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Energy Poverty Phenomenon, its Main Indicators and Measures to Tackle the Phenomenon

Alice Corovessi, Managing Director INZEB
Country Coordinator for Greece for the EU Climate Pact

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Energy Poverty Causes (Economic Factors)

LOW-INCOME LEVELS
Households with low-income struggle to afford energy costs

HIGH ENERGY PRICES
Rising energy prices outpace income growth, increasing the burden on households

UNEMPLOYMENT
Unemployment leads to reduced household income, impacting energy affordability

ECONOMIC INEQUALITY
Widening inequality leaves disadvantaged groups unable to afford adequate energy

ENERGY MARKET DEREGULATION
Market liberalisation can lead to price volatility and higher consumer costs

INFLATION
General inflation, especially in energy commodities, reduces purchasing

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Causes (Infrastructure Deficits)

POOR HOUSING QUALITY
Inefficient buildings with poor insulation lead to higher energy consumption

OUTDATED ENERGY INFRASTRUCTURE
Aging infrastructure can result in higher costs and less reliable energy supply

RURAL ISOLATION
Remote rural areas often have less access to energy networks and higher energy costs

LACK OF ENERGY RENOVATION PROGRAMMES
Insufficient government programmes to improve energy efficiency in homes

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Causes (Political & Governance Issues)

LACK OF GOVERNMENT SUPPORT
Insufficient subsidies or social support for low-income households

INCONSISTENT ENERGY POLICIES
Frequent changes in energy policies create uncertainty and discourage investment in energy efficiency

INADEQUATE REGULATION POOR
Regulation of energy markets can lead to exploitation and higher prices

INSUFFICIENT RES INTEGRATION
Slow adoption of renewables can limit access to affordable, clean energy

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Causes (Environmental Factors)

CLIMATE CHANGE
Increased energy demand during extreme weather events can strain the system and raise costs

DEPENDENCE ON FOSSIL FUELS
Heavy reliance on fossil fuels subjects' countries to price volatility in global markets

NATURAL DISASTERS
Disruptions from natural disasters can affect energy supply and infrastructure

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Causes (Social & Demographic Factors)

AGING POPULATION
Older adults often have lower incomes and higher energy needs

SINGLE-PERSON HOUSEHOLDS
Single-person households often face higher per capita energy costs

URBANISATION
Rapid urbanisation can strain existing energy infrastructure

MIGRATORY PATTERNS
Influx of migrants can increase demand and strain resources in certain areas

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Causes (Technological Factors)

ENERGY-INTENSIVE INDUSTRIES
High demand from energy-intensive industries can drive up costs for households

SLOW ADOPTION OF TECHNOLOGIES
Delay in adopting new technologies keeps energy consumption high

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Causes (Market and Supply Chain Issues)

SUPPLY CHAIN DISRUPTIONS
Interruptions in the energy supply chain, due to political or economic reasons can cause price hikes

CROSS-BORDER ENERGY DEPENDENCE
Dependence on energy imports from other countries can lead to price fluctuations and insecurity

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty in Developing Countries

- In **developing countries**, energy poverty is primarily experienced as a **lack of access to basic energy services**.
- According to estimates published by the **International Energy Agency (IEA)**, more than **1.3 billion people do not have access to electricity** and, as a result, lack access to services and amenities that the rest of the population takes for granted.
- According to **United Nations**, **1 billion people** have access to energy services, but these **services tend to be unreliable**.

The fact that approximately 20% of the global population lacks access to electricity reflects the prevalence of energy poverty on a global scale, as well as the extent of the problems arising from this situation.

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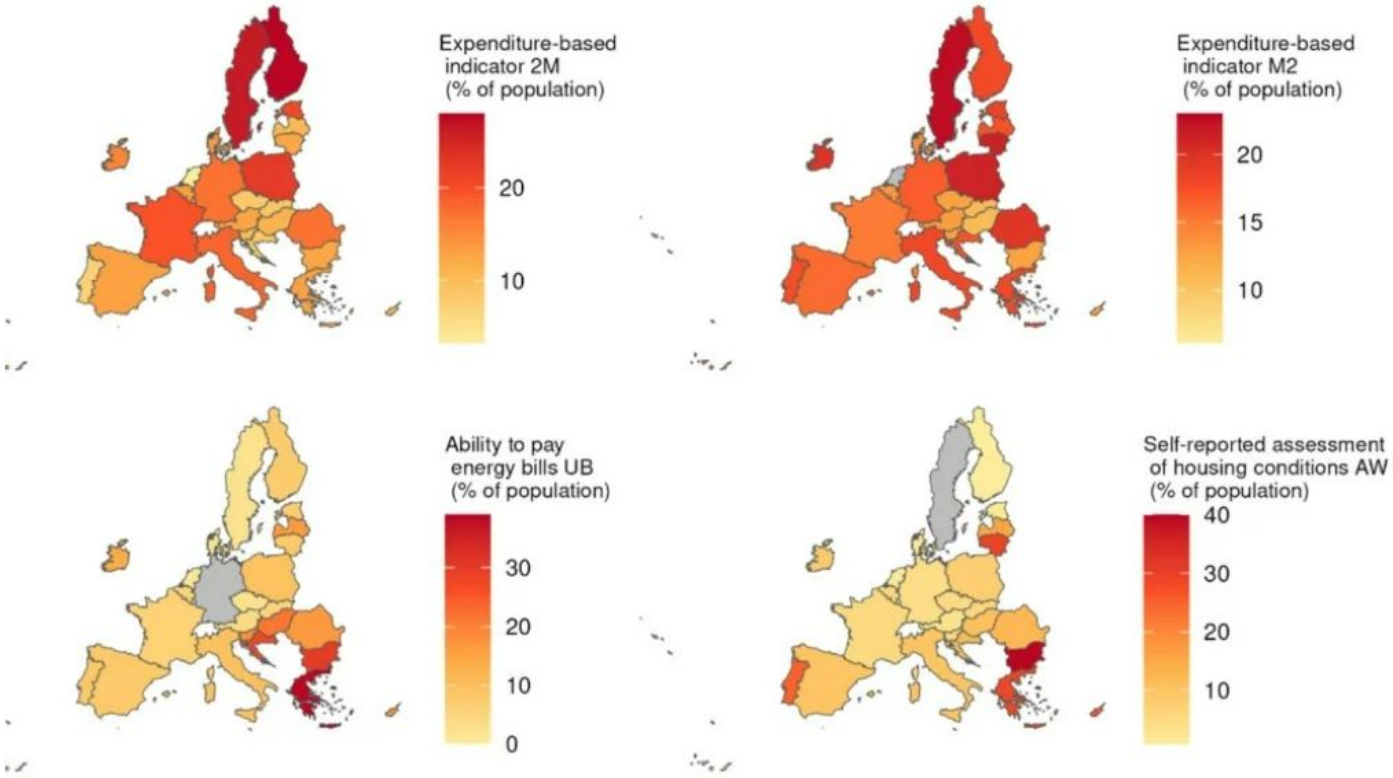
Energy Poverty in Developed Countries

- In developed countries, including the Member States of the European Union, energy poverty is perceived differently. In these countries, energy poverty mainly indicates **a permanent or temporary inability to access energy services and amenities**.

- According to the European Commission, between **8% and 16%** of the EU population faces energy poverty (**35 to 72 million people**).

- Not all EU countries face the same level of energy poverty, and the assessment depends on the indicators used. For example, the map shows that more than 20% of the population cannot adequately heat one's home in **Portugal, Bulgaria, Greece, and Lithuania**.



Reference: *European Commission Joint Research Centre 2024*

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Energy Poverty in the U.S.A.

- Nearly **one-third of households** in the **United States** struggle to pay their energy bills. While geographic differences in energy poverty are minimal, it is evident that **racial minorities** are disproportionately affected.
- Approximately **one in five households** is forced to reduce the quality and quantity of **food, medication, and other essential items** to pay an energy bill.
- Out of the **25 million households** that reported sacrificing food and medicine to cover energy costs, **7 million** face this decision **almost every month**.
- Additionally, **7 million households** (6% of the national total) reported being unable to use their **heating equipment** at some point due to financial constraints, and **6 million households** (5%) reported **foregoing air conditioning** during the hot summer months.

Reference: *US Energy Information Administration*

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Energy Poverty Definition

ENERGY VULNERABILITY

A broader and more dynamic concept of energy poverty. It refers to the **sensitivity** of a household to experience energy poverty in the event of changes in **internal conditions**, such as **job loss**, or **external conditions**, such as an **economic crisis**.

Under such circumstances (internal or external), energy poverty can be viewed as a **temporary state of deprivation**, meaning that households may **enter and exit** this situation at specific points in time.

Tirado Herrero et al., 2016)

STRUCTURAL VULNERABILITY

This term refers to the **political and socioeconomic conditions** of countries that determine the level of protection provided by states to their populations in the event of changes in internal or external conditions that may lead households into energy poverty.

(Recalde et al., 2019)

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Energy Poverty Definition

The **revised Energy Efficiency Directive (EED)** introduces a new provision (**Article 2, Paragraph 52**) that defines **energy poverty** as:

"The lack of access of a household to essential energy services that enable basic levels and decent standards of living and health, including adequate heating, hot water, cooling, lighting, and energy to power appliances, within the relevant national context, existing national social policy, and other related national policies, caused by a combination of factors, including at least energy affordability, insufficient disposable income, high energy costs, and poor energy efficiency of housing."

This can be considered the **first official definition** of energy poverty at the EU level. The **revised Energy Efficiency Directive (EU/2023/1791)**, published in the Official Journal on **September 20, 2023**, significantly raises the EU's ambitions regarding **energy efficiency**.

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Energy Poverty Dimensions

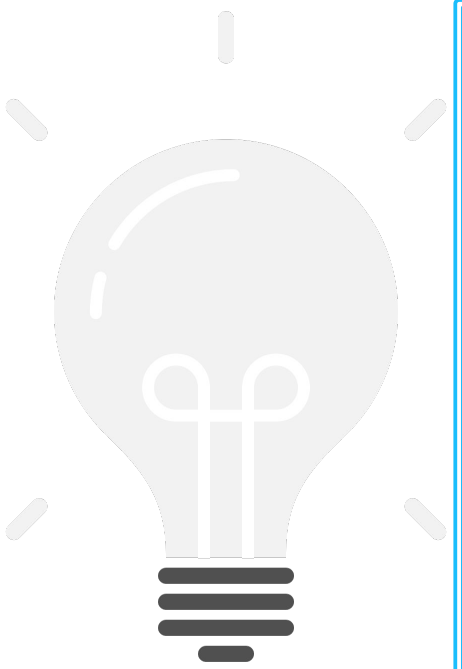
ECONOMIC IMPACTS

INCREASED FINANCIAL BURDENS

HOUSEHOLDS MAY DIVERT MONEY FROM OTHER ESSENTIALS TO PAY FOR ENERGY

REDUCED ECONOMIC PRODUCTIVITY

ENERGY POVERTY CAN LIMIT INDIVIDUALS' ABILITY TO WORK, PARTICULARLY IN EXTREME COLD OR HEAT



HOUSING MARKET IMPACTS

PROPERTIES IN ENERGY-POOR AREAS MAY DECLINE IN VALUE

INCREASED DEBT LEVELS

HOUSEHOLDS MAY INCUR DEBT TO COVER ENERGY BILLS

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Dimensions

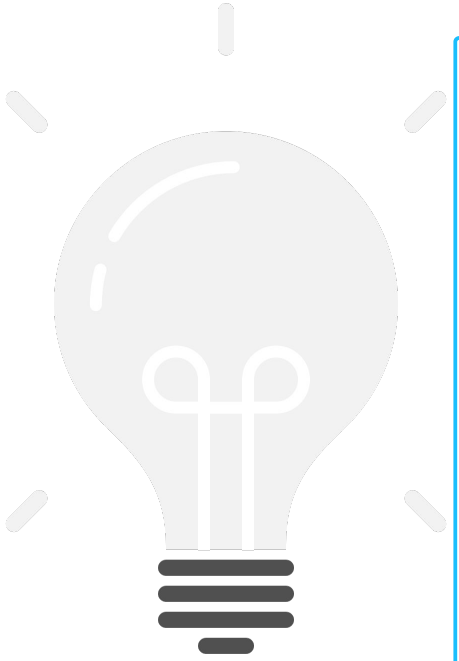
PHYSICAL HEALTH IMPACTS

RESPIRATORY DISEASES

INCREASED EXPOSURE TO COLD AND DAMP ENVIRONMENTS CAN EXACERBATE RESPIRATORY CONDITIONS

CARDIOVASCULAR DISEASES

COLD HOMES ARE LINKED TO HIGHER RATES OF HEART DISEASE AND STROKES



CHRONIC ILLNESSES

PROLONGED EXPOSURE TO COLD CAN WORSEN CHRONIC ILLNESSES, REDUCING OVERALL HEALTH AND WELL-BEING

INCREASED MORTALITY RATES

ENERGY POVERTY IS ASSOCIATED WITH HIGHER MORTALITY RATES DURING WINTER MONTHS

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Dimensions

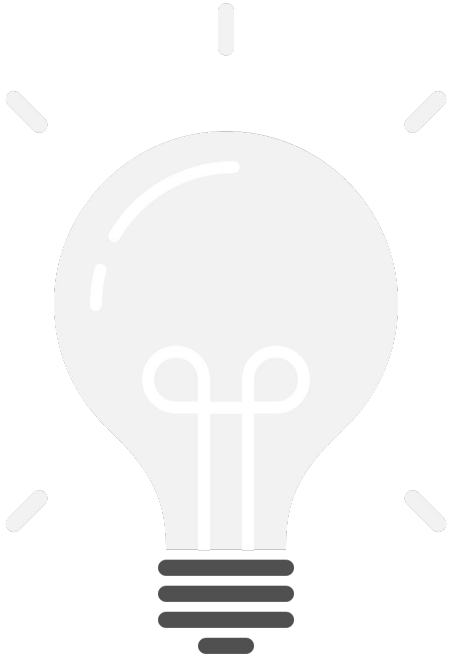
MENTAL HEALTH IMPACTS

STRESS AND ANXIETY

THE FINANCIAL STRAIN OF PAYING HIGH ENERGY BILLS CAN LEAD TO STRESS AND ANXIETY

DEPRESSION

LIVING IN COLD AND DAMP CONDITIONS IS LINKED TO HIGHER LEVELS OF DEPRESSION



SOCIAL ISOLATION

INABILITY TO AFFORD HEATING CAN PREVENT PEOPLE FROM INVITING OTHERS INTO THEIR HOMES, LEADING TO ISOLATION

COGNITIVE DECLINE

COLD-INDUCED STRESS AND POOR LIVING CONDITIONS CAN CONTRIBUTE TO COGNITIVE DECLINE, PARTICULARLY IN OLDER ADULTS

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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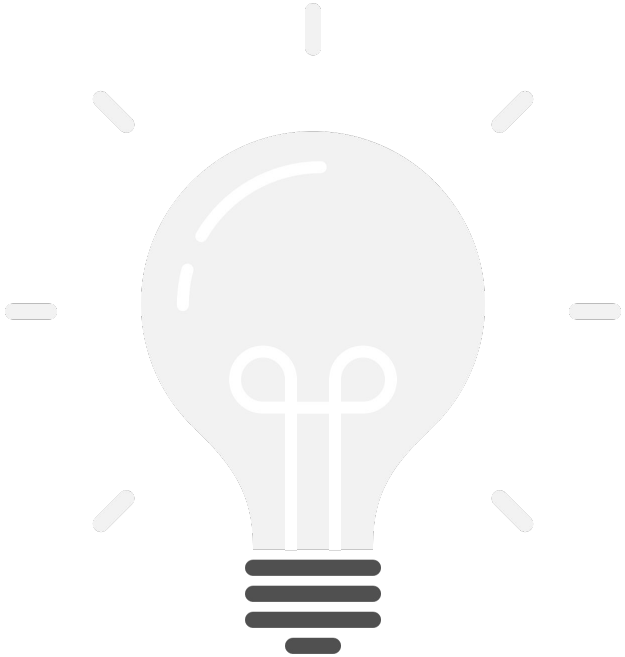
Energy Poverty Dimensions

CHILDHOOD HEALTH IMPACTS

IMPAIRED DEVELOPMENT

CHILDREN IN ENERGY-POOR HOUSEHOLDS MAY EXPERIENCE DELAYED PHYSICAL AND COGNITIVE DEVELOPMENT



INCREASED ABSENTEEISM FROM SCHOOL

POOR HEALTH DUE TO COLD HOMES CAN LEAD TO HIGHER ABSENTEEISM, AFFECTING EDUCATION

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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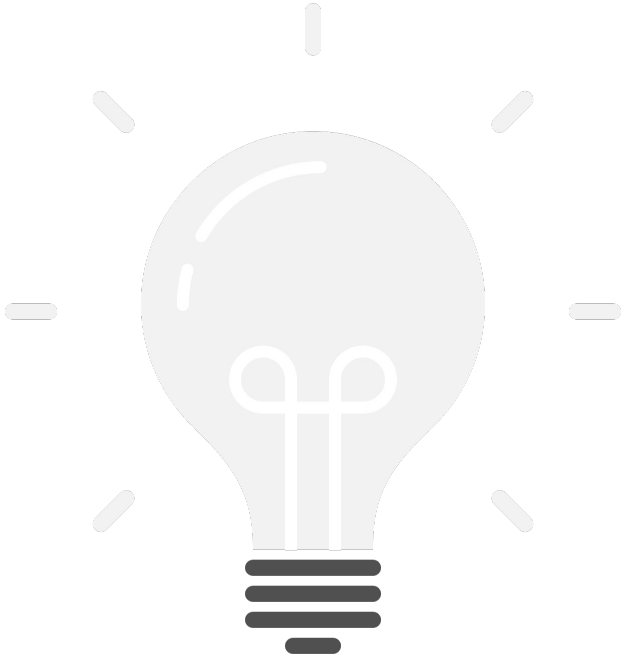
Energy Poverty Dimensions

ELDERLY HEALTH IMPACTS

REDUCED MOBILITY

COLD CONDITIONS CAN EXACERBATE ARTHRITIS AND OTHER CONDITIONS THAT LIMIT MOBILITY



COGNITIVE IMPAIRMENT

COLD-INDUCED STRESS CAN LEAD TO OR WORSEN COGNITIVE IMPAIRMENT IN THE ELDERLY

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Energy Poverty Dimensions

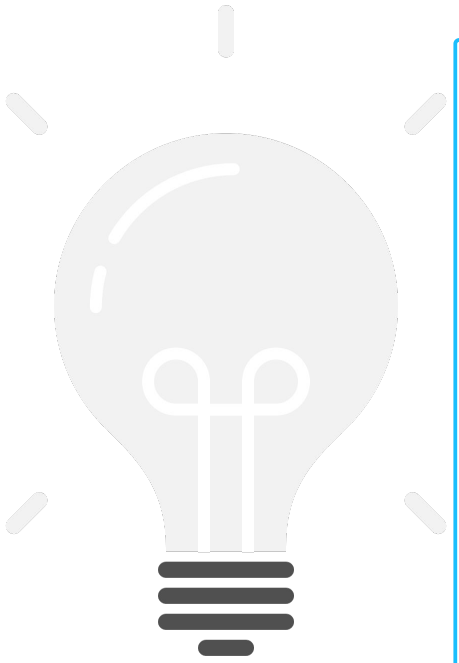
OVERALL COMMUNITY HEALTH IMPACTS

INCREASED PRESSURE ON HEALTHCARE SERVICES

HIGHER RATES OF ILLNESS RELATED TO ENERGY POVERTY CAN STRAIN HEALTHCARE SYSTEMS

POOR NUTRITIONAL OUTCOMES

HIGH ENERGY COSTS CAN FORCE HOUSEHOLDS TO CUT BACK ON FOOD, LEADING TO MALNUTRITION



WORSENED HEALTH INEQUALITIES

ENERGY POVERTY EXACERBATES EXISTING HEALTH INEQUALITIES ACROSS DIFFERENT SOCIAL GROUPS

INCREASED DOMESTIC ACCIDENTS

USE OF UNSAFE HEATING METHODS (LIKE OPEN FIRES) CAN LEAD TO BURNS AND OTHER ACCIDENTS

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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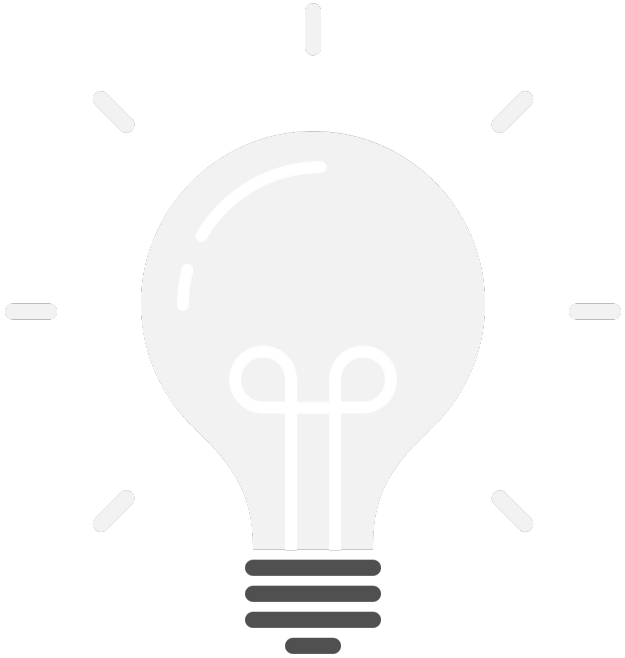
Energy Poverty Dimensions

POLITICAL & GOVERNANCE IMPACTS

POLICY CHALLENGES

ENERGY POVERTY PRESENTS CHALLENGES FOR POLICYMAKERS IN BALANCING ENERGY AFFORDABILITY AND ENVIRONMENTAL GOALS



PUBLIC TRUST

PERCEIVED FAILURES TO ADDRESS ENERGY POVERTY CAN ERODE TRUST IN GOVERNMENT INSTITUTIONS

Reference: *INZEB.ORG - Causes and Consequences of Energy Poverty (2024)*

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Main Indicators to Assess Energy Poverty

EPAH indicators are organised by topics for each European country.

In this indicators collection, EPAH uses publicly available EU-wide datasets, so anyone may find that some data is unavailable for specific years or countries due to the timeline of data collection for such datasets, their geographical coverage or the update at the EU level of these statistics.

Reference: *https://energy-poverty.ec.europa.eu/epah-indicators#*

Climate

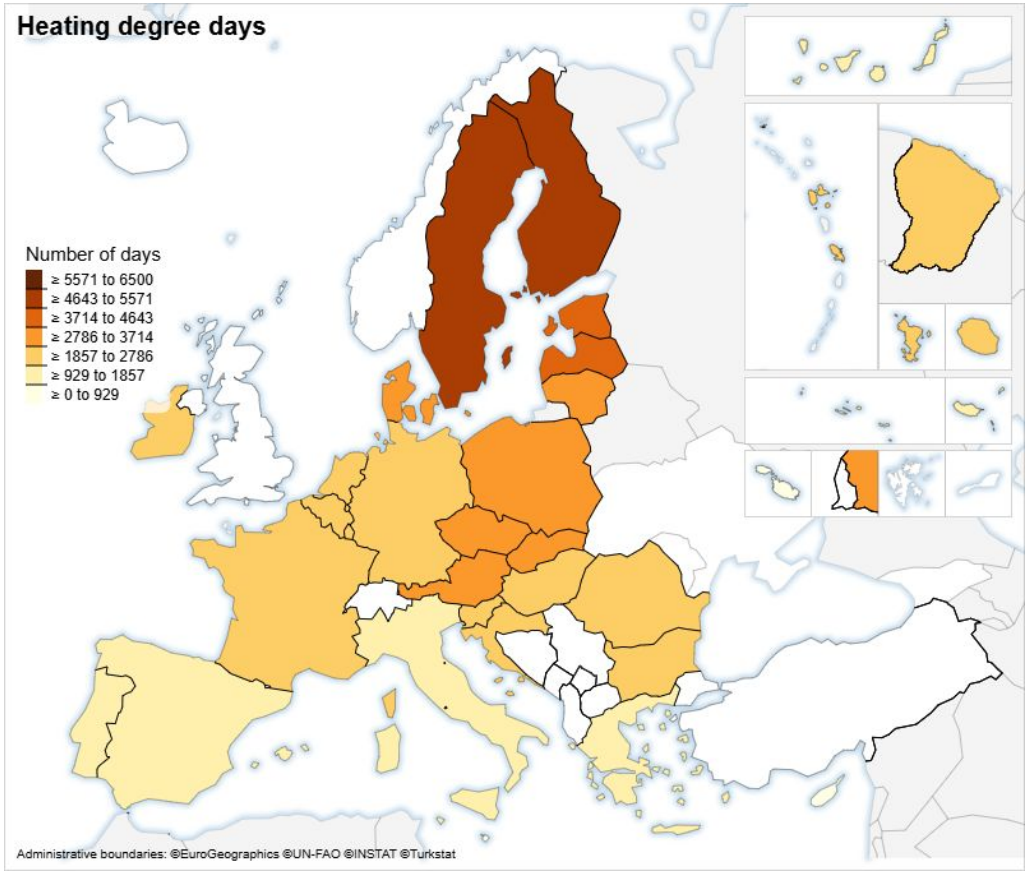
Housing

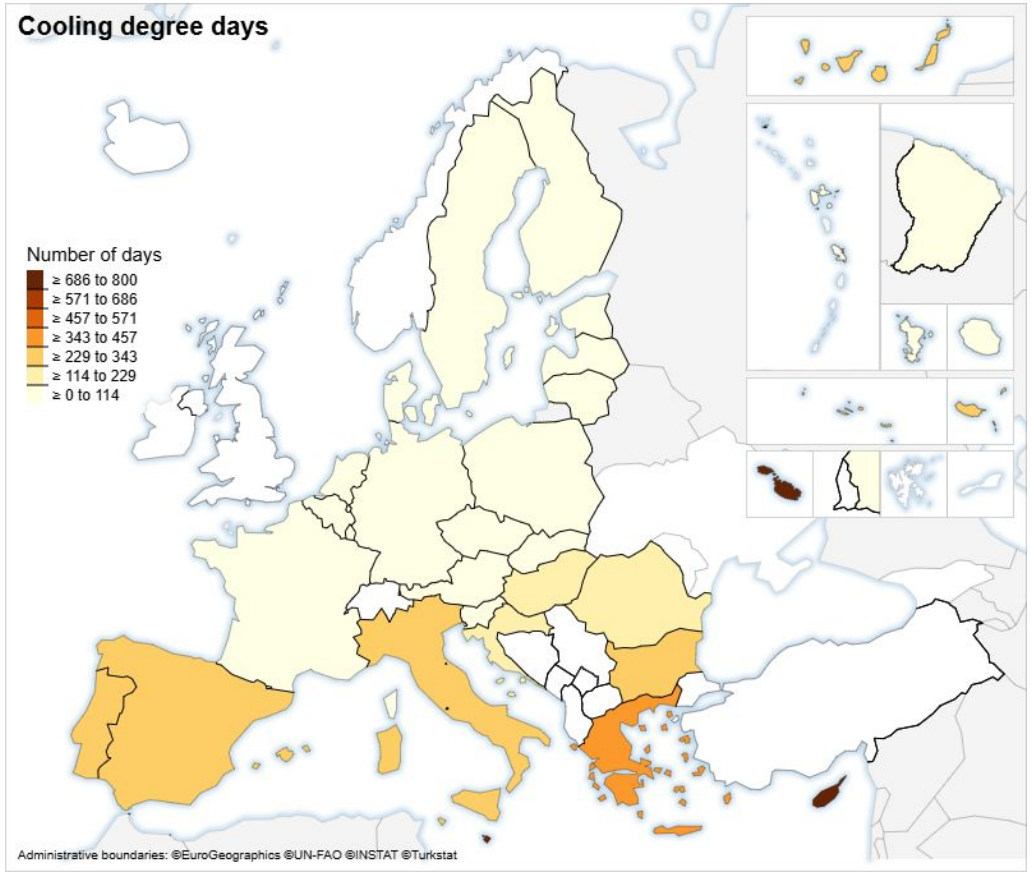
Mobility

Social – Economic

Data available by Topic / Indicator / Country

Main Indicators to Assess Energy Poverty





Reference: *https://energy-poverty.ec.europa.eu/epah-indicators#*

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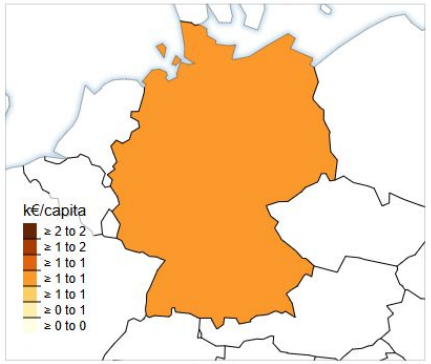
Main Indicators to Assess Energy Poverty

Germany (DE)

Year: 2017 2018 2019 2020 2021 2022 2023

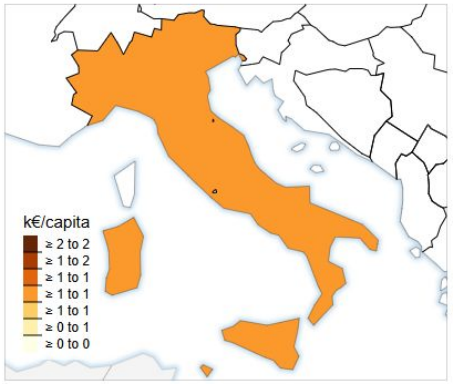
Final consumption expenditure of households - Electricity, gas and other fuels

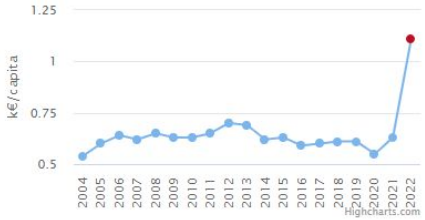


Italy (IT)

Year: 2017 2018 2019 2020 2021 2022 2023

Final consumption expenditure of households - Electricity, gas and other fuels

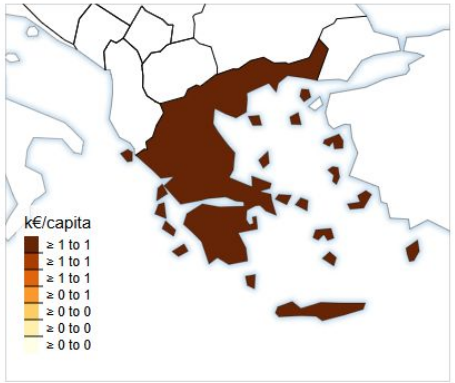


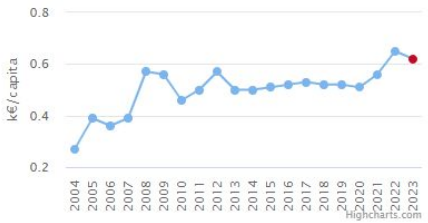


Greece (EL)

Year: 2017 2018 2019 2020 2021 2022 2023

Final consumption expenditure of households - Electricity, gas and other fuels





Reference: *https://energy-poverty.ec.europa.eu/epah-indicators#*

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Indicators used for assessing energy poverty in the **Thessaloniki region**

CLIMATE CONDITIONS	**Heating Degree Days per Year** Heating Degree Days per Year in Thessaloniki area	CDD/Year
	Cooling Degree Days per Year Cooling Degree Days per Year in Thessaloniki area	CDH/Year
HOUSEHOLD DATA & EQUIPMENT	**Humidity - Mould** Percentage of households with problems of dampness and mould	%
	Insufficient heating Percentage of households with an average indoor temperature of dwelling less than 18°C	%
	Insufficient Cooling Percentage of households with an average indoor temperature of dwelling greater than 28°C	%
	Connection to the natural gas network Percentage of households connected to the gas network	%
	Central heating system Percentage of households with central heating system	%
	Heating appliances Percentage of households with a heating system	%
	Cooling devices Percentage of households with cooling system	%
	The average age of buildings Percentage of buildings built before 1980	%
	Home ownership Percentage of citizens living in owner-occupied housing	%
SOCIAL & ECONOMIC INDICATORS	**Vulnerable Households** Percentage of households entitled to a social security allowance	%
	Inconsistency in the payment of bills Percentage of households with an inability to consistently repay bills	%
	Inability to Maintain Temperature - Winter Percentage of households unable to maintain constant temperature indoor temperature of the dwelling during the winter period	%
	Inability to Maintain Temperature - Summer Percentage of households unable to maintain a constant temperature indoor temperature of the dwelling during the summer period	%
	Households below the poverty line Percentage of households with an annual family income below €5251	%
	Unemployment Rates Percentage of persons unemployed	%
	Persons over 65 years old Percentage of persons aged over 65	%
	Education Level Percentage of persons with less than basic education	%

Reference: INZEB Technical Assistance EPAH

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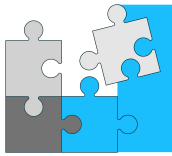
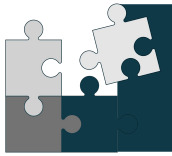
Measures to Tackle Energy Poverty



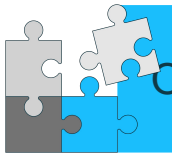
FREE OR SUBSIDISED HOME INSULATION PROGRAMMES

Provide basic insulation for walls, windows, and doors to reduce heat loss and cut energy costs, targeting low-income households.



DISTRIBUTION OF ENERGY-EFFICIENT LED BULBS

Replace traditional light bulbs with energy-efficient LEDs for free or at a minimal cost to reduce energy consumption significantly.



ENERGY BILL PAYMENT SUPPORT PROGRAMMES

Offer direct financial assistance, such as subsidies or vouchers, to help vulnerable families pay their energy bills during peak seasons.

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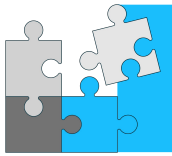
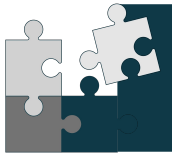
Measures to Tackle Energy Poverty



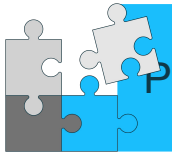
IMPLEMENTATION OF "NO DISCONNECTION" POLICIES

Enforce regulations that prohibit energy disconnections during extreme weather periods for low-income or vulnerable households.



COMMUNITY-BASED ENERGY EