The Water Sector in Romania

Mugla, Turkey, 2025

Romania Water Sector - main figures

Population
19 Million

DW Infrastructure
82k km pipes
15.3k km aqueducts
874 DW treatment plants

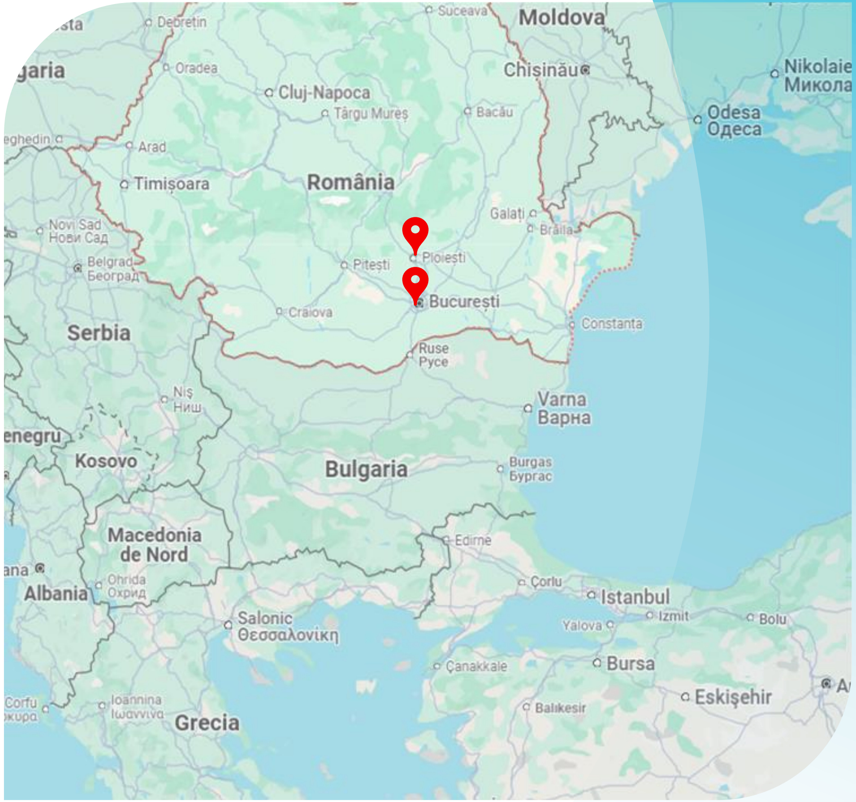
WW Infrastructure
48k km pipes
1258 WW treatment plants

Connection Rate
75% DW
67% WW

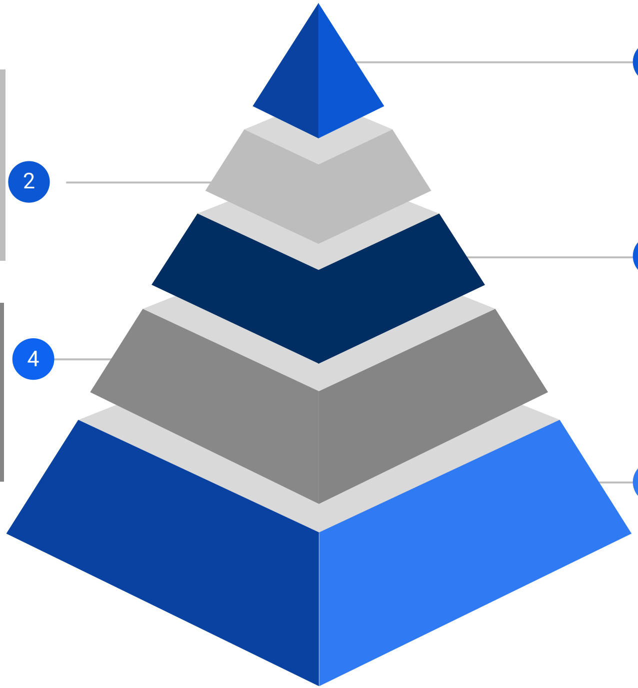
Per Capita Consumption
90 l/c/d

Average Tariff (Excl. VAT)
DW **1.4 €/m3**
WW **1.2 €/m3**

Avg. Water Losses
45%



Main stakeholders - Responsibilities and Roles



1

GOVERNMENT

- Strategic vision at national level according to obligations assumed at EU accession treaty and 2030 agenda

2

CENTRAL PUBLIC ADMINISTRATION

- Developing public policies regarding DW and WW sector
- Financing and managing the investment programs
- Regulation monitor and control of the service
- Issuance of the permits and licencing of the operators

3

LOCAL PUBLIC ADMINISTRATION & ADI (intra community associations)

- Local development strategies and regulations
- Delegation Contract

4

- Providing services based on valid licence
- Perform services in compliance with contractual obligation
- Establish tariffs based on tariff strategy and business plan
- Collecting the value of services provided

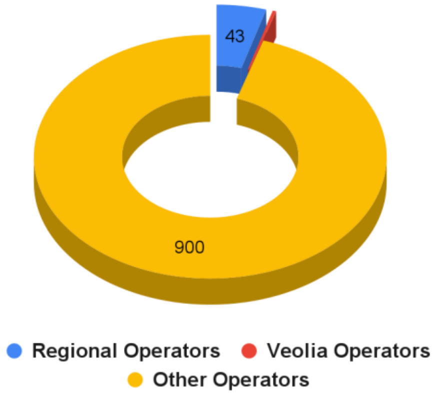
5

BENEFICIARIES

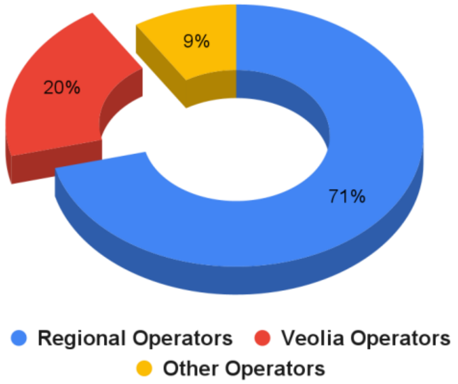
- Service utilisation and payment of services

Water Operators structure in Romania

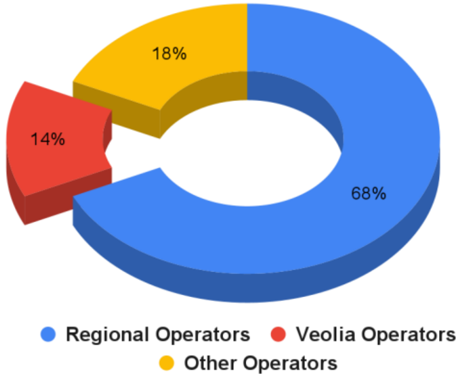
Water Operators in Romania



Wastewater population served



Drinking water population served



Source: Annual Report of ANRSC, 2023

Water sector Progress and remaining gaps

2007

UE accession

Romania began major water sector reforms to meet UE standards

2013

First ROC

Establishment of regional operators improved urban service delivery

2024

Mid term progress

Urban coverage improved but rural areas still lagging significantly

2027

2027 : UE compliance deadline

Full EU directive implementation deadline. Major gaps remaining. End of EU funds implementation, Central, Local Authorities & ROC must identify financing tools for projects.

Key challenges in the sector

- **Aging infrastructure** : water losses reach up to 45% due to deterioration pipe networks and outdated facilities
- **Treatment capacity** : insufficient waste water treatment capabilities especially in smaller communities
- **Rural access** : low and limited service availability in villages (44%) and remote areas create health risks.
- **Climate change** : Increasing water scarcity and extreme weather events threaten system reliability
- **Financing** : EU funds are assumed to end by 2027 and need estimated for compliance exceed 15 Billion Eur

Water sector main reforms & trends

Regionalization 01
Consolidation of smaller operators to improve efficiency and service quality

Regulatory frameworks 02
ANRSC new 5 years business planning requirements for operators

Energy efficiency 03
Implementation of energy efficiency and energy self sufficiency programs

Digital transformation 04
Smart metering and automation improving system management

Capacity building 05
Training programs enhancing technical and managerial skills

Water Management in Bucharest Area

by VEOLIA

Veolia in Romania

2.5 Million
Consumers

438.9 Million Eur
Turnover

62.5 Million Eur
Annual Investments

3047 FTE
Employees

Apa Nova București - Water Operator

PPP Bucharest Municipality Veolia

Water Public Services

Drinking Water Provider
Wastewater & Meteoric water collection and treatment
Industrial Water Provider

321.2 Million Eur
Turnover

73 Million Eur
EBITDA

0.117 kt CO_2eq. /Million Eur
Carbon intensity

58.4 Million Eur
Annual Investments

2032 FTE
Employees

Performance contract based on 23 LoS

Our vision and values: multi dimensional performance

Operational Performance : Continuous & Safe services al BAT levels & EU compliance

Commercial Performance : Improve customer satisfaction at best affordable tariff

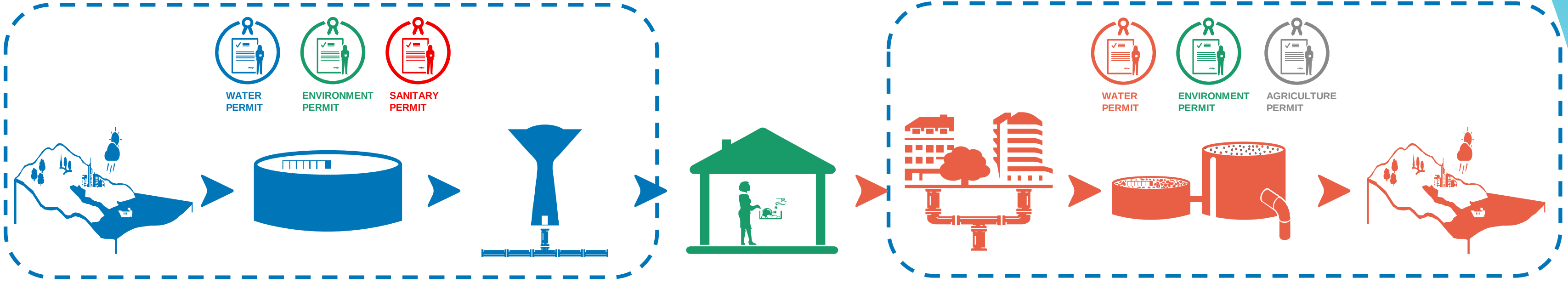
Environmental Performance : Continuous reduction & monitoring GHG emissions

Social Performance: Positive impact in local communities and employees engagement

Financial performance : Continuously invest capacity through financial performance

Our mission : A strong, performant and reliable partner for local authorities, communities and customers

DW and WW System and permitting



RAW WATER CATCHMENT

2 rivers

192.6 Mmc/y raw water

23% capture in river flow

DW PRODUCTION

3 plants

1.53 Mmc/d full capacity

179.7 Mmc/y produced

DW DISTRIBUTION

350k mc storage

285 pumping stations

2545 km pipes

140k connections

USERS

2.5M consumers

140k clients

140.5 Mmc DW billed

176.7 Mmc WW billed

WW COLLECTION

92 pumping stations

2440 km pipes

135k connections

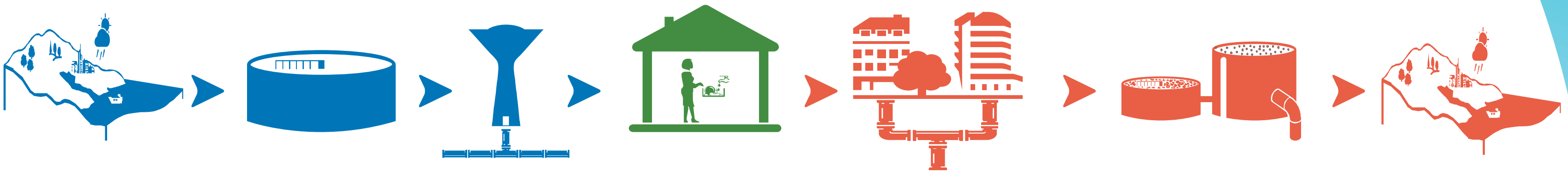
WW TREATMENT
8.3 mc/s full capacity
231.4 Mmc/y ww treated

SLUDGE INCINERATION
72,171 t/y
17,395 tDS/y

SLUDGE IN AGRICULTURE
69,149 t/y
17,805 tDS/y

Mandatory monthly monitoring and reporting on all permits

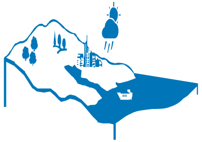
DW&WW Management key axes



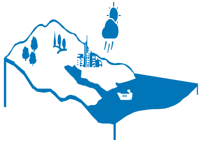
Plant & Equipment Management	Asset Management	GIS System	SCADA System	Network Control	Investment Programs
Operational Process Improvement	KPI Monitoring System	Operational Process Optimisation	Water Quality Control	Smart Monitoring Center	Water Losses Management
Innovation & new technologies	Digital Tools	Increase energy self-sufficiency through green energy	Introducing Artificial Intelligence	Smart Metering Management	Smart City

