NATIONAL TEN-YEAR NETWORK DEVELOPMENT PLAN OF THE INTEGRATED NATURAL GAS SYSTEM

March 2025

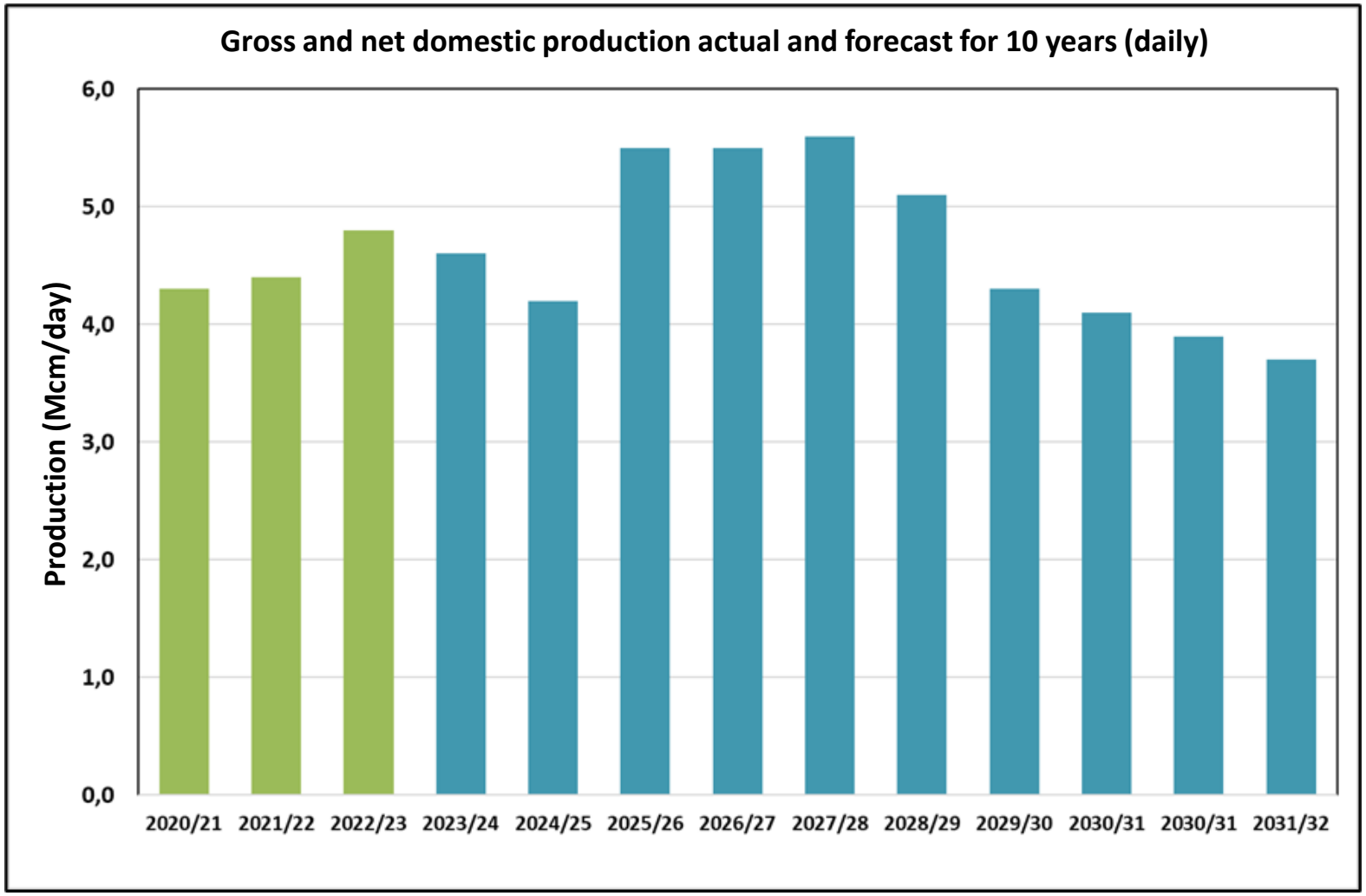
FGSZ

A MOL-CSOPORT TAGJA

Ten-year Network Development Proposal

- Pursuant to Article 96(5) of the Implementing Decree of Act XL of 2008 on Natural Gas Supply (Gas Act), the transmission system operator submitted its application for approval of the results of the coordinated capacity review pursuant to Article 82(2) of the Gas Act and the ten-year network development proposal to the Hungarian Energy and Public Utility Regulatory Authority (hereinafter referred to as the NRA) by 31 May 2024.
- The transmission system operator prepared the supplement to the coordinated capacity review, which was submitted to the NRA for approval by its letter dtd. 3 December 2024.
- By its decision No. H402/2025 dtd. 19 February 2025, the NRA approved the Ten-year Network Development proposal of the interconnected natural gas system. (accessible here in Hungarian: 10 éves fejlesztési javaslat jóváhagyása)

Decreasing indigenous gas production trend

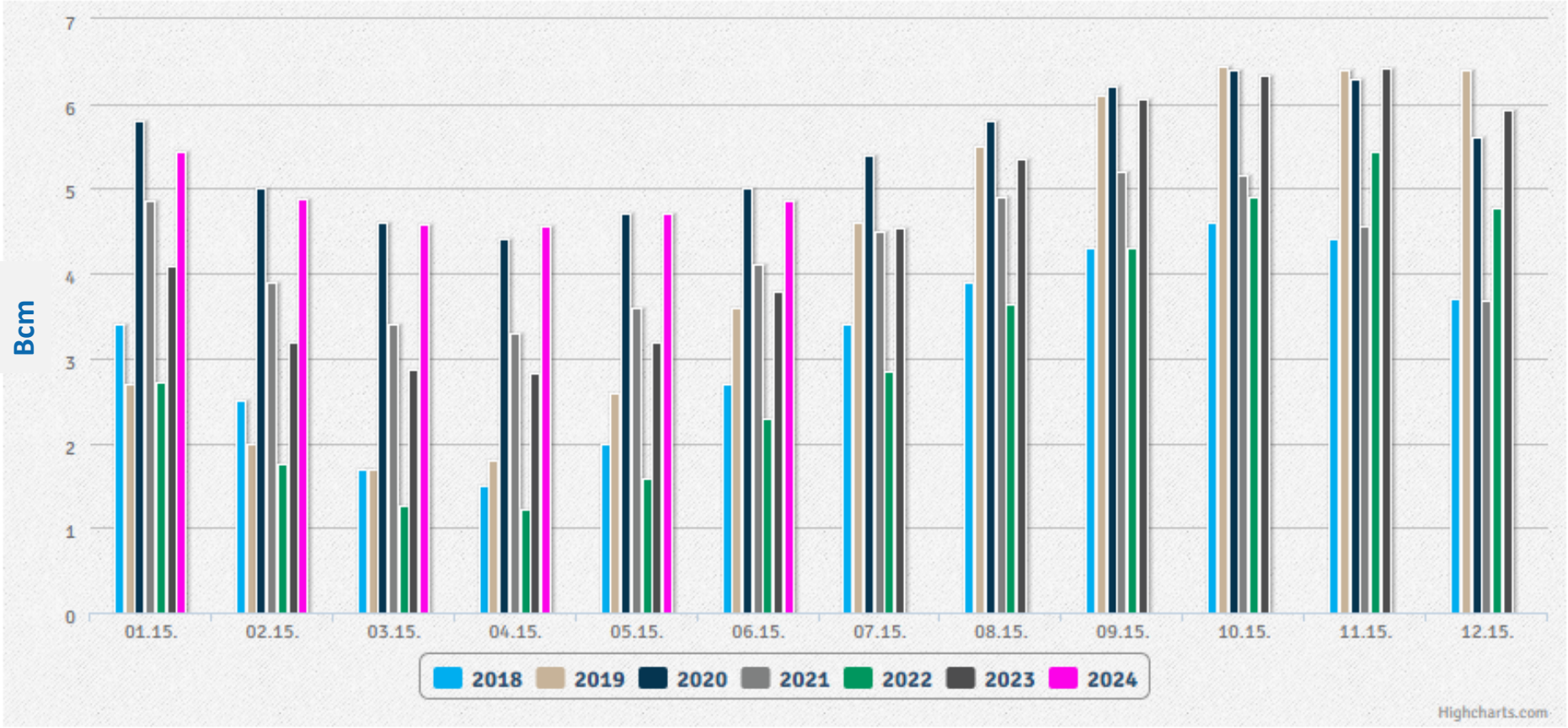


Source: Ten-year Network Development proposal 2024

Legend:

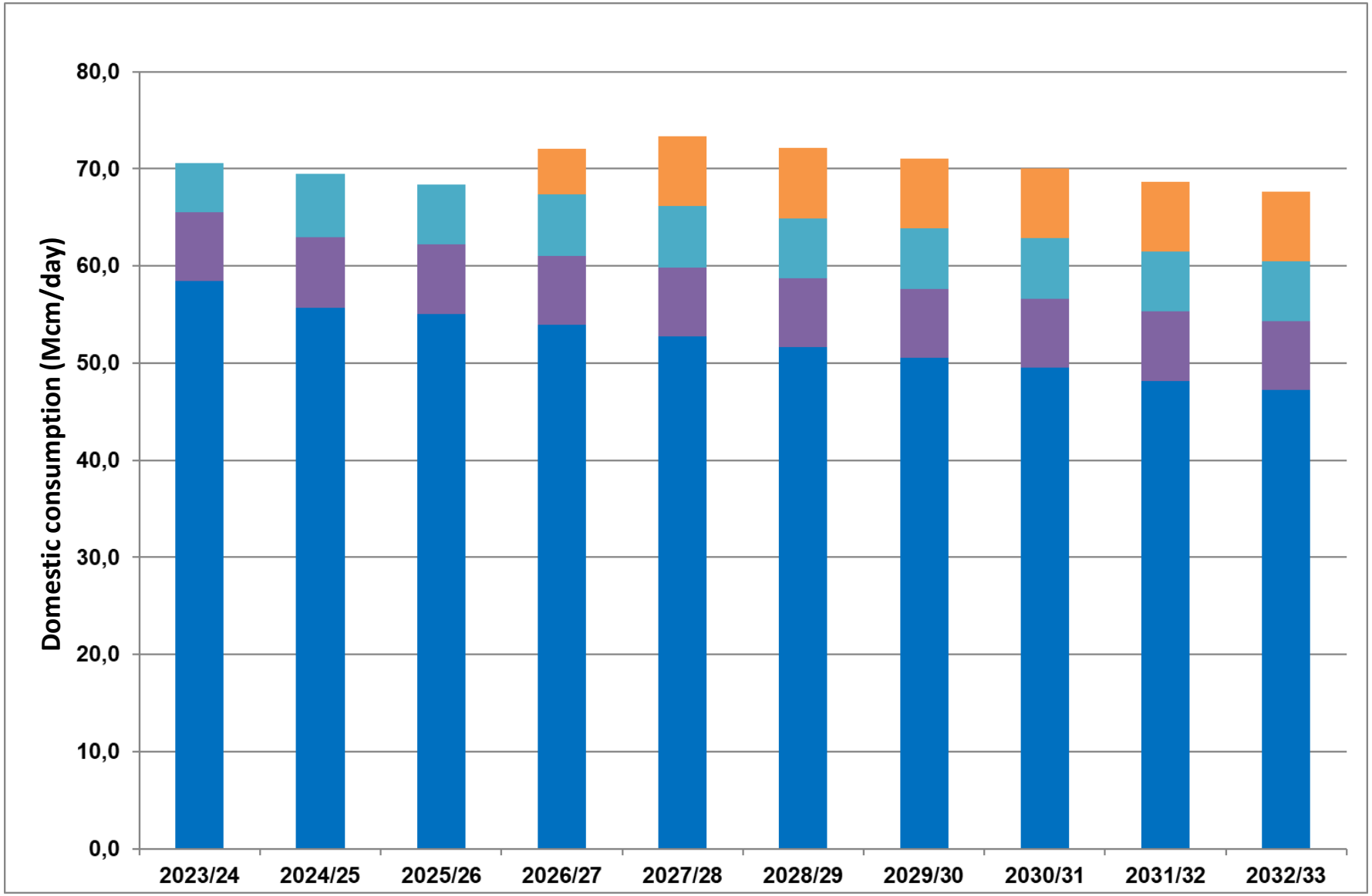
- actual
- forecast

Stock levels in the natural gas storages in Hungary



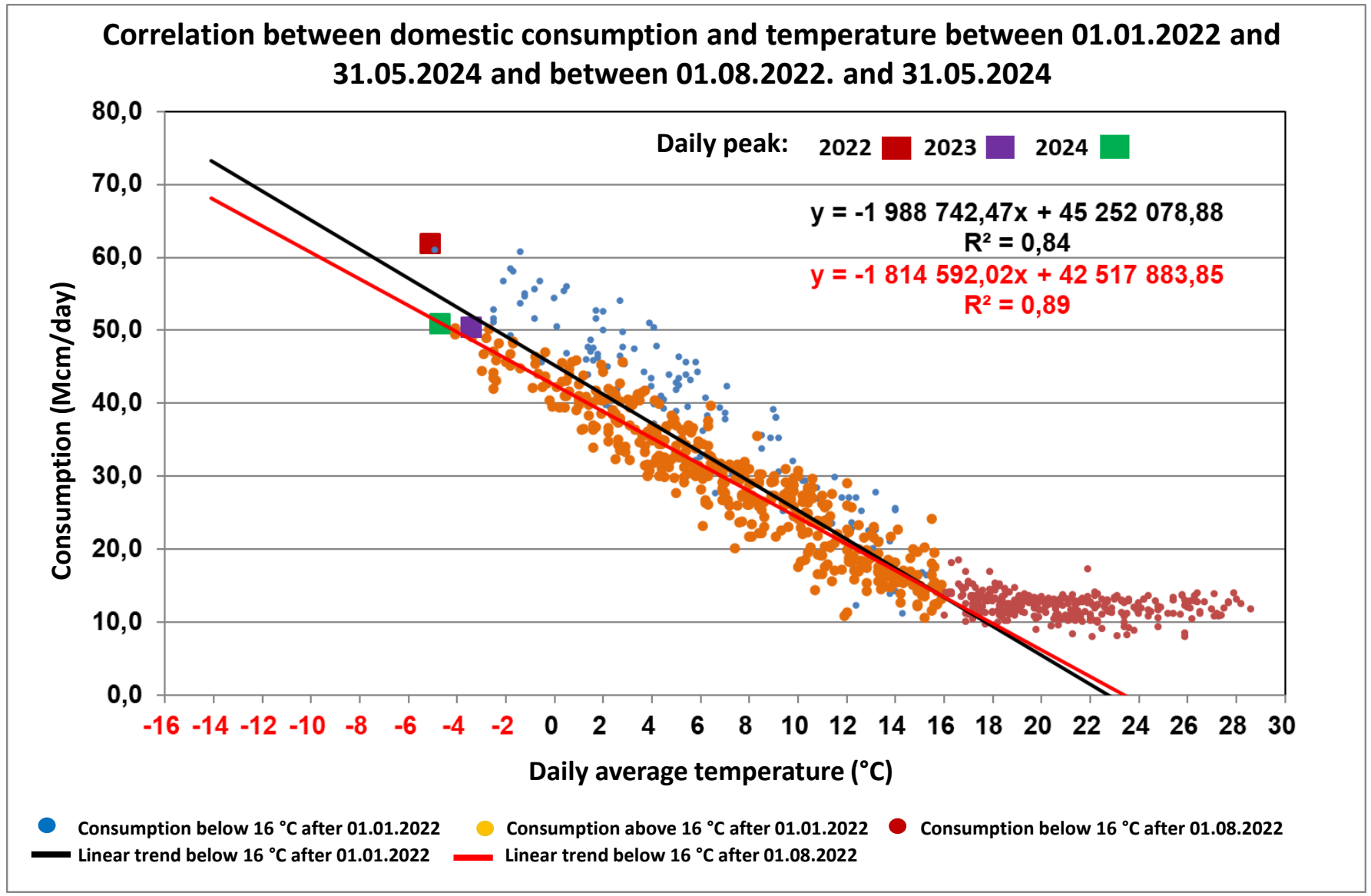
Source: http://www.mekh.hu/magyarorszag-foldgaztaroloinak-keszletszint-alakulasa

