https://doi.org/10.7250/CONECT.2023.115

ANALYSIS OF FRAMEWORKS FOR THE ASSESSMENT OF THE BUILDING STOCK DECARBONISATION IN EUROPE

Carlos BELTRÁN-VELAMAZÁN^{1*}, Marta GÓMEZ-GIL², Belinda LÓPEZ-MESA³, Marta MONZÓN-CHAVARRÍAS⁴, Francisco GONZÁLEZ GONZÁLEZ⁵

- 1-4 Department of Architecture, University of Zaragoza, C/ María de Luna 3, 50018, Zaragoza, Spain
- 5 Department of Urbanism and History, Universidad Europea de Madrid, Spain
- * Corresponding author. E-mail address: cbeltran@unizar.es

Abstract - The European Union (EU), aware that having an energy efficient building stock is crucial to achieve decarbonisation goals and to improve people's quality of life, has established a legislative framework made up of Energy Performance of Buildings Directive (EPBDs) and Energy Efficiency Directive (EEDs) to support Member States' (MS) governments in boosting energy performance of buildings by offering a broad range of policies and support measures. Since 2014, all EU countries must establish a long-term renovation strategy (LTRS) every three years to support the renovation of their national building stock into a highly energy efficient and decarbonised building stock by 2050, contributing to achieving the Member States' energy and climate plans (NECPs) targets. The requirement for EU countries to adopt a LTRS was first set out in the EED (2010/31/EU) and was revised in 2018 EPBD (2018/844/EU). With the aim of facilitating the interpretation of the latter directive by the national governments, Commission Recommendation (EU) 2019/786 was published. In this recommendation a voluntary framework based on progress indicators to assess the decarbonisation of the building stock was proposed. Later, in 2021, a proposal for the recast of the EPBD was launched, and in 2022 it was revised. In these new versions, the LTRs are strengthened towards building renovation plans (BRP). The plans will include national targets in a more unified and comparable approach, and progress will be measured through a compulsory assessment framework based on indicators, among other issues. In this paper, the assessment frameworks proposed in the Commission Recommendation (EU) 2019/786, the proposal for the EPBD recast (2021 version) and the proposal for the EPBD recast (2022 version) are compared. Additionally, 2020 Member States' LTRSs are analysed, focusing on the indicators that each one proposes to assess the renovation progress in the country. Finally, the level of alignment between the indicators proposed by each national strategy and by the 2022 proposal for the EPBD recast is evaluated in order to identify best practices among MSs to get closer to the future 'Building renovation plans'.

Keywords – Building renovation; building stock decarbonisation; European building stock; national renovation strategies; progress indicators