



European Energy Network

A voluntary network of European energy agencies

Terms of Reference EnR Working Group Proposal

Water-Energy Nexus

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Agência para a Energia

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1 Framework

The Water-Energy Nexus Working-group aims to contribute towards the European Green Deal targets and to boost resource efficiency, through the discussion around the water-energy nexus.

The interdependencies between energy and other resources, particularly water, jeopardizes mitigation and adaptation goals, driving the energy sector to look beyond energy.

Water is critical for energy production and faces increased shortages due to climate change.

Additionally, growing competition for water between the energy sector, consumers and other economic activities requires increasing water efficiency and water conservation practices in all sectors. **Conversely, it paves the way to new opportunities within the water-energy nexus**, with enhanced impact of combined water-energy approaches versus isolated ones.

Water efficiency, and subsequently, water-energy nexus, has also an increasing importance in European and national policies and instruments in different Member State, with recent examples:

- i. The action plan on financing sustainable growth and its common classification system for sustainable economic activities (“EU taxonomy”) includes sustainable use of water resources as one of its six environmental objectives.
- ii. The undergoing work towards water & energy EU labelling for taps and showers, considering their significant potential to reducing water, energy and saving carbon emissions, identified under the Ecodesign Workplan 2012-2014.
- iii. Level(s), the new EU framework for Sustainable Buildings includes water efficiency and water use indicators.

Although the interdependencies between water and energy are well known and have become a subject of increasing attention for the scientific and policy communities, the development and implementation of water and energy policies remain largely disconnected at EU and Member State levels¹. The same happens with financing instruments, particularly smart finance and innovative solutions for cities and buildings.

The European Energy Agencies have always been at the forefront of the new topics impacting the energy sector. The water-energy nexus approach is becoming critical to energy activities, stakeholders and European targets. Furthermore, it presents new unexplored opportunities of economies of scope and scale, increasing energy savings and return on investment when compared to traditional approaches focused solely on energy.

¹ JRC, 2019, Water & Energy Nexus In Europe <https://publications.jrc.ec.europa.eu/repository/handle/JRC115853>

2 Objectives

The EnR WEN WG has the following three main objectives:

- Exchange information, experiences and best practices on water efficiency and combined water-energy efficiency; water-energy nexus in renewable energy, water reuse and new water sources (e.g., desalination); water and energy monitoring; estimate impacts and contribution of water and energy integrated approaches to climate adaptation and mitigation goals;
- Develop surveys and studies to better understand users' needs regarding water-energy efficient products/services and to identify bottlenecks, barriers and solutions, aiming at supporting policy instruments, Member-state authorities and the European Commission;
- Fostering opportunities and projects on combined water and energy efficiency, boosting green economic growth, eco-innovation and green jobs.

3 Working Group Members

The WEN WG members will include European Energy Agencies, members of EnR, and other interested parties from public and private bodies committed to energy and resource efficiency.

4 WG Creation Methodology

The group will be launched in March/April 2022 and will operate with a task force for the first year, building the foundation for the WG to be created in 2023, including the development of a proposed workplan for 2023 and 2024.

Final ToR for the WG, including workplan for 2023-204, governance and membership will be proposed by the WG task force, following the in the Guidelines for the EnR Working Groups.

4.1 Key phases & activities for 2022

The group implementation and kick-off year (2022) will be centered, but not limited, to the following key activities and deliverables:

- i. **March/April 2022 – Launch of the EnR Task Force on Water-Energy Nexus:** WG ToR, creation and implementation of an EnR Task Force on Water-Energy nexus, building the foundation for the **Water-Energy Nexus** WG, to be created in 2023.
- ii. **April 2022 - Feb 2023 – EnR Water-Energy Nexus WG implementation**, including preparation of a joint European project proposal and a European survey.
- iii. **April 2022 - Feb 2023 – EnR Water-Energy Nexus 1st Study:** Study on innovative financing solutions.

- iv. **February 2023 – EnR Water-Energy Nexus 1st Workshop:** Webinar to report the findings of the WEN WG 1st study and to discuss water-energy related topics.

4.1.1 Launch of the EnR Task Force on Water-Energy Nexus

- Preparation and presentation of the WEN WG ToR proposal to EnR members.
- Direct invitation to EnR members to participate in the WEN task force and future WG.
- 1st WEN Task Force Kick-off meeting to appoint the chair and approve rules and the workplan for 2022 of the Task Force.
- Roll-out of the WEN Task Force

4.1.2 EnR Water-Energy Nexus WG implementation

- **Water-Energy WG Survey (2022)**

Preparation and implementation of a European citizen open survey on water & energy EU labelling for taps and showers, to understand consumers' needs, motivations and willingness to choose labeled water use products, fixtures and appliances, towards water and energy savings. It will be proposed to be carried out in close collaboration with the EnR Labelling and Ecodesign WG and Behaviour WG and several EU organizations. Results and conclusions may be presented at a dedicate online session during the World Water Week. Results could provide input to the discussion within the EC and industry stakeholders about the mandatory option through the EU energy label and the water label voluntary option through the agreement between industry and EC.

- **Joint European project proposal to Interreg Europe (2023)**

Preparation of a proposal to submit, in 2023, to Interreg Europe by the WEN WG members. The aim of this proposal is to share experiences and best practices on water-energy nexus across different Member-states, aiming to contribute for improving regional development policies and funds and to foster successful application of combined water and energy efficiency policies and programs in European regions. The goal is to empower European energy agencies, managing authorities, regional stakeholders and decision-makers for a smarter and safer water and energy management within the water-energy nexus, in buildings, cities and regions, increasing resource-efficiency, climate mitigation and adaptation, green growth, eco-innovation and environmental performance management.

4.1.3 First EnR Water-Energy Nexus Study (dedicated ToR)

- **Study on smart and innovative financing on the water-energy nexus**

Benchmarking study on European and international smart and innovative financing and incentives, to foster combined energy and water efficiency and compliance with the EU Taxonomy Regulation, particularly in cities and buildings, including European case studies. The proposed ToR for the study are already circulating among EnR WG Chairs, Regular&Full Members.

4.1.4 First EnR Water-Energy Nexus Workshop

- **Workshop on “How smart financing can help achieve European targets”**

Workshop to present the main findings of the 1st Water-Energy WG Study on European and international smart and innovative financing and incentives, and their potential impact and contributions to meet decarbonization targets. The workshop will also address and help to clarify the implementation of the EU Taxonomy Regulation in MS.

The online workshop, with 2 hours expected duration, including discussion, is targeted at European energy and environment agencies and other public and private bodies that support managing authorities.

5 WG Expected results

Main deliverables and results expected in 2022 and early 2023 from the WEN WG workplan:

- Identification of members to participate in the Water-Energy Nexus Task Force/working group.
- Launch of the WEN Task Force and kick-off meeting, to be followed by three work meetings, one every trimester.
- Survey preparation, dissemination and analysis. Results and conclusions may be presented at a dedicate online session during the World Water Week 2022.
- Position paper on the options for water & energy EU labelling for taps and showers.
- Position paper on indicators and metrics proposal for future revisions of the EU’s Energy Performance of Buildings Directive (EPBD)
- Publication on the findings of the Innovative financing solutions study (see ToR in Annex I).
- Innovative financing Workshop on the findings of the study.
- Interreg Europe consortium, application and contract award if successful (2023).

6 Proposed timeframe

Main deliverables and results timeframe 2022 from the WEN WG workplan and related topics and events:

