Hungarian Energy and Public Utility Regulatory Authority

Regulation of Transmission and Distribution Unbundling

Case Study - Hungary

Andor Szilárd ÁVÉD
MEKH

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TSO unbundling models EU

Hungarian Energy and Public Utility Regulatory Authority

Ownership unbundling / OU – Strictest model, no VIU	**Independent System Operator / ISO** – VIU is maintained but safeguarding provisions	**Independent Transmission System Operator / ITO** – VIU is maintained but safeguarding provisions
A firm **owning and operating a network cannot be active in** any **competitive segment** of the supply chain (e.g. generation and trade) and cannot have an interest in any company involved in those activities. On the other hand, a **generator or a supplier cannot have** any **stake in** the fully unbundled **network company** either.	The VIU is allowed to **own the physical network, but it cannot control the operation**, maintenance and investment – these are to be performed by a legally independent company (ISO).	The TSO is part of the **VIU** but **can own and operate the network**. The TSO can make all financial, technical and other decisions independently from the parent company. A supervisory body is in charge of preserving the financial interest of the mother company without being involved in the day-to-day business.

EU rules for TSO and DSO unbundling in (EU) 2024/1788 (gas) and 2019/944 (ele) directives, transposed into national Acts: Act XL of 2008 on Natural Gas and Act LXXXVI of 2007 on Electricity

TSO unbundling models EU - 2

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Ownership unbundling (OU)

Vertically integrated undertaking (VIU)

- Generation / supply
- Transmission system ownership & operation

Source: [Researchgate]

Independent System Operator (ISO)

Vertically integrated undertaking (VIU)

- Generation / supply
- Transmission system ownership
- Transmission system operation

Independent Transmission Operator (ITO)

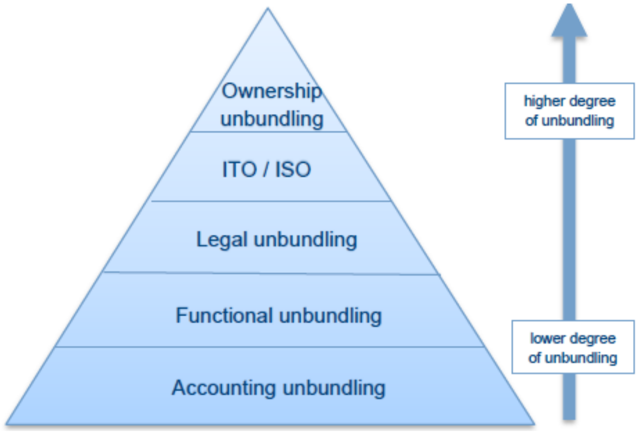
Vertically integrated undertaking (VIU)

- Generation / supply
- Transmission system ownership & operation

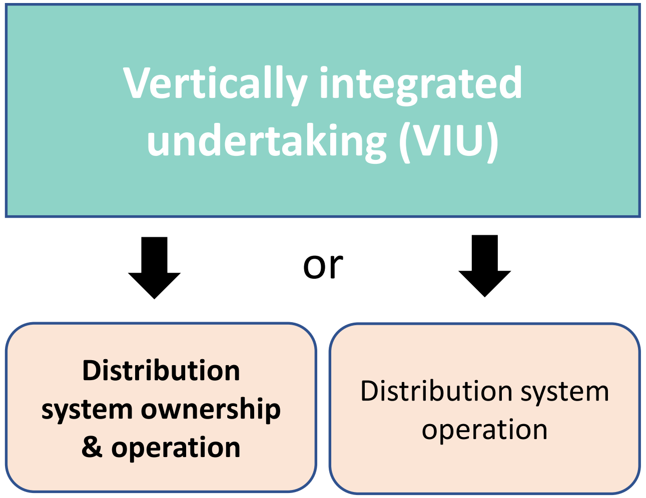
DSO unbundling

If **DSO** is part of a VIU it shall be **independent**:

- in its legal form (**legal unbundling**), organisation and decision-making (**functional unbundling**) from other activities not relating to distribution.
- no obligation to separate ownership of assets from VIU
- activities to be monitored by NRA to avoid market distortion + compliance programme
- derogation possible below 100k customers of VIU (or in ele: isolated systems)
- **Unbundling of accounts** to avoid discrimination, cross-subsidisation and distortion of competition.



Source: Summary of the different degrees of unbundling, CEER



The Hungarian Natural Gas Act applies the 100k customer threshold as an option.
The DSOs shall own the system assets (in case of gDSO: at least 51%).

Basic Information TSO

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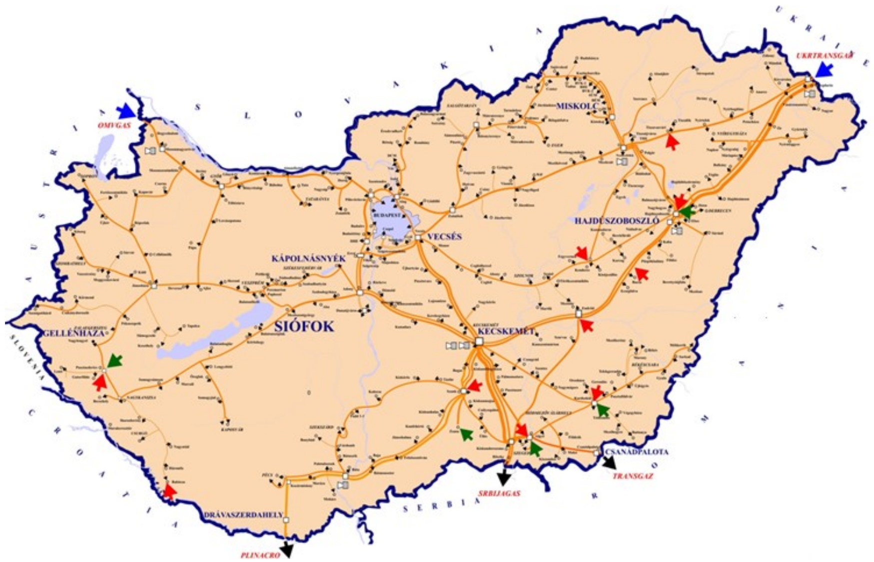
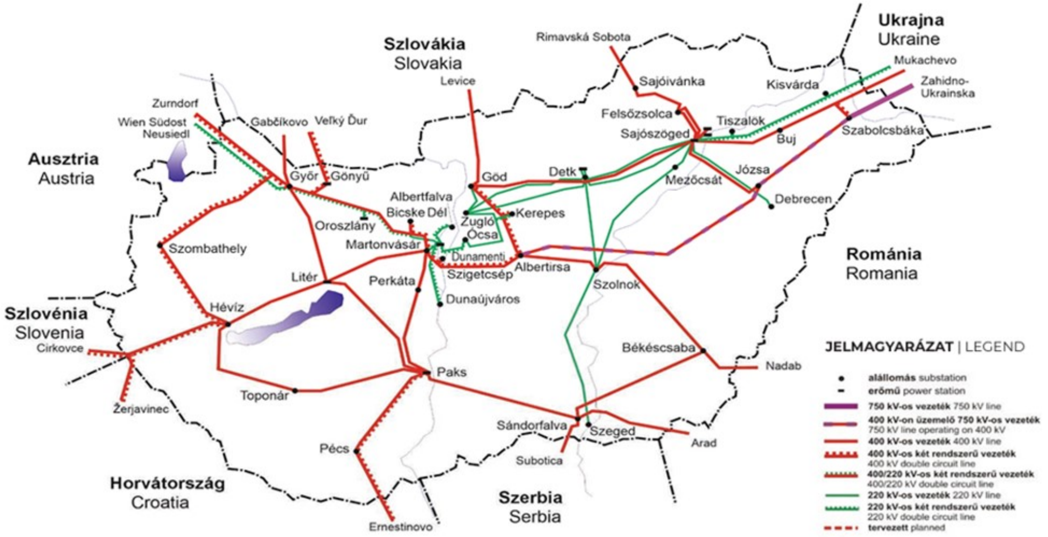
Gas TSO: FGSZ Ltd.

Network length: ***5 889 km***
Unbundling model: ***ITO***
Year of certification: ***2012***
Status: FGSZ is the owner & operator of natural gas TS within MOL group (VIU).

Ele TSO: MAVIR Ltd.

