

End of Russian gas – how will Austria cope?

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Vienna, 26 September 2024

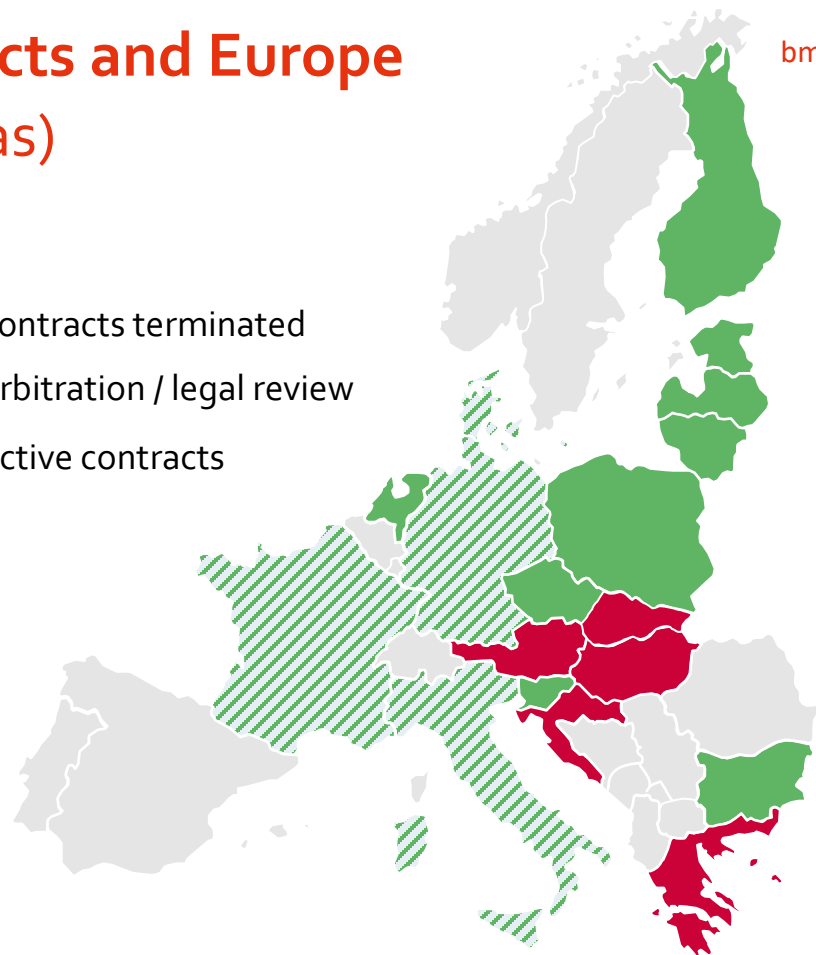
Developments in the Austrian gas market since 2022

Gazprom contracts and Europe (LTCs, pipeline gas)