QoS: Water quality control and monitoring system

Inflow



Arges River



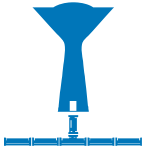
Dâmbovița River

Production

DWTP Crivina

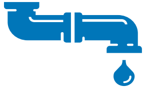
DWTP Rosu

DWTP Arcuda

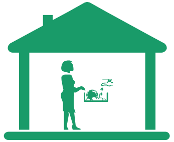


Transport , Storage and pumping

Distribution



Distribution Network



Client

Online early detection of pollution raw water monitoring - 12 parameters

24/7 online SCADA monitoring for 7 main parameters & process lab monitoring on each process stage

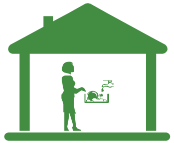
Control Monitoring : Annual plan
55 fixed points - 6000 samples/y - 100.000 param.
3rd party lab double check on 10% of samples
18 param. per sample of which 5 microbiological
ISO 17025 certified laboratory since 2004

Client complain check and analyse

Audit Monitoring : by Public Health Authority
same 55 fix points - 1150 samples / year

Water reuse: Wastewater quality control and monitoring system

Wastewater collection



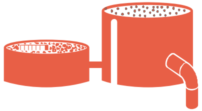
Client

Wastewater Network

Yearly monitoring plan in main collector
36 fix points - 12.000 samples / year - 130.000 parameters on annual quality monitoring plan
24 x hourly composite sampling monitoring
11 parameters per sample on average
Certified lab ISO 17025 - since 2004

Client self monitoring & reporting based on discharge permit

Wastewater treatment



WWTP Glina

24/7 online SCADA monitoring for
6 main parameters & process lab monitoring

Outflow

Dâmbovița River

Online treated water monitoring on river discharge for 3 main parameters
& Process lab monitoring - 20 parameters
Annual Environmental Reporting Program

Annual Romanian Water authority sampling program

WWTP Glina - actual performance

WW treated

231.4 Mmc/y
7.75 mc/s

Biological treatment capacity

8,37 mc/s

WWTP Glina

Treatment efficiency
93.32 %

Retained pollutants (Suspended Solid, Sand, COD, N, P, TT, BOD)
492.8 t/d

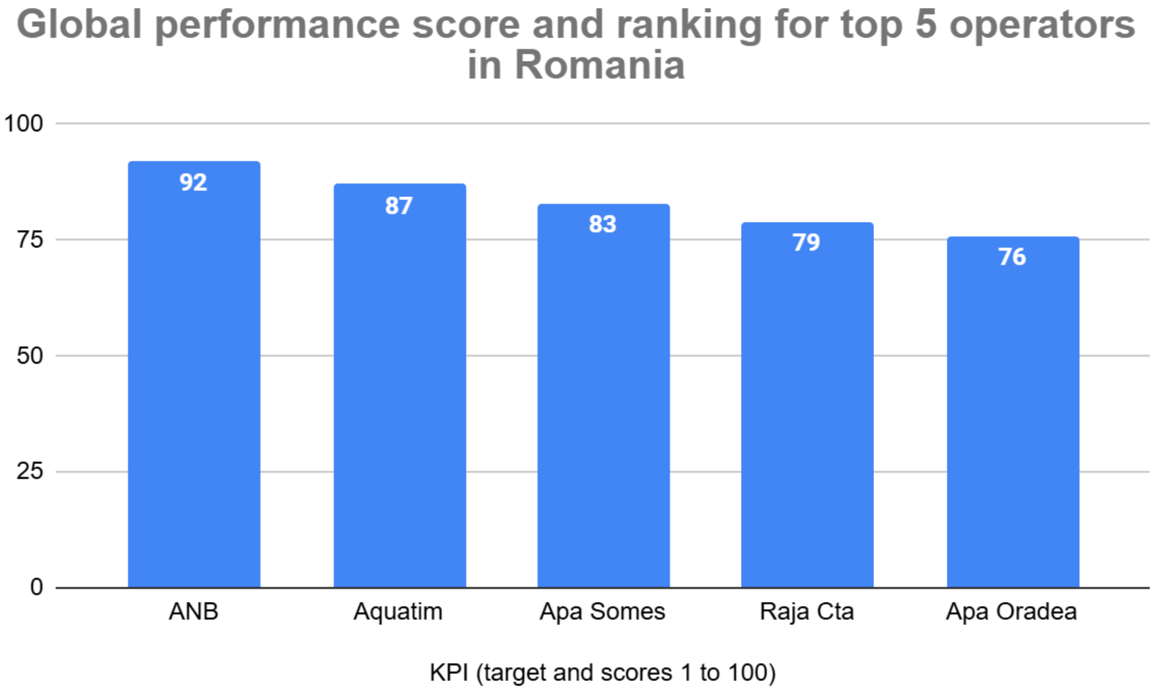
Sludge
35,283 tDS/y

Energy Self-sufficiency
41.73 %

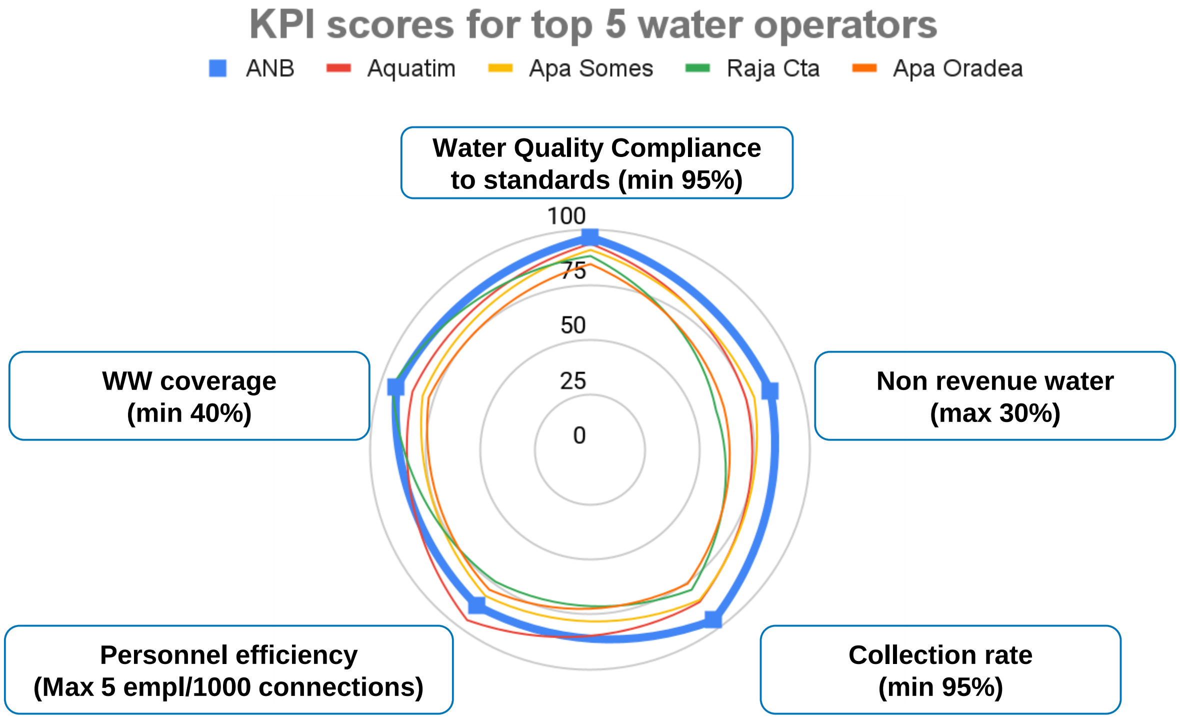
Operational Performance in Numbers

	2024
Water System efficiency	**78.98%**
The average time to repair water network damages	**9.54 hours**
The average time to repair canal collapses	**2.98 days**
The average time to unclogging sewerage	**4.35 hours**
Specific electricity consumption for drinking water distribution	**0.23 kWh/m³**
Specific electricity consumption for wastewater treatment	**0.26 kWh/m³**