Daily peak demands at the domestic exit points



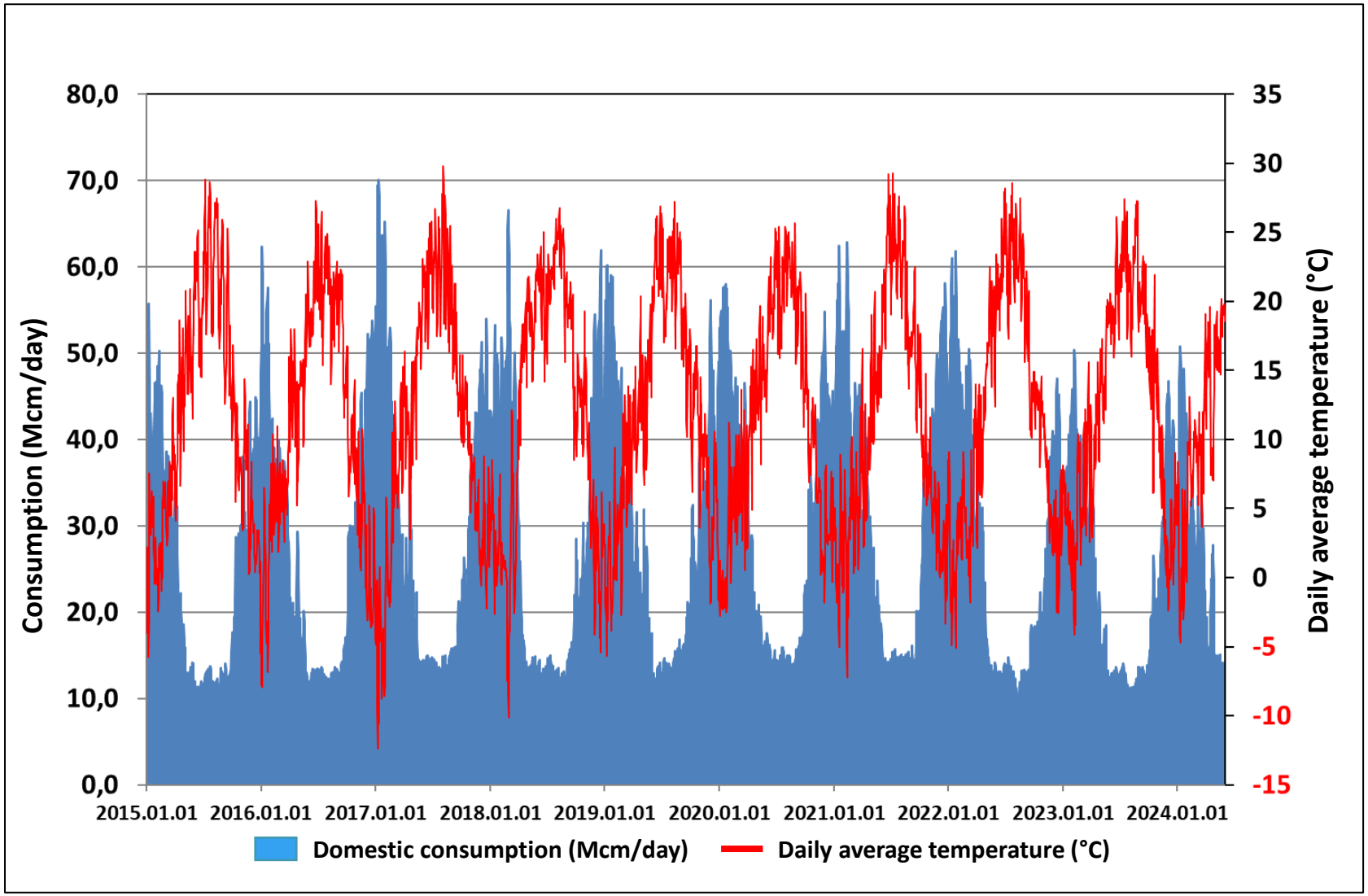
Source: Ten-year Network Development proposal 2024

Correlation between domestic consumption and temperature I.



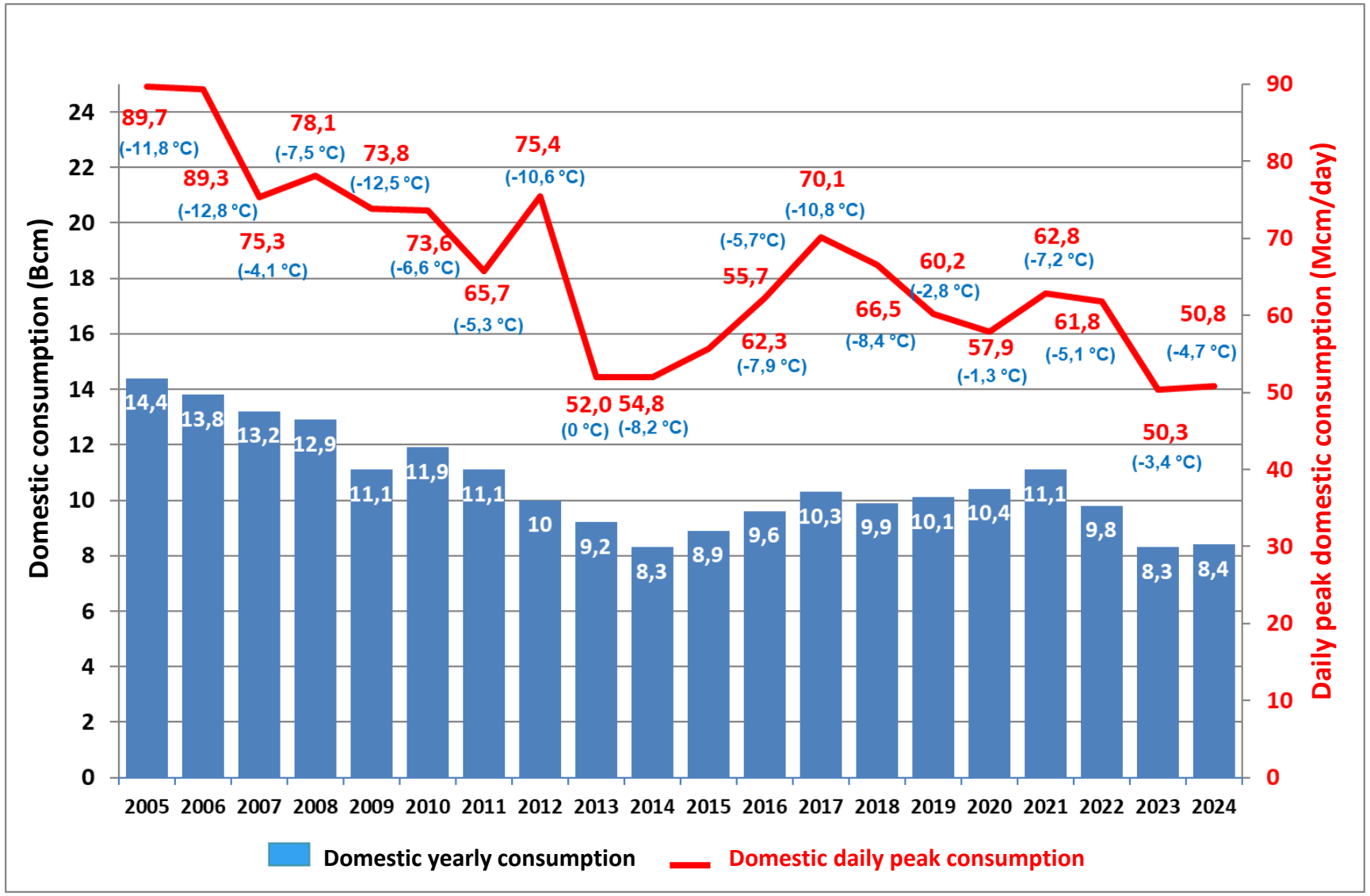
Source: Ten-year Network Development proposal 2024

Correlation between domestic consumption and temperature II.