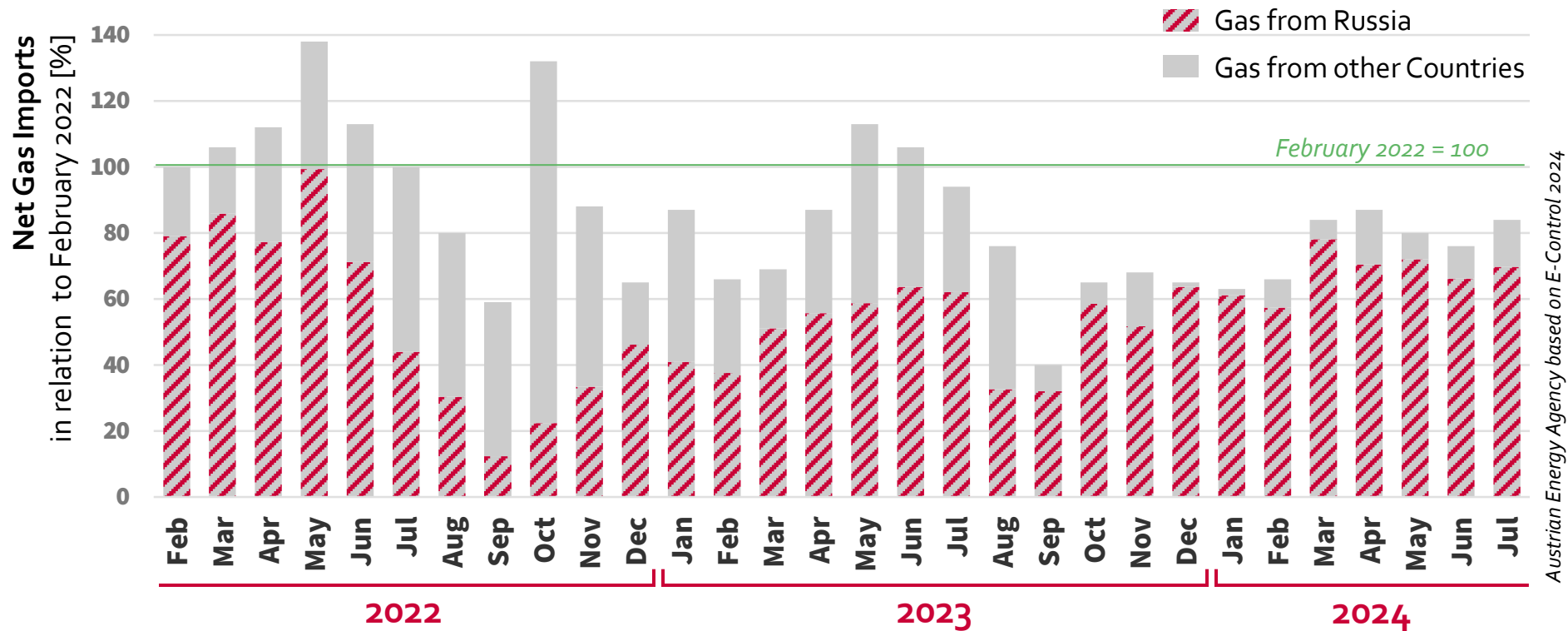
Country*	Volume and contract duration (Mrd m ³ p.a.)
Hungary	3,5 via Turkstream + 1,0 via Ukraine (2036)
Austria	6,0 (2040)
Slovakia	6,5 (2034)
Croatia	1,0 (2027)
Greece (incl. LNG)	3,0 (2026)

* Note: Contracts with Gazprom are not held by the countries themselves, but by companies in these countries (e.g. OMV in the case of Austria). The underlying Oxford paper does not claim to be exhaustive, but refers to the largest customers in the respective countries

