



European Small Hydropower Association

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Water Framework Directive severely impacting hydropower development in the EU

Brussels, 12 February 2010. The Water Framework Directive, which came into force in 2000, is currently moving from theory to practice with Member States having submitted their River Basin Management Plans to the Commission by the end of 2009. The implementation of the WFD, despite its positive goal to improve the environmental status of water bodies, is limiting the hydro sector's future growth, since the interpretation of the Directive at national level is having direct consequences on the approval of new projects and allocation of concessions and permissions. Many times this is due to lack of knowledge at local level of how the technology has evolved mainly regarding to environmental performance. This development coincides with Europe's rising energy dependency, need for security of supply and storage capacity.

The current situation of small hydropower development in many of the EU-27 Member States can be described rather as 'survival' than development. In several Member States measures have been taken with a very negative impact for the sector. As an example, in Poland recently a 'Moratorium for SHPs' action was carried out which was aimed at imposing moratorium on building any new Small Hydropower Plant and asking for withdrawal of already approved permits. In Slovenia, a new decree on residual flow was adopted with the consequence that the loss of production for new SHP will be between 30-60% making it not profitable to build new SHP plants. In France, a new river classification exercise has resulted to diminishing the planned 7 TWh production by hydropower by 2020 to 2-3 TWh.

At the same time, the EU has set legally binding targets for increasing renewable energy use by 20% by 2020 with the adoption of the RES Directive in December 2008. All Member States are to decide on their national energy mix by the end of June 2010. Hydropower, as the most cost-efficient and reliable renewable source of energy, has a crucial role to play here. Paradoxically, at the same time Small Hydropower development in the US is booming. Driven by federal incentives the market continues to grow and Small Hydropower is now recognised as one of the most cost effective and environmentally friendly forms of renewable power. Similar trends can also be seen in other countries, in particular in China and Japan. The European leadership of the sector is seriously in danger.

The cross-cutting driver for development for hydropower technologies are the needs and push for new environmentally friendly technologies. In fact, the sector is constantly evolving and already offers multiple possibilities for win-win outcomes such as multipurpose plants where hydropower production is combined with other applications and existing infrastructure is used; refurbishing of old and abandoned

plants, using new innovative technology (very low head hydro, infrared fish-fences, eel-friendly turbines etc) to improve environmental performance. Indeed in Europe over 55% of the small hydropower plants are over 60 years. An estimation of 30 TWh could be achieved with refurbishing old sites resulting to increased energy production at the same time improving ecological conditions and contributing to reaching the 2020 targets. This has so far been largely ignored in many of the EU Member States.

However, increased investment in R&D activities is crucial in order to find solutions to minimise environmental impact whilst maximising electricity production. This is why it is critically important that Hydropower would be included in the SET-plan through which most EU funding for research for low carbon technologies will be channelled. In the future, with the increase of intermittent renewables in the grid, the role of hydropower will become even more significant to ensure grid stability and energy security through storage capabilities. This would also contribute to fully exploiting the EU's sustainable energy potential in economic, ecologic and social terms and to EU's goal to make the transition to a low-carbon economy by 2050.

Please see full report on our website at www.esha.be

ESHA, the European Small Hydropower Association, is an umbrella organization for the promotion of small hydropower in Europe. ESHA is a founding member of EREC (European Renewable Energy Council) and a member of EUFORES (European Forum for Renewable Energy Sources).

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