ENERGY POVERTY IN BULGARIA - ANALYSIS AND POLICY RECOMMENDATIONS

Date: 15.03.2021

Venue: Energy Evaluation Europe 2021 virtual conference

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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.

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

Source: OpenExp, 2019.
Consequences of energy poverty

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

People at risk of poverty or social exclusion (% of population).
Source: EU Energy Poverty Observatory
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
Definitions: Types and limitations

- Although energy poverty is partly driven by low household incomes and many low income households are energy poor, **energy poverty does not completely overlap with economic poverty**
- **Addressing the consequences** (for example, whether the household is able to heat in winter or whether the health of its members is poor)
- **Addressing the causes** (for example, measuring the energy efficiency of a building and equipment to see if a household will have to pay more than average energy costs to achieve adequate comfort)
- **A combination of both?**
Bulgaria:  
Policy contradictions

➢ For the 2020-2021 heating season, the funds allocated by the state in support of its social policy amount to nearly BGN 125 million (EUR 66.3 million) for end-use energy subsidies, used mainly for purchasing bad-quality wood and coal.

➢ At the same time, the municipal funding programs for improving the air quality aggravated by the same coal and wood are worth over BGN 100 million for the period 2014-2020.

➢ In parallel, EUR 1 billion were invested in renovation of multifamily residential buildings since 2015 in a 100% grant scheme, without any prioritization of beneficiaries addressing energy poverty or air quality issues.
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

- 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

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

poverty line 351 BGN/person/month
Potential of deep energy retrofitting

Difference between average monthly income and average monthly total expenditure if providing “adequate heating” of 65 m² 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
Glimpses from Central and Eastern Europe

- Selected cases:
  - Kredex, Estonia
  - Energy efficiency program, Latvia
  - Modernization programme, Lithuania
  - Microfunding, North Macedonia
  - Saving at Home II, Greece
  - Stop Smog, Poland

- Outstanding barriers
  - Lack of continuity
  - No targeting of the “energy” component
  - Limited access
Policy recommendations

- Long term vision and continuity
- Exploiting synergies of policy action and matching of financial instruments
- Capacity building for local authorities and actors
- Monitoring and evaluation
- Streamlined awareness raising campaign at national and local level
Next steps: ComAct

- Develop useful definitions applicable in different conditions
- Develop financial mechanisms to provide access and involve energy poor households
- Provide a list of suitable technical measures based on extensive energy auditing practice
- Involve local communities in renovation policies and actions
- MEASURE!

https://comact-project.eu/
Next steps: EnergyMeasures

- Work with municipalities, housing associations and other relevant actors to assess how current institutional contexts affect efforts to alleviate energy vulnerability
- Support energy poor householders with low-cost energy measures and empower them to change their energy-related behaviour
- MEASURE!

https://energymeasures.eu/
Next steps: Congregate

➢ MEASURE!
➢ Measure the energy consumption and internal comfort parameters in different types of buildings and different households
➢ Analyse the impact of the renovation measures and the attitudes of the households
➢ Investigate the opportunities to develop energy cooperatives in public-private partnership mode
Thank you for your attention!

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

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