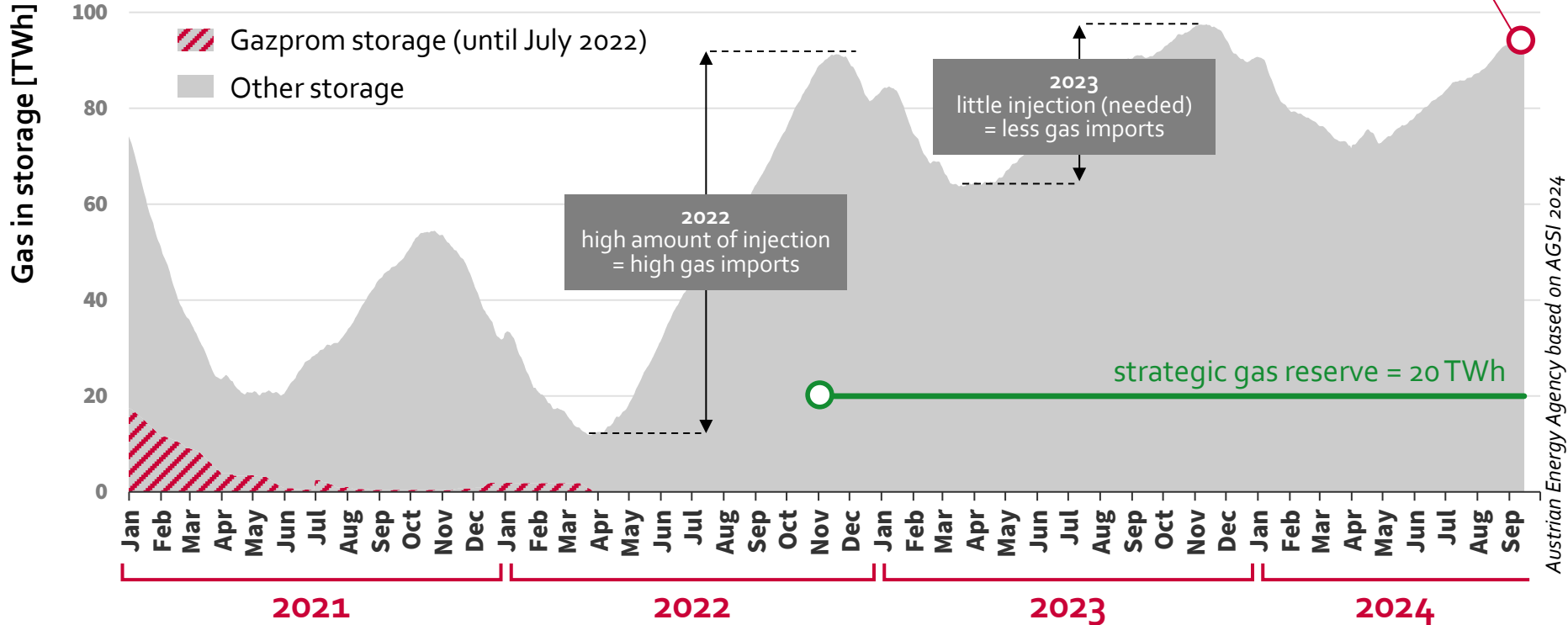
 contracts terminated
 arbitration / legal review
 active contracts



Share of Russian Gas in Net Imports (Austria)