Network length: ***4 896 km***
Unbundling model: ***ITO***
Year of certification: ***2012***
Status: MAVIR is the owner & operator of electricity TS within MVM group (VIU).





Hungarian Gas and Electricity transmission networks

Basic Information ele DSOs

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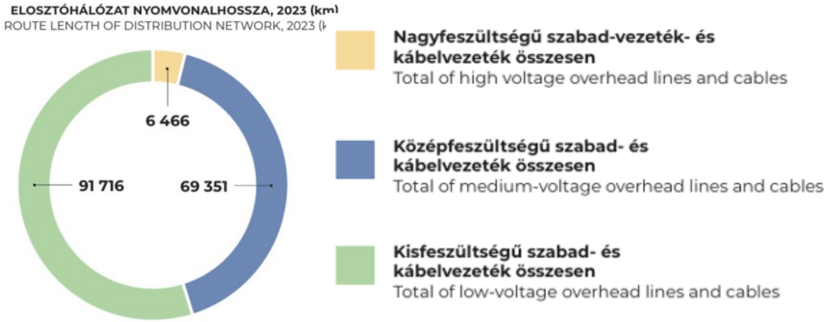

VIU

Distribution System Operators (2023)	No. of customers (thousand)	Operation area (thousand km^2)
MVM DÉMÁSZ Áramhálózati Kft.	805.01	18.20
MVM ÉMÁSZ Áramhálózati Kft.	735.20	15.50
E.ON Dél-dunántúli Áramhálózati Zrt.	780.35	18.30
E.ON Észak-dunántúli Áramhálózati Zrt.	1078.09	18.22
OPUS TITÁSZ Áramhálózati Zrt.	783.70	18.73
ELMŰ Hálózati Kft.	1614.10	4.00
Total	5796.45	92.95

Source: MEKH

All 6 eDSOs (in a VIU) serve more than 700k customers (all above threshold), and are unbundled legally, functionally in terms of accounts.

Basic Information gas DSOs

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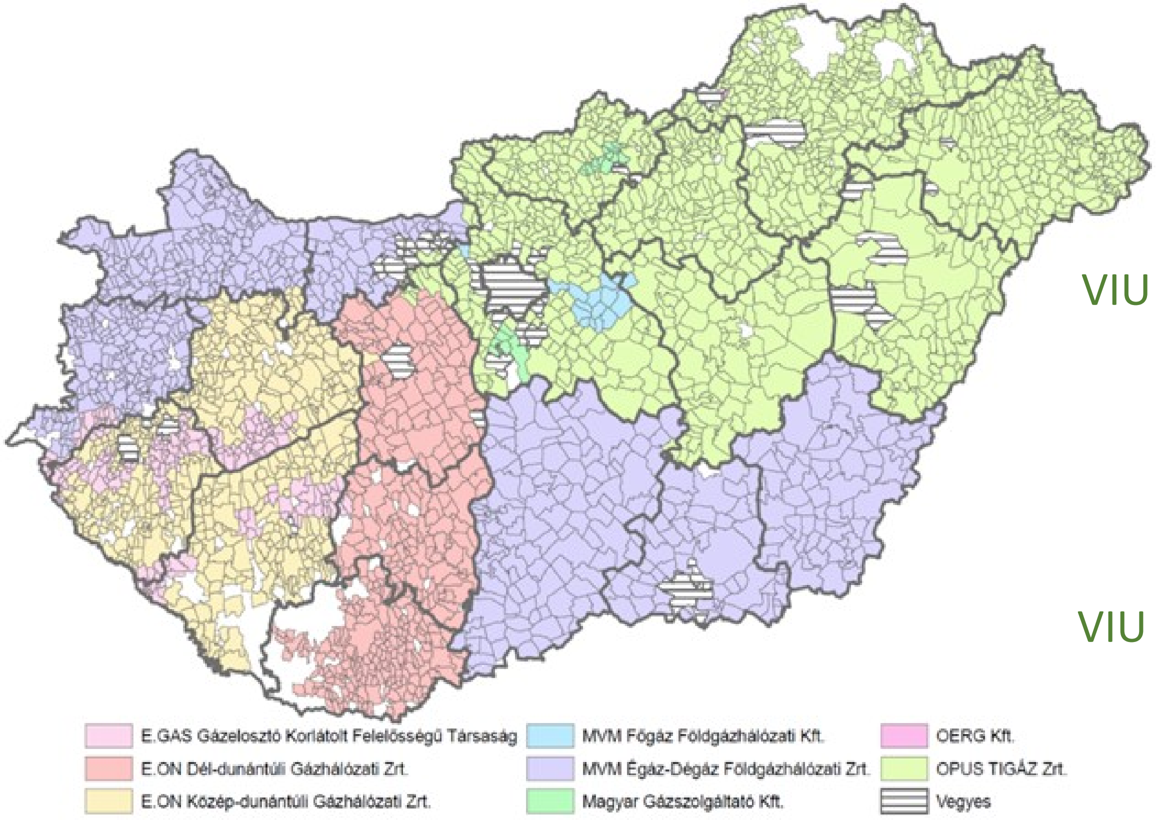

	Distribution System Operators (2023)	No. of Point of Deliveries (PoD) (thousand)	Area as ~ No of settlements (out of 3177)
	OPUS TIGÁZ Gázhálózati Zrt.	1288.39	1117
	MVM Égáz-Dégáz Földgázhálózati Zrt.	798.51	655
VIU	MVM Főgáz Földgázhálózati Kft.	787.66	48
	E.ON Közép-dunántúli Gázhálózati Zrt.	312.41	475
	E.ON Dél-dunántúli Gázhálózati Zrt.	307.59	386
	MAGÁZ Magyar Gázszolgáltató Kft.	19.14	27
	E.GAS Gázelosztó Kft.	20.18	203
	NATURAL GAS SERVICE Ipari és Szolgáltató Kft.	1.59	5
VIU	**Csepeli Erőmű Kft.**	0.38	1
	OERG Kft.	0.27	5
	ISD POWER Energiatermelő és Szolgáltató Kft. (u.l.)	0.01	1
	Total	**3536.11**	**2923 (92%)**

Source: MEKH. All DSOs are unbundled legally, functionally and in terms of accounts, except for one.

The 5 largest gDSOs (in VIU) above threshold were unbundled legally, functionally, and in terms of accounts.
Only 1 out of the 2 gDSOs (in VIU) below threshold is unbundled in terms of accounting, while the other gDSO in this category opted for full unbundling.
The non-VIU gDSOs are independent legal entities focusing solely on distribution activity.

Role of Regulator

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Supervision and Monitoring Rules (NRA)

- **Ensure ongoing compliance** with unbundling rules (incl: inspections, penalties)
- **Monitor implementation** of roles and responsibilities of TSOs & DSOs
- **Prevent cross-subsidies** between TS & DS
- **Consult with TSOs** as needed; request and verify information

- **Extras for ISO, ITO:** monitor relations/communications; approve contracts/agreements, settle disputes bw VIU entities; assignment of ITO tasks to an ISO. Compliance programme for ITO / system owner.

Challenges in Unbundling Process

- HU ele&gas TSOs, DSOs comply with EU rules (1 gDSO under liquidation);
- Short run: H2+decarb pack transposition: HTNO certification + horizontal unbundling (from ele+gas in VIU)
- Long run: Sector-coupling (TSO+DSO; eTSO+gTSO); ownership of new assets/tech (eStorage; P2G)

Conclusions and takeaways

•EU rules for TSO and DSO unbundling has been transposed to national law

•Unbundling of ele&gas TSOs (ITO model), DSOs (legal, functional, accounting) done

•New challenge to certify and unbunlde a HTNO

THANK YOU
FOR YOUR ATTENTION!

aveda@mekh.hu

Topic description
as per 2024-2026 workplan

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This case study focuses on evaluating existing transmission and distribution regulatory models and unbundling regimes. Participants will examine the mechanisms and procedures for assessing the effectiveness of current regulatory models and unbundling practices in place. Key areas of discussion include the role of regulators in each regulatory model and unbundling regime, with a focus on enhancing regulatory oversight and effectiveness. Through detailed analysis and comparative studies, the case study aims to identify opportunities for strengthening the role of regulators in ensuring fair competition, promoting investment, and safeguarding consumer interests within the transmission and distribution sectors.