

Technical note responding to NEURC's request

The role of independent economic regulators in tariff methodology, licensing, monitoring and EU water-sector implementation

1. Purpose of the note

NEURC asked WAREG to provide an expert opinion on the role of independent regulatory authorities in the water supply and sewerage sector, especially regarding tariff methodologies, licensing conditions, monitoring, fair tariff regulation, data reliability and the implementation of EU water-sector obligations.

This note is limited to a technical and comparative assessment based on WAREG reports and the experience of European water regulators. It does not constitute a political assessment of Ukrainian legislative choices, nor does it prescribe a single institutional model for the allocation of powers between national, regional or local authorities.

From WAREG's technical perspective, the key issue is not centralisation as such, but whether the regulatory framework preserves sufficient independent capacity to define methodologies, verify data, assess tariff formation, monitor performance and ensure consistency across operators and territories.

Through Europe, different competent authorities approve water and sanitation services (WSS) tariffs and the list includes local municipalities, regional governments and regional regulators, national ministries and national regulator.

2. Executive Summary

Independent economic regulation is not the only possible institutional model in Europe, but WAREG's comparative work shows that clearly defined regulatory functions in tariff methodology, tariff verification, licensing, data collection, performance monitoring and service-quality oversight are highly relevant for the sound governance of water and wastewater services.

WAREG reports support four core conclusions.

First, the WSS sector has monopoly or quasi-monopoly characteristics. This makes independent or technically grounded economic regulation important for preventing unjustified tariffs, protecting consumers, ensuring cost recovery and supporting long-term service sustainability. WAREG's ecological-transition report explains that European WSS regulators were originally established to address the effects of natural monopoly in the sector and that regulation aims to protect consumers, prevent monopolistic price abuse, ensure sustainable funding and incentivise service improvements¹.

Second, tariff methodology is a core regulatory tool. WAREG's tariff-framework report analyses tariff-setting methods, **regulatory periods, cost reimbursement rules** and demand assumptions across WAREG members. This demonstrates that tariff regulation is a complex technical function, not a purely administrative or political act².

Third, licensing and monitoring are also recognised regulatory instruments. WAREG's institutional-framework report identifies licensing as one of the tools used by some regulators and examines the role of independent regulation in protecting stakeholders' interests in the water sector³.

¹ Maria Salvetti and Konstantinos Sideris, [Economic Regulators' Role in Supporting the Ecological Transition of Water and Sanitation Service Operators](#), WAREG / Florence School of Regulation, 2022, Section 1, "Reflecting Environmental and Resource Costs in Economic Regulation", pp. 5-8.

² WAREG, [Tariff Regulatory Frameworks in WAREG Member Countries](#), 2019

³ WAREG, [Institutional Regulatory Frameworks in Europe: A Comparative Assessment](#), 2015, pp. 6-7 and 15-17

Fourth, EU water law increasingly requires reliable data, transparency, investment planning, cost information, service-quality monitoring and public reporting⁴. These functions are difficult to implement coherently without a technically capable body able to verify data and methodologies. WAREG's KPI and wastewater-performance work confirms the importance of performance monitoring, data collection, investment-cost information, operational-cost information, tariff structures and public information.

Therefore, while there is no single European governance model for the WSS sector, WAREG's comparative work indicates that the presence of a technically competent and independent economic regulator can provide substantial added value. Such a regulator can help ensure fair and transparent tariff-setting, consistent application of methodologies, reliable and comparable data, effective service-quality monitoring, and stronger implementation of EU water-sector principles.

The allocation of powers between national regulators, local authorities, ministries and operators remains a matter of national institutional design; however, where core regulatory functions are entrusted to an independent regulator, this can strengthen consistency, accountability, technical capacity and long-term sector sustainability.

Best practice in Europe regarding WSS regulation

WAREG reports do not identify one single "best" European model. Instead, they show that European countries use different institutional arrangements for WSS regulation, with regulatory powers allocated in different ways between national regulators, regional regulators, municipalities, ministries or mixed arrangements. WAREG's institutional-framework report was specifically designed to compare the institutional arrangements used in WAREG member jurisdictions and to assess the role of independent regulation in protecting stakeholder interests in the water sector⁵.

European best practice is therefore not centralisation for its own sake. Rather, WAREG's comparative work points to the importance of clear, technically capable, transparent and accountable regulatory functions, especially considering the monopolistic characteristics of the sector and where tariffs, service quality, investment and consumer protection are concerned⁶.

From WAREG's reports, the strongest elements of European regulatory practice are: clear allocation of regulatory functions; transparent tariff methodologies; reliable technical and economic data collection; verification of operators' cost and performance data; performance monitoring through KPIs; service-quality and consumer-protection oversight; licensing or equivalent instruments defining operator obligations; linkage between tariffs, investment needs, efficiency and affordability; institutional capacity to assess OPEX, CAPEX, asset maintenance, depreciation, WACC and investment plans; and accountability and enforcement mechanisms⁷.

WAREG's tariff-framework report is especially relevant in this respect because it shows that tariff regulation across WAREG members covers highly technical elements, including tariff-setting approaches, regulatory periods, tariff updates, operating costs, capital costs, investment accounting,

⁴ WAREG, [Key Performance Indicators Frameworks in WAREG Member Countries](#), 2023, Executive Summary, pp. 3–4, and Table of Contents, pp. 5–7; WAREG, [Introduction of common performance indicators among European WSS authorities](#), pp. 4–6

⁵ WAREG, [Institutional Regulatory Frameworks in Europe: A Comparative Assessment](#), 2015, pp. 4–5

⁶ Salvetti, M. and Sideris, K., [Economic Regulators' Role in Supporting the Ecological Transition of Water and Sanitation Service Operators](#), WAREG / Florence School of Regulation, 2022, Section 1, p. 5

⁷ WAREG, [Institutional Regulatory Frameworks in Europe: A Comparative Assessment](#), 2015, pp. 6–7 and 15–17; WAREG, [Key Performance Indicators Frameworks in WAREG Member Countries](#), 2023, Executive Summary, pp. 3–4

depreciation, regulatory asset base and weighted average cost of capital⁸. This supports the conclusion that tariff-setting should be based on a professional methodology and technical verification capacity. Whether this function is performed nationally or locally depends on the institutional model, but WAREG's reports show that the function itself is essential.

Regulatory approaches supporting EU directive implementation

The regulatory approaches that best support the implementation of EU water-sector obligations are those that connect legal compliance, economic regulation, investment planning, performance monitoring and data reliability. This is because EU water obligations are not implemented only through formal legal transposition: they also require credible cost recovery, adequate investment, reliable operator data, transparent public information and measurable service outcomes. WAREG's work on KPIs confirms the importance of data collection, data validation, annual performance monitoring, links between performance and tariff-setting, regulatory action in cases of non-implementation, and public disclosure⁹.

The Water Framework Directive requires Member States to take account of the principle of recovery of costs for water services, including environmental and resource costs, and to apply this principle in accordance with the polluter-pays principle¹⁰. WAREG's ecological-transition report links this directly to the role of economic regulation, noting that WSS regulators can contribute to the adoption of tariffs that reflect not only operational and capital costs, but also wider environmental and resource-cost considerations¹¹.

The Drinking Water Directive requires safe drinking water and includes obligations linked to water quality, risk management, transparency and information to the public¹². WAREG's position on the Drinking Water Directive revision recognised the importance of economic regulation of water and wastewater services for achieving the objectives of the DWD proposal, including good-quality tap water, transparency and universal access. It also stressed the role of economic regulators and national authorities in measuring efficiency and results, including affordability and KPIs¹³.

The recast Urban Wastewater Treatment Directive increases the importance of investment planning, operational-cost transparency, energy performance, treatment obligations, monitoring and information to the public¹⁴. WAREG's wastewater-performance material already anticipated the importance of information on yearly price trends, investment costs, operational costs, tariff structures, investment plans, impacts on tariffs, energy use and complaints¹⁵.

Therefore, the regulatory approaches that best support EU implementation are the following.

⁸ WAREG, [Tariff Regulatory Frameworks in WAREG Member Countries](#), 2019, Executive Summary, pp. 4–5; p. 16; Section II, “Tariff Calculations”, pp. 38 ff

⁹ WAREG, [Key Performance Indicators Frameworks in WAREG Member Countries](#), 2023, Executive Summary, pp. 3–4; WAREG, “The structure of the WAREG KPIs Report 2023”, 16 January 2024

¹⁰ Directive 2000/60/EC, Article 9(1)

¹¹ Maria Salvetti and Konstantinos Sideris, [Economic Regulators' Role in Supporting the Ecological Transition of Water and Sanitation Service Operators](#), WAREG / Florence School of Regulation, 2022, Section 1, pp. 5–6

¹² Directive (EU) 2020/2184, Articles 7–10 and 17

¹³ WAREG, [WAREG Position on the Proposal for a Directive of the European Parliament and of the Council on the Quality of Water Intended for Human Consumption \(Recast\)](#), COM(2017) 753 final, 2018, pp. 7–8

¹⁴ Directive (EU) 2024/3019, provisions on monitoring, national implementation programmes, energy neutrality, financing strategies and information to the public

¹⁵ WAREG, [The Performance of Utilities for Wastewater Collection and Treatment: The Perspective of Regulators](#), 2023, pp. 10

A. Tariff methodologies linked to cost recovery and investment needs

EU water obligations often require significant investment, including in drinking-water quality, network maintenance, leakage reduction, wastewater treatment, energy performance, environmental protection and resilience. A tariff methodology allows these investment needs to be translated into a transparent economic framework.

A regulator can assess whether proposed tariffs reflect efficient operating costs, asset maintenance, depreciation, planned investments, financing costs, service-quality obligations, affordability and social considerations, and environmental and resource-cost principles. WAREG's tariff-framework report supports this because it analyses precisely these elements of tariff regulation across WAREG members, including tariff methods, regulatory periods, tariff updates, OPEX, CAPEX, investment accounting, regulatory asset base, depreciation, WACC and demand assumptions¹⁶.

This does not mean that WAREG prescribes a single institutional model for tariff-setting. However, the breadth of the tariff components analysed in WAREG's report shows that tariff regulation is a technically complex function requiring professional methodology, reliable data and adequate verification capacity¹⁷.

B. Data collection and validation

EU implementation depends heavily on reliable data. This includes data on drinking-water quality, leakage, wastewater treatment, investment costs, operating costs, energy consumption, service quality and consumer complaints.

WAREG's KPI work highlights the diversity of KPI systems and the challenges of standardising definitions, descriptions and applications of KPIs across Europe. It also shows that regulatory authorities collect data, inspect and verify reported data, monitor annual performance, link KPIs to tariff-setting, take regulatory action where needed, and disclose information publicly¹⁸. This is important for the considered case, as decentralised tariff-setting, without a consistent data-validation function may increase the risk of inconsistent, incomplete or unreliable information. Where local authorities have different levels of technical capacity, a central regulatory or methodological function can help ensure that tariff and performance decisions are based on comparable and verified data.

C. Performance monitoring

Performance monitoring is relevant to NEURC's request because fair tariff regulation depends on the ability to verify whether tariff decisions are linked to actual operator performance. WAREG's KPI work shows that regulatory authorities use KPIs to monitor providers of water and sanitation services, assess efficiency and service quality, and connect performance information with tariff-setting. This supports the view that tariff regulation should not be limited to the formal approval of tariffs. A regulator must also be able to assess whether the costs and investments included in tariffs correspond to measurable service outcomes, such as improved quality of service, efficiency gains, infrastructure performance, leakage reduction, continuity of supply, wastewater treatment performance and consumer protection.

For NEURC, this is particularly relevant because the removal of tariff-verification and monitoring functions would weaken the link between tariff decisions and performance evidence. Where tariff-

¹⁶ WAREG, [Tariff Regulatory Frameworks in WAREG Member Countries](#), 2019, Executive Summary, pp. 3-4; p. 16; Section II, "Tariff Calculations", pp. 38 ff.

¹⁷ Ibid.

¹⁸ WAREG, [Key Performance Indicators Frameworks in WAREG Member Countries](#), 2023, Executive Summary, pp. 3-4; WAREG, ["Insights from the 2023 WAREG KPIs Report"](#), 18 January 2024

setting is decentralised, a central regulatory function can help ensure that local tariff decisions remain consistent with objective data, comparable performance indicators and the correct application of the tariff methodology.

D. Transparency and public information

The recast UWWTD strengthens the role of public information, including information relevant to wastewater collection and treatment, costs, investment, monitoring and energy performance¹⁹. WAREG's wastewater-performance material identifies related information categories as relevant for regulators, including yearly price trends, investment costs, operational costs, tariff structures, investment plans, impact on tariffs, energy use and complaints²⁰. A regulator can help standardise and verify this information. This matters because transparency is not only publication of data; it also requires that the data are comparable, understandable and sufficiently reliable to support public accountability.

Approaches ensuring better monitoring and fair tariff regulation

WAREG's reports indicate that fair tariff regulation requires more than tariff approval. It requires a regulatory chain composed of methodology, data, verification, performance monitoring and accountability. This approach is supported by WAREG's tariff-framework report, which highlights tariff regulation's structured process involving tariff methods, regulatory periods, tariff updates, OPEX, CAPEX, investment accounting, asset valuation and financial parameters. It is also supported by WAREG's KPI work, which connects data collection, data validation, KPI monitoring, tariff links, regulatory action and public disclosure.

The strongest suggested approach is to have a clear tariff methodology, applied consistently, supported by audited or verified data, linked to investment and service-quality requirements, and subject to independent monitoring.

Fair tariff regulation should include the following components.

A. Methodological consistency

A common methodology helps avoid arbitrary or inconsistent tariff decisions. This is especially important where many local authorities set tariffs. Without a common methodology and a body capable of checking its correct application, different local authorities may interpret eligible costs, depreciation, investment needs or affordability measures differently.

WAREG's tariff-framework report also shows that tariff regulation across WAREG members involves multiple competent authorities and diverse approaches, but also a complex set of technical components. This supports the conclusion that tariff-setting should rely on a professional methodology and adequate verification capacity, regardless of whether the final institutional responsibility is national, regional or local²¹.

B. Verification of cost data

¹⁹ Directive (EU) 2024/3019, provisions on monitoring, energy neutrality, national implementation programmes and information to the public

²⁰ WAREG, [The Performance of Utilities for Wastewater Collection and Treatment: The Perspective of Regulators, 2023](#), pp. 2–5

²¹ WAREG, [Tariff Regulatory Frameworks in WAREG Member Countries](#), 2019, Executive Summary, pp. 3-4; p. 16; Section II, "Tariff Calculations", pp. 38 ff

Tariffs depend on cost data. If cost data are incomplete, inflated, inconsistent or not comparable, tariff decisions will be weak. WAREG's tariff work shows that tariff regulation involves detailed treatment of operating costs, capital costs, investments, asset bases, depreciation and financial returns. This requires technical capacity. A regulatory body is useful because it can develop standardised templates, reporting rules, accounting guidelines and verification procedures. In practical terms, tariff-setting depends not only on who formally approves the tariff, but also on who verifies the underlying data and how consistently the methodology is applied.

C. Link between tariffs and performance

Fair tariffs are not only about cost recovery. They should also be linked to the quality and efficiency of service. WAREG's KPI work shows that regulators use performance indicators to monitor water utilities and that there are challenges in ensuring consistency of KPI definitions, application and calculation methodologies across countries²².

This supports the position that tariff regulation should be connected to service-quality monitoring, efficiency indicators and benchmarking. Without this link, tariffs may recover costs without ensuring that operators improve performance or deliver measurable service outcomes.

D. Consumer protection and affordability

WAREG's work on affordability confirms that affordability is a recognised issue in European water systems and that WAREG members use different governance frameworks and tools to address affordability of water and sewerage charges²³.

A regulator can help distinguish between cost-reflective tariffs and affordability mechanisms. This is important because artificially low tariffs can undermine investment and service quality, while sudden cost-reflective tariff increases can create social pressure if not accompanied by appropriate affordability tools. A sound regulatory framework should therefore preserve cost recovery while ensuring that affordability is assessed transparently.

E. Transparency

Fair tariff regulation requires transparent procedures and explainable decisions. Tariff decisions should show what costs are recognised, what costs are excluded, what investment is included, how efficiency is assessed, how affordability is considered, how service-quality obligations are reflected, and how operators' data were verified.

This provides a strong rationale for ensuring that a methodological and verification function remains clearly established within the regulatory framework, including in systems where local authorities are responsible for final tariff-setting decisions. WAREG's institutional-framework report links regulatory objectives to monitoring, enforcement, consumer protection, efficiency and clearly defined regulatory functions, while its tariff-framework report illustrates the technical complexity of tariff decisions.²⁴

Role of an independent regulator from an economic perspective

From an economic perspective, an independent regulator plays a key role because WSS services are usually natural monopolies or quasi-monopolies. Consumers cannot normally choose between

²² WAREG, [Key Performance Indicators Frameworks in WAREG Member Countries](#), 2023, Executive Summary, pp. 3; WAREG, "Insights from the 2023 WAREG KPIs Report", 18 January 2024

²³ WAREG, [Affordability in European Water Systems](#), 2017, Introduction, pp. 4–5

²⁴ WAREG, [Institutional Regulatory Frameworks in Europe: A Comparative Assessment](#), 2015, pp. 6–8 and 15–17; WAREG, [Tariff Regulatory Frameworks in WAREG Member Countries](#), 2019, Executive Summary, pp. 4–5

competing water suppliers. Operators often face high fixed costs, long asset lives, major investment needs and politically sensitive tariffs. These features create strong reasons for economic regulation.

WAREG's ecological-transition report states that the economic regulation of WSS operators is rooted in addressing the negative externalities of natural monopoly. It explains that regulation helps mitigate risks of monopolistic pricing and disincentives to efficiency, while also supporting operators' financial sustainability, service quality, consumer protection, access to water and affordability²⁵.

The economic role of the regulator can be broken down into six functions.

A. Preventing unjustified tariffs

A regulator can check whether tariffs are based on efficient and justified costs rather than inflated or poorly evidenced claims. This role is especially relevant in monopoly conditions, where consumers cannot discipline prices through switching provider. WAREG's ecological-transition report links economic regulation to the mitigation of monopolistic pricing risks, while WAREG's tariff-framework report shows that tariff-setting requires assessment of multiple cost and financial components.

B. Supporting cost recovery

Under the Water Framework Directive, cost recovery is a central principle. Article 9 requires Member States to take account of the recovery of the costs of water services, including environmental and resource costs, in accordance with the polluter-pays principle.

A regulator can help ensure that tariffs are not politically suppressed below sustainable levels, while also preventing excessive or unjustified increases. WAREG's ecological-transition report links the cost-recovery principle to economic regulation and to the adoption of full-cost reflective tariffs.

C. Supporting investment planning

Water and wastewater infrastructure requires long-term investment. Tariff methodology can provide the framework for recovering investment costs over time, including depreciation, asset maintenance and financing costs. This is important because investment planning requires predictability. Operators need clarity on how efficient investments will be treated in tariffs, while consumers need assurance that tariff increases correspond to justified and efficient investment needs.

D. Creating efficiency incentives

Economic regulation can create incentives for operators to reduce inefficient costs, improve performance and plan investments rationally. Depending on the methodology, regulators may use price-cap approaches, cost-plus approaches, benchmarking, efficiency factors or performance-linked mechanisms.

WAREG's tariff-framework report refers to the relevance of tariff systems for cost recovery, efficiency motivation, investment stimulus, service improvement and long-term stability. WAREG's institutional-framework report also identifies cost-efficiency and sustainability among the objectives of regulatory activity.

E. Protecting consumers

A regulator can protect consumers from monopoly abuse, poor service and unjustified tariffs. WAREG's ecological-transition report links economic regulation to consumer protection, access to water and

²⁵ Salvetti and Sideris, [Economic Regulators' Role in Supporting the Ecological Transition of Water and Sanitation Service Operators](#), WAREG / Florence School of Regulation, 2022, Section 1, pp. 5–6

affordability, while WAREG's institutional-framework report identifies consumer protection, service quality, monitoring and enforcement among regulatory objectives and functions. This role is particularly important in the WSS sector because water is an essential service and consumers usually lack both market choice and technical information.

F. Ensuring financial predictability

Operators need predictable tariff frameworks to plan maintenance and investments. Consumers and public authorities also need predictability. Independent tariff methodology can reduce ad hoc tariff decisions and improve sector stability. WAREG's tariff-framework report analyses regulatory periods, tariff updates, business planning, investment accounting and the treatment of assets and investments in tariffs. This supports the view that tariff frameworks are not only pricing tools, but also planning instruments for the long-term sustainability of the sector.

Conclusion

In conclusion, WAREG's comparative work indicates that independent economic regulatory functions can provide significant added value in the WSS sector, particularly in tariff methodology, tariff verification, licensing conditions, monitoring, data validation, performance assessment and consumer protection. While European countries follow different institutional models, these functions are central to fair, transparent and sustainable regulation. Where tariff-setting responsibilities are decentralised, a central methodological and verification function can help ensure consistency, reliable data, correct application of tariff rules and protection of consumers and operators.