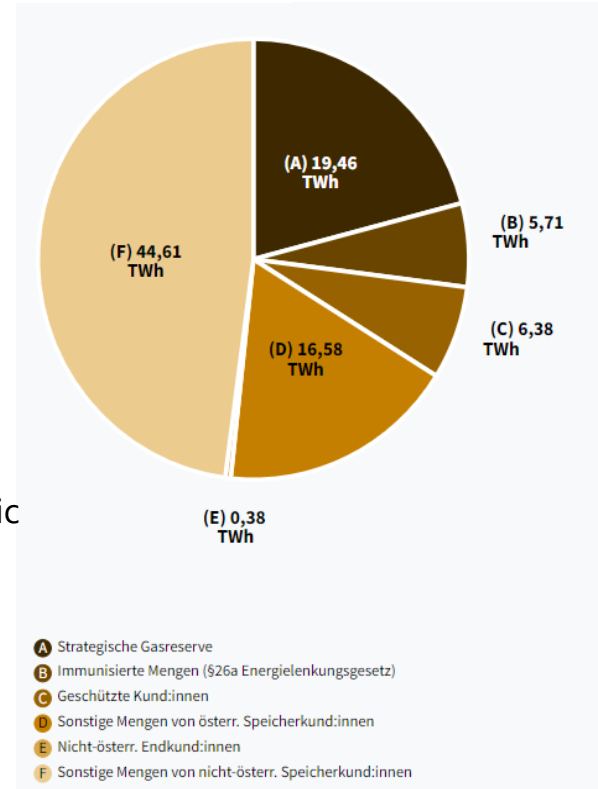


Gas Storage in Austria

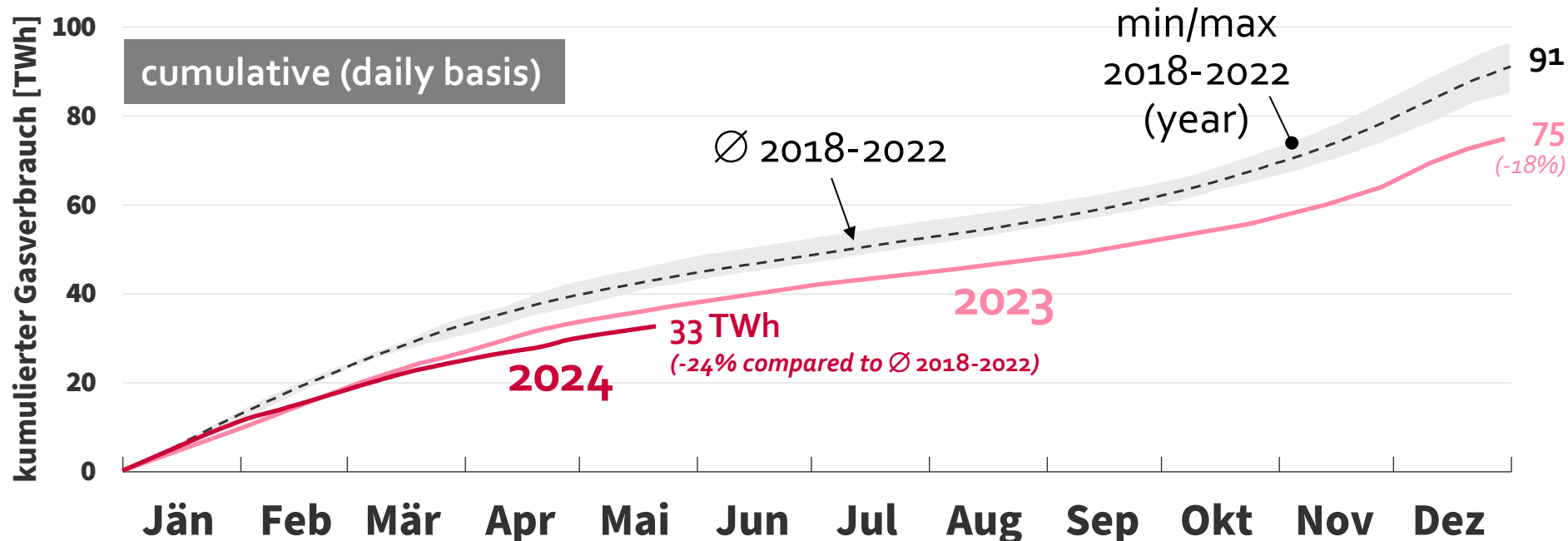


Who owns the stored gas?