Source: Ten-year Network Development proposal 2024

Domestic annual consumption and peak daily consumption



Source: Ten-year Network Development proposal 2024

Capacity demand assessment for cross border interconnection points I.

In the mandatory non-binding capacity demand assessment procedure launched in July 2023 in compliance with the CAM NC, network users did not indicate any capacity demand for the Hungarian/Austrian, the Hungarian/Croatian and the Hungarian/Slovenian cross border interconnection points (IP).

Incremental capacity to be provided for the directions of Hungary>Romania and Romania>Hungary:

- In accordance with the provisions of Article 22 of the CAM NC, FGSZ Zrt. and Transgaz S.A. have carried out the economic test of the incremental capacity auctions conducted within the framework of the RO>HU IP incremental capacity process for the capacity levels defined in the joint project proposal.
- The results of the economic test show that the level of bids submitted in the auctions did not meet the pre-defined success criteria for any of the incremental capacity levels (level 1, level 2, level 3). Accordingly, the incremental capacity procedure was unsuccessful at the Csanádpalota (RO>HU) interconnection point, and the incremental capacity auctions concerned were closed and cancelled as the result of the negative economic test.

Incremental capacity to be provided for the directions of Hungary>Slovakia:

- Based on the Demand Assessment Report published on the incremental capacity carried out in 2023, the capacity offered at the Veľké Zlievce/Balassagyarmat border crossing point between Hungary and Slovakia will be increased by 50%, i.e. 1,060,063 kWh/h/year Slovakia 1,060,063 kWh/h/year direction from 20 February, 2024. The incremental capacity project was closed by FGSZ and Eustream.

NRA resolution

The projects covered by the NRA's resolution H402/2025 dtd. 19 February 2025 are the following :

Projects approved by the NRA :

- Establishment of the firm capacity in the direction HU>UA;
- Establishment of increased capacity in the direction RO>HU, CS Csanádpalota extension;
- Pipeline route design for the Hungarian section of the Hungarian-Slovenian interconnector;
- Pipeline route design of the new pipeline Városföld-Vecsés

Projects not approved by the NRA, but to be further investigated :

- Construction of the Hungarian-Slovenian interconnector;
- Construction of the pipeline Városföld-Vecsés;
- Hydrogen corridors

Projects proposed for implementation in the next 3 years I.

PROJECT DESCRIPTION

Ensuring firm capacity from Hungary to Ukraine

- As a result of negotiations between FGSZ and the Ukrainian transmission system operator, Gas TSO of Ukraine (GTSOU), 327,000 cm/h of firm capacity at the Hungarian-Ukrainian IP in the direction HU>UA was offered for a pilot period between 01/01/2022 and 16/06/2024, 400,000 cm/h of firm capacity for the period between 17/06/2024 and 30/06/2025.
- FGSZ and GTSOU held frequent talks focusing on development alternatives to secure long term firm capacity in the direction of HU>UA.

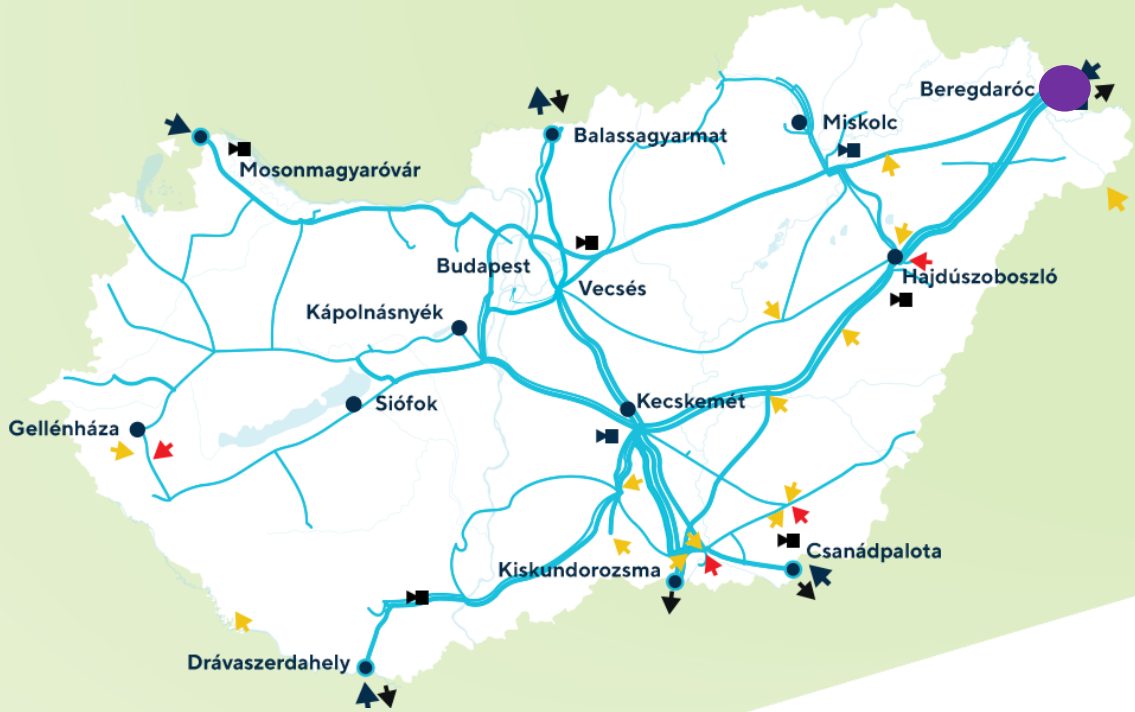
Projects elements:

Construction of a new international metering station and new pipeline connection in MS Beregdaróc

Estimated timeline:

FID+ 21 months

PROJECT



Projects proposed for implementation in the next 3 years II.

PROJECT DESCRIPTION

Capacity expansion at Csanádpalota IP

In compliance with the agreement between FGSZ and the Romanian TSO, Transgaz, the available max. technical capacity will amount up to 340,000 m^3/h (3 bcma), to the extent of the capacity provided by Transgaz.

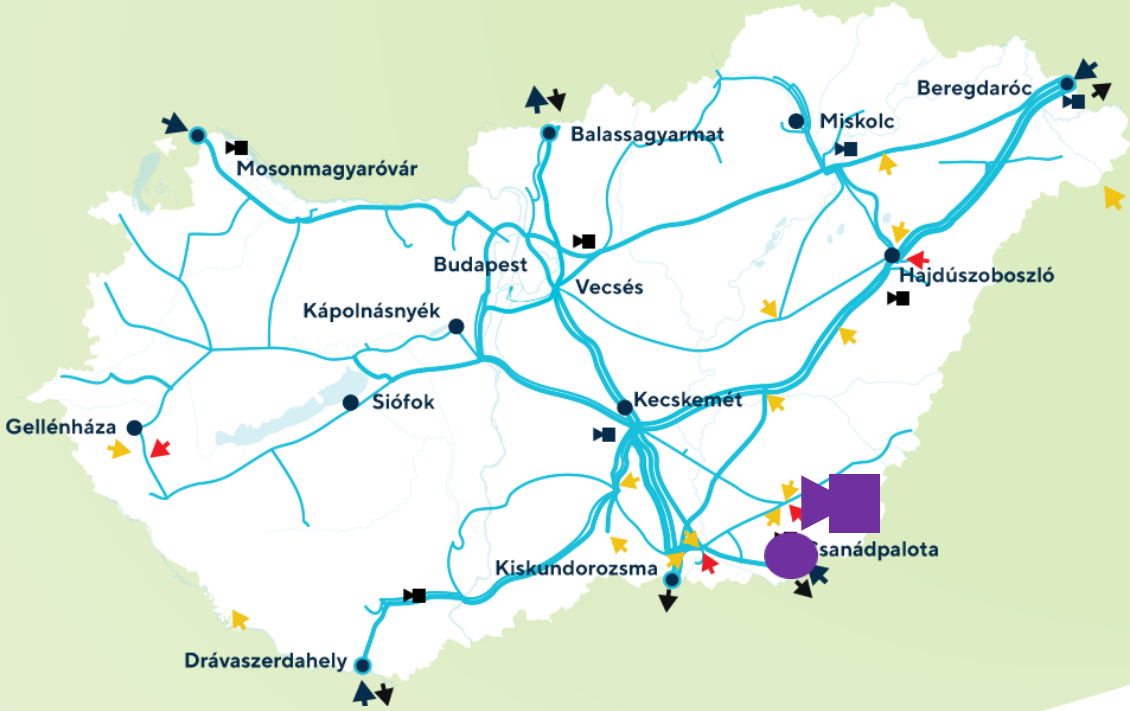
Project elements:

- Capacity upgrade up to 340,000 m^3/h, Expansion of the compressor station in Csanádpalota by a compressor unit of 1 x 5.3 MW to be relocated from Nemesbikk to Csanádpalota

Estimated timeline:

FID+ 20 months

PROJECT



Projects proposed for implementation in the next 3 years III.

PROJECT DESCRIPTION

Slovenian-Hungarian interconnector pipeline route design

- The project ensures Hungarian-Slovenian bidirectional deliveries.
- During the consultations with Plinovodi, the adjacent TSO, in 2023 and spring 2024, the Slovenian-Hungarian interconnector was mainly considered with a capacity of 50,000 cm/h (0.4 bcma).

Planned pipeline route:

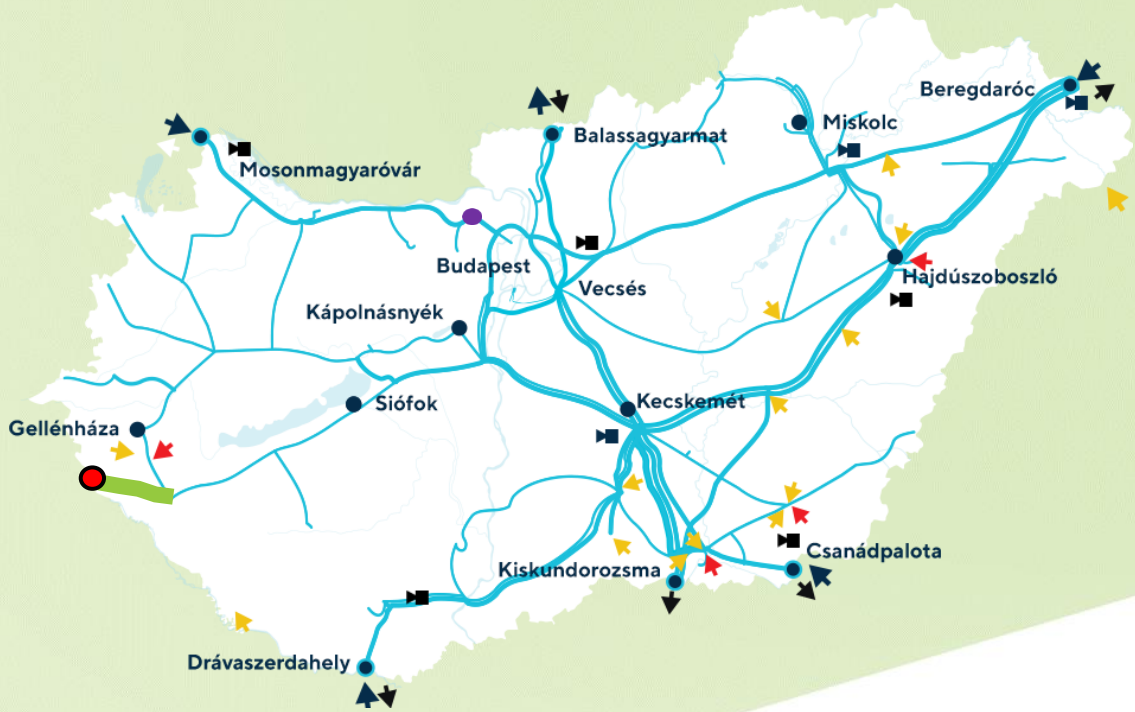
- SI/HU border - Tornyiszentmiklós pipeline 1 km, DN500, PN75;
- Tornyiszentmiklós - Nagykanizsa pipeline 40.7 km, DN600, PN75;

The pipeline route design approved by the NRA in its resolution H402/2025 includes the existing Pusztaederics pipeline section, as well as the existing pipeline system of the Zalai Regional System and its pipeline route.

Estimated timeline:

FID+ 18 months

PROJECT



Projects proposed for implementation in the next 3 years IV.

PROJECT DESCRIPTION

Pipeline route design of the pipeline Városföld-Vecsés (DN800, PN75, km);

As a result of the project, the maximum volumes arriving from the South to the node in Városföld (i.e. from Kiskundorozsma, Csanádpalota, Szőreg, Zsana and Drávaszerdahely entry flows) will be simultaneously transferred to the node in Vecsés. From 2030, the planned pipeline can also be repurposed to transport 100% green hydrogen, which will be used for (1) the production in the electrolyzers in the Algyő area to be installed along the pipeline and (2) imports to Hungary from Romania and further deliveries towards Slovakia, thus complying with the Renewable Energy Directive (RED II) requirement of a minimum of 50,000 – 100,000 tons/year of 100% green hydrogen.

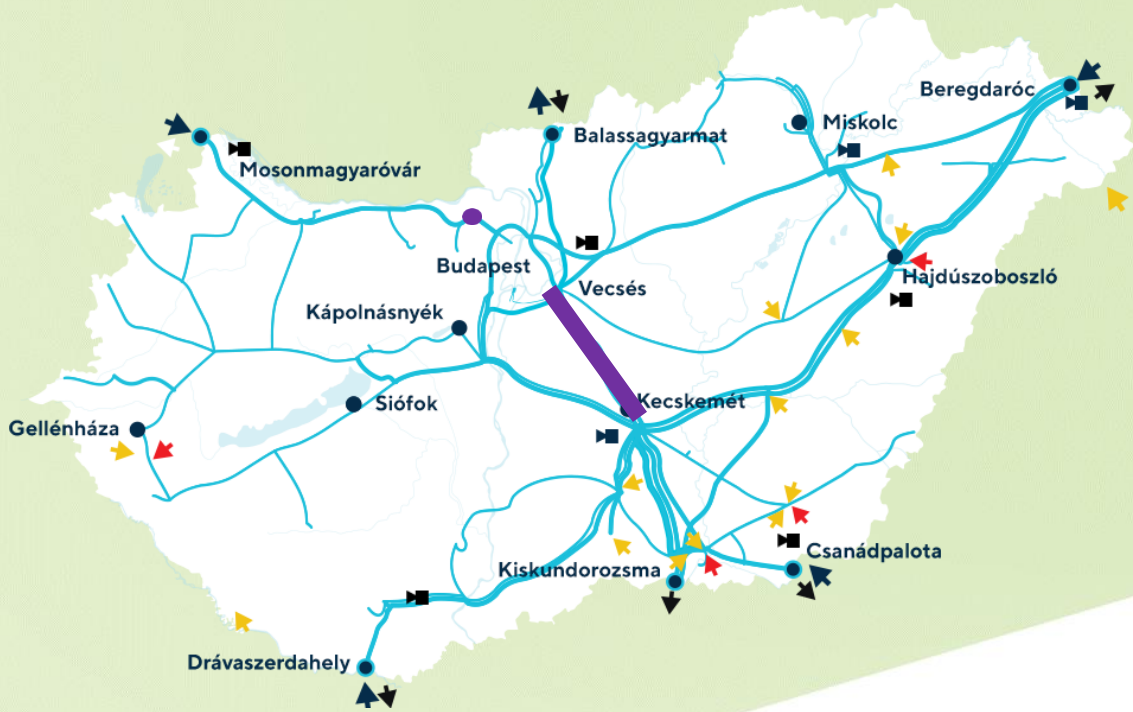
A bi-directional natural gas transmission pipeline (DN800, PN75, 78 km) is to be constructed between the compressor station and node in Városföld and the pig launcher and receiver located in Vecsés.

The pipeline route design approved by the NRA in its resolution H402/2025 covers the new pipeline section Városföld-Vecsés DN800, PN75, 78 km.

Estimated timeline:

FID+ 18 months

PROJECT



Projects proposed for conditional implementation in the next 4-10 years I.

PROJECT DESCRIPTION

Slovenian-Hungarian interconnector _ construction

- The project ensures Hungarian-Slovenian bidirectional deliveries.
- During the consultations with Plinovodi, the adjacent TSO, in 2023 and spring 2024, the Slovenian-Hungarian interconnector was mainly considered with a capacity of 50,000 cm/h (0.4 bcma).

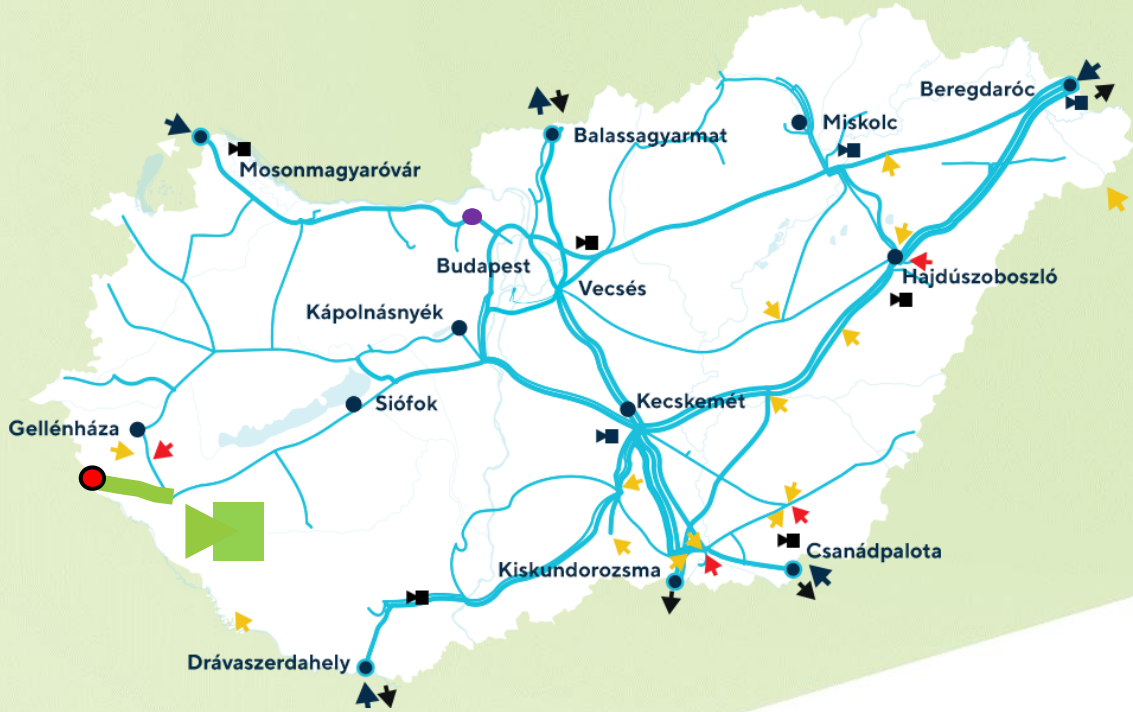
Planned developments*:

- SI/HU border - Tornyiszentmiklós pipeline 1 km, DN500, PN75;
- Metering Station in Tornyiszentmiklós;
- Tornyiszentmiklós - Nagykanizsa pipeline 40.7 km, DN600, PN75;
- Compressor Station in Nagykanizsa 2x1.2 MW

**There are ongoing talks between the adjacent TSOs to finalize the technical parameters of the project, subject to which the planned developments might change.*

The planned developments of the pipeline construction was not approved by the NRA in its resolution H402/2025.

PROJECT



Projects proposed for conditional implementation in the next 4-10 years II.

PROJECT DESCRIPTION

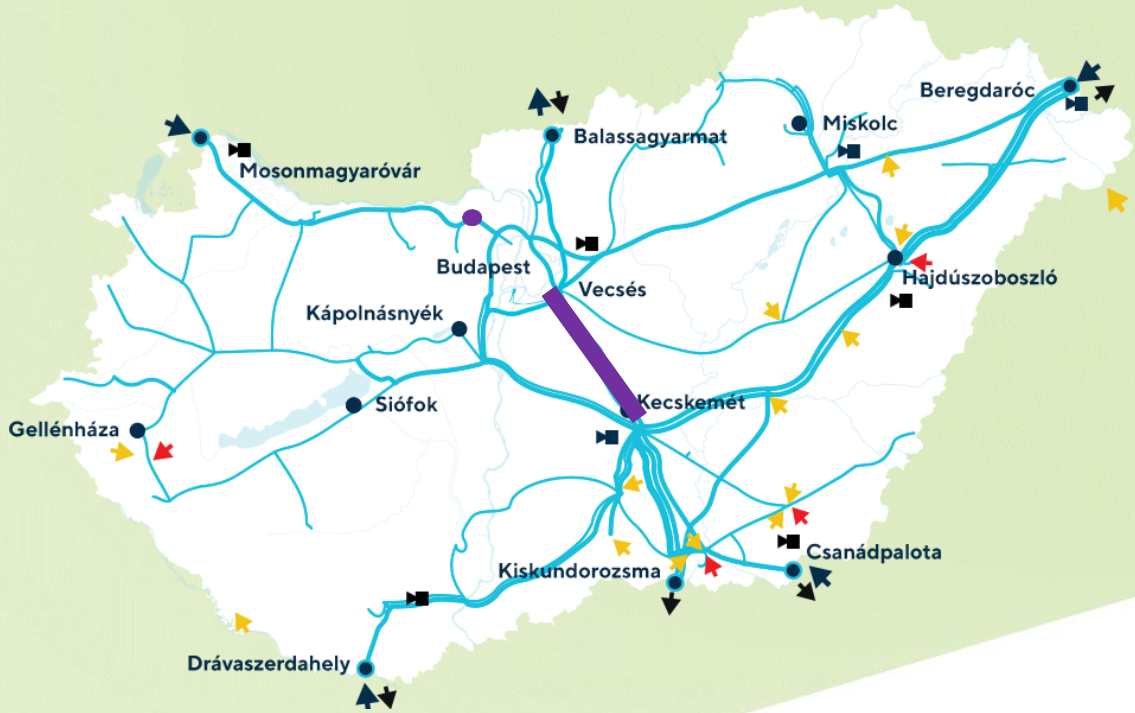
Construction of the pipeline Városföld-Vecsés (DN800, PN75, 78 km);

As a result of the project, the maximum volumes arriving from the South to the node in Városföld (i.e. from Kiskundorozsma, Csanádpalota, Szőreg, Zsana and Drávaszerdahely entry supplies) will be simultaneously transferred to the node in Vecsés. From 2030, the planned pipeline can also be repurposed to transport 100% green hydrogen, which will be used for (1) the production in the electrolyzers in the Algyő area to be installed along the pipeline and (2) imports to Hungary from Romania and further deliveries towards Slovakia, thus complying with the Renewable Energy Directive (RED II) requirement of a minimum of 50,000 – 100,000 tonnes/year of 100% green hydrogen.

A bi-directional natural gas transmission pipeline (DN800, PN75, 78 km) is to be constructed between the compressor station and node in Városföld and the pig launcher and receiver located in Vecsés.

The construction of the new pipeline section Városföld-Vecsés DN800, PN75, 78 km was not approved by the NRA in its resolution H402/2025.

PROJECT



Projects proposed for conditional implementation in the next 4-10 years, but to be revised annually

PROJECT DESCRIPTION

Connecting FGSZ's system to the European Hydrogen Backbone and getting prepared to meet the expected supply needs of domestic hydrogen producers and users

Based on the evolution of domestic and transit (import/export) hydrogen consumption needs and the domestic hydrogen producers' injection needs, the establishment of 4 hydrogen corridors was proposed.

- HU/SK hydrogen corridor, 2030 new pipeline
- HU/RO hydrogen corridor, 2030 new pipeline
- HU/UA hydrogen corridor, 2030 repurposed pipeline
- HU/SI hydrogen corridor, 2035 new pipeline

PROJECT