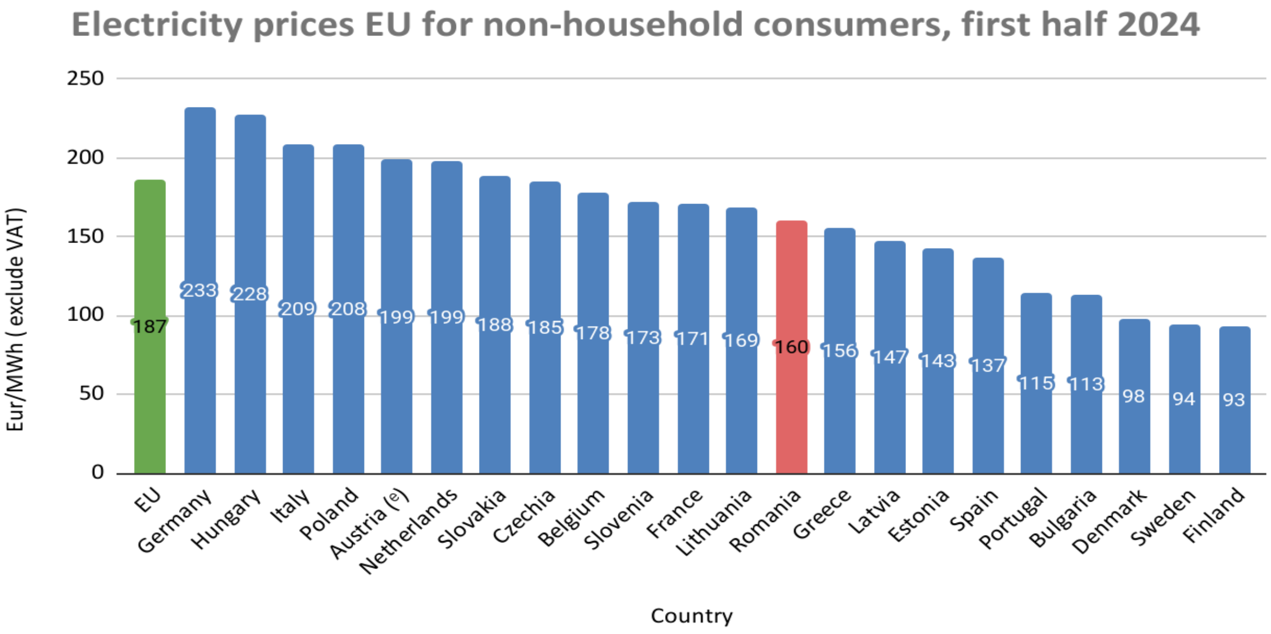
KPI of water sector in Romania top 5 operators (ANRSC ranking scores 2024)



KPI of water sector in Romania for top 5 (ANRSC ranking scores 2024)



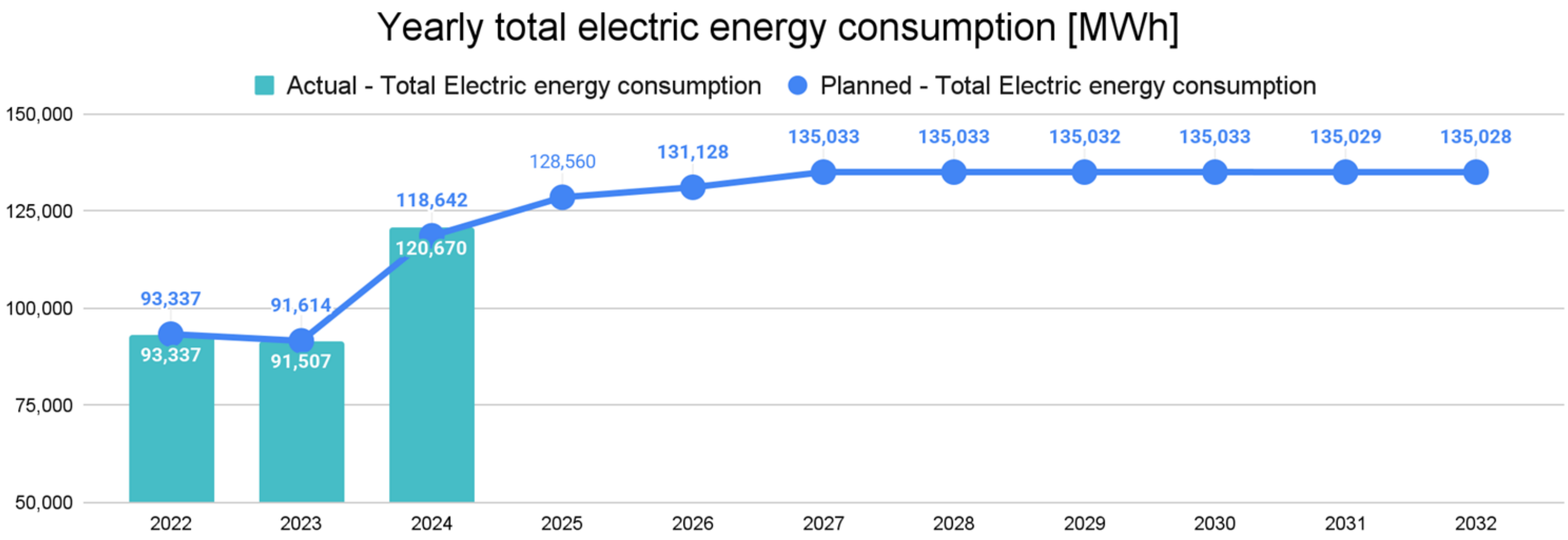
Energy cost : Romania's current energy context in Europe



Romania currently has a cap price regulation until march 2025 but prices on EE market are higher.

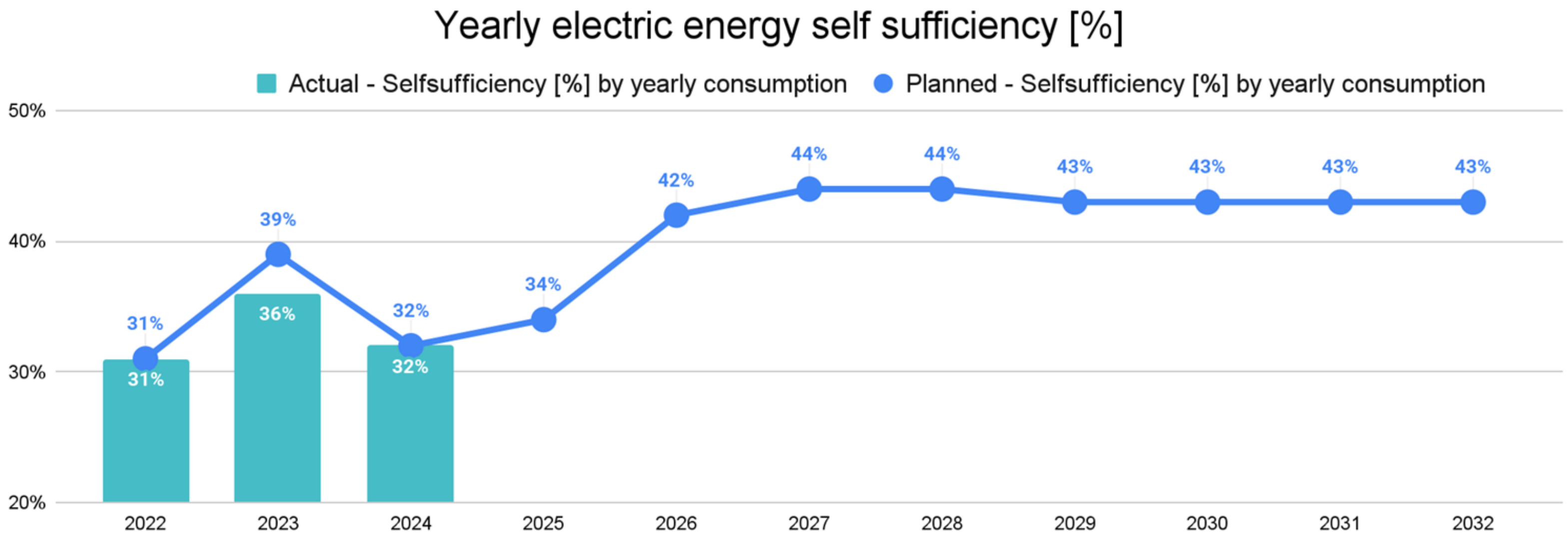
Data source: Eurostat statistics

Energy efficiency and autonomy trajectory



Energy efficiency and autonomy an important goal for decarbonisation and operational performance