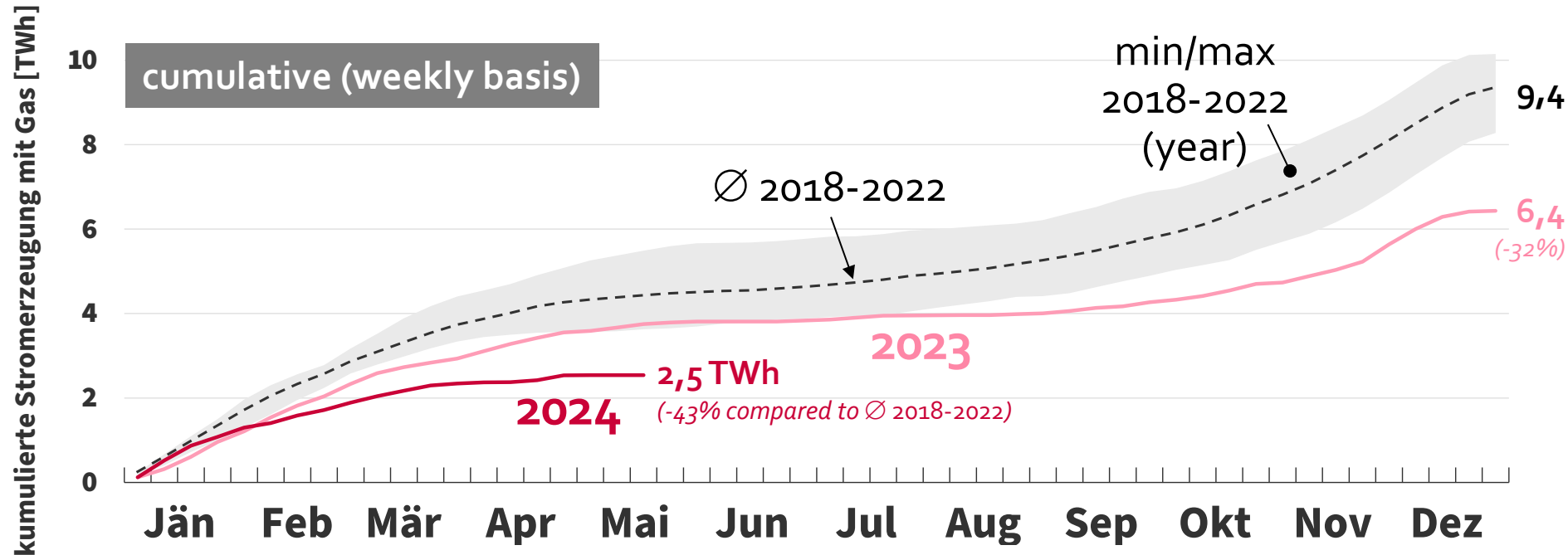
- **Non-discriminatory access to storage**, German/Italian/Slovenian/etc companies store gas in Austria, too
- **UGS Haidach**: primarily serving the German market, yet also relevant for Austrian regions of Vorarlberg and Tirol. Use-it-or-Lose-it: UGS filled up again since 08/22, capacities marketed by SEFE Storage and RAG ES.
- **UGS Láb** in Slovakia primarily serving the Austrian market area east.
- **Strategic gas reserve**: 20 TWh as of November 2022, owned by the Republic of Austria.
- Currently, about **48 TWh of stored gas** can be attributed directly and indirectly to Austria (Republic, companies) ▶▶



