EU Green Deal, Renovation Wave, Fit for 55 by 2030 towards Zero Carbon emission by 2050, drivers for the EPBD revision in 2022

Buildings are acknowledged as one of the key focus areas for the European Green Deal and more specific the Renovation Wave Strategy. The ambition is to at least double annual renovations (up to 3%) of EU (public) building stock with focus on deep renovation. These policy actions are also the basis for the urgent revision of EPBD (version 2018) to direct the national renovation strategies to achieve a decarbonised building stock by 2050. Target: draft revised EPBD ready by end of 2021 (see also the article by **Anita Derjanecz** on page 57-59). We expect vision regarding the decarbonisation of building stock, a large majority of consulted stakeholders (74%) welcomed an EU-harmonised GHG (CO_2e) metric; which is great as the current EPBD includes just an encouragement to MS's to report on GHG emission in the EP Certificate, some countries do, but not all. The in 2020 published standard EN 17423 "Energy performance of buildings - Determination and reporting of Primary Energy Factors (PEF) and CO_2 emission coefficients - General Principles", offers transparency on declaring the PEF's and CO_2 Emission coefficients. In most EU MS's the building authorities are responsible for assessing and declaring these values for all used energy carriers, it is of great importance that this should documented according EN 17423. This standard provides a transparent framework for reporting on the choices related to the procedure to determine values for energy delivered to and exported from the buildings as described in EN ISO 52000-1. As we know, these declared values have an great impact on the level of the reported EP's and carbon emission reported in the building EP Certificate. Using this will lead to more comparability of the EPC's in Europe.

But that is not all we should try to make the EPC's more transparent. Currently we have 27 + national EP assessment procedures, all claiming to follow the EPB standards (not all and not for 100%). This is also a reason why it is still difficult to compare EPC's (and connected NZEB values). Different conditions (climate and use), different definitions (example the useful floor area) are acceptable if declared in a transparent way but different calculation (assessment) procedures makes comparing difficult. Many MS's are even not able to declare their different assumptions according the annex A of the EPB standards. Many use still monthly procedures which includes the use of non-transparent assessed factors.

In order to assess the capabilities of national EP calculation methodologies, to reflect correctly the ambitious policy goals, to be technically neutral, to reach comparable, reliable results, the quality of this calculation methodology should be evaluated. For this we need a common general framework for evaluating the quality of the EP calculation methodologies. Developing this framework is a challenge but feasible. In this line we should also repeat the advice: "REHVA supports the development of an opensource software kernel and dynamic performance calculation tools meeting art. 3 of the EPBD". Apart that this software enables an hourly procedure, which is easier to use, more transparent, reproduceable and innovation supportive, it is expected that this software will reduce the performance gap (the difference between calculated and measured EP ratings).

A revised EPBD supporting this, is essential if we want to be "Fit for 55 by 2030" towards Zero Carbon emission by 2050. ■

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