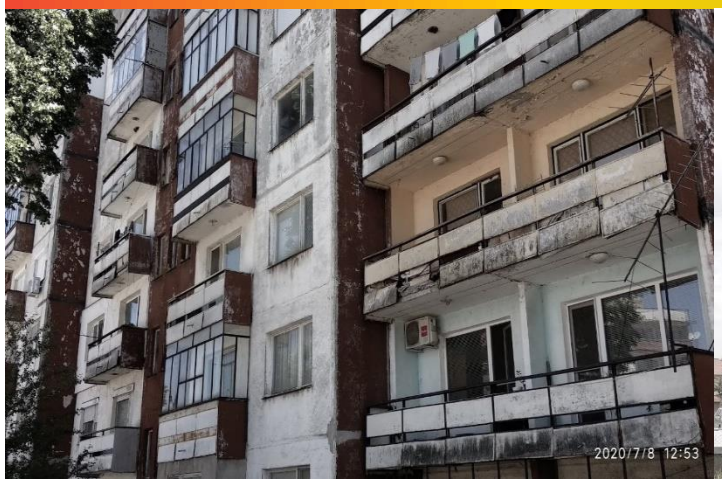
ENERGY POVERTY IN BULGARIA



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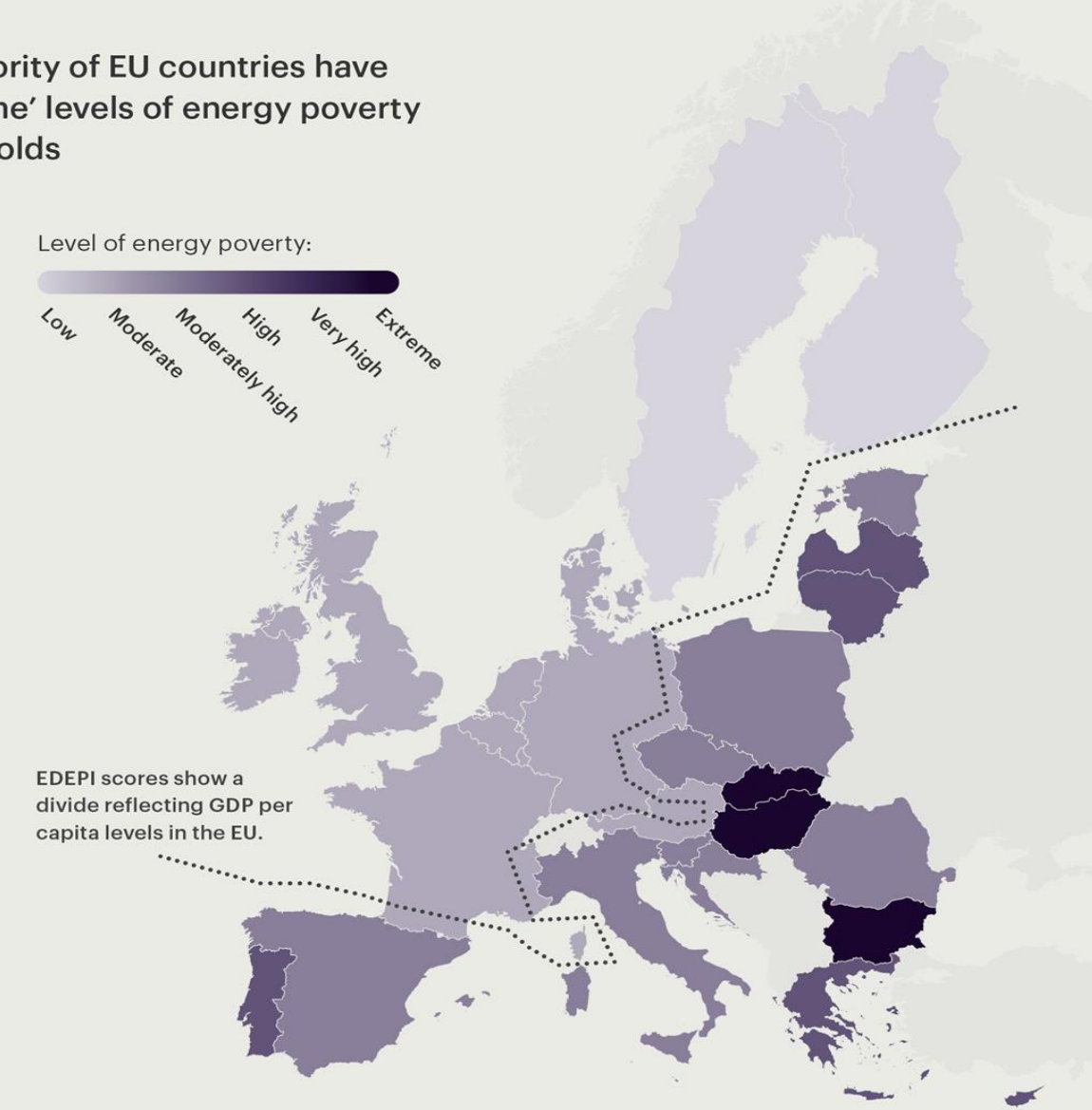
Energy poverty in Europe

