Position paper

Policy recommendations of the French Hydropower Industry for the revision of the EU Water Framework Directive

The Syndicat des Energies Renouvelables (SER), the Union Française de l’Electricité (UFE), and France Hydro Electricité (FHE), represent the entire value chain of the hydropower industry in France.
Key Points:

The Fitness Check of the EU Water Framework Directive (WFD) is a real opportunity to question the approach and objectives of the WFD and consider its revision to align with European public policies. Such realignment will allow for balanced and objective decisions in the applications of the Directive.

Twenty years after its adoption, it is also the occasion to update it with the European Union’s new priorities, one of the topmost being the fight against climate change.

The SER, the UFE, and the FHE therefore insist on the necessity of integrating the objectives of renewable energy development and economic and social sustainability. The revision of the WFD must more easily permit the consideration and preservation of energy production potential and provide flexibility for existing hydropower installations as well as development perspectives, which are as much assets for the energy transition as the fight against climate change.

Finally, it is the moment to question the evaluation methods for the status of water bodies, which, with every additional addition and precision, has led to the breakdown of the grading of waterways despite progress being real and tangible.

It is important to remember that, contrary to the numerous other uses of water, hydropower neither consumes any water nor does it alter in any way its quality, which is the main evaluation criterion of a water body’s status. Hydropower has only a residual possible impact on hydromorphology, which is one of the listed criteria for evaluating the ecological state of a water body. There is no correlation between the presence of power plants and degraded water bodies.

With these points in mind, the French hydropower profession, represented by the SER, the UFE, and the FHE, has assembled the following recommendations, which could be a part of the revision of the WFD:
1. Clarify the interpretation of the non-deterioration principle by ending its application as “one out – all out”.

The Weser case ruling issued by the European Court of Justice (ECJ) in 2015\(^1\) introduced a restrictive interpretation of the non-deterioration principle by ruling on the deterioration of a water body as soon as one of the quality elements falls in class. This principle, called “one out – all out”, makes reaching the level of “good status” for water bodies, as required by the WFD, particularly difficult because it restricts any project that may improve the overall quality of the water body if it has a negative effect on one quality element. This interpretation constitutes a major obstacle to the development of projects on water bodies because the project owner must then prove that no deterioration will be produced or that an improvement to the water body will not be hampered by the project. For this reason, we consider it necessary to rethink the application of the “one out – all out” principle as it was laid out by the Weser ruling and to reinstate the original principle of the WFD. This would indeed provide more flexibility in terms of the non-deterioration principle, by authorizing projects whose impacts do not lead to a downgrading of the status category.

2. Maintain the “Heavily Modified Water Body” (HMWB) category as laid out in article 4.5 as a designation for surface water bodies that have been altered by human activity.

The modification of water bodies has historically had the role of preserving humans and their environment: prevention of rising water levels and flooding, combating droughts and climate change, and preservation of groundwaters, etc. Consequently, pursuing the objective of “good status” without also losing these benefits is severely compromised. The HMWB status recognizes the impossibility of a water body reaching “good status” as required by the WFD because of the inalterability of activity for technical, economic, or climactic reasons. Article 4.5 of the WFD therefore creates an objective of “good ecological potential” for these water bodies to reach. The HMWB designation is particularly adapted to waterways equipped with hydropower, an energy production activity that is beneficial for the electricity system and the climate. Its effects in terms of the cost of reduction or restoration measures, as well as the adaptation of production plans, can therefore be measured quantitatively and qualitatively. Water bodies designated as heavily modified must continue to be ranked on a case by case basis, given the specificity of each site and the margins of progression in terms of various ecological, hydromorphological and fishing criteria.

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\(^1\) Weser dredging case, ECJ Case C-461/13
Therefore, new projects that have minor impact on the quality of a water body would be able to be developed, in particular small hydropower installations.

3. **Facilitate the development of hydropower by providing the possibility of departing from the objectives of the WFD according to the principle of article 4.7 on the basis of energy, climate, and economic criteria.**

Article 4.7 of the WFD allows for a departure from the non-deterioration principle of a water body’s status if the targeted project is judged to have a higher public utility. As this designation has been left to the discretion of each EU Member State, there have been four projects in France that have been granted this derogation. Hydropower development contributes markedly to the energy and climate objectives of the European Union. Therefore, we strongly recommend to consider the public utility of the development of hydropower – as it was ruled by the European Court of Justice in its May 4th, 2016 *Schwarze sulm* case – and to make the derogation process more fluid in accordance with the RED II directive.

It is also necessary that derogation be really possible when the costs of reaching WFD objectives are considered disproportionate. This measure requires the systematic creation of a cost-efficiency analysis of implementation measures. Such analysis should particularly consider the economic impacts (loses of production and flexibility, investments and maintenance) in a global cost estimate of the program of measures and evaluate the benefits on a scientific basis and on *in situ* measurements of the evolution of characteristic parameters of the ecological state.

Though present in the WFD, this derogation is very difficult to implement as its definition and parameters were never clearly laid out. It is therefore never, or very rarely, used.

4. **Guarantee a coherence of the regulatory framework of water policy.**

Revision of the WFD must also guarantee its internal regulatory coherence. This will require to:

- **Measure efficiency through the evaluation of its management plans,** in particular by putting into place a cost-efficiency evaluation criteria prior to the definition of measures and limiting actions to those presenting satisfactory ecological results, while avoiding disproportionate costs.

- **Make clear distinctions within the WFD** between the different issues through the definition of precise evaluation criteria, and give these criteria immutability.

- **Limit the impact of guidance documents of the WFD in the strict respect of the subsidiarity principle and of the WFD itself.** Namely, the WFD’s guidance documents
have the vocation of translating the WFD’s principles into concrete measures. However, the diversity of situations encountered in Europe, as the preamble of the WFD makes reference to, requires an application of the subsidiarity principle to leave the choice to Member States of the appropriate implementation. The guidance documents of the WFD must be restricted to a few key issues for the WFD to be carried out properly and must in no case lead to any extensive or restrictive interpretation of the directive.

5. **Guarantee coherence with other European policies.**

The revision of the WFD must guarantee its regulatory coherence with other European public policies within the framework of the Better Regulation initiative. The priority laid out by the WFD for water bodies to reach “good status” requires an implementation defined in management plans, in France: the “Schémas Directeurs d’Aménagement et de Gestion de l’Eau” (SDAGE, outlines for the organization of the development and management of water resources), which is operational, efficient, and realistic.

We consider that this implementation through management plans must be in compliance with the challenges of global warming as well as energy and socio-economic challenges, as expressed through various EU directives, in particular RED II. An imbalance has also been identified between the theoretical finality of reaching “good status” and its application that translates into the use of methods without justification for their effect on ecological status and its efficiency when they constitute an administrative barrier for projects. In France, management plans per water body concentrate on the restoration of ecological continuity, creating disproportionate costs without any real measurement of the efficiency of these policies on the ecological status of water bodies. Likewise, the classification of rivers in the name of new obstacles to ecological continuity (called list 1) constitutes, in its French application, an administrative barrier to the delivery of new authorizations for hydropower installations on these classified rivers.

In view of these aspects, we propose the **creation of a systematic evaluation of the impact of SDAGE outlines** on the current renewable energy production system and on its potential development, and in doing so to confirm that they do not create an administrative barrier to the development of renewable energy, ensuring compatibility with the objectives of renewable electricity production.

To ensure that the management plans per water body are truly guarantying the application of the WFD and improving its implementation, we propose the **implementation of an intervention prioritization program** for the restoration of “good status”. In this way, the planning documents that are established must become tools for the prioritization of actions carried out on the water body, in terms of relationship to objectives, the efficiency of measures to be carried out, and their cost. This river basin by river basin prioritization of actions is the most efficient means to improve the state of water bodies, in coherence with
existing uses and the whole set of other European priorities that include the fight against climate change, the prevention of flooding, and the development of renewable energy, etc. This provision cannot be hampered by the non-regression principle as it is not a regression of the objectives of “good status” but a staggering of progress. Ultimately, it would be applied on a case-by-case basis.

6. Improve understanding of the application of the WFD.

Feedbacks and scientific studies are necessary to enhance cost-efficiency analysis methodologies and to improve their pertinence.

7. Improve the dialogue between the stakeholders involved.

In accordance with the preamble of the WFD, better consideration of the positions expressed by water users is necessary to better integrate protection and management which is ecologically viable for waters under other European policies, such as those related to energy, transport, agricultural policy, fishing, regional policy, and tourism; furthermore, so that the current directive provides a basis for permanent dialogue and allows for the creation of strategies that work in favor of this objective of integration.
Context – Hydropower:

Hydropower, a decarbonized energy par excellence, does not emit any greenhouse gases and uses the energy capacity potential of water, altering neither its quantity nor its quality. The water which passes through turbines is then entirely returned to the river.

In France, the average annual electricity production issued from hydropower plants is 67 TWh, representing 13% of the electricity mix. Cornerstone of the electricity system, it plays a part in the security of the national supply, the stability of the electricity system, and constitutes an indispensable tool for the grids in the context of the energy transition and the development of intermittent renewable energies.

Thanks to of a low variability and significant predictability, small, decentralized hydropower provides the necessary flexibility for the management of local grids and reduces losses related to electricity transmission by distributing the electricity closest to consumption sites.

Hydropower offers storage capacities for freshwater and is therefore a major tool for the sustainable management of water resources in response to the effects of climate change.

Since the 2006 LEMA law, installation owners and managers have invested to comply with the new standards: ensure the fish and sedimentary continuity of classified rivers that present an ecological challenge. The profession has invested in evolving its techniques and practices, and making installations more respectful of their environment, in the perspective of preserving natural resources and biodiversity: restoration programs for aquatic endangered species, improving aquatic life continuity systems, measures favoring a more natural transport of sediment, etc. The measures favoring ecological continuity require considerable non-remunerable investments (fishways for upstream and downstream migration, etc.) and production losses of a 100% renewable electricity (-3 TWh with the build-up of instream flows), leading to a loss of flexibility whose cost is considerable (estimated at € 1 billion over ten years).

The implementation of the WFD in France significantly restricts the current and future functioning of the hydropower fleet. It results in a constant loss of energy capacity, but also is an obstacle to 2/3 of the development potential, estimated at 11.7 additional TWh, of this renewable source.
L’Union Française de l’Electricité (UFE, the French union of electricity) is the trade association of the French electricity sector. It represents the interests of its member, producers, grid managers, electricity suppliers, and energy efficiency service providers, in social, economic, and industrial fields. It is a member of MEDEF and of EURELECTRIC, the European association of electricity industry, and brings together, directly and indirectly more than 500 businesses who employ, in France, more than 150,000 associates, for a turnover of more than 40 billion Euros.

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The Syndicat des Énergies Renouvelables (SER, the French renewable energy association) brings together 380 members, representing a turnover of 10 billion Euros as well as 100,000 jobs. It is the professional association that brings together the industries of all the renewable energy industries: biomass, wood, biofuel, biogas, wind, marine energy, geothermal, hydroelectricity, heat pumps, solar photovoltaic, solar thermal, and thermodynamic energies.

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France Hydro Electricité (FHE, France hydropower) is a national association of small scale hydropower. The association federates more than 600 hydropower plants of less than 12 MW capacity, throughout the French territory, as well as more than 150 industry suppliers, businesses, engineering and design offices, turbine manufacturers, and suppliers of electrical and mechanical materials. France Hydro Électricité assists its members in the management of their installations and the development of their projects. It defends them, informs them, and assists them in judicial, administrative, and technical aspects.

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