Barriers & Challenges to nZEB

- Overiew
- Technical barriers
- Economic & Financial barriers
- Legislative barriers
- Social & Organisational barriers
- Credibility barriers

Economic & Financial barriers

The lack of access to available and affordable finance to carry out new construction or retrofit existing stock to meeting nearly-Zero standards is also a major barrier:

It is very difficult to compare what is happening in different Member States, since the fiscal and subsidy systems are so different. There are however some clearly agreed financial barriers, including a lack of available finance to carry out new construction or refurbishment, either through the provision of subsidy or access to affordable capital. The cost of building nZEB homes is higher than that of current construction standards. There are extra costs associated with improved insulation of all building components. As most construction professionals are not used to the new technologies, much time and resources are invested in planning, education and quality assurance which also bring up costs. A 2009 study, which detailed the extra costs of constructing new passive houses, indicated that up to 10 % extra upfront investment costs are reported, with clearly declining trend. For retrofitting of the existing stock, estimates of additional costs also vary massively, but for much of the dwelling stock significant energy efficiency refurbishment is required if the appropriate standards are to be met. Last but not least, not only are the capital costs of construction higher, it is also anticipated that the costs of maintenance will also be higher, as more complex systems are being used in the dwellings.

Financing from banks or Energy Service Companies (ESCOs) is often not forthcoming, especially when the cost of retrofitting a whole building, rather than a single apartment is sought. Banks and ESCOs are reluctant to engage in long-term energy efficiency financing contracts and tend to prefer shorter term investments and paybacks. The use of new materials and technical equipment also causes problems in obtaining mortgage finance since lenders are lending housing finance on a long-term basis and want empirical evidence of the longevity of the new products. With little understanding of the technologies involved or of whole-life costing or knowledge of pay-back rates through energy saving there is a reluctance to take what are perceived to be financial risks. Furthermore, although it is often stated that these additional capital costs can be recouped through savings in the cost of energy, there is as yet, little reliable data to prove this point or an agreed method of calculation.

In many European countries, there has been a large scale privatisation of the state housing stock, and it is now becoming apparent that a significant number of owners of the apartments do not have the wealth or income to carry out the substantial works required to improve them. Whilst this problem is especially pronounced in many of the former East European Member States, it occurs widely throughout Europe where multi-family apartment blocks have been partly privatised following the introduction of ‘right to buy’ schemes. Not only does this prevent work being carried out on individual apartments, it also inhibits collective action by

a group of apartment owners in a multi-family block, where some may have the financial resources to carry out energy efficiency improvements, but not all.

Energy efficient retrofitting is different to other forms of investment in that it does not generate any additional income, but rather avoids future costs and thus requires specific models of long-term funding. One of the problems for Public, Cooperative and Social Housing providers in relation to this is the ‘split incentive’ – whilst the retrofitting work may have a positive impact for residents in terms of reduced energy bills and the eradication of fuel poverty, there is a major problem for the landlords in that the capital funding required to carry out the necessary works often cannot be recouped from tenants through higher rent, due to regulation of rent levels. Moreover, although retrofitting may technically increase the asset value of a social housing provider’s stock, there is unlikely to be any significant change in terms of the balance sheet valuation of assets against which to secure future lending, since the assets are valued on the basis of rent attainable from stock rather than the actual stock value.

Furthermore, for Public, Cooperative and Social Housing providers, there is always a tension between the capital cost of constructing a dwelling unit and the number of units that can be provided for a limited amount of capital. Given that there is always more demand for social housing than can be provided; there is a strong political imperative to ensure that the maximum number of units is delivered for any government subsidy available. The higher capital costs of constructing nZEB homes inevitably puts pressure on levels of total delivery.

Source: http://www.powerhouseeurope.eu/policy_work/barriers_challenges_to_nzeb/economic_financial_barriers/