[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.

EnergyMeasures
Tailored measures supporting energy vulnerable households

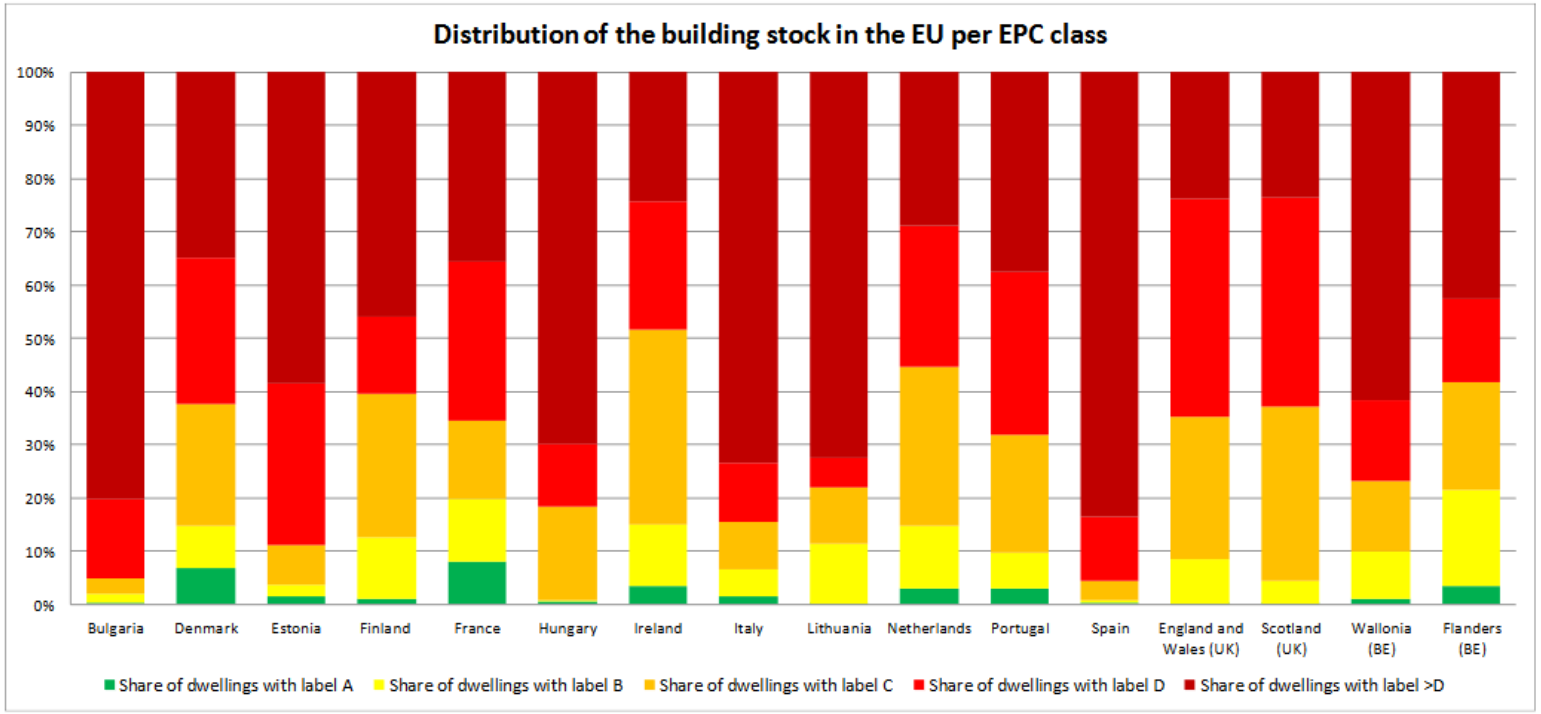
CONGREGATE

ComAct
Community Tailored Actions for Energy Poverty Mitigation

FAIR ENERGY TRANSITION for all

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.

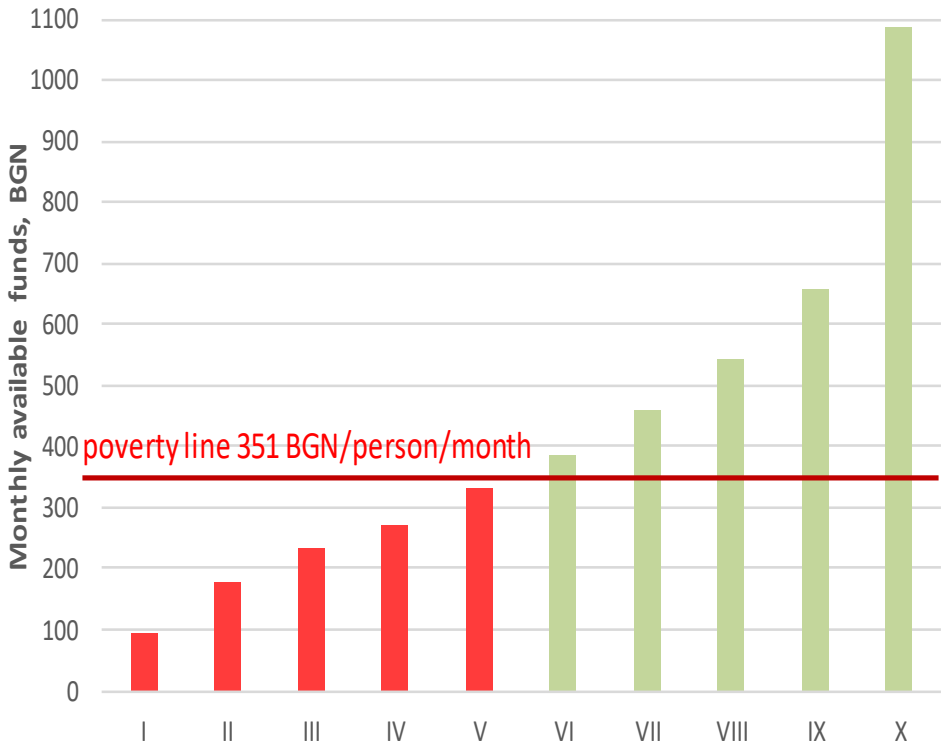


Distribution of the building stock in the EU per EPC class
Source: BPIE

Current renovation policies

- "National Programme for Energy Efficiency of the Multifamily Residential Buildings"
- 100% financing since the beginning
- Renovation to energy class C (240 kWh/m²/a primary energy)
- Total budget of 1 billion Euro
- 2022 contracts concluded
- 5000+ expressions of interest
- 96% of the eligible buildings left outside the programme with no access to financing
- No support for single-family buildings

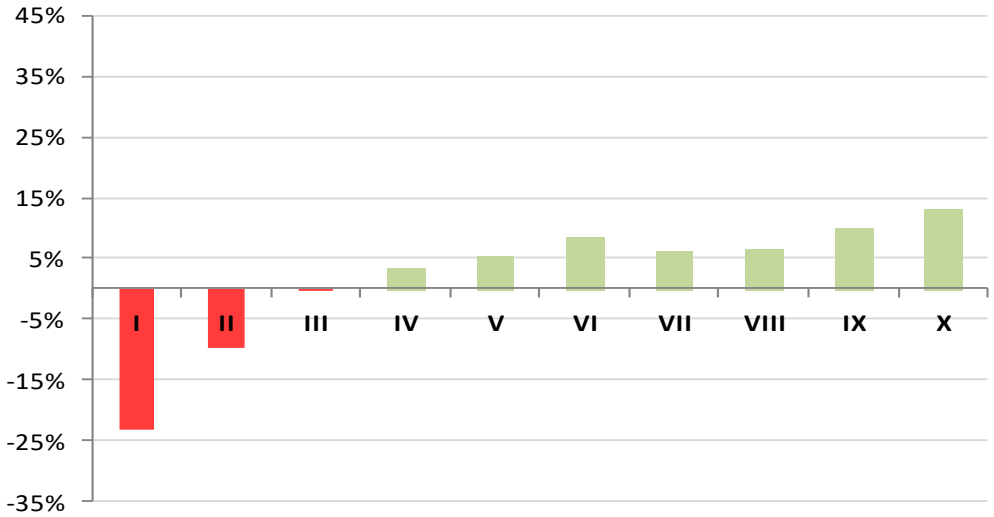
Bulgaria: risk of energy poverty

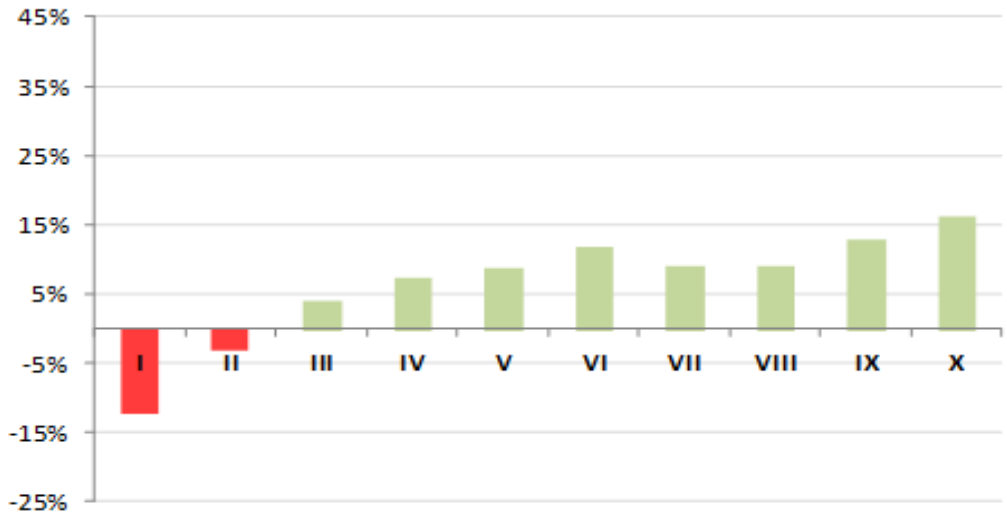


Available funds per household member after paying for the costs of "adequate heating", BGN/month

- Poorest households heavily dependent on fuel subsidies
- Air quality issues increasingly attracting public attention
- Huge potential for energy efficient renovation of the building stock
- Needs to transform the existing finance schemes using excessive grant components towards more sustainable instruments
- A recent policy brief by EnEffect outlining local policy actions

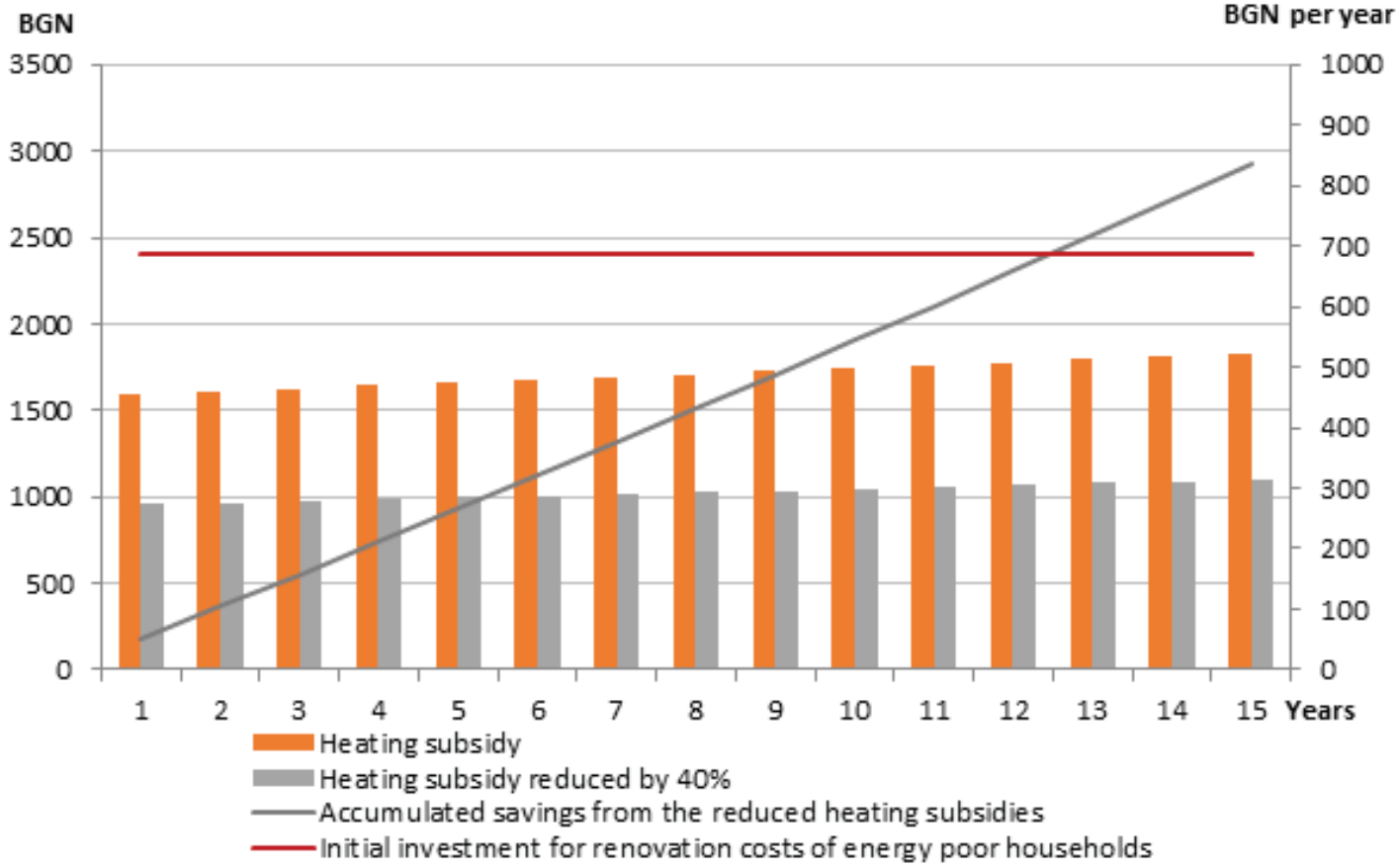
Potential of deep energy retrofitting





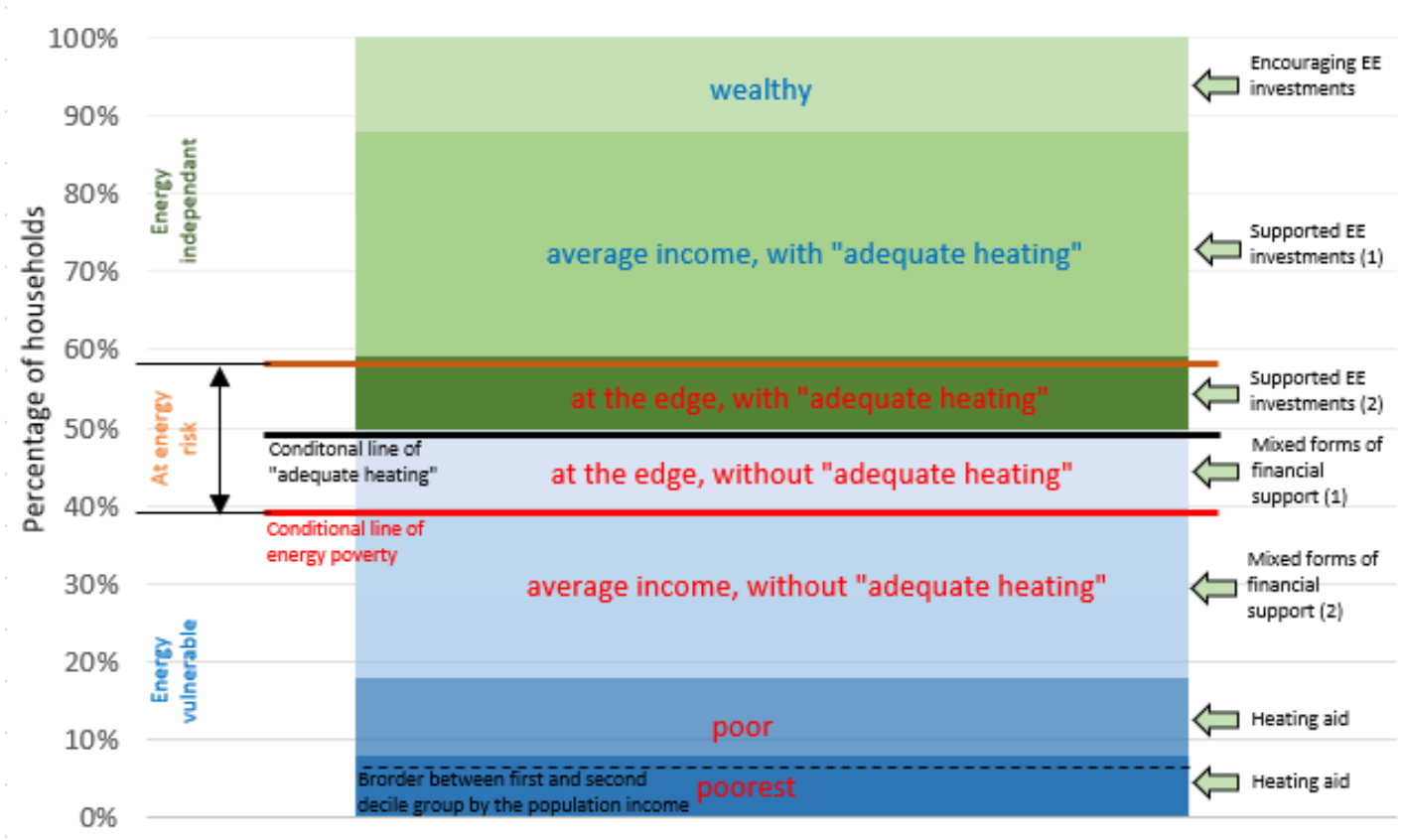
Difference between average monthly income and average monthly total expenditure if providing "adequate heating" of 65 m^2 residential area after renovation to energy class B and class A renovation

Transforming fuel subsidies



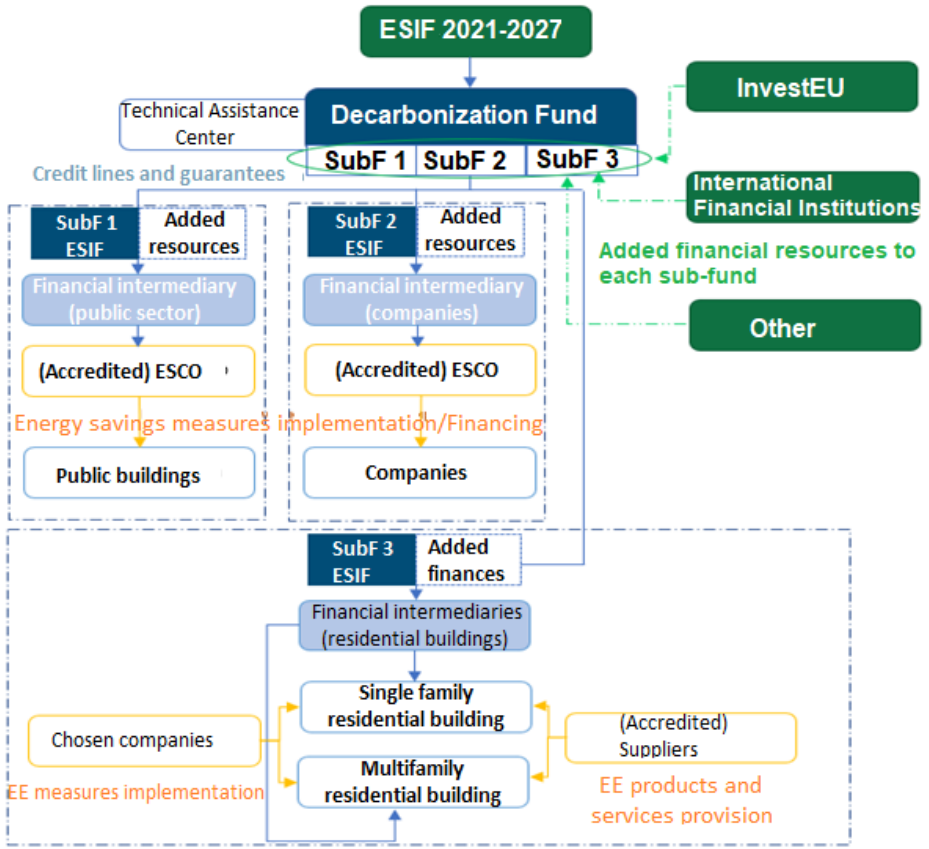
Expected impact on public spending by redirecting 40% of target heating aid to finance the equity of energy poor households in renovation programs with 80% grant component and potential energy savings of 40%

Differentiated support measures



Possible renovation approaches for different energy poverty levels

Renovation support instruments: the LTRS



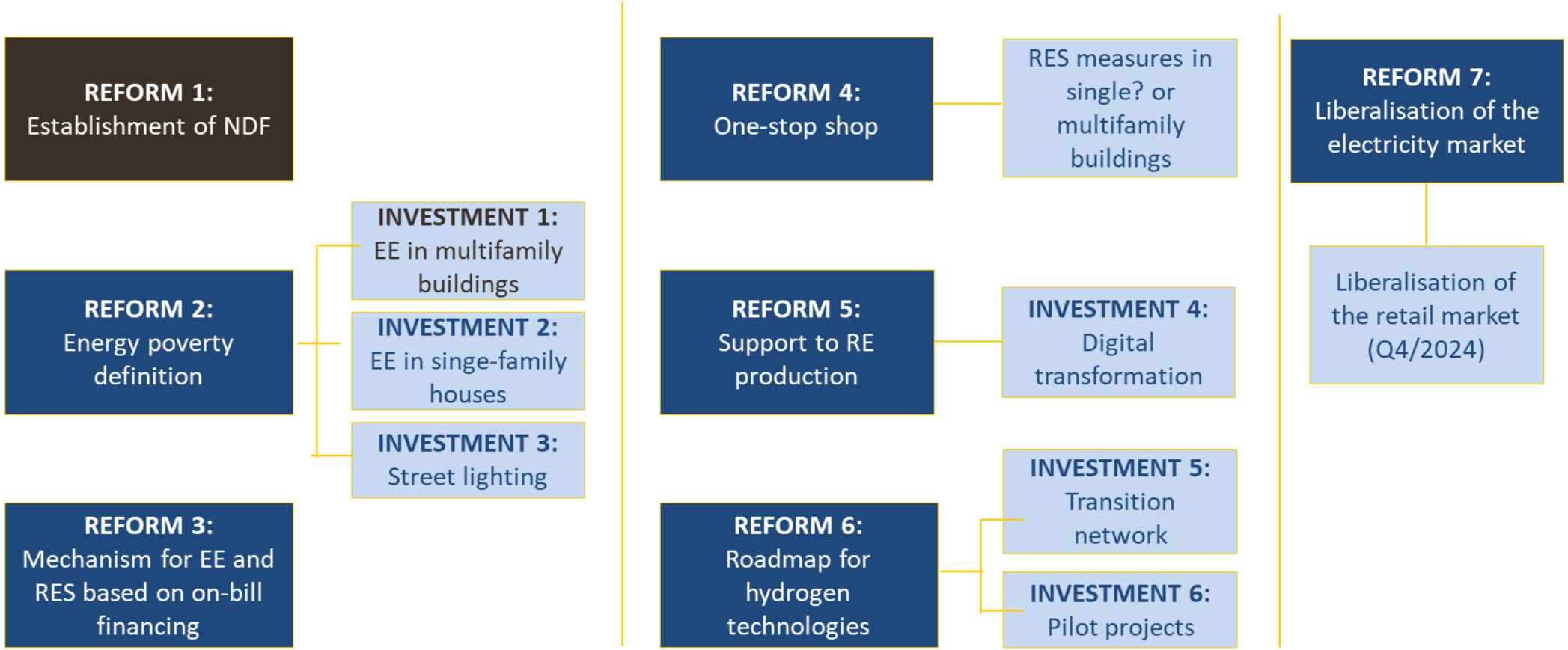
National Mechanism for Financing Energy Efficiency (NMFEE) Target sectors: Households, Industry, Services, Transport; estimated budget for the period 2021-2030: BGN 7,800 million

AND / OR

National Decarbonization Fund (NDF)

	2021-2025	2026-2030
Investments	BGN/year	BGN/year
Residential buildings	257 180 671	535 480 142
Non-residential buildings	59 899 456	80 831 802
Per year	317 081 000	616 312 000
Total for the period	1 585 405 000	3 081 560 000

Renovation support instruments: the RRP



Engagement of energy poor households

- Total of 700 households
- Lower-income householders in multi-family apartment buildings in Gabrovo and Burgas (c. 28.5k and 119k households respectively)
- Targeted buildings: 40.5% in in energy class “E”, 35.3 % in class “F”, and 16.1% in class “G”
- Heating method: 51.9% electricity, 16.9% solid fuels
- Combined surveys, energy consumption and IEQ measurements

Gabrovo: selected buildings

Gabrovo: selected buildings

Engagement of energy poor households

Thank you for your attention!

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