Energy autonomy/ self sufficiency trajectory

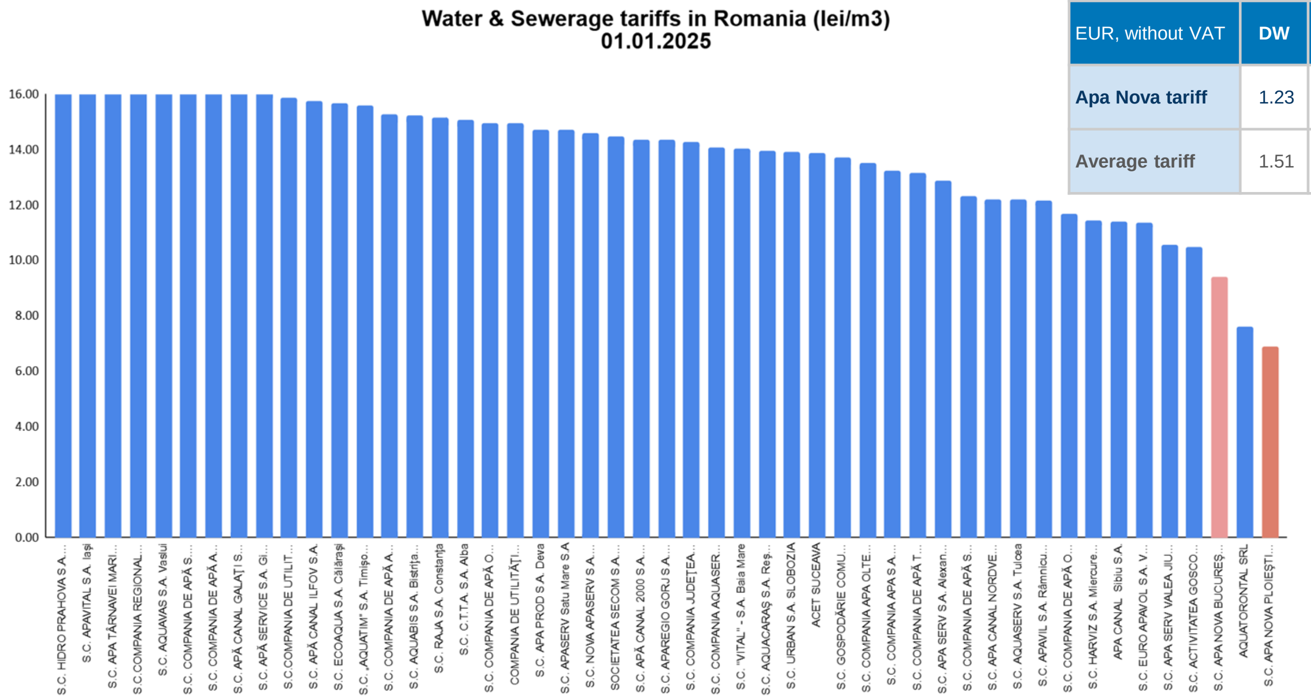


Current target is to exceed 40% by 2030

Renewable energy - Current status & forecast

Site	Peak power (kWp)	Start production / estimate	Yearly production (MWh)	Status
3 Gas Engines Glina	6,310	2020	23,302	In operation
2 Organic Rankine Cycles Glina - Incinerator	1,420	2024	1,532	In operation
3 Micro Hydropower Glina	420	2022	1,784	In operation
Photovoltaic SP Nord	4,713	2023	5,446	In operation
Photovoltaic SP Sud	2,668	2023	3,096	In operation
Photovoltaic Grozavesti	293	2023	365	In operation
Photovoltaic Rosu	884	2023	935	In operation
Photovoltaic Vitan	168	2023	264	In operation
Photovoltaic Pantelimon	164	2023	206	In operation
Photovoltaic SPAU Baneasa	141	2023	235	In operation
MHC Crivina	700	2026	4,778	Construction 52%
Glina - Ecrusor	800	2027	4,500	Solution study
Photovoltaic Glina site	4,500	2026	5,881	Solution study
Total	**23,181**		**52,323**	

DW&WW Tariffs - Ranking of the biggest operators



EUR, without VAT	DW	WW	DW&WW
Apa Nova tariff	1.23	0.65	**1.88**
Average tariff	1.51	1.29	**2.80**

Source: anrsc.ro

Thank you for your attention!

Contact details
Andrei HOSTIUC
andrei.hostiuc@veolia.com

by VEOLIA