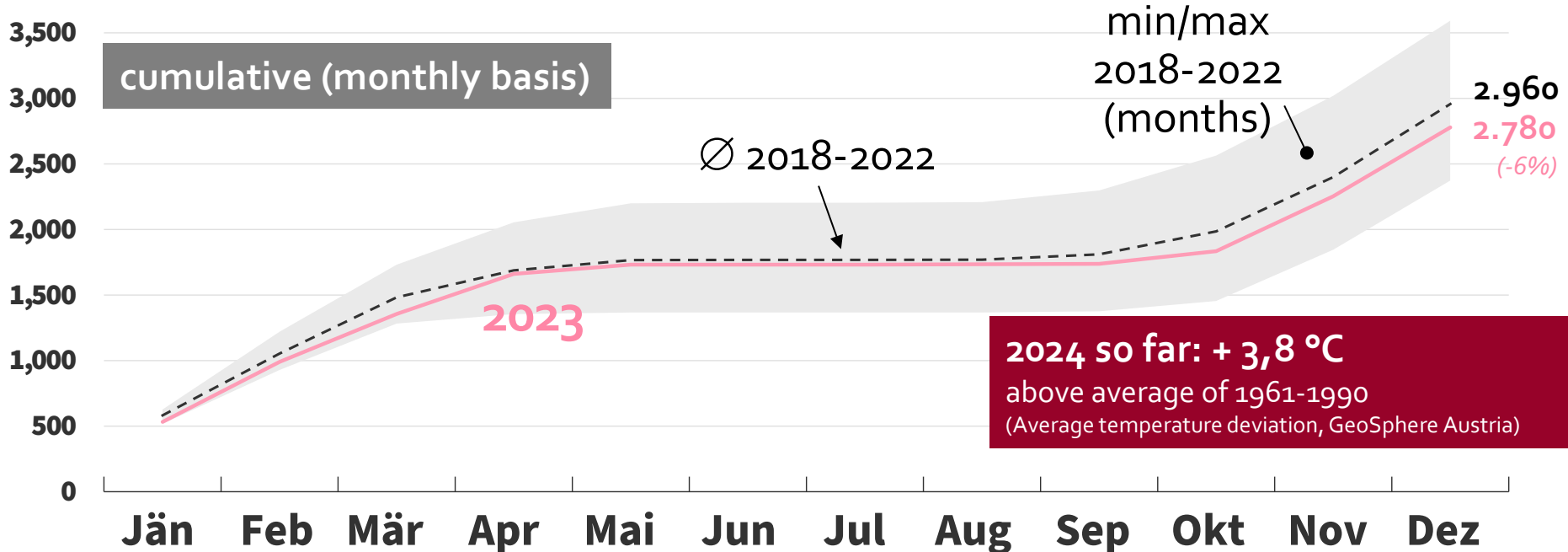
Decrease in gas consumption since 2022



Power generation in gas-fired power plants has declined



Heating degree days were well below average in 2023



Market areas in Austria

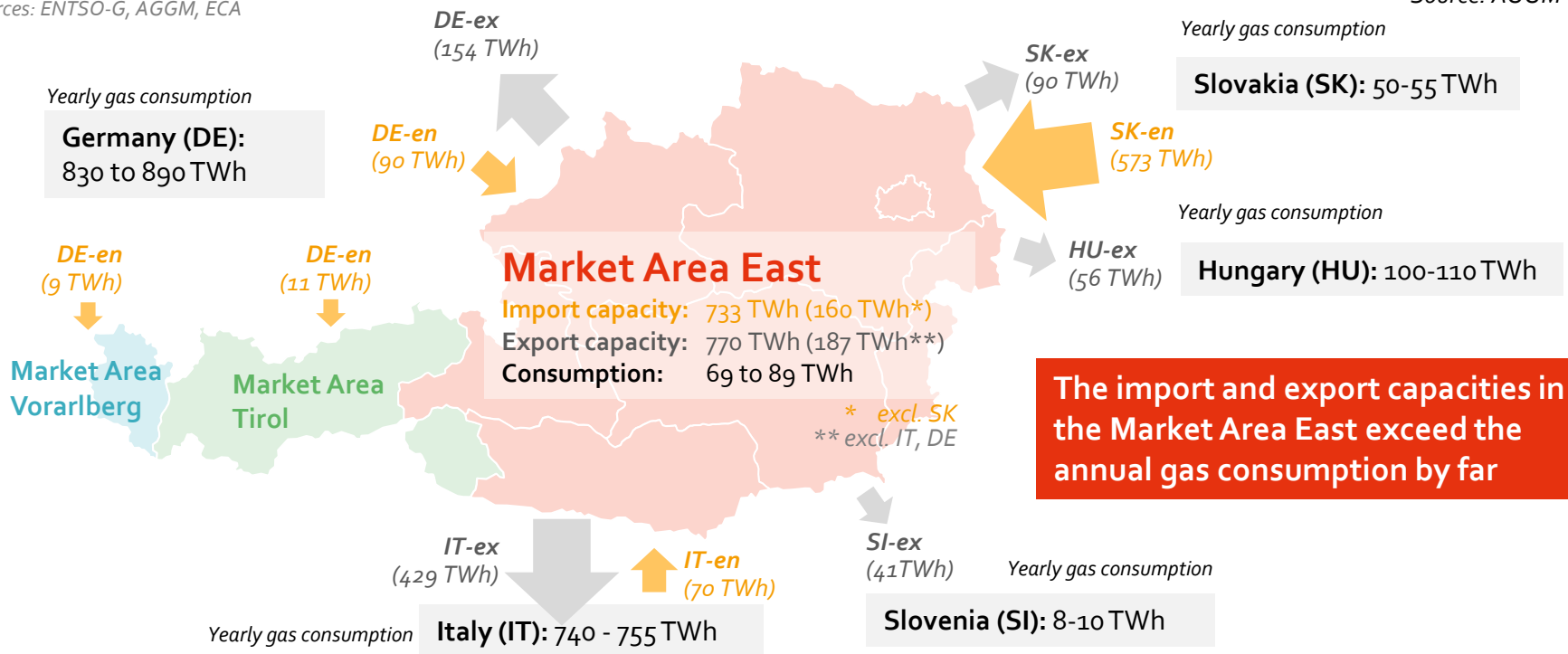
Cross border capacities

(in brackets: technical maximum capacity per year)
excl. dedicated pipelines for UGS and smaller border crossings

Sources: ENTSO-G, AGGM, ECA

Consumption	Ø 2017-2021	2022	2023
MA East	86,5	78,9	69,0
MA T	4,3	4,1	3,9
MA V	2,4	2,3	2,2
Austria	93,2	85,2	75,1

Source: AGGM



Gas diversification measures taken since 2022

Diversification of gas procurement | measures

- **Austrian strategic gas reserve:** app. half of the 20 TWh was purchased from non-Russian origin; the strategic reserve was recently prolonged until 2027
- **Austrian gas diversification act 2022:** Support of extra costs of supply and use of natural gas from non-Russian sources; the act was recently prolonged until 2027
- **Reinforced supply standard:** Supply standard extended to 45 days; in the case of verifiably non-Russian gas, the stockholding obligation is reduced to 30 days
- **AggregateEU:** successful participation of Austrian companies

Diversification of gas procurement | measures

- **Security of supply concepts:** Suppliers have to draw up concepts to prepare for the immediate loss of their largest single source of supply
- **Survey and disclosure** of the shares of Russian gas
- **Legal opinion on force majeure in gas supply contract published:** Suppliers cannot claim force majeure after more than 2 years of war
