SMARTER FINANCE FOR FAMILIES

FIGHTING OFF ENERGY POVERTY: CAN GREEN HOMES BE THE ANSWER

Date: 27.11.2020

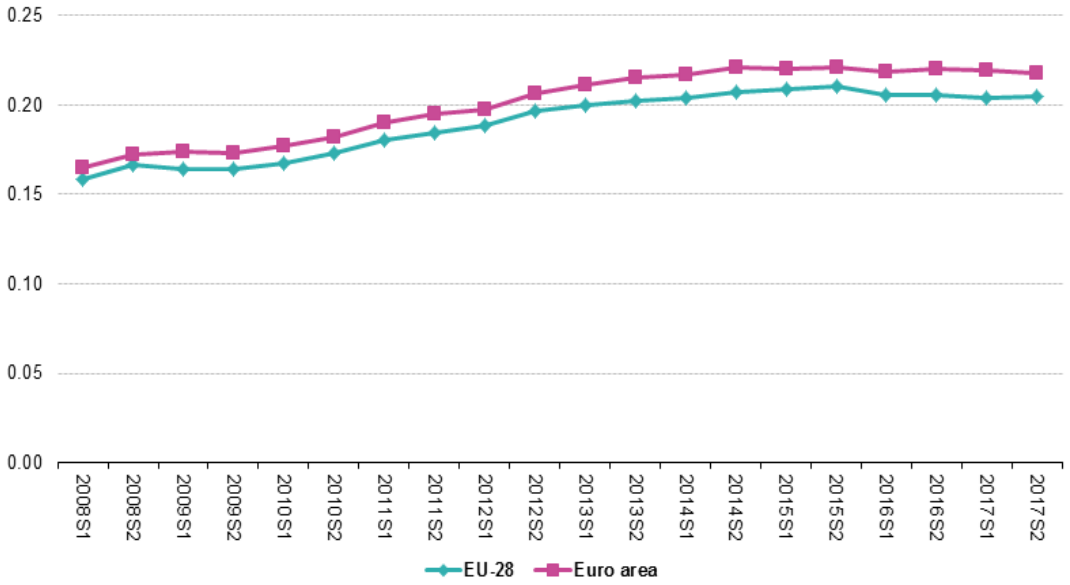
Author and presenter: Kamen Simeonov, Center for Energy Efficiency EnEffect - Bulgaria

What is energy poverty?
Lack of common definition

- United Kingdom (2001-2013): “A household is said to be in fuel poverty if it needs to spend more than 10% of its income on fuel to maintain an adequate level of warmth.”
- France (2009-): A person is considered fuel poor "if he/she encounters particular difficulties in his/her accommodation in terms of energy supply related to the satisfaction of elementary needs, this being due to the inadequacy of financial resources or housing conditions”.
- Cyprus (2012-): “The situation of customers who may be in a difficult position because of their low income as indicated by their tax statements in conjunction with their professional status, marital status and specific health conditions and therefore, are unable to respond to the costs for the reasonable needs of the supply of electricity, as these costs represent a significant proportion of their disposable income.”
- Slovakia (2015-): “Energy poverty under the law No. 250/2012 Coll. Of Laws is a status when average monthly expenditures of household on consumption of electricity, gas, heating and hot water production represent a substantial share of average monthly income of the household.”
- Ireland (2016-): “…a household that spends more than 10% of their income on energy is considered to be in energy poverty”.

