

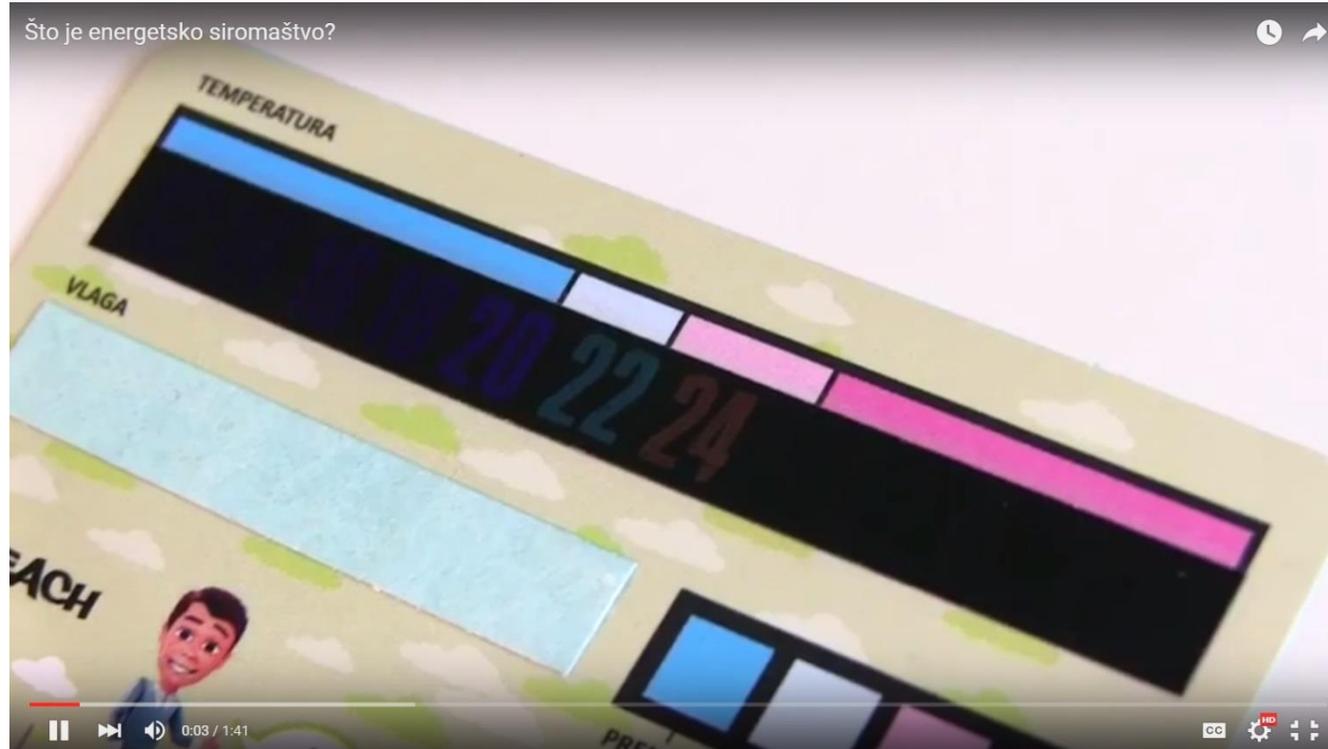
Projects: REACH and Warm Home

Pilot study of energy poverty in Croatia

Implemented by: Society for Sustainable Development Design (DOOR)

Presented by: Dean Smolar, Head of National Energy Efficiency Authority

About project REACH



*This presentation has been produced within the assistance of the EU.
The contents of this presentation is the sole responsibility of DOOR and the author, on behalf of SEE SEP implementing partners and can in no way be taken to reflect the views of the EU*



About project REACH



- Total budget: 568.489 €
- Financing sources: EU-IEE, Environmental Protection and Energy Efficiency Fund (Croatia)
- Duration: 1.3.2014. – 28.2.2017.
- Aim: to contribute to energy poverty abatement at practical and structural level.
 - to empower fuel poor households to take actions to save energy and change their habits, and to establish energy poverty as an issue that demands structural solutions at local, national and EU level.
- www.reach-energy.eu



About project REACH



- Key activities in Croatia (similar in other partner countries):

- Workshops and roundtables for key stakeholders
- Trainings for energy advisors
- Field work in more than 300 households:
 - Simple energy audits
 - Implementation of low-cost EE measures
- National and EU level policy work



- Background papers for national policy for energy poverty
- Emphasizing specificities of SEE region to EU level decision makers
 - **EU Parliament event Energy Poverty: Conference: Energy poverty in the South-East Europe**
 - Hosted by MEP Davor Škrlec and REACH project partners
 - European Parliament, Room: ASP A1G3, June 1st 2016
 - Register at: slavica.robic@door.hr



About project Warm home

- Inspired by REACH
- Implemented only in Croatia
- Funded by European Social Fund HR.5.2.04
- Total budget 777.032,13 HRK (about 100.000 EUR)
- Duration: 27.02.2015-27.04.17.
- Aims: to capacitate OCDs in Sisak-Moslavina County for energy advising and to establish cooperation of civil and public sector in the field of energy poverty
- Workshops and roundtables for key stakeholders
- Trainings for energy advisors
- Field work in 80 households:
 - Simple energy audits
 - Implementation of low-cost EE measures



Why is energy poverty different in SEE?

- Specific building stock
 - Significant amount of „socialism” construction
 - Low-level of thermal insulation of building envelope
 - Walls, windows, doors
 - High prevalence of furnace/stove heating
- Cultural and social inheritance
 - Indoor temperatures
 - Cheap energy
 - No possibility to regulate consumption



Western Balkans

- Distinct path of energy sector restructuring
 - Poor institutional and regulatory capacity of the central state
 - Overall low level of economic development
 - Mostly state-owned vertically integrated energy utilities
 - Regulated energy prices
 - Problems of non-payment and electricity theft
 - In some areas low efficiency levels of the whole energy chain- from production to consumption

Image source:

<https://www.iea.org/publications/freepublications/publication/Balkans2008.pdf>



Why are REACH and Warm home important?

- Energy poverty affecty 25% of EU citizens and in SEE more than 30 % of households
- EP mostly affects low-income households
- Not perceived as a problem
- Not being defined nor monitored
- Reliable data missing in SEE countries
- Existing measures for EnE not designed to target EP households
- Lack of communication among the energy, social and environmental actors
- Lack of energy poverty tailored policies
- EP households unaware of practical steps



Energy poverty in Croatia

- 2012 increase in electricity prices (16,4%) and natural gas(21,3%)
- 14.9 % of population lives in highly vulnerable households (cannot afford 4 out of 9 aspects of material deprivation). The severe material deprivation rate represents the proportion of people living in households that cannot afford at least four of the following nine items:
 - mortgage or rent payments, utility bills, hire purchase instalments or other loan payments;
 - one week's holiday away from home;
 - a meal with meat, chicken, fish or vegetarian equivalent every second day;
 - unexpected financial expenses;
 - a telephone (including mobile telephone);
 - a colour TV;
 - a washing machine;
 - a car; and
 - heating to keep the home sufficiently warm.
- 29,9% at risk of poverty or social exclusion (compared to 24,5% in EU28 2013.).
- 13,1% live in houses with leaking roofs, damp walls, floors or foundations, or rotten window frames



Energy poverty in Croatia

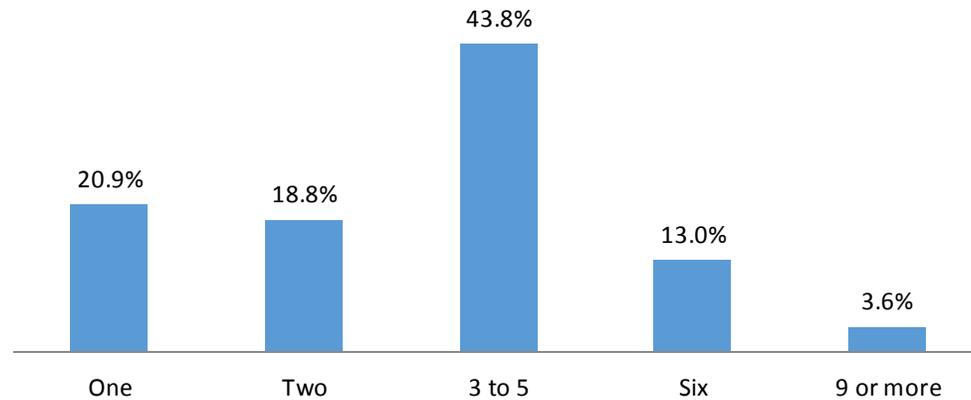
- Energy Act (OG 120/12,14/14)
 - Vulnerable buyer is consumer from the household category who as result of their social vulnerability and/or health issues has right to energy supply under special conditions
- Energy poor = social welfare users as defined by Social Services Act (OG 157/13, 152/14)
 - Guaranteed minimum benefit and permanent financial support for disabled
- Social tariff
 - Paid by all electricity buyers (OG 95/15)
 - 3 lipa/kWh
 - On average 6 HRK/month (0,8 EUR/month)
 - 200HRK (26 EUR)/month vouchers for „energy poor” to help pay electricity (only!) bills
 - Suppliers currently give up on their profit, intervention set to zero



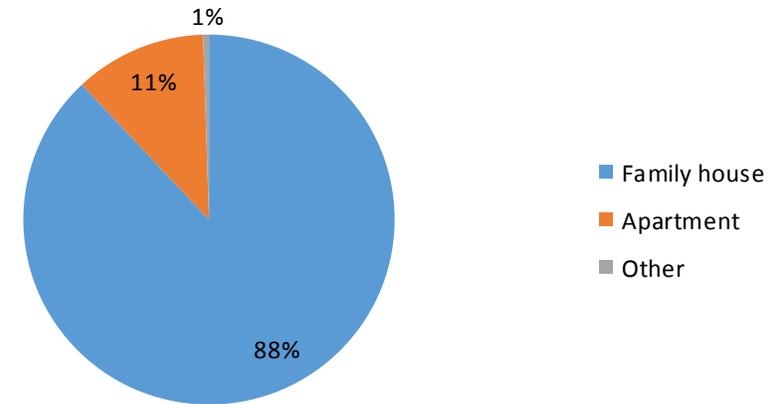
Case study findings- Croatia

- Projects REACH (www.reach-energy.eu) and With knowledge to warm home
- Total of 394 households (314+80) in Sisak-Moslavina County

Household members

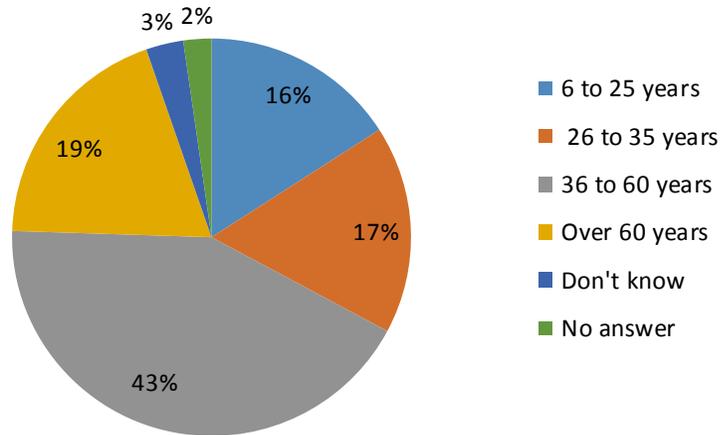


Building type

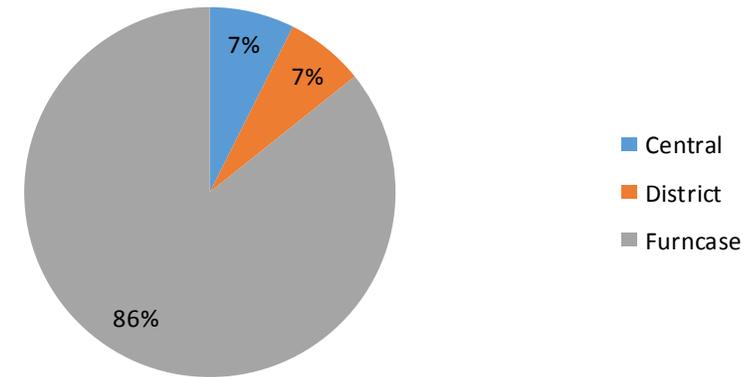


Case study findings- Croatia

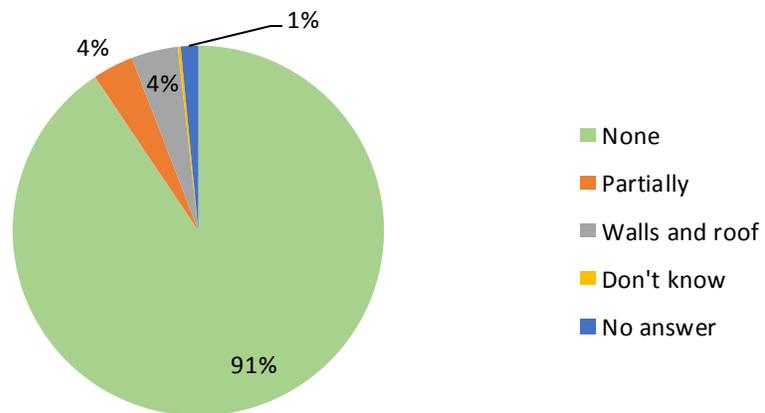
Age of dwelling



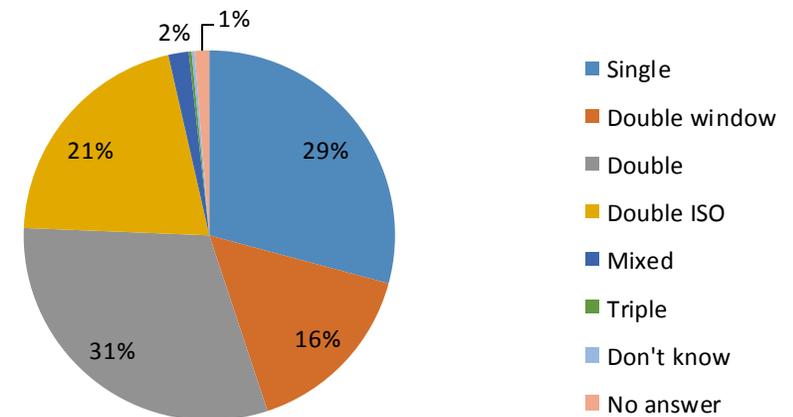
Heating System



Insulation



Windows glazing

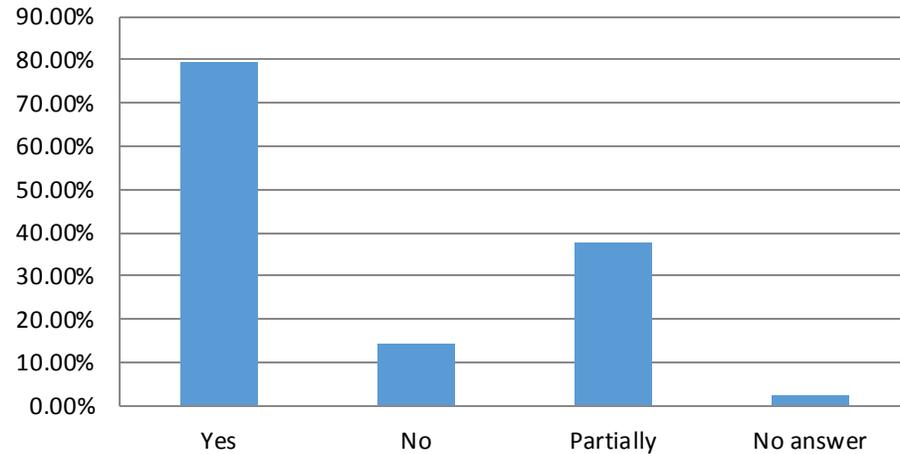


EE SEP implementing part

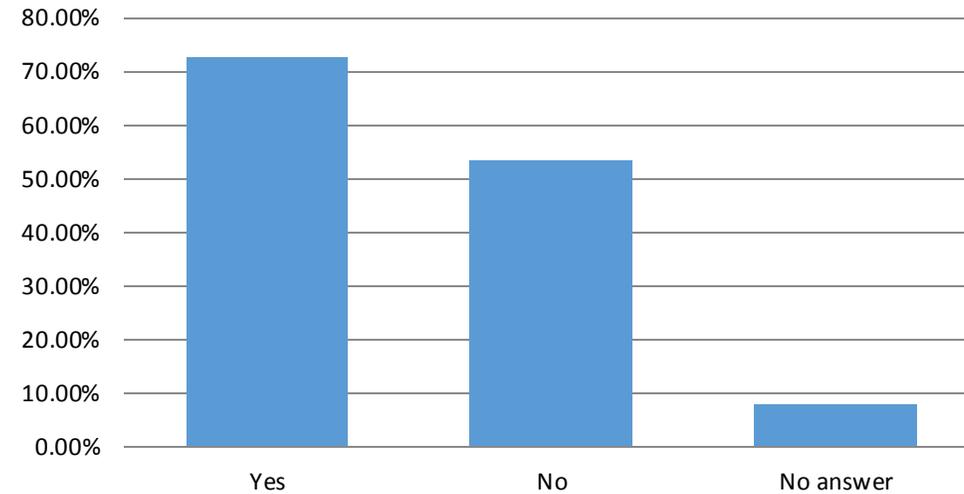


Case study findings- Croatia

Draft through windows



Mould



- High correlation of occurrence of draft and physical illness
- Correlation between high energy expenditures and mental wellbeing



Case study findings- Croatia

- Average electricity consumption: **4475 kWh/year** (372.9167 kWh/month)
 - In 2012 national average was 3.766 kWh/year and average for Sisak-Moslavina County was 3.551 kWh/year
- Average heat consumption: **25361.72 kWh/year** (2113.476 kWh/month)
 - In 2012 national average was 10.889 kWh /year and average for Sisak-Moslavina County was 23.209 kWh/year



Glimpse into Croatian energy po

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Contact

- For more information about projects REACH and Warm Home please contact:

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