- **German gas storage levy:** Intense efforts from Austrian government and EU partners vis-à-vis German government to abandon the Germany gas storage levy at interconnection points with neighbouring countries. Parliamentary process to abandon the levy by 2025 is ongoing

Diversification of gas procurement | infrastructure measures

- **Capacity increase** at Italian-Austrian interconnection point towards Austria from 70 TWh/year to 90 TWh/year starting from October 2024
- **Expansion of gas infrastructure** for higher gas imports from Germany (“WAG expansion”) approved by regulator; commissioning scheduled for 2027
- **OMV booked abundant capacities** at the interconnection points with Germany and Italy for the next gas years

Looking ahead




Risk profile | gas supply

- **Interruption of the pipeline via Ukraine possible at any time**
(act of war, sabotage etc.)
- **Expiry of the transit agreement between Ukraine and Russia at the end of 2024**
- **Unilateral supply reduction by Russia**

What if?

These scenarios serve to analyse and illustrate effects. They do not claim to predict reality. In the event of a crisis, the underlying parameters and measures must be evaluated and adapted on an ongoing basis.

Scenario analysis | methodology

- E-Control calculation tool for entire Austria (all three market areas)
- Starting month of the analysis: May 2024
- Period under review: 106 weeks (until mid May 2026)
- Assumptions on **annual gas consumption**
 -  80 TWh: average from 2022 and 2023
 -  85 TWh: „cold winter“
 -  89 TWh: „very cold winter“
- Consumption is assumed to be the same for both model years
- ‘very cold’ therefore means: 2 consecutive years of ‘very cold winters’

Scenario analysis | methodology

- **Gas flows are based on the last 12 months (but can be adapted in the tool)**
 - **Domestic production** of 6,2 TWh per year (98% natural gas, 2 % biomethane)
 - **„via the East“**: Imports via Baumgarten (via Slovakia), outflows towards Slovenia and Hungary, partly also Slovakia (characterised by storage movements)
 - **„via Germany“**: Imports via Oberkappel + Überackern, but also to supply the market areas Tirol and Vorarlberg (from the north/west) and for storage management (Haidach, 7 Fields)
 - **„via Italy“**: Imports via Arnoldstein, party also outflows towards Italy
- **Storage level**: Situation end of April 2024 (based on historical values: 73 TWh)
- **Adjustable in the tool**: gas consumption reduction/increase in 88 sectors or areas [%], price effects, substitution, energy intervention, consumption-increasing effects

In the event of a Russian gas supply stop via Ukraine, Austria's neighbouring countries will also face new challenges, with significant effects on the modelling of scenarios for Austria:

- ▶ **Slovenia** (~ 10 TWh consumption) can - assuming gas volumes - switch to flows via Croatia (capacity: 2,8 TWh), Italy (capacity: 14 TWh) and Austria (capacity: 41 TWh). **An increase in outflows from Austria in the direction of Slovenia is not assumed in the event of a supply stop.**
- ▶ **Slovakia** (~ 55 TWh consumption) can switch to flows via Poland (capacity: 64 TWh), the Czech Republic (capacity: 511 TWh), Austria (capacity: 90 TWh) and Hungary (capacity: 18 TWh). **An increase in outflows from Austria to Slovakia was taken into account in the modelling (10 - 20 TWh p.a. in addition to 13 TWh).**
- ▶ **Hungary** (~ 110 TWh consumption) would be less affected by a halt of the Ukraine transit because a large proportion of Russian gas is imported via TurkStream. Imports via Austria (capacity: 56 TWh), Romania (capacity: 27 TWh), Serbia (capacity: 89 TWh), Croatia (capacity: 18 TWh), Slovakia (capacity: 47 TWh) and Ukraine (capacity: 188 TWh) are possible. According to the Hungarian Foreign Minister, Hungary can compensate for a Ukraine transit stop by increasing imports via TurkStream. **It is therefore not assumed that there will be an increase in outflows from Austria to Hungary in the event of a delivery stop (beyond the current level).**

Sources for capacities: ENTSO-G.

Note: In some cases, there are upstream bottlenecks that do not allow the capacities to be fully utilised (e.g. Czech Republic ▶ Slovakia)

Scenarios

- ▶ **No gas shortage** in any of the scenarios analysed (observation: May 2024 to mid-May 2026)
- ▶ A partial release of the strategic reserve only occurs in scenarios that show very high gas consumption (89 TWh) in two consecutive years. Exception: In a 'cold' scenario (85 TWh), 1 TWh of gas must be withdrawn from the reserve.
- ▶ A high consumption scenario (89 TWh) can de facto be ruled out for 2024. Gas consumption to date in 2024 is 24% below the 2018-2022 average of 91 TWh.
- ▶ Due to reduced consumption and above-average temperatures, the **storage level** in Austria - as in other EU countries - will remain **at a high level** after the heating period. The **strategic reserve** owned by the Republic of Austria also ensures **security of supply**.
- ▶ Proactive **diversification** measures beyond the current level are **necessary** in order to reduce the risks - especially **price risks** - in the event of an abrupt halt of the Ukraine transit and to enable the gas storage facilities to be refilled before winter 25/26.
- ▶ The system and market dynamics will change in the event of the Ukraine transit being stopped. The **expansion of import capacities** (DE/IT - WAG Loop, Arnoldstein) increases security and has an easing effect on prices, but is **not a prerequisite for the proactive diversification of gas procurement**.

More information on the scenarios can be found here:

https://www.bmk.gv.at/themen/energie/publikationen/szenarien_gasversorgung.html

Thank you for your attention!

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