

# EUROPEAN ALLIANCE TO SAVE ENERGY'S INPUTS ON THE RECAST PROPOSAL OF THE URBAN WASTEWATER TREATMENT DIRECTIVE

The European Alliance to Save Energy (EU-ASE) welcomes the European Commission proposal for a recast of the Urban Waste Water Treatment Directive (UWWTD). This document gathers our inputs to the co-legislators that are due to negotiate and finalise the draft proposal in the next months.

The UWWTD played a substantial role in improving water quality and tackling high pollution levels in water bodies throughout decades. In 2021, we called for an update of the over 30 years old UWWTD because we were convinced it could be improved to better address some of today's most pressing challenges such climate change, resource scarcity, increased energy prices and population growth.

The recast proposal of the European Commission is the right step towards a more comprehensive, efficient and sustainable wastewater treatment. Nonetheless, we see room for improvement to further enhance energy efficiency, the recovery and use of excess heat, digitalisation, data analytics and water reuse.

## ENERGY NEUTRALITY BY 2040: PROMOTING THE RIGHT APPROACH FOR MORE EFFICIENT WATER TREATMENT FACILITIES

The proposal for a recast of the UWWTD expands the scope of the directive from protecting the environment, to preventing health risks, reducing GHG emissions and improving the energy balance of the urban wastewater collection and treatment activities. In this context, we welcome the proposal to introduce an obligation to achieve energy neutrality by 2040 at national level for all wastewater facilities above 10.000 p.e..

According to Art. 11, the total annual energy used by all urban wastewater treatment plants must be equivalent to the total annual energy generated by all such urban wastewater treatment plants. However, the proposed approach towards achieving energy neutrality focuses exclusively on the energy supply side overlooking the potential of existing technologies that can help reducing energy consumption first. Increased energy efficiency can drastically reduce the facilities' energy needs, optimise their energy consumption while ensuring resource efficiency and accelerating the integration of renewable energy sources. Moreover, treated wastewater carries a valuable source of renewable energy in the form of waste heat. This excess heat can be recovered and fed into a local district energy system with the help of industrial heat pumps.

To help achieve the energy neutrality objective, the proposal requires energy audits of urban wastewater treatment plants to be carried out every four years for all facilities above 10000 p.e. We support this provision.

### Areas of improvement:

- 1. The Directive approach to achieve energy neutrality must be brought in line with the Energy Efficiency First principle and recognise that the most rational, cost-effective and environmental friendly approach to achieve this objective is to tackle energy inefficiencies first.
- 2. Once reduced energy consumption and integrated renewable supply the treatment facilities should be even incentivised to become net energy producers.
- 3. Audits should go beyond the proposed identification of the potential for cost-effective use or production of renewable energy to include the identification of the potential for reducing energy need and optimise energy consumption.
- 4. Art. 11 provides a good framework to tap into the enormous potential of waste heat as a renewable energy source. Wastewater treatment plants above 10 000 p.e. should be obliged to make the excess heat accessible for third parties and allow the connection to a district energy system.
- 5. The obligation by water facilities to conduct energy audits every four years should be extended also to associated collecting systems and accompanied by an obligation to implement the audits recommendations, especially those with short payback.

# INTEGRATED URBAN WASTEWATER TREATMENT PLANS TO PRESERVE NATURAL WATER RESOURCES, ENSURE STORMWATER MANAGEMENT AND CLIMATE MITIGATION

Climate change is the cause of more and more extreme precipitations. The increase of impervious surfaces in urban areas reduces water infiltration putting enormous pressure on the urban wastewater infrastructure and increasing energy consumption of treatment facilities.

We welcome the UWWTD proposal to create a new legal framework for preventing urban runoffs and storm water overflows. In relation to new proposed obligations in this area, we welcome the introduction of useful definitions for "urban runoff" and "storm water overflows".

The proposal of Art 5 to introduce the obligation to establish locally integrated urban wastewater management plans to combat urban runoff and storm water overflow is very much needed and can address a series of environmental, health and economic problems caused by more and more frequent and intense stormwater events in our cities.

The co-legislators should preserve Art 5 which holds the potential to improve rainwater treatment while saving energy and support the rebuilding of the natural water cycle in urban areas. When assessing which measures to be taken to achieve the objectives of the integrated plans, Annex V suggests the right approach i.e. first, preventive measures promoting natural water retention, and measures increasing green spaces or limiting impermeable surfaces in the agglomerations; secondly, measures to better manage and optimize the use of existing infrastructure; and finally the adaptation of the infrastructure or the creation of new infrastructures with a priority to green infrastructure.

### Areas of improvement:

- 1. The obligation for Member States to establish integrated urban wastewater management plans should be complemented by setting urban targets for sewer overflows which would incentives municipalities to address this growing issue in a systemic way.
- 2. Among the green infrastructures listed in Annex V as preventive measures to runoff and sewer overflows should be included also solutions such as green roofs that play an important role for rain water retention and detention in urban areas while delivering multiple energy, environmental and health benefits to citizens.

# INFORMATION TO THE PUBLIC: SEIZING THE OPPORTUNITY OF DIGITAL TOOLS FOR TRANSPARENCY AND DATA ANALYTICS

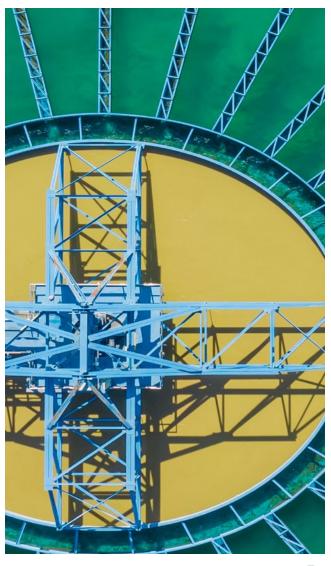
Data transparency and advanced data analytics allow for a holistic management of wastewater collection and treatment systems bringing significant economic, social, health and environmental benefits. A knowledge-, data-based approach to decision making results, for example, in improving treatment effectiveness, reducing failure of infrastructure, limiting overflow of the sewer system and reducing the capital investment plan into unnecessary new infrastructure development and energy consumption.

We support the obligation proposed by Art 24 to ensure that adequate and up-to-date information on urban wastewater collection and treatment is available online. Access to key information such as the volume of urban wastewater collected and treated per year is the first step to optimise processes, increase the effectiveness of the facility and reduce the energy consumption.

The list of information included in Annex 6 to be provided to the public under new Article 24 is comprehensive and would ensure a useful and harmonised collection of data. It should therefore be preserved by the co-legislator.

### Area of improvement:

The proposal should foster the use of digital tools such as artificial intelligence, cloud solutions, digital twin, advanced software, connected sensors and software for data analytics, to further enable wastewater treatment plants to optimise water management and reduce operational costs and risks. The collection and use of real-time data creates stronger insight on the overall operations of wastewater treatment plants (for example energy consumption, pressure, flows) and can have huge environmental and economic benefits.



### **CIRCULARITY AND WATER REUSE**

The Commission predicts that based on growing demand from different sector users (e.g. citizens, farmers, industry), the total water abstraction in the EU will increase by 16% in 2030, increasing competition between users for fresh water resources. In response to such predictions, despite of the fact that in 2022 Europe was hit by one worst drought episode ever. The growing risk of water scarcity remains largely absent in the Directive proposal.

We support Art 15 proposing that Member States shall systematically promote the reuse of treated wastewater from all urban wastewater treatment plants. However, we believe that UWWTD should reinforce this provision and address more decisively the issue of water scarcity, particularly in urban environments, where demand is particularly high and water is critical to economic life and industrial production.

### Area of improvement:

In order to actively promote water reuse and recovery for industry and municipalities, Art 15 should mandate an analysis of potential reuse options and set a certain percentage of water which should be recycled. This would foster circularity and generate efficiency at all levels and across sectors (municipalities, industry and agriculture).

### SUPPORTING INVESTMENT

The transition of wastewater management towards greater efficiency and climate neutrality will require investments.

Art 23 on National Implementation Programme proposes that these programmes must include the identification and planning of investments necessary for the implementation of the Directive; an estimate of the investments needed to renew existing urban wastewater treatment infrastructures; and the identification of potential sources of funding.

### Areas of improvement:

It is right to include an assessment of the investments needed in the National Implementations Programmes but Art 23 should be integrated and enriched with more concrete proposals for financing instruments and mechanisms.

In addition to existing financial instruments, it is important to introduce a dedicated EU Water Fund available to all Member States which will support the transition. Furthermore, the implementation of the Polluter Pay Principle can also lead to the creation of extra payment schemes for recycled and reused resources from wastewater by stakeholders finding values in those resources.



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The European Alliance to Save Energy (EU-ASE) aims to advance the energy efficiency agenda in Europe. The Alliance allows some of the world's leading multinational companies to join environmental campaigners and a crossparty group of Members of the European Parliament.

EU-ASE business members have operations across the 27 Member States of the European Union, employ over 340.000 people in Europe and have an aggregated annual turnover of €115 billion.

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