

Picture courtesy of Gas Connect Austria

Extra EU supply potentials TYNDP 2022

May 2021

Introduction

Introduction to extra EU supply potential

- Objectives of the extra EU supply potentials
 - Identify the possible supply potentials
 - Frame of the future: supplies are inputs to the modelling
 - Define constraints on the levels of supplies in order to avoid unrealistic supply situations
- How supply potentials are used in TYNDP 2022 scenarios simulations
 - The modelling always respects supply ranges between the minimum and the maximum for every source
 - Resulting supply mixes are an outcome of the modelling
 - The supply mix is also dependent on the scenario (different levels of demand)

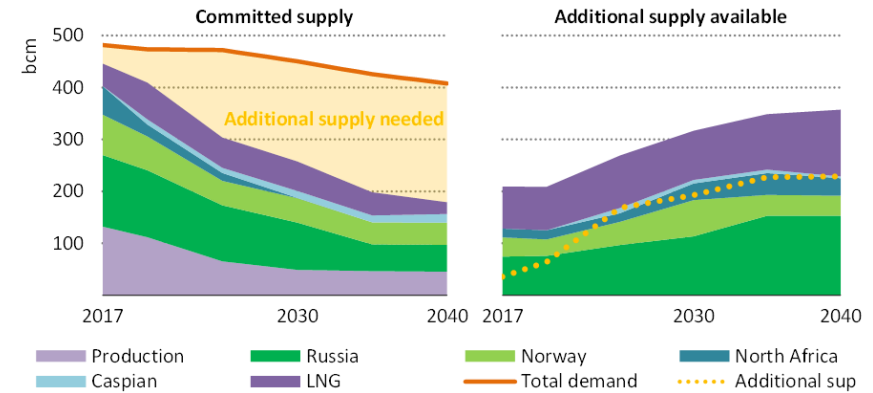
Supply results are determined by a combination of the supply potentials, network constraints and market assumptions

Extra EU supply potential – methodology TYNDP 2022

World Energy Outlook 2018 (IEA) as reference

Chapter 4: Outlook for natural gas

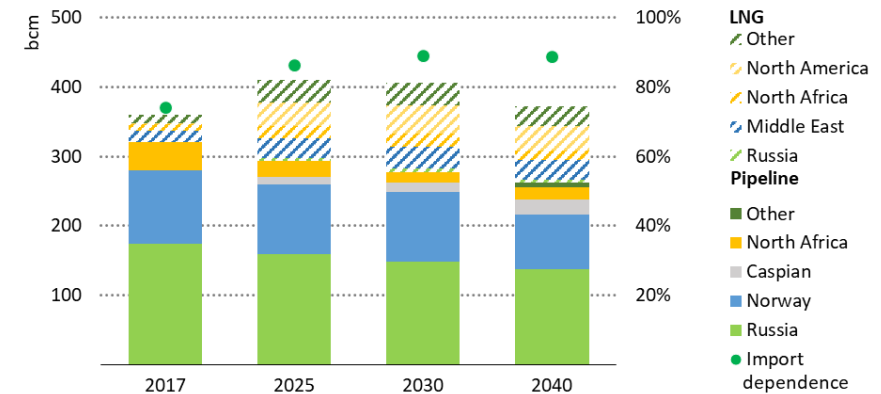
- Figure 4.18: European Union committed gas supply (minimum) and options to supply remaining import demand (maximum) in the **New Policies Scenario**.
- Figure 4.2: Natural gas imports and dependence in the Energy Union and Counterfactual cases.



WEO18 Figure 4.18

Meetings with producing companies, international organization and TSO

- The International Association of Oil and Gas Producers IOGP
- Gazprom and SOCAR
- Gassco

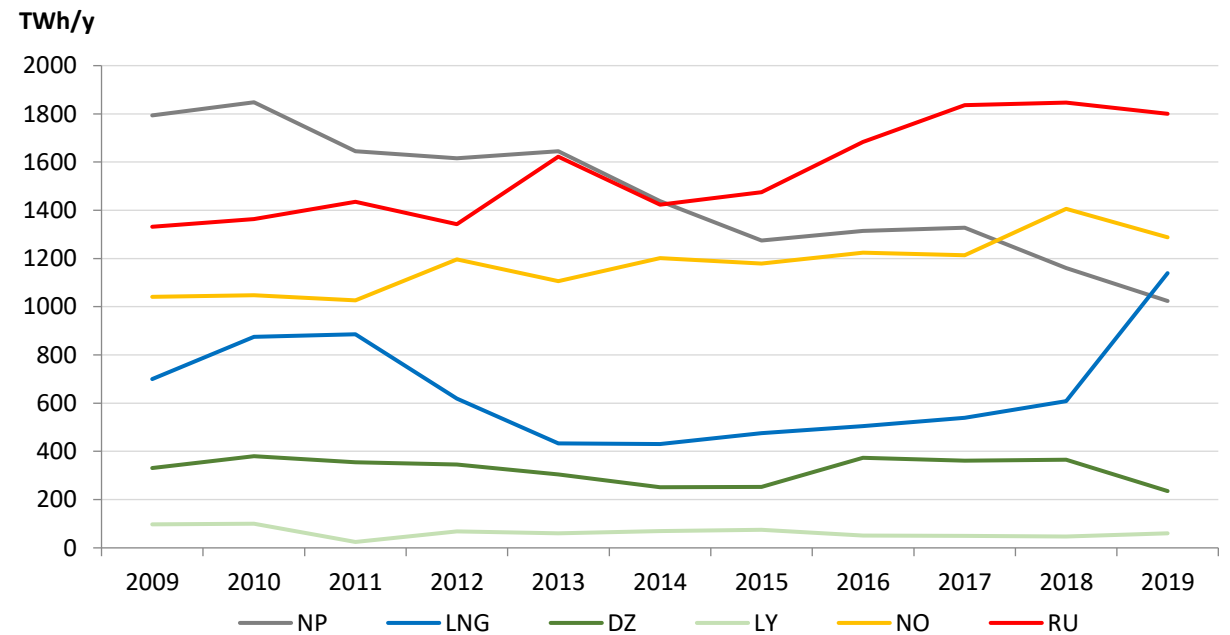
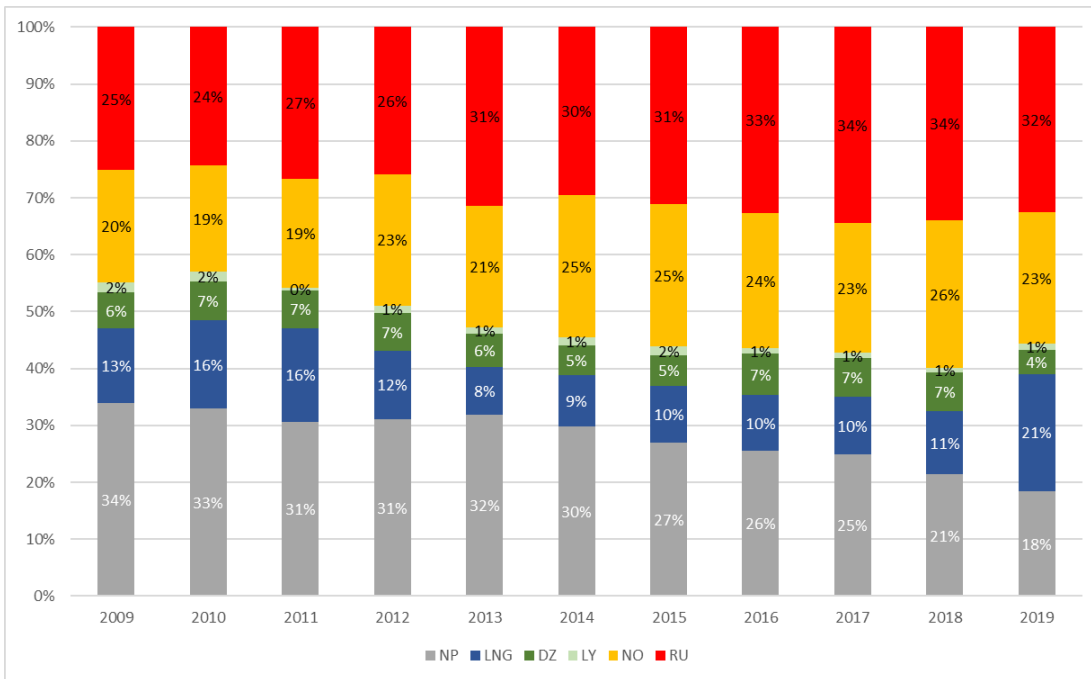


WEO18 Figure 4.2

Extra EU natural gas supply potentials

Import current status overview

- National Production: indigenous production is decreasing
- Russia: main extra EU gas supplier
- Norway: second largest gas supplier to the EU
- Algeria: 4% of the EU gas import in 2019
- Libya: less than 1% of the EU gas import in 2019
- LNG: **significant increase since 2018**



Source: ENTSG database

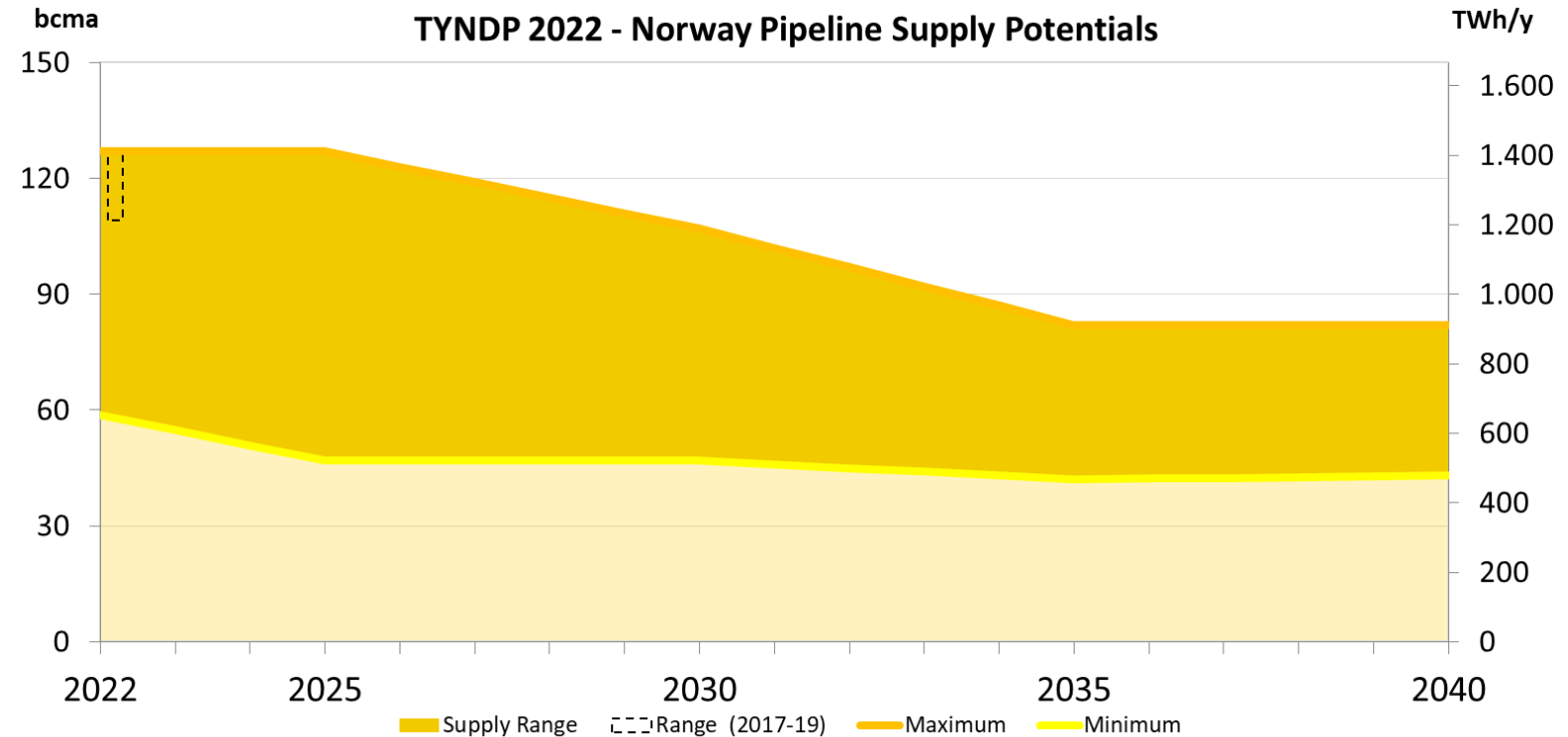
Supply potential from Norway

Comments

- The supply was 116 bcm in 2019 and resulted in a capacity load factor of approximately 0,82.
- The projection of the maximum potential is aligned with Norwegian Petroleum Directorate data.
- The max. potential accounts for between 16-25% relative to EU demand (2019).

Pipeline Entry Capacity from Norway* [GWh/d]			
2020	2025	2030	2040
4302	4609	4609	4609

*Infrastructure level: TYNDP 2020 - Advanced



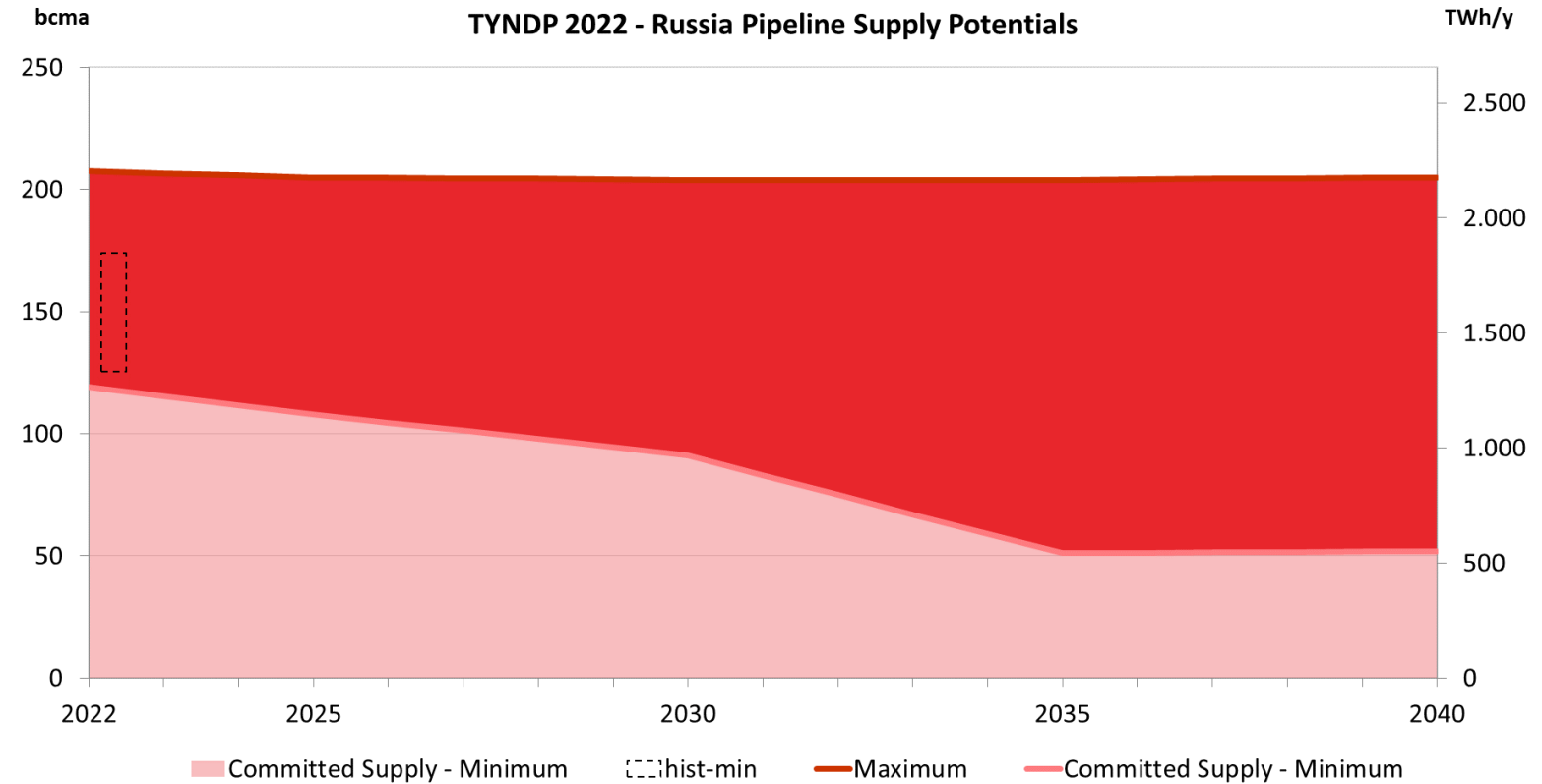
Supply potential from Russia

Comments

- In 2019 the supply was 170 bcm and resulted in a capacity load factor of 0,60.
- The maximum potential is around 210 bcma which accounts for 41% of EU demand (2019). The minimum volume is the committed supply from WEO 2018.
- The projection is aligned with WEO 18.

Pipeline Entry Capacity from Russia* [GWh/d]			
2020	2025	2030	2040
8175	9150	9150	9150

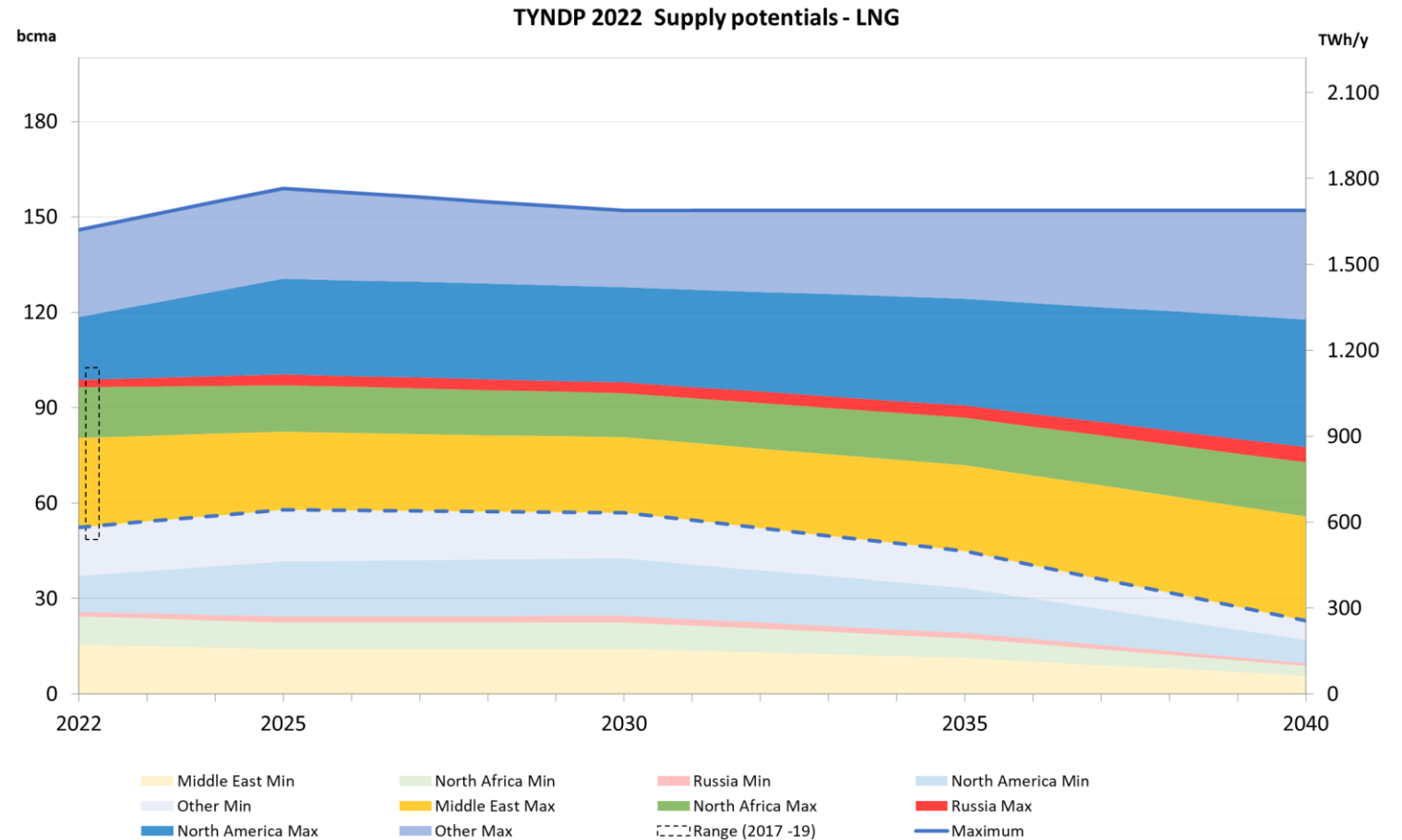
*Infrastructure level: TYNDP 2020 - Advanced



Supply potential from LNG

Comments

- In 2019 the supply was 103 bcm and resulted in a capacity load factor of 0,48.
- The projection of the maximum potential is approximately constant after 2025 and account for 32% of EU demand (2019).
- TYNDP 2022 is based on WEO 2018 European LNG Potential.



Pipeline Entry Capacity from LNG* [GWh/d]			
2020	2025	2030	2040
6510	7263	7489	7489

*Infrastructure level: TYNDP 2020 - Advanced

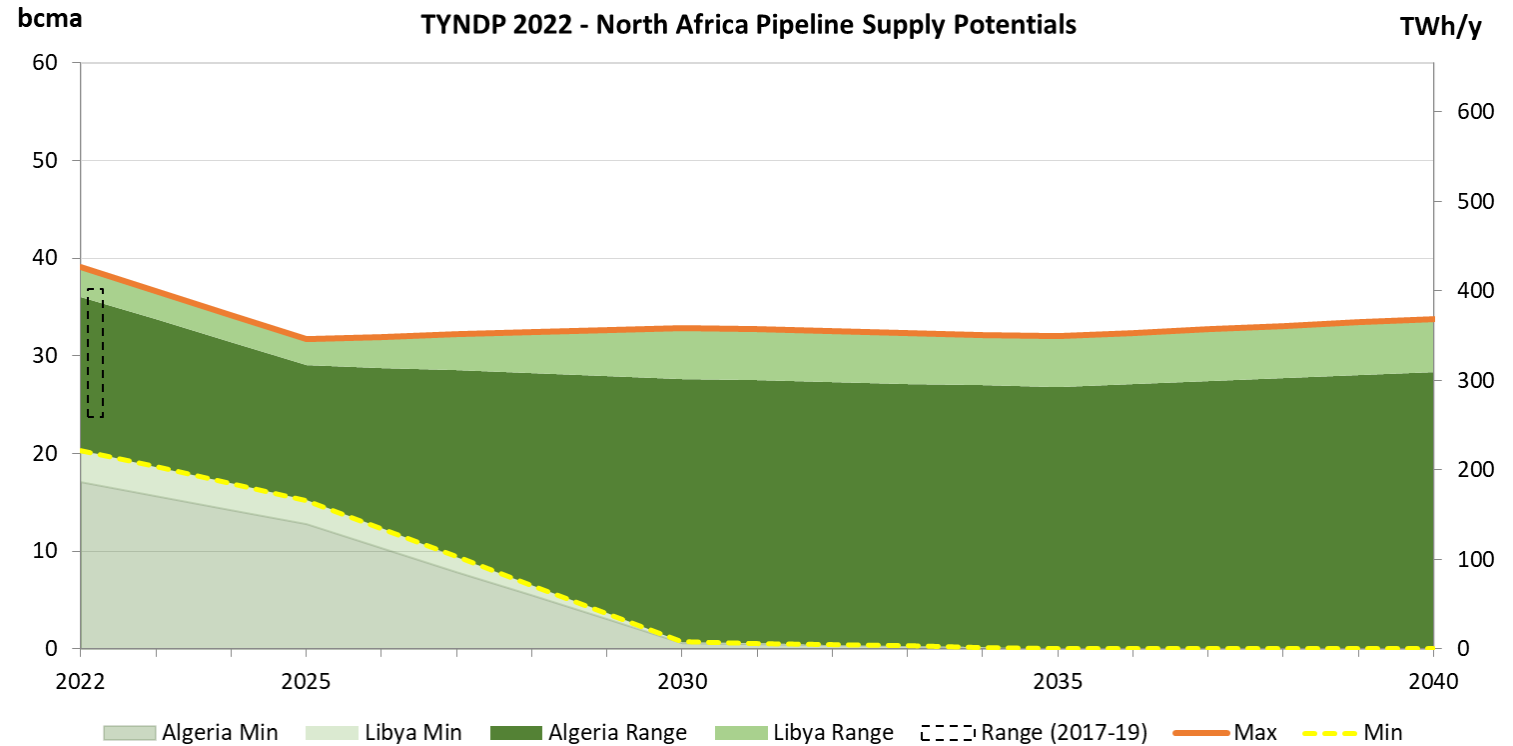
Supply potential from North Africa

Comments

- In 2019 the supply was 27 bcm and resulted in a capacity load factor of 0,35.
- The projection of the maximum potential in 2025 accounts for approximately 6% of EU demand (2019). The corresponding capacity load factor is approximately 0,37.

Pipeline Entry Capacity from North Africa* [GWh/d]			
2020	2025	2030	2040
2322	2580	2580	2580

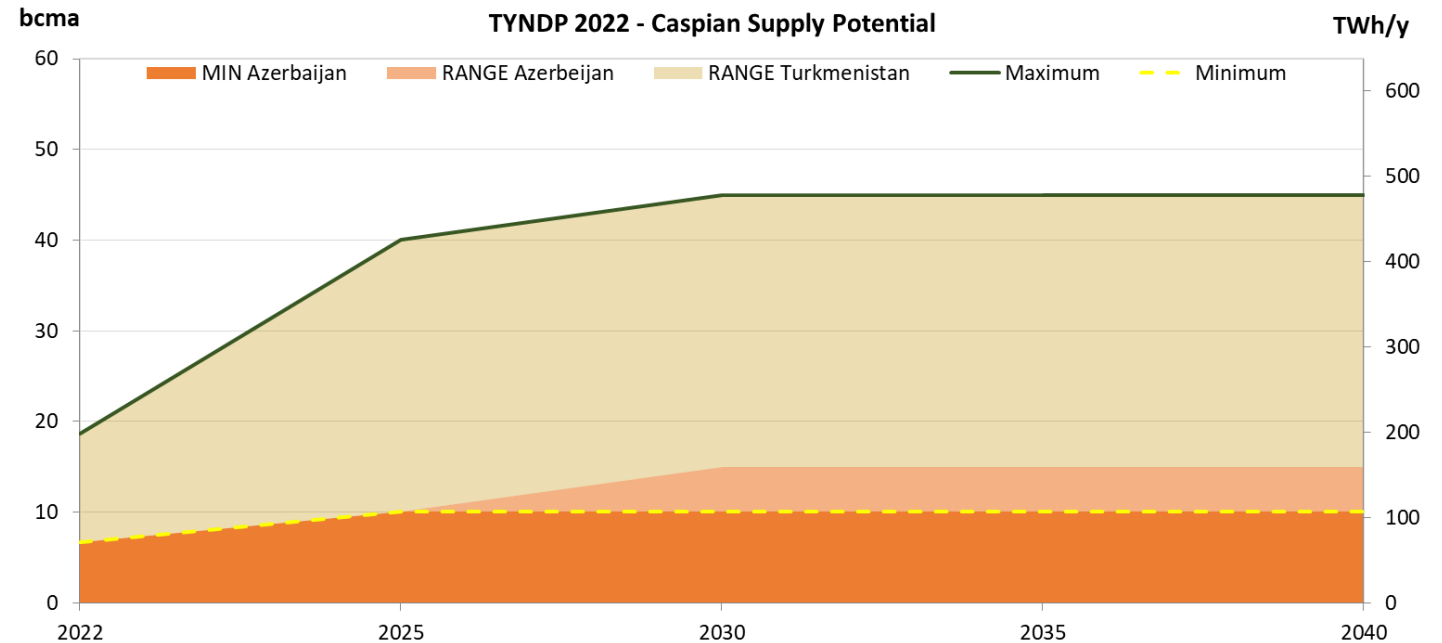
*Infrastructure level: TYNDP 2020 - Advanced



Supply potential from Caspian region

Comments

- The projection of the maximum supply potential can account for up to 9% of EU demand (2019).
- The Shah Deniz field could supply 10 bcma to EU.
- The maximum potential supply from Turkmenistan (30 bcma) is particularly dependent on the Trans-Caspian pipeline (TCP) project which would cross the Caspian Sea to Azerbaijan.



Pipeline Entry Capacity from Caspian Region and Turkey* [GWh/d]

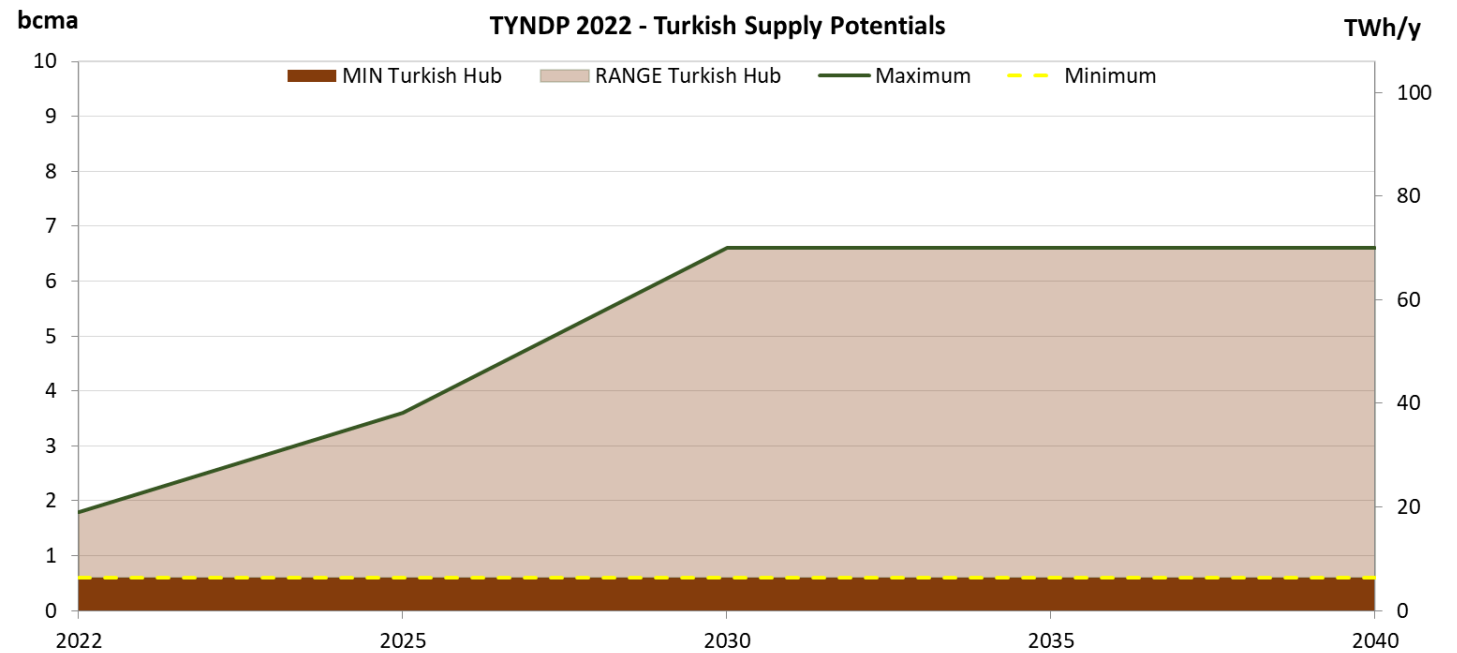
2020	2025	2030	2040
595	1002	1123	1123

*Infrastructure level: TYNDP 2020 - Advanced

Supply potential from Turkey

Comments

- The projection of the maximum supply potential can account for up to 1% of EU demand (2019).
- Turkey imports gas from a variety of supply sources
- The Turkish maximum supply potential is assumed to around 7 bcma in 2030, which can be redirected gas from Azerbaijan, Russia or the LNG market.



Pipeline Entry Capacity from Caspian Region and Turkey* [GWh/d]

2020	2025	2030	2040
595	1002	1123	1123

*Infrastructure level: TYNDP 2020 - Advanced



Thank you for your attention

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Additional information

Extra EU natural gas potential

