



TRIGGER POINTS AS A “MUST” IN NATIONAL RENOVATION STRATEGIES

About 75% of the EU building stock is not energy efficient, and 75 to 85% of it will still be in use in 2050¹. Increasing the current EU renovation rate to at least 2-3%² is essential to meet both the EU targets and the Paris commitment³. The Energy Performance of Buildings Directive (EPBD) sets requirements to increase the performance of a building when the owner decides to carry out a major renovation, but does not foresee any provision to increase the number of renovations, which amounts to about 1% per year. As a result, the legislation affects only a small proportion of Europe's buildings. The revision⁴ proposed by the European Commission in November 2016 does not address how to increase the rate and depth of renovation in any shape or form.

The introduction of trigger points in national renovation strategies is an effective tool to drive deep renovation.

POLICY RECOMMENDATIONS



Article 2a of the EPBD on long-term renovation strategies should require Member States to design policies and measures resulting in the deep renovation of the building stock, including trigger points for energy renovation. Trigger points, combined with support instruments (e.g. individual building renovation passports, minimum energy performance requirements for commercial and public buildings) would leave Member States the flexibility to decide which segment of the building sector they want to tackle first and how (e.g. schools and kindergartens, commercial or private buildings, social housing).



Residential accommodations that are owned, managed or financially supported by public authorities (e.g. social housing) should meet the highest energy performance ratings to provide healthy, comfortable and affordable housing, particularly for households at risk of energy poverty⁵.



Trigger point policies need to be carefully designed and applied to protect specific building types (like historic buildings) or occupants (e.g. low-income households), as well as ensure the appropriate financial support is provided. The regulatory framework should address concerns about gentrification and rent increases (i.e. the fear that introducing requirements for renovation may lead to unwarranted rent increase) and combine the interests of tenants with those of investors who wish for a short pay-back. Third-party financing models could be a solution⁶.

¹ DG ENER (2012).

² With a specific target of 3% p.a. for the public sector (see Art. 5 EED).

³ Keeping the long-term increase in global average temperature to well below 2°C above pre-industrial levels, with the aim to limit the increase to 1.5°C.

⁴ <https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition>.

⁵ BPIE (2017), <http://bpie.eu/publication/reducing-energy-poverty-with-national-renovation-strategies-a-unique-opportunity/>

⁶ This solution has been adopted by Energiesprong, see <http://energiesprong.eu/>

WHAT IS A TRIGGER POINT?

Trigger points are key moments in the life of a building (e.g. rental, sale, change of use, extension, repair or maintenance work) when carrying out energy renovations would be less disruptive and more economically advantageous than in other moments. Taking advantage of these moments would facilitate investment decisions to undertake energy renovation works.

TRIGGER POINTS IN EUROPE

Identifying a trigger point is an occasion to think about energy renovation either prompted by practical opportunities (e.g. need for repairs or maintenance, or building an extension), personal circumstances (e.g. a new-born in the family, retiring or children moving out), or change of ownership (e.g. new tenants, new owners, putting a property on sale). The demand for these works is usually not energy-led, but offers the opportunity to include energy improvements with reduced additional cost and disruptions while avoiding the lock-in effect.

To guarantee the expected results, policies identifying trigger points should be tailored to the building type (e.g. single-family buildings vs. multi-family buildings, schools and kindergartens vs. office buildings, etc.) be accompanied by additional targeted measures promoting deep renovation (such as building renovation passports and minimum energy performance requirements for specific building types, like commercial and public buildings), and properly integrated into medium and long-term planning.

Introducing trigger points for renovation will also deliver additional benefits like improved indoor air quality, with a positive impact for comfort, health and productivity.

Some Member States have already introduced trigger points requiring to improve the energy performance of existing buildings under certain conditions. The list below provides examples of different types of trigger points and how they have been translated into specific measures. These examples are still limited across Europe [1].

1

MEETING MINIMUM PERFORMANCE STANDARDS WITHIN A SPECIFIC TIMEFRAME

Mandating renovation within a specific timeframe is one of the possible trigger points that Member States could introduce in their renovation strategies.

Mandatory renovation within a specific timeframe (Germany and France)

Germany and France have obligations to renovate by a specific date:



- In **Germany**, the Energy Saving Ordinance (EnEV 2014) contains retrofitting obligations (“Nachrüstpflichten”) which must be fulfilled by building owners within a specific timeframe [2], subject to being cost-effective. These include insulation of top floor ceilings, insulation of hot water pipes and cooling distribution systems as well as replacement of old boilers.



- In **France**, the energy transition law for green growth, foresees a renovation obligation for private residential buildings whose primary energy consumption exceeds 330 kWh/m² [3]. This affects all buildings with an energy performance rating in either of the two lowest bands, F or G. These buildings, both rented and owner-occupied, must be renovated:
 - i. By 2025, all class F and G buildings must be renovated. Improvements should be close to the performance of a new building.
 - ii. By 2050, all buildings must be in class A or B (based on the French EPC), reaching BBC⁷ levels or equivalent.

⁷ Bâtiment Basse Consommation (Low-Energy Building).

2

REAL ESTATE TRANSACTIONS

The introduction of conditions for renting out or selling a building that doesn't meet a certain energy performance level is a potential trigger point. Both residential and non-residential buildings could be subject to progressively more demanding minimum performance requirements when there is a change of occupancy (rental or sale) or renewal of tenancy. This would progressively eliminate the least efficient stock and improve it overtime.

Conditions for renting out or selling a building unit with poor energy performance (Flanders region, Belgium)



- In **Flanders (Belgium)**, a new standard was introduced in January 2015, setting minimum requirements for roof insulation in residential buildings (single-family houses and multi-family apartments) when the building is to be rented out. If a residential building does not meet the minimum requirements, it receives penalty points. From 2020 if a building or apartment receives more than 15 penalty points, the building will be ineligible for renting.

3

PLANNED CONSTRUCTION WORKS

Significant maintenance or improvement works planned, e.g. on external façades and roofs, could be accompanied by an improvement in the energy performance of the respective building components. Any building extension, addition or conversion could be conditional on improving the overall energy performance of the original structure. Undertaking performance upgrades at the same time as maintenance work reduces overall costs and disruption for the occupants.

Improvement of energy performance in case of other works (France and Poland)



- In **France**, building on the notion of “energy efficiency reflex” (maximising the opportunity to trigger energy renovation every time maintenance work is done), the French energy transition law for green growth includes requirements to upgrade the energy performance of a building when other works are carried out – cosmetic works or otherwise⁸. This should maximise the investment and ensure that the performance level of a renovated building is compatible with the new objectives of the national energy policy. The aim is to achieve, to the greatest possible extent, the required performance for new buildings, taking due account of the technical and economic feasibility and of any architectural limitations.



- In **Poland**, in case of building renovation, the reconstructed elements must meet the existing levels of thermal insulation for new buildings. For example, if an external wall is rebuilt it must be insulated respecting current U-value requirements.

Mandatory requirements in case of building extensions (Italy)

Various regions in Italy have put forward requirements to introduce mandatory building performance upgrades when the owner is extending the building.



- **Autonomous Province of Bolzano:** by the end of 2019, owners of buildings will be allowed to expand the surface of their dwelling by up to 20%, or up to 200m², only if the building achieves heating consumption below 70kWh/m² /yr.
- **Region of Valle D'Aosta:** in case of expansion by 20% of buildings with a floor area higher than 2000m², the energy performance of the building must comply with the local B level energy class ($\leq 50\text{kWh/m}^2$ /yr for heating).

4

CHANGE OF BUILDING USE

A change of use (a residential building used for a commercial purpose, such as day-care or health service centre) could also be an opportunity to carry out energy renovations.

Requirements in case of change of building use (Denmark)



- In **Denmark**, minimum energy requirements are established for building components in case of change of building use which would result in significantly higher energy consumption (e.g. conversion of an outbuilding to accommodation, or conversion of usable roof space to accommodation)⁹.

⁸ Ensuring that roofs and façades are meeting energy requirements when these are renovated for aesthetic or other reasons (e.g. equipment replacement) is now part of the regulation (Loi de Transition Énergétique et de Croissance Verte).

⁹ In the case of a change of use, construction factors may prevent full compliance with U-Values. The shortfall in efficiency must be compensated for by other energy solutions.

CONCLUSION

The examples listed above illustrate how the identification and implementation of trigger points is already happening and how several public authorities across Europe have introduced additional requirements to complement the obligations included in the EPBD and EED (Energy Efficiency Directive) to improve the energy performance of the existing building stock. The revision of the EPBD is an opportunity to introduce clear regulatory signals and binding renovation requirements in a harmonised and coordinated way, while allowing the freedom to national authorities to tailor these policies to specific local conditions (e.g. ownership rate, building typology, etc.).

Policy-makers should consider opportunities that facilitate the success of trigger points from a user's perspective (e.g. salient life events and home improvements) and make sure that all relevant information is easily accessible, via independent advisers (including one-stop-shops) and suppliers, and that other existing requirements do not constitute a barrier to renovation (e.g. in multi-apartment buildings the decision of insulating the roof has to be taken by several homeowners and it may hinder deep renovation by limiting efficiency measures to individual apartments).

REFERENCES

[BPIE, "Renovation in Practice," 2014.](#)

C. A. EPBD, 2011-2015.

"Loi de Transition Énergétique et pour la Croissance Verte (LTECV)," 2015.



The Buildings Performance Institute Europe is a European not-for-profit think-tank with a focus on independent analysis and knowledge dissemination, supporting evidence-based policy making in the field of energy performance in buildings. It delivers policy analysis, policy advice and implementation support.