



EurEau position on the Draft revised Energy Efficiency Directive (EED)

Summary

EurEau supports the general objective of the Energy Efficiency Directive (EED) which is to promote energy efficiency next to using renewable energies with the overall goal to achieve energy and climate neutrality. The EED and the Renewable Energy Directive (RED) must accompany and support this process, taking into account the GHG emissions as the main indicator.

Many elements lie beyond the control of water and waste water service providers but have a substantial impact on energy consumption. Therefore, the energy efficiency of water and waste water services should not be expressed in kWh/m³ or other units, but in terms of achieving the individual cost-effective savings potential identified through energy and especially GHG emission audits. These individual baselines open the possibility to respect the different efforts already made. Next to this, it opens also the facility level from which the energy and climate savings can be deducted.

EurEau supports mandatory energy audits for the largest energy users.

The way the EED is built leaves out a part of our sector (given the different governance and management models of water services along Europe) for the different energy efficiency, GHG emissions and audit requirements. With a view to including all operators, we see the UWWTD as the better-adapted tool.

1. Preliminary statements

The introduction to the Directive, as well as the Explanatory Memorandum, highlight the contribution that the water sector can make to energy savings through smart technologies and processes as well as leakage reduction (59, 2018/2002, recital 22). The role of the circular economy and the life cycle approach are supported (38 and 39, 2012/27, recital 19).

Recital 59 states that “the energy sector is the largest consumer of water, accounting for 44% of consumption”. According to European Environmental Agency, agriculture/forestry/fishery is the largest consumer of water with a 58% share ([Water use in Europe by economic sector, 2017](#)).



2. Energy efficiency in the water and waste water sector – state of play

An increasing number of water service providers are moving towards energy neutrality. That means a substantial reduction of GHG emissions with the goal of net zero. There are two main ways to achieve this in a climate-friendly fashion: 1) high energy efficiency combined with 2) the main instrument, the generation of renewable energy. The EED and the Renewable Energy Directive (RED) must accompany and support this development. For the water and waste water sector, the link between both directives and climate policies is highly relevant to ensure sustainable investment decisions.

It is important to recognise that new, more efficient drinking and waste water treatment plants, their whole network assets and well-organised processes (among them reduced leakages) can deliver improved energy efficiency over time. Many operators have been trying to minimise their energy consumption for decades and have invested in corresponding measures. General targets would therefore disadvantage those who have already reduced energy demands by energy efficient water and waste water infrastructures and processes. Further measures might ultimately not be technically feasible or economically justifiable in many places. Against this backdrop, general efficiency targets are not only unfair, but they also do not contribute to achieving the climate protection goals.

Besides this, there are elements with substantial impact on energy consumption that lie beyond the control of water and waste water service providers like topography, population density and growth, climate change impacts and treatment steps needed to meet regulatory quality requirements for drinking water and waste water.

Furthermore, many drinking water and waste water operators are expecting not only significant economic growth in the coming decades but also higher demands and standards that will see increased demands of energy to fulfil the core business.

In addition, some regions will increase the use of reclaimed water to cope with the impacts of climate change, but water reuse is an energy intensive process, as waste water must be treated to high standards to ensure its safe use. It is therefore likely that the generation and use of renewable electricity and/or bio-gas and bio-methane will be equally important for water operators when reducing greenhouse gas (GHG) emissions in the coming decades.

The mission of the whole water sector is to provide safe drinking water and to treat waste water accordingly while protecting public health and the environment. If necessary, water operators will introduce additional treatment steps to remove micropollutants, nitrogen and phosphorus even if this leads to a substantial increase in energy and resource consumption.

Against this background, EurEau is opposed to the introduction of a specific energy savings target for the water sector.



The energy efficiency of water and waste water services should not be expressed in kWh/m³ or other units, but in terms of achieving the individual cost-effective savings potential identified through energy and GHG emission audits, with continuous improvement, as in ordinary quality management systems. The energy and climate audits output will set a baseline at facility level from which energy and GHG emissions savings can be deducted. Audits could also feed the criteria for sustainable funding.

Overlaps with the Urban Waste Water Treatment Directive (UWWTD) must be avoided. As pointed out later in this paper, the various national management models mean that the EED would only partially cover the water and waste water sector. We therefore strongly recommend that energy-related provisions for waste water operators be addressed through the UWWTD.

3. Articles 5, 6 and 7: Public sector leading on energy efficiency, exemplary role of public bodies' buildings and public procurement

For many water service providers, energy is one of the main cost factors. Consequently, they have been engaged with energy efficiency for decades.

EurEau recognises the need to improve energy efficiency in the public sector, to renovate buildings and, if applicable, the requirement to include energy efficiency requirements more systematically in public procurement procedures.

As outlined above, a specific savings target for the whole water sector would not be achievable due to the individual energy saving efforts spent so far. It is noted that there is a special focus on the public sector and its buildings. At first glance, we assume that the definition of "public sector body" refers to the definition in the Public Procurement Directive, Article 2, 2014/24, and it could be considered to specify that. However, the water sector needs clarification to determine which water operators belong to the public sector and which buildings would be covered. This cannot be easily derived from the requirements set in the definition of "public bodies" included in the proposal, given the different governance and management models of water services in Europe.

Besides, upcoming sectoral legislation, such as the UWWTD is expected to set energy-related requirements. EurEau supports that the UWWTD is the best place to increase the energy efficiency of the waste water sector as it will address all operators whereas the proposal only refers to 'public bodies'.



4. Article 11: Energy management systems and energy audits

EurEau stresses the importance of understanding the energy consumption breakdown per treatment step, identifying cost-effective savings potentials and determining the greenhouse gas (GHG) emissions, in particular, at waste water treatment plants (WWTPs). It is important to avoid energy efficiency improvements that increase GHG emissions, for example optimising the energy efficiency of waste water treatment should not result in higher methane and/or nitrous oxide emissions.

Hence, we support the mandatory energy audits for the largest energy users. However, as to the waste water sector, we strongly believe that the requirements for energy efficiency and GHG emissions should be defined in the revised UWWTD. The EED should clearly specify that these requirements only apply to energy users not covered by sectoral EU legal acts.

The term 'enterprise', as used in the EED, brings confusion on the entity to which the energy consumption threshold would apply. For the water sector, facility or utility are more appropriate terms. The UWWTD will apply to all waste water operators whereas this article only reaches those that are defined as 'enterprise'.

5. Article 28: The energy efficiency National Fund, Financing and Technical support

The implementation of energy-efficient solutions, technologies and equipment in the water sector requires important investments that should benefit from EU sustainable funding, in line with recital 50. The LIFE Clean Energy Transition sub-programme 2021-2027 will dedicate funding to support the development of the European best practice in energy efficiency policy implementation (recital 19).

EurEau's position paper on Energy and Greenhouse Gas emission reduction objectives for the European water sector under the UWWTD

<https://www.eureau.org/resources/position-papers/5815-position-paper-on-climate-mitigation-in-the-uwwtd/file>

EurEau's briefing note on Reducing the Energy Footprint of the Water Sector

<https://www.eureau.org/resources/briefing-notes/3890-briefing-note-on-reducing-the-energy-footprint-of-water-sector/file>





About EurEau

EurEau is the voice of Europe's water sector. We represent drinking water and waste water operators from 29 countries in Europe, from both the private and the public sectors.

Our members are 34 national associations of water services. At EurEau, we bring national water professionals together to agree European water sector positions regarding the management of water quality, resource efficiency and access to water for Europe's citizens and businesses. The EurEau secretariat is based in Brussels.



With a direct employment of around 476,000 people, the European water sector makes a significant contribution to the European economy.