



ENERGY POVERTY

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IFZ – Interuniversity Research Centre for Technology, Work and Culture

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- Research, consulting and training focusing on the complex relationship between technology and society
- Clients & partners:
 - Public institutions (European Commission, governmental departments, provincial governments)
 - Universities
 - Research institutions
 - Companies

Our research questions

- What are the social, ecological and health impacts of technologies and products?
- How can socially and environmentally sound innovations be facilitated?
- How can technology design be organised along more democratic and transparent lines?

IFZ's approach

- We work multidisciplinary and transdisciplinary, practice- and implementation-oriented
- We involve users and stakeholders in the research process
- We combine research and scientific consultation and give policy advice
- We initiate social and institutional learning processes and engage in science communication

IFZ's research areas

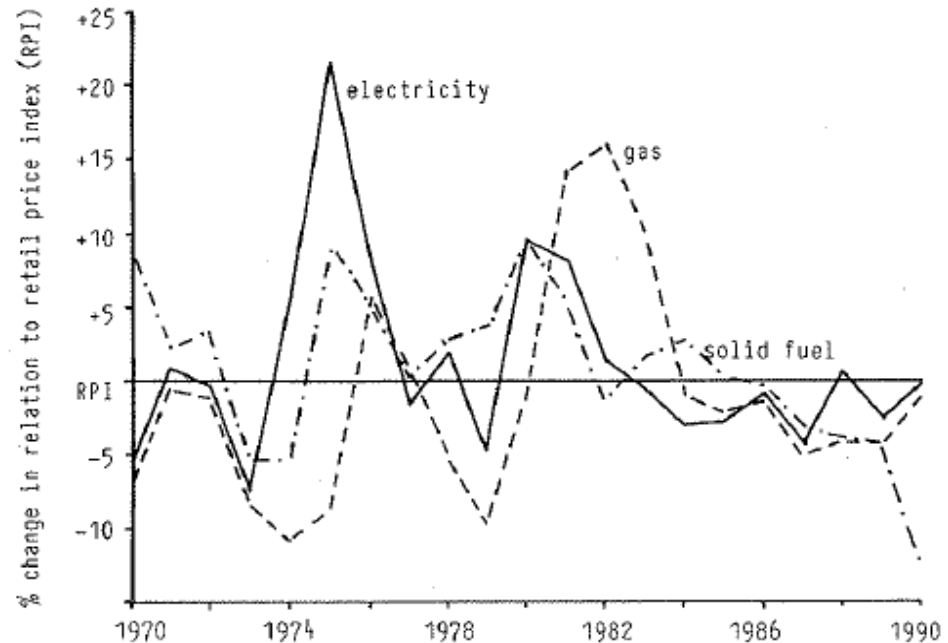
- Ecological Product Policy
- Energy and Climate
- Modern Biotechnology
- Women - Technology - Environment

- IFZ is the Graz unit of the Department of Research on Science and Technology of the University Klagenfurt and part of the Faculty for Interdisciplinary Studies (IFF).
- A strong cooperation exists with the University of Graz and the Graz University of Technology.
- The team currently consists of 15 scientific experts from various disciplines.

Energy poverty – from a global perspective to Austria

Origin

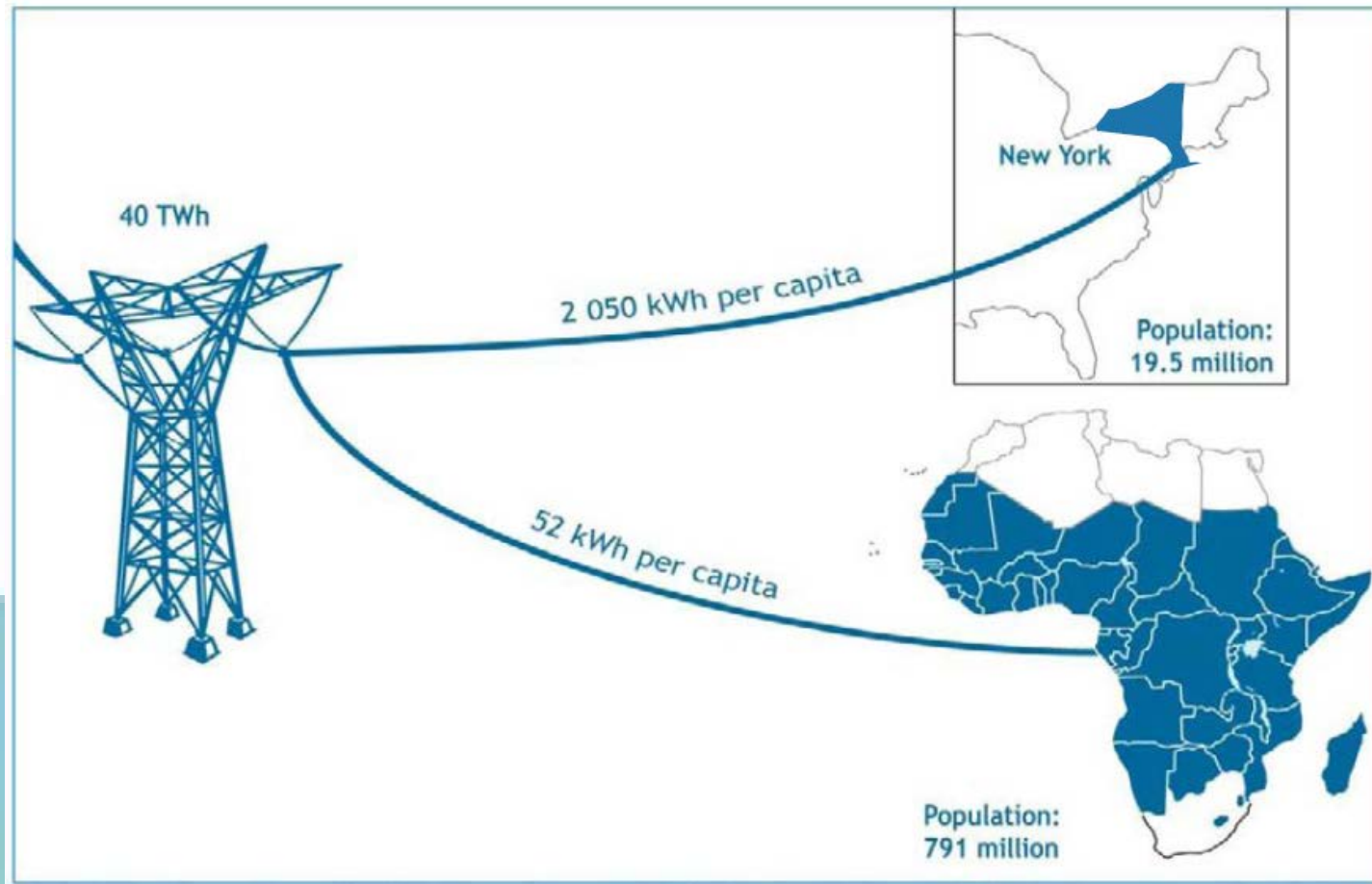
- Oil crises 1970s in GB
- “fuel poverty” was introduced as a term in 1976
 - 75/76 cold winter
 - Energy suppliers changed their billing system (from prepayment to quarterly bills)
 - Electricity was used for heating (Nuclear power was seen as a cheap supplier of electric energy)



Definition – Energy Poverty

- Definition:
 - No official global, European or Austrian definition
 - Only two EU-countries (GB and Ireland) have an official definition
 - More than 10% of the household budget for energy services
 - Combination: low income (1); energy prices (2); conditions of dwelling (3) (Boardman 2010)
- Focus:
 - Private Household
→ exclusion of homeless, persons that are living under institutionalized conditions etc.
 - Only energy that is consumed in the private household; no transportation, mobility, consumption of energy outside
- Context:
 - Problem of energy poverty varies extremely → global, European or country specific perspective

Global Situation (1)



Global Situation (2)

- 1,4 billion without a connection to energy grids
- In some countries black outs and insecurity concerning energy supply
- 2,7 billion have to rely on traditional energy resources (wood, dung etc.)
- Gathering of materials structures daily routines
- Open indoor-fires have serious health effects

(Sovacool et al. 2012)

Energy Poverty in Europe

- GB, Ireland have an official definition
 - 16% of British households were energy poor in 2009
- Various initiatives in EU-countries to minimize the burden of energy bills of the financial weak
 - Germany: energy saving campaign with more than 65.000 households
- Eastern Europe
 - Since 1991 massive economic transformations, also concerning the energy industries Problem of transformation of socio-technological infrastructure into liberal and privatized market structures (Buzar 2007)
- In general:
 - Little cross-European research activity
 - Little comparative data

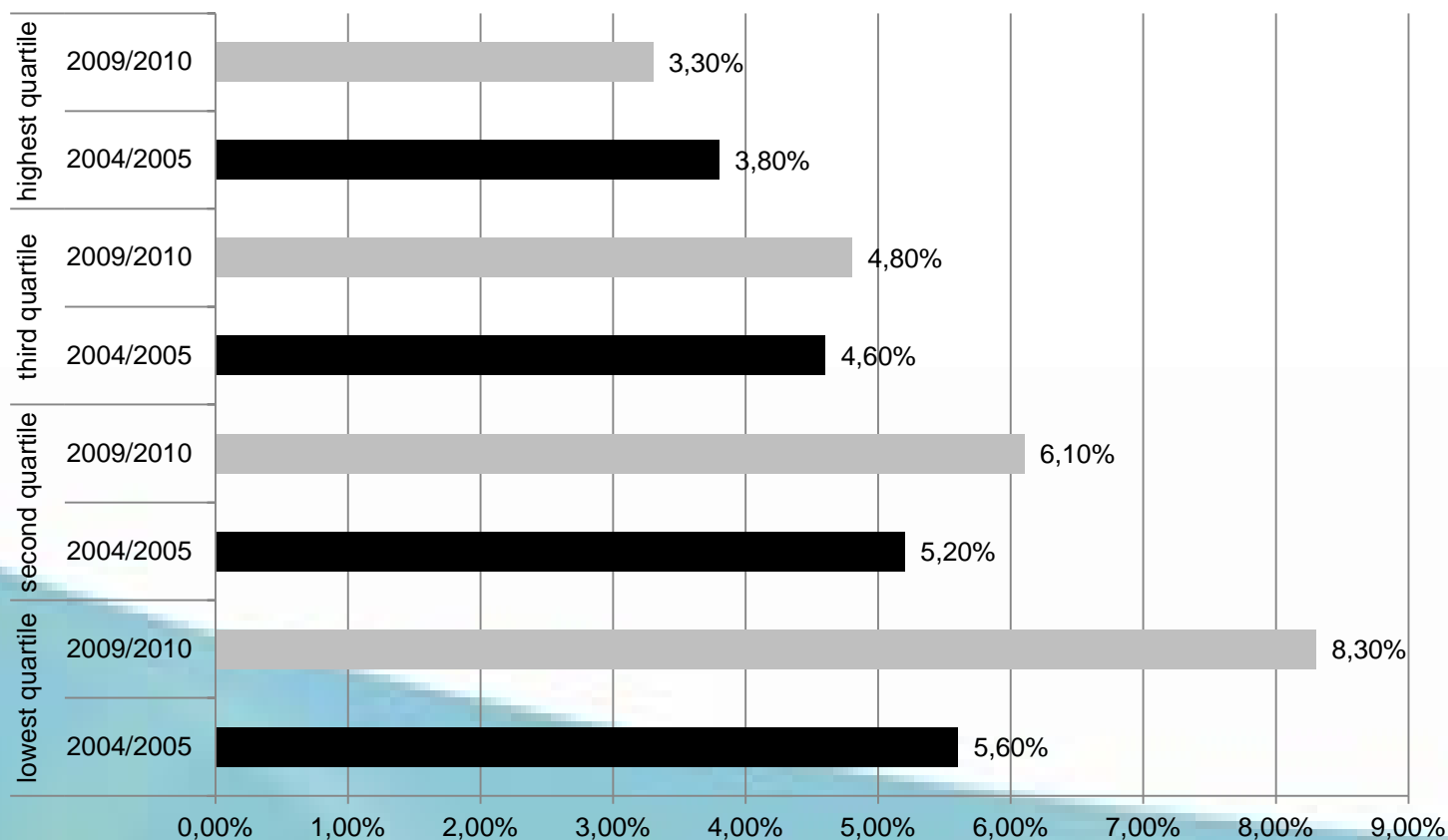
Austria – Statistics

- Poverty rate is low in EU-comparison (11,2%)
- High developed social security system
- Affordable warmth:
 - EU-SILC
 - 2008: 4% (333.000)
 - 2009: 3% (237.000)
 - EQLS
 - 2007: 3,7%
 - Lowest income quartile 6,7%

Scenario	1	2	3	4	5	6
Germany	4.0	5.5	2.7	8.3	5.0	4.7
Denmark	3.6	3.9	3.2	4.5	3.9	3.7
Netherlands	5.1	7.2	3.2	11.1	6.7	6.2
Belgium	8.0	11.0	6.1	15.8	9.9	9.5
Luxembourg	4.2	5.0	3.7	6.3	4.8	4.6
France	9.1	10.4	8.6	12.2	9.8	9.8
UK	8.4	10.2	7.9	12.5	9.3	9.3
Ireland	8.3	9.6	6.9	12.4	9.5	9.0
Italy	16.1	12.5	14.5	10.6	16.1	14.3
Greece	36.0	29.7	34.7	24.6	35.3	32.8
Spain	37.8	26.3	20.6	32.1	43.8	31.9
Portugal	56.4	44.4	38.7	50.1	62.8	50.3
Austria	4.7	6.5	3.1	9.8	6.0	5.6
Finland	4.8	4.9	4.4	5.4	5.1	4.9
EU-14	14.8	13.4	11.3	15.4	16.3	14.0
EU-10	6.0	7.4	5.0	9.8	7.0	6.7

α = Unable to afford to heat home adequately
 β = Unable to pay utility bills on time
 π = Lack of adequate heating facilities
 δ = Damp walls and/or floors
 λ = Rotten window frames
 μ = Lacking central heating

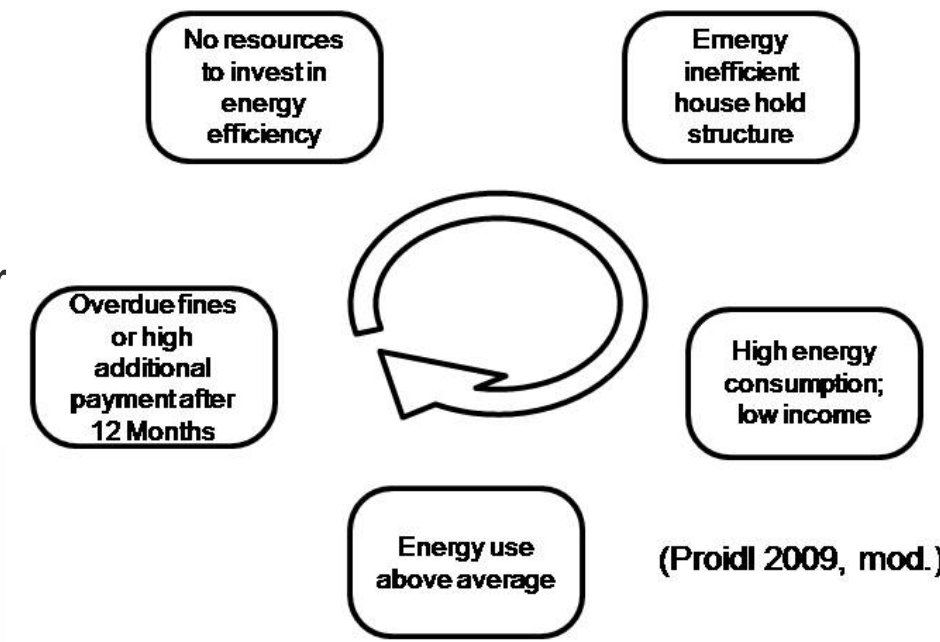
Energy expenditures 2004/2005 vs. 2009/2010 per household



(AK 2011; Statistik Austria 2011)

Research in Austria

- First study in 2009:
Dynamic of energy debt
- Second qualitative study
in Vienna (50 income poor
households):
 - Limited financial options
 - Tenant vs. landlord
- 2011 first recognition by
national funding schemes



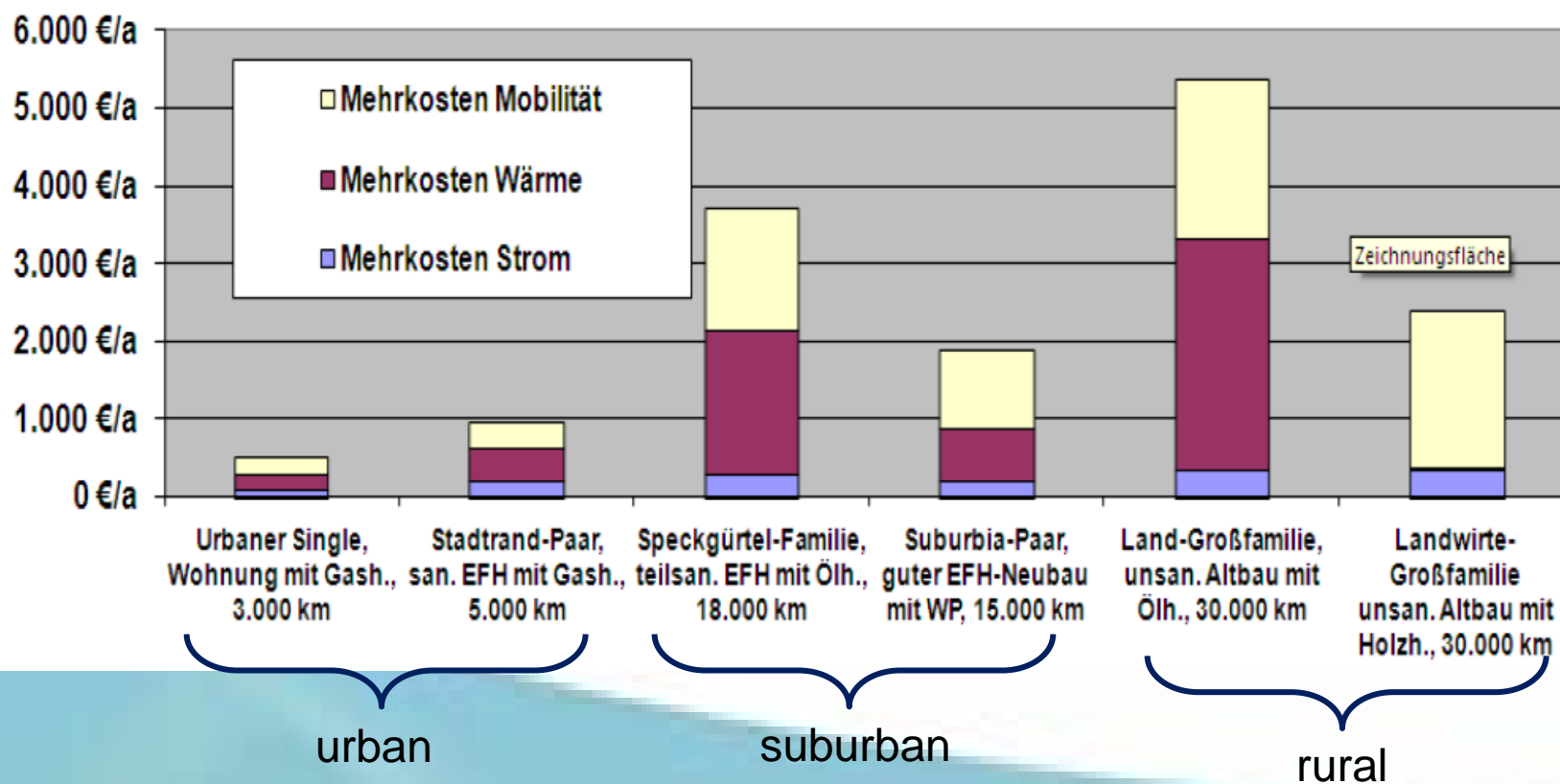
(Proidl 2009; Brunner et al. 2010 & 2011)

Case study in Styria

- Energy poverty is not yet in the perception of institutions or organizations
- Rising bills for energy do play a more significant role (Caritas Styria, 2008-2009, support doubled in this area)
- Debtors are under a lot of (psychological) pressure by creditors (i.e. mail-order business)
- No cooperation between social welfare and energy suppliers
- Role of the energy suppliers/utilities
- Always seen as problem of consumption (individualized) and not as a consequence of structural circumstances (e.g. fossil fuel based economy; right on energy; social problem)

(Berger 2011)

Outlook – Scenario for Austria additional spending (200USD per barrel)



(ÖGUT 2011)

Conclusions

- Energy poverty has to be systematically included in agendas that try to tackle the rising energy consumption
- Further research into the connection of socio-economic and socio-technical dimensions of energy poverty is needed
- Rising socio-economic inequalities needs to be set into the context of individual/household energy consumption
- There has to be established (at least) an European definition/understanding of energy poverty

Thank you!

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