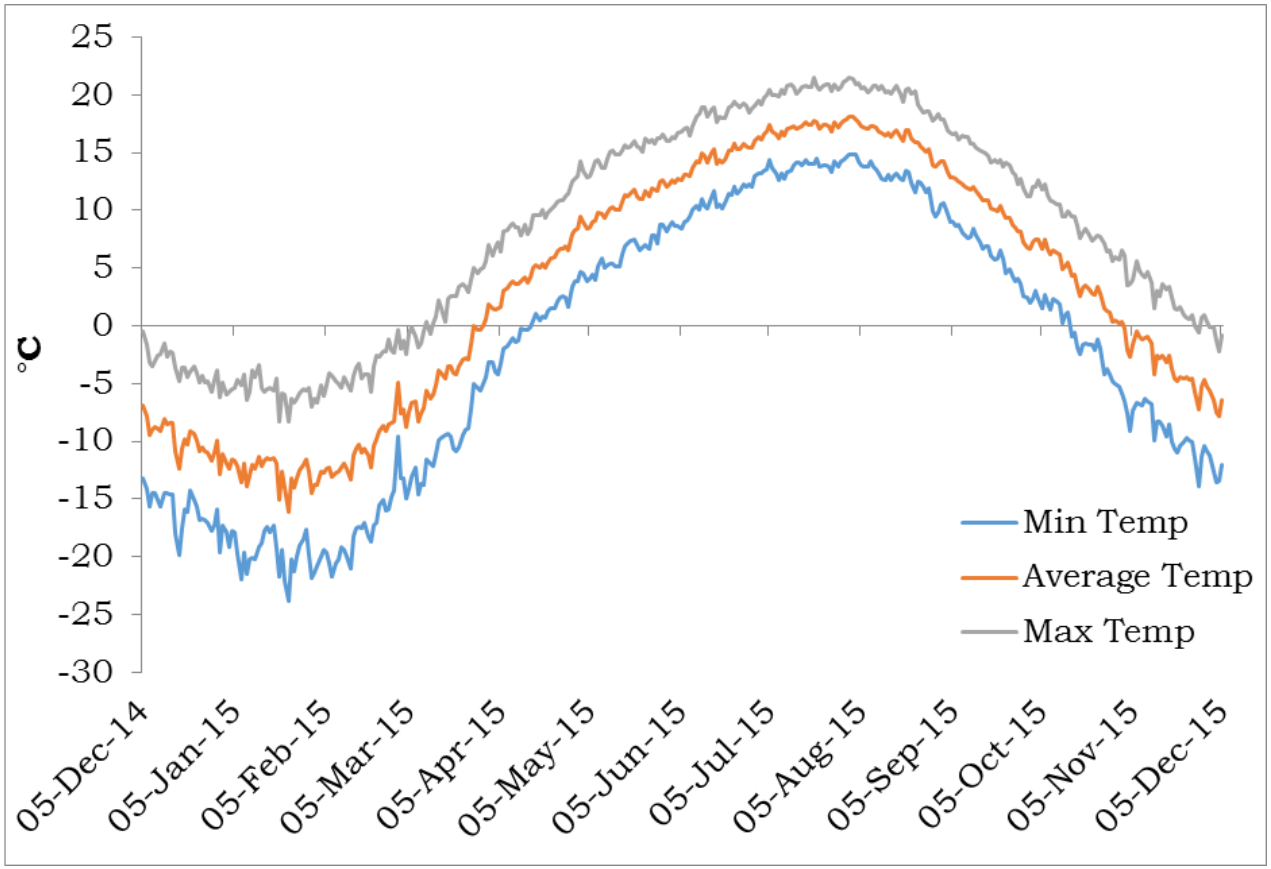
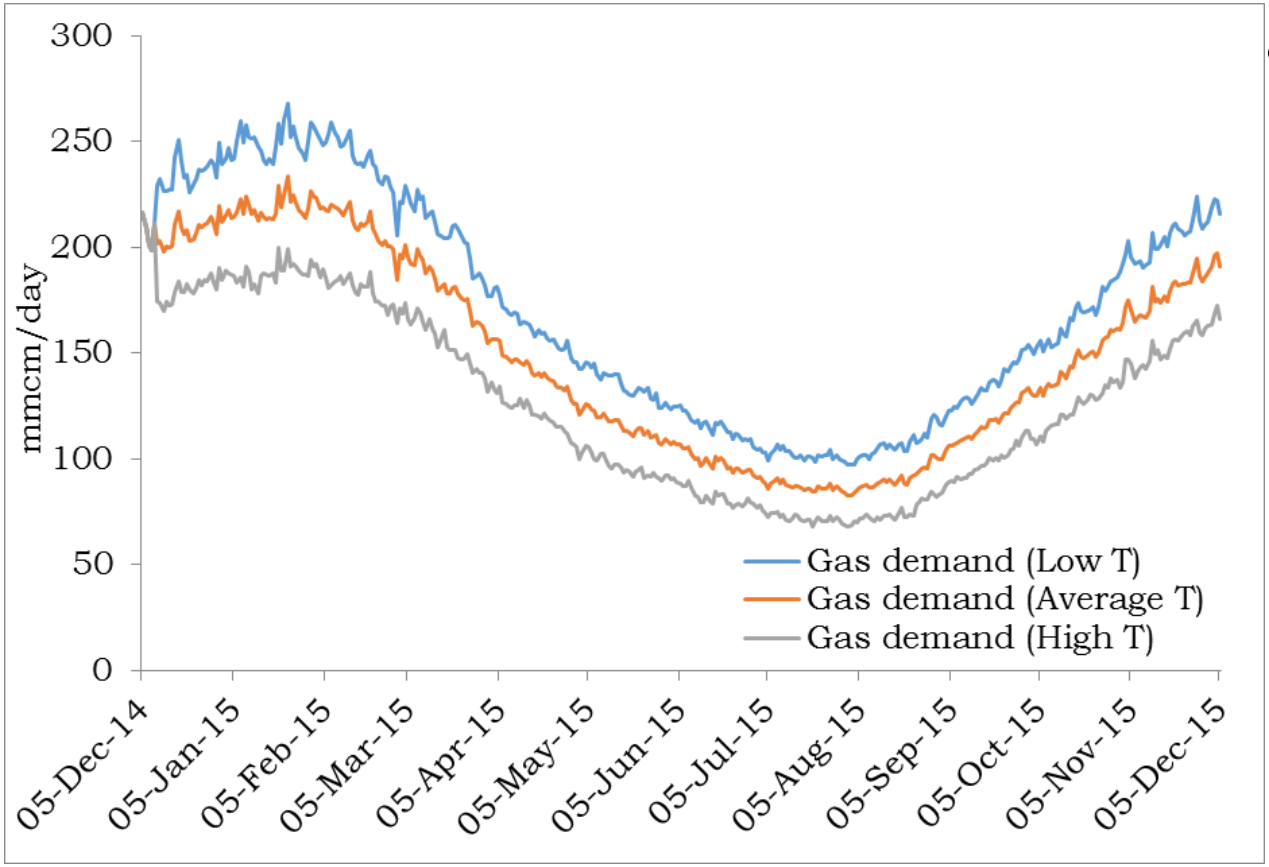


- Weighted average temperature in Ukraine:
  - Weights: regional shares in total gas consumption
  - Skewed towards east and centre of Ukraine where most demand is
- Dataset:
  - National Climatic Data Centre
  - Daily temperature for all Ukrainian regions since 1881

Will we have another gas crisis?



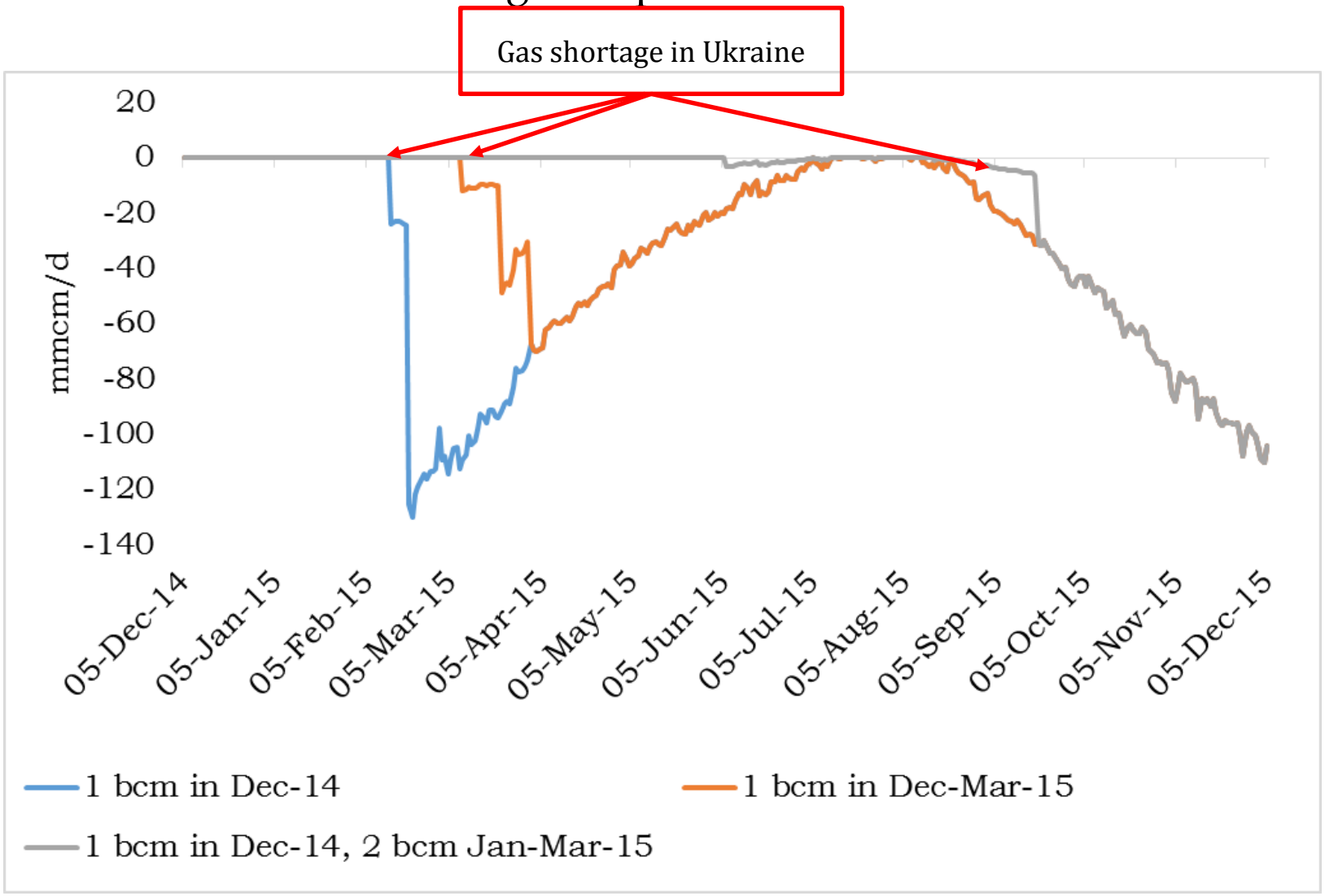
- Supply side:
  - Domestic production
  - Storages
  - Reverse flow from Central Europe
  - Russian gas

Will we have another gas crisis?

- Storage withdrawal rate from western facilities for UA's domestic consumption:
  1. cannot be higher than the total amount of gas injection for transit – due to swap arrangements
  2. Or higher than maximum technologically possible daily withdrawal, which is a function of how much gas is in storages

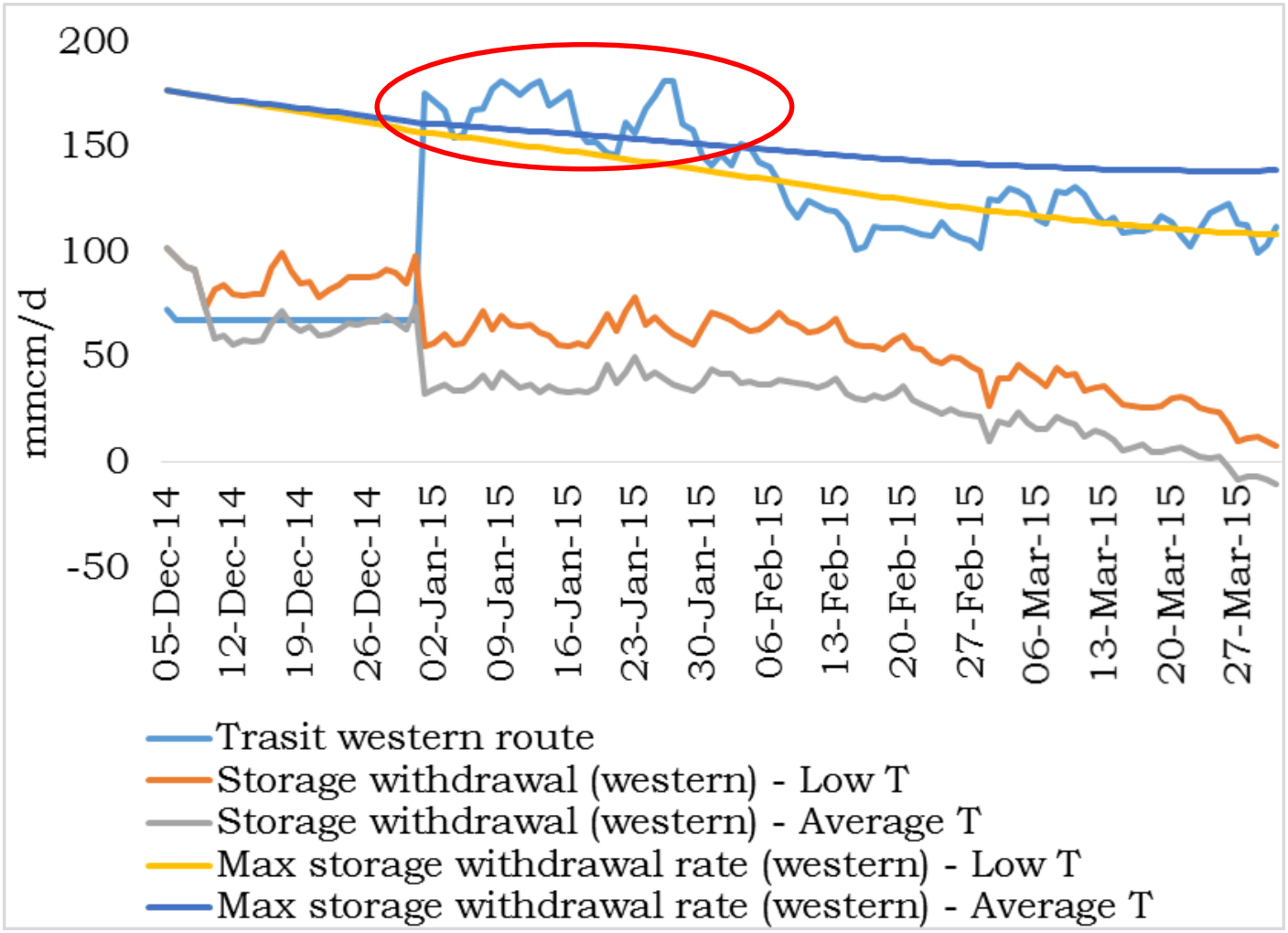
Will we have another gas crisis?

Average temperature scenario:



What about storage ability to ramp up to meet unexpected peak demand in Europe?

Ukraine off-take 1 bcm in Dec-14 and 2 bcm in Jan – Mar-15 of Russian gas



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Conclusions

- Europe should have insisted that Ukraine buy more gas from Russia so that not to use storages too much (hence reducing peak withdrawal rate)
- Or that Ukraine should have started buying gas from Russia much earlier than 9 Dec-14
- Economising on gas purchases from Russia at the expense of higher risks of European gas supply disruptions is understandable [from Ukraine's standpoint]
- However, given the level of support to Ukraine, the risks of transit disruption to Europe seem too high

Thank you

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