



## EUREAU Position paper on Water Efficiency in Buildings

18 January 2012

### Summary and short explanation

The position paper is developed by EUREAU experts as a reply to the electronic stakeholder consultation process on Water Efficiency in Buildings that was initiated by the EC DG ENV on 16.11.2011 in the frame of the Water Blueprint initiative with the deadline to send the reply by 08.02.2012. The official consultation process started at the stakeholder event on 29.11.2011. EUREAU position on water efficiency in buildings is reflected in this position paper as well as EUREAU position on Water Re-use developed in June 2011 and communicated to the DG ENV in September 2011. (The PP is also available from [www.eureau.org](http://www.eureau.org)).

EUREAU PP on Water Efficiency in Buildings contains the following basic points:

#### 1) General remarks:

- a) EUREAU notes that water supply is only responsible of 21% of total water demand in the EU.
- b) EUREAU considers that taking legislative action on water efficiency in buildings would be far too heavy instrument to introduce at the EU level and that reproducing legislation on the energy performance of buildings in the water area would be counterproductive.
- c) EUREAU is in favor of measures taken at basin level by local authorities and based on sound indicators; however current water exploitation index does not give an accurate view of the pressure on water bodies and should be revised.
- d) EUREAU regrets that the study done by BIOS is based on a stand-still, inaccurate data and figures, and does not take into account the efforts already done by several Member States, leading to significant decrease in the average per capita consumption.

#### 2) EUREAU position about proposed measures on saving water in buildings

- a) On metering and pricing: EUREAU believes that water should remain available at reasonable costs and that high prices could have **adverse social effects** in non-water stressed parts of Europe due to affordability concerns. Moreover, a cost-benefits and cost-effectiveness assessment must be done when developing a metering policy.
- b) On awareness rising and education: it is obviously one of the **most effective and simplest tools** to decrease water consumption on the long term. However, a too low water consumption could lead to hygienic and/or corrosion problems in water distribution networks.
- c) On labeling: This will **impact all countries**, even those who do not have quantitative problems for water. Thus EUREAU is in favor of simple and affordable measures which can be easily implemented by Member States facing water scarcity problems. EUREAU believes that the approach, based on standardization more than on legislation, is more able to **stimulate the competitiveness** of the European industry.
- d) On use of rainwater or grey water: EUREAU welcomes the idea that a certification of installations for alternative use of water inside the dwellings could become mandatory at the EU scale. It is also important to stress the necessity to undertake a LCA (Life Cycle Analysis) evaluation of all equipment reviewed.
- e) On voluntary and mandatory water performance rating/auditing: EUREAU is not in favor of these measures; water is certainly different than energy. The water demand depends almost completely on the behavior of consumers and on the water-consuming products.

## 1. Introduction and general remarks

EUREAU welcomes that the Commission is looking at the issue of water efficiency, including “water efficiency in buildings”. Nevertheless, **EUREAU notes** that water supply is only responsible of 21 % on the total water demand in the European Union and the majority of water is used in: energy production, agriculture and industry.

As a general principle, **EUREAU considers** that taking legislative action on water efficiency in buildings would be far too heavy instrument when comparing the respective shares of water demand for buildings vs water demand in agriculture, industry or energy production where the true challenges lie. In any case, **EUREAU considers** that reproducing legislation on the energy performance of buildings in the water area would be counterproductive and even may entail unexpected side effects.

This matter was discussed at the stakeholders meeting held in Brussels on 29<sup>th</sup> November 2011 during which different sets of measures were proposed and discussed.

**EUREAU has**, however, **some remarks** regarding this important topic.

Member States are facing very different situations regarding water stress. Thus, in application of WFD principles, **EUREAU is in favor** of measures taken at basin level by local authorities and based on sound indicators. In this context, the current water exploitation index does not give an accurate view of the pressure on water bodies and, therefore, should be revised.

**EUREAU regrets** that the study presented by BIOS is based on a stand-still, inaccurate data and figures and does not take into account the efforts already done by several Member States, leading to significant decrease in the average per capita consumption. For instance, in Belgium, the per capita consumption is now around 100 l/person/day: going further would undoubtedly lead to pernicious effects on affordability, water quality, and water supply network yield. In the last decades the water consumption per capita strongly diminished.

## 2. EUREAU position about the proposed measures on saving water in buildings

### 2.1. Metering and pricing (H1 and H2)

Metering combined with high price of water and a progressive pricing structure is, to a certain extent, efficient in provoking a decrease in drinking water consumption. As the water consumption goes down, the unit price of water goes up when full-cost recovery pricing is applied, due to the fact that a very important part of the charges of water utilities are fixed ones. This could lead to water savings in water-stressed parts of Europe.

Even if the introduction of metering and realistic pricing, where non applied before, can have proved to have rapid and noticeable impact on water savings, it has to be stressed that, when considering relatively steady conditions the water demand price-elasticity is always very low (-0,2 to 0), a strong increase in price will have a limited impact on water demand.

**EUREAU believes** that water should remain available at reasonable costs and one has also to keep in mind that high prices could have adverse social effects in non water stressed parts of Europe due to affordability concerns.

Moreover, a cost-benefits and cost-effectiveness assessment must be done when developing a metering policy. This topic raises some economic and technical issues such as technical feasibility in old multi-households buildings and costs for installing and annually reading the meters.

Considering that metering is already well in place in a majority of Member States, it should be left free to local authorities to decide whether to put in place further metering systems. Indeed, metering systems can help measure water efficiency improvements and they can act as instrument to raise awareness among consumers.

## 2.2. Awareness raising and education (H3)

Awareness raising and education is obviously one of the most effective and also one of the simplest tools to decrease water consumption on the long term. Nevertheless, **EUREAU emphasizes** that a too low water consumption could lead to hygienic and corrosion problems in water distribution networks.

## 2.3. Labeling and requirements for water-using products (P1, P2 and P3)

Labeling and requirements for water-using products has to be taken carefully. These requirements, if implemented at the EU-27 scale **will impact all countries**, even those who do not have quantitative problems for water. It is then not the most relevant tool if the will is to let Member States decide on their own depending on their local situation. **EUREAU is in favor** of simple and affordable measures which can be easily implemented by Member States facing water scarcity problems.

It must be noted that the European standardization (CEN) is already coping with water efficiency: specific product standards are already developed regarding this matter and others are on a preparation stage; they should be used as a basis to define requirements for water efficiency labeling. **EUREAU believes** that such approach, based on standardization more than on legislation, is more adapted, and is more able to stimulate the competitiveness of the European industry.

## 2.4 Use of rainwater or grey water for external uses and certification for water reuse and harvesting (B4)

**EUREAU welcomes** the idea that a certification of installations for alternative use of water inside the dwellings could become mandatory at the EU scale. Some examples throughout Europe have shown that alternative water uses are sometimes leading to water quality problems. Indeed, such schemes are still emerging and depend on proper installation, maintenance and operation. They could present a risk that a misuse could result in contaminated water, either in the domestic network or even in the public distribution network in absence of back-flow prevention device, and thus potential adverse health effects. Moreover, economically and socially, this way of saving water is probably one on the worst with regards to solidarity as the technical and financial possibilities favor the richer households. Technically, the extension of rainwater harvesting will not diminish peak demand (even the opposite could occur) and so it will need to maintain full capacity of production and supply.

It will also certainly rise the variability or flexibility of water demand, increasing the economic stress for the operators of public infrastructure.

An important remark about this issue and other new products (see point 3) is the need to stress the necessity to undertake a LCA (Life Cycle Analysis) evaluation of all equipment reviewed.

## 2.5. Voluntary or mandatory water performance rating/auditing or requirements for buildings (B1, B2 and B3)

**EUREAU is not in favor** of these measures; water is certainly different than energy. The water demand depends almost completely on **the behavior of consumers** and on the water-consuming products. In opposition with energy, a building cannot be, in any case, considered by itself water-efficient or inefficient.

Certification of buildings is costly and will cause a high administrative burden.

**More generally**, the water and waste water sector will be impacted as any significant reduction of the water consumption pattern will affect its economic and operational performance and have an impact on the price of water delivered to the public. It is also an essential element in the correct planning of infrastructure, which itself incorporates large amounts of natural resources and energy. **EUREAU cannot agree** with the assumption made during the meeting assuming that the economic impact on the customers will be globally positive, especially in already efficient countries where the water prices are already quite high.

**EUREAU believes** that the overall economics of for water and waste water services should always be taken into account when addressing the issue of water efficiency. Most costs linked to water distribution and sanitation is fixed costs which cannot be reduced to adapt to a decrease in water demand. The ability of water utilities to invest in networks and solutions should remain a key priority of the EU

**EUREAU stresses** that in many regions of the EU at least stabilization or, in some cases, even a marked decrease of the residential water use from the public supply network has been observed in the last 15-20 years. The reasons for this evolution have already been analyzed in several countries and the key factors detected, also allowing evaluating the likelihood of future trends. From the past data it can be observed that the introduction of water efficient devices (washing machines, toilet flushing, and others), replacing older types, in countries where they have been introduced earlier, is the main factor of the decrease in water use. Metering, progressive pricing and especially **awareness rising** also played an important role. In the EU countries where accessibility to similar basic commodities of modern life has been introduced later, a similar reduction can be expected with some delay, whereas in the most "water-advanced" countries, a great part of this potential has already been exhausted.

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