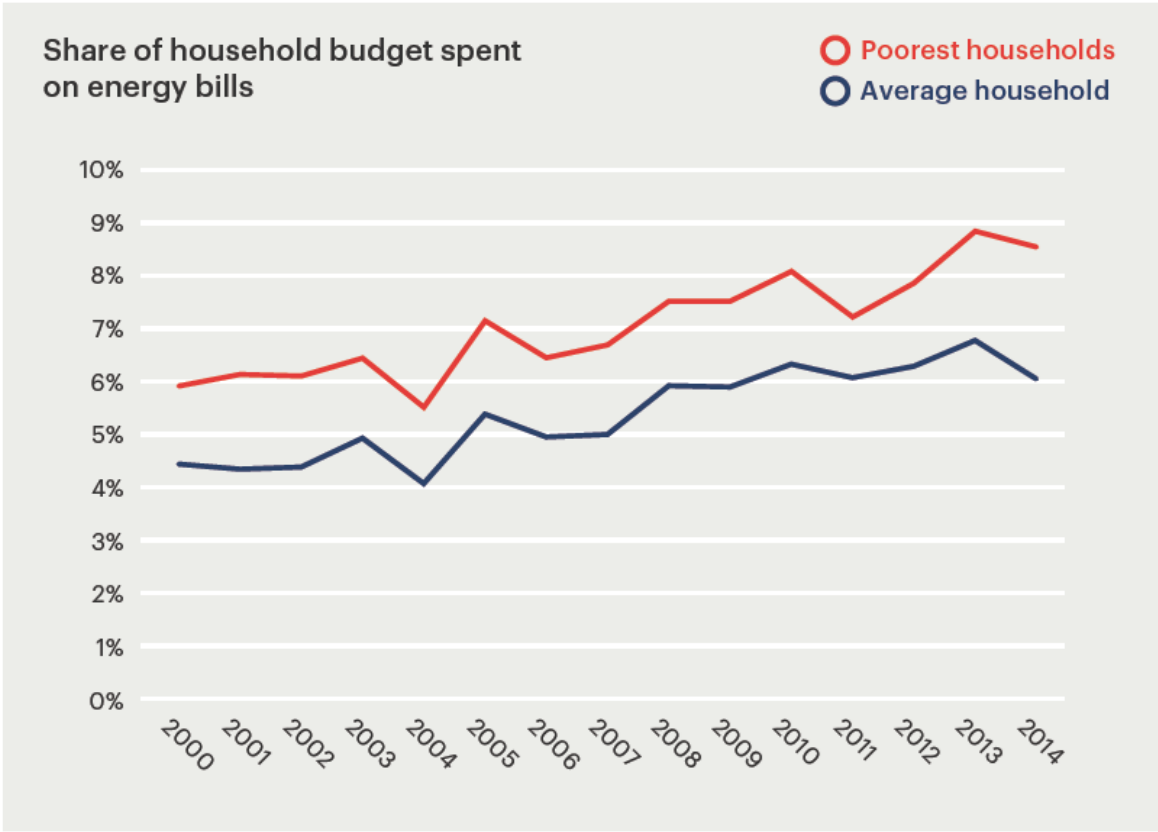
Causes:
Energy prices and income

Development of electricity prices for household consumers, EU-28 and EA, 2008-2017
(EUR per kWh)



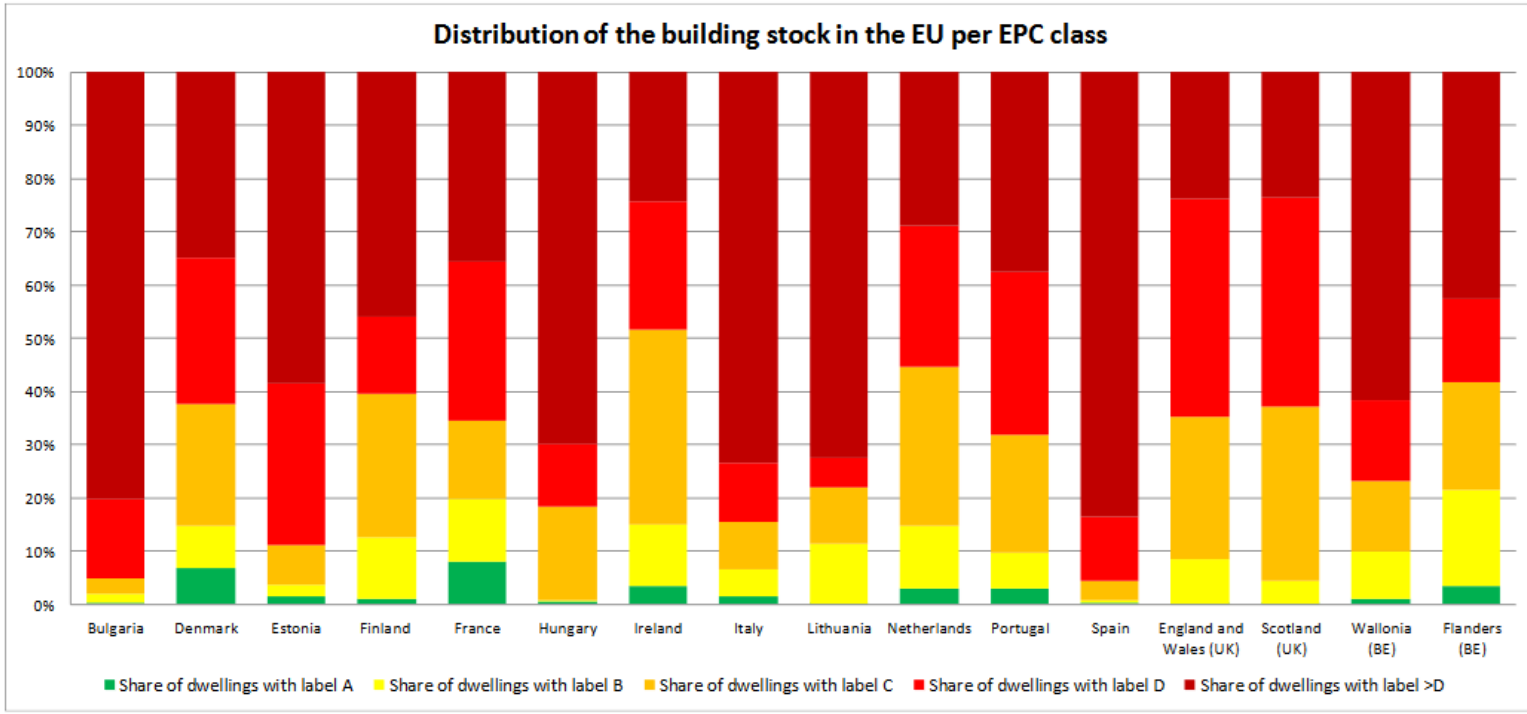
Source: Eurostat (online data codes: nrg_pc_204)

eurostat



Causes:
Inefficient buildings

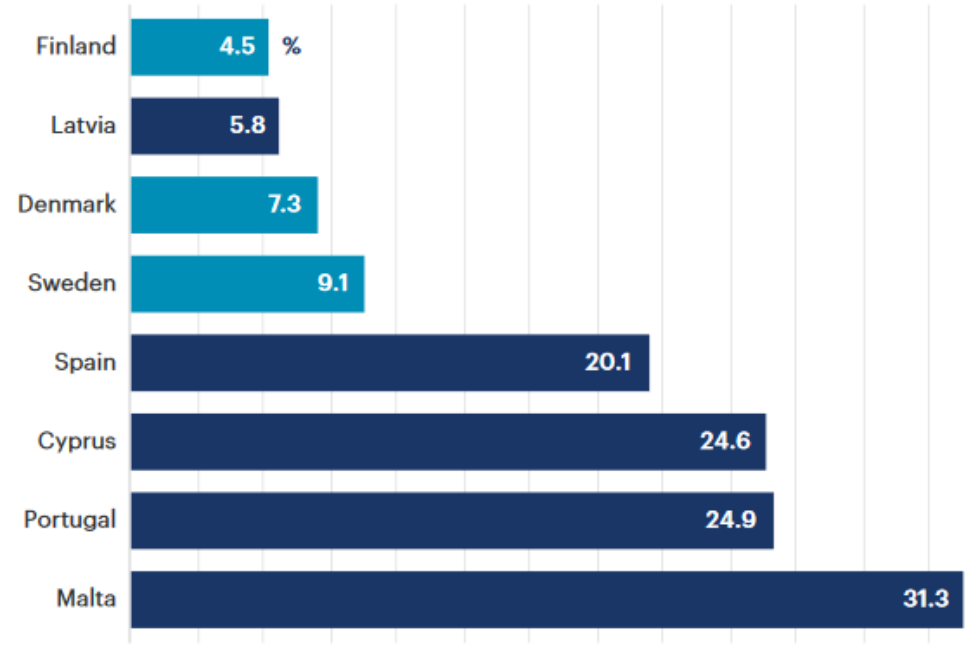
- 97% of the building stock in Europe is not in the A category,
- Buildings represent 40% of the EU's energy use,
- The poorest live in the worst buildings.



Consequences of energy poverty

- poor health due to dampness, mold
- excess winter deaths and heat deaths
- air pollution
- vicious cycle of social exclusion

Fig. 6: Excess winter deaths concentrated in EU's warmest countries



While much attention has been focused on excess winter deaths in cold, northern countries, the data reveal a different story.

The highest rates of excess winter deaths are actually found in the warmest countries, where people are more likely to live in inadequate buildings or lack access to heating that would support thermal comfort.[13]

Again, there is a link to GDP and average incomes.

GDP above the EU average

GDP below the EU average

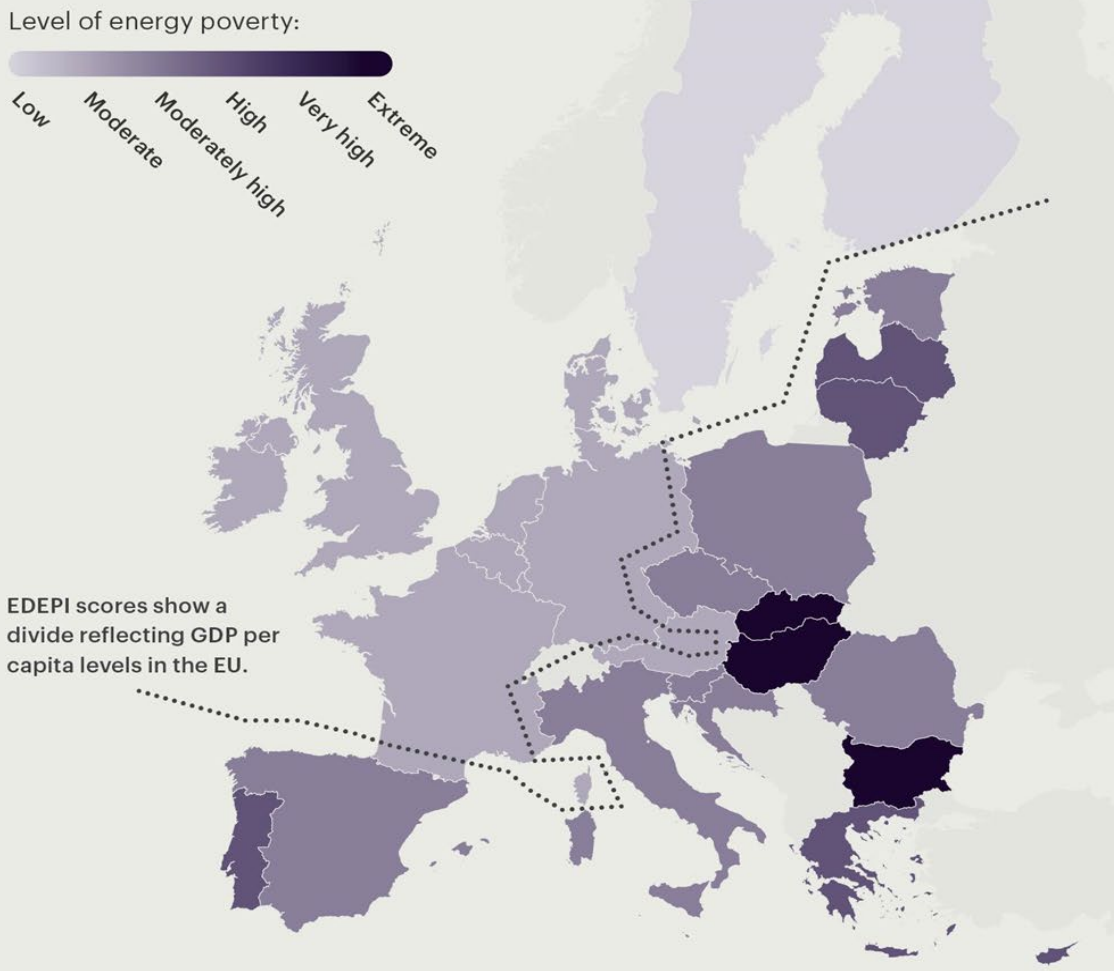
Source: EU Building Observatory, 2014.

Energy poverty in Europe

[The European Energy Poverty Index]

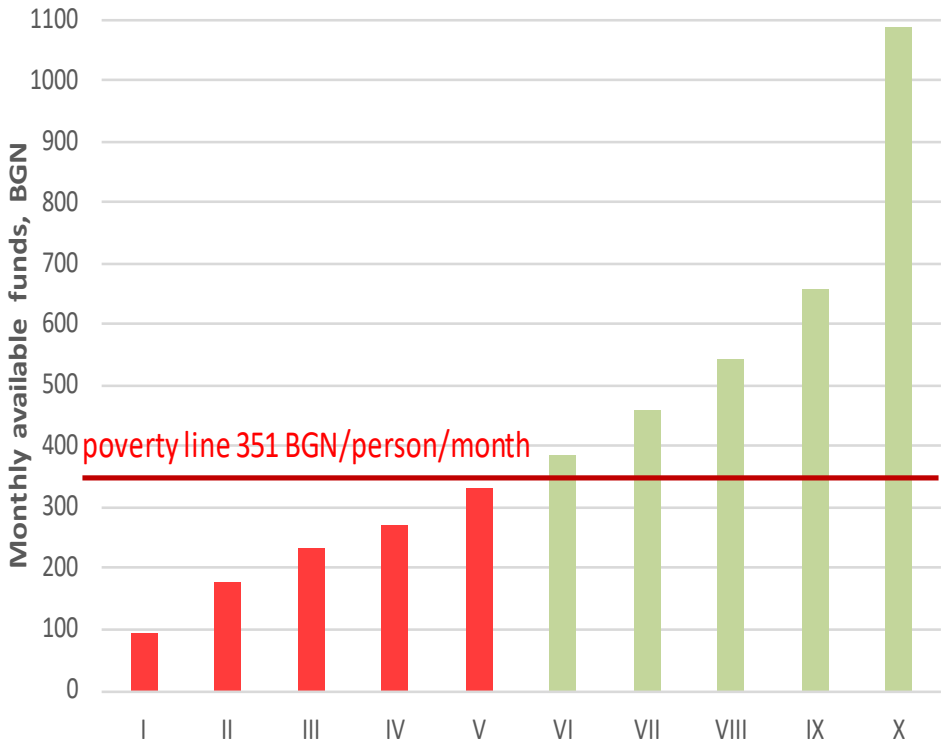
EDEPI scores show the majority of EU countries have 'moderately high' to 'extreme' levels of energy poverty among low-income households

	Country	EDEPI Score
1	Sweden	95.4
2	Finland	85.6
3	Denmark	81.9
4	Austria	81.2
5	Luxembourg	80.9
6	United Kingdom	80.5
7	Ireland	79.3
8	Netherlands	78.1
9	Germany	75.8
10	France	73.3
11	Belgium	67.6
12	Spain	64.7
13	Romania	64.2
14	Poland	61.0
15	Czech Republic	60.2
16	Croatia	58.8
17	Malta	58.6
18	Estonia	58.0
19	Italy	52.1
20	Slovenia	51.3
21	Cyprus	46.2
22	Greece	43.7
23	Lithuania	42.4
24	Latvia	40.0
25	Portugal	36.7
26	Slovakia	8.4
27	Hungary	6.2
28	Bulgaria	0.7



Source: OpenExp, 2019.

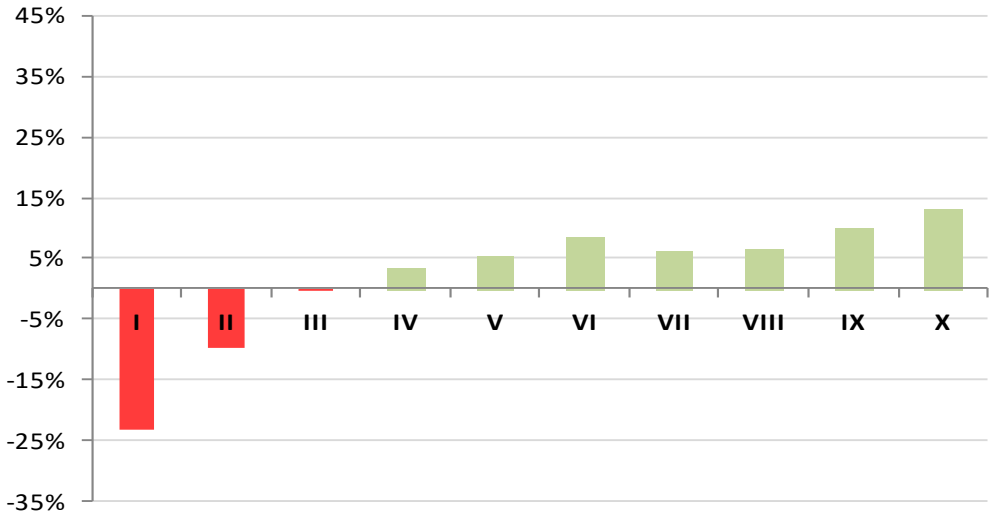
Bulgaria

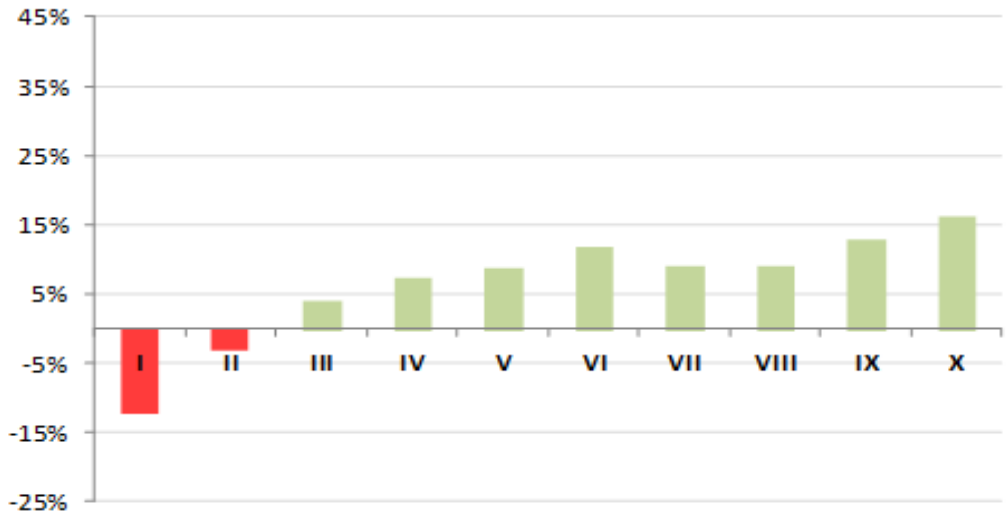


Available funds per household member after paying for the costs of "adequate heating", BGN/month

- Topping charts on energy poverty - but no definition available
- Huge potential for energy efficient renovation of the building stock
- Air quality issues increasingly attracting public attention
- Poorest households heavily dependent on fuel subsidies
- Deep energy retrofit has definite potential to lead significant part of the affected households out of poverty risk
- Needs to transform the existing finance schemes using excessive grant components towards more sustainable instruments

Bulgaria

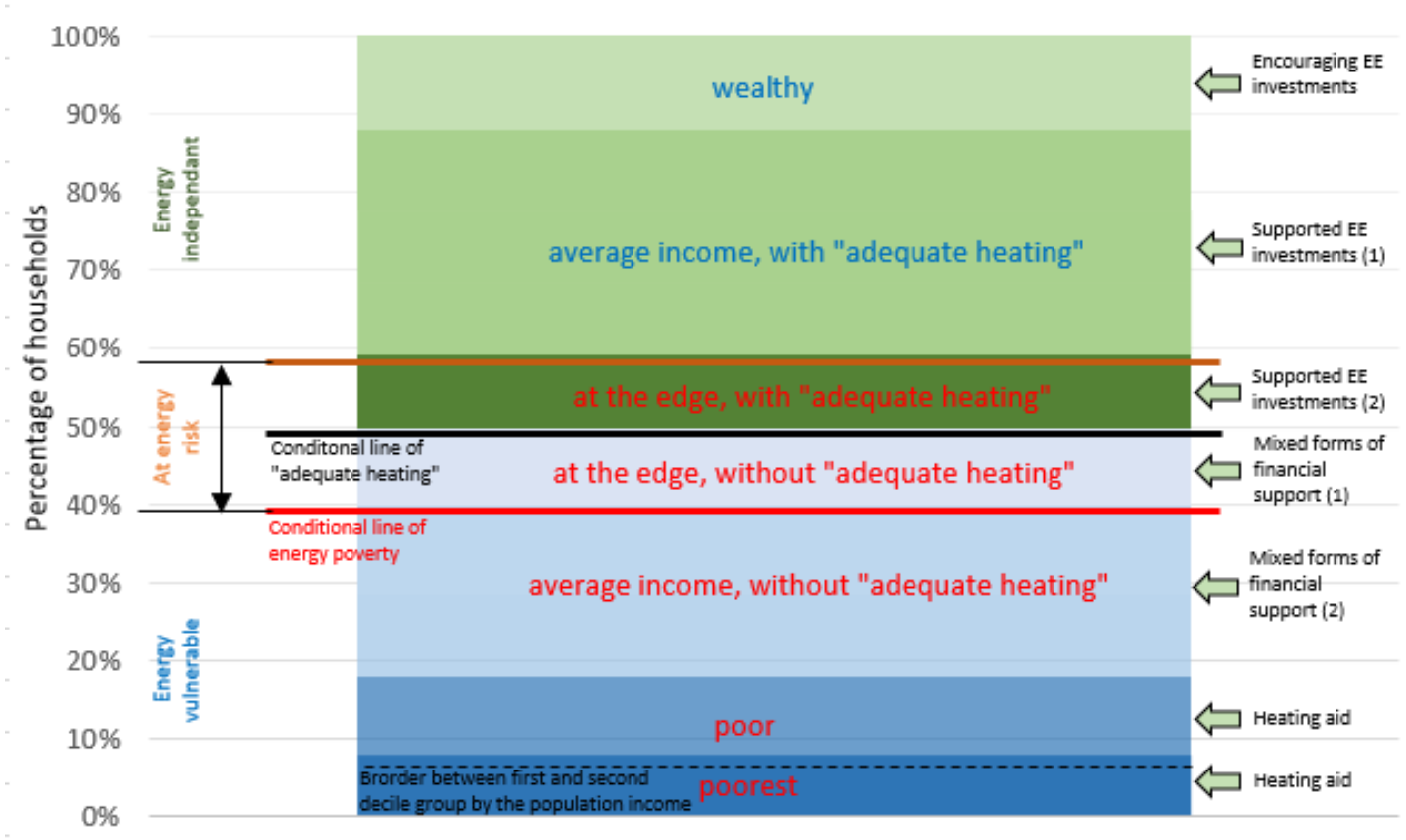




Difference between average monthly income and average monthly total expenditure if providing "adequate heating" of 65 m^2 residential area after renovation to energy class B and deep renovation

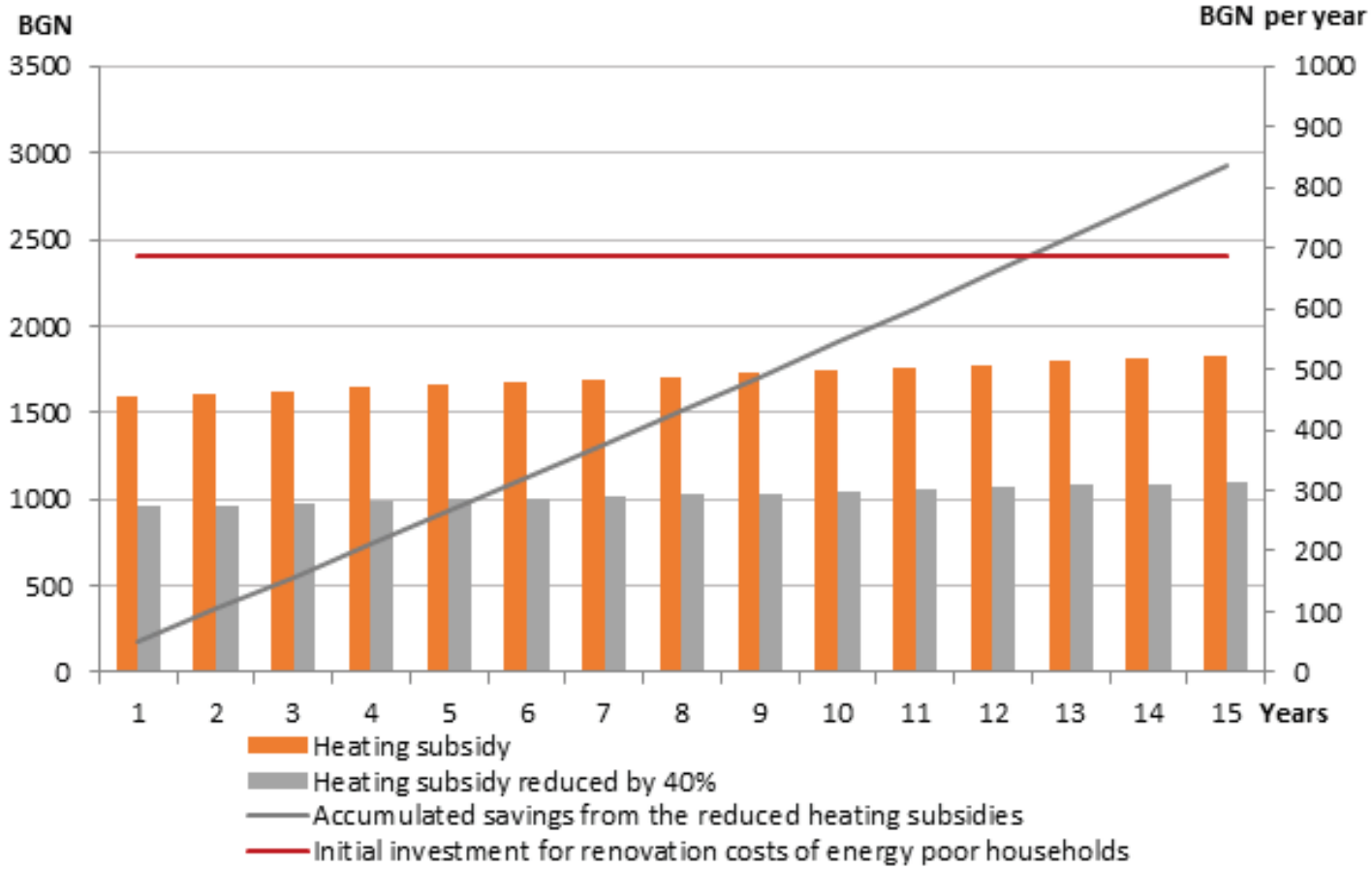
Energy poverty levels in Bulgaria

Bulgaria



Possible renovation approaches for different energy poverty levels

Bulgaria



Expected impact on public spending by redirecting 40% of target heating aid to finance the equity of energy poor households in renovation programs with 80% grant component and potential energy savings of 40%

Policy recommendations

- Long-term vision for deep energy renovation of the entire building stock with clear goals regarding social, economic and environmental impacts
- Sustainable financing schemes ensuring the investments in deep renovation and adoption of important green criteria for homes including, sustainable and healthy materials, indoor air quality improvements, and more.
- Methodology for determining the degree of vulnerability of energy-poor citizens / households and proposing of differentiated support to different social groups
- Combining different financing schemes to accumulate higher financial resources, e.g. green mortgages
- Review of the existing heating subsidy schemes for low-income population groups and integrate them into building renovation schemes

Thank you for your attention!

www.eneffect.bg

https://www.facebook.com/eneffect

This presentation contains materials produced for the goals of the projects SMARTER Finance For Families (Grant Agreement №847141), ComAct (Grant Agreement №892054), EnergyMeasures (Grant Agreement №894759) and nZEB Roadshow (Grant Agreement №892378) supported by the Horizon 2020 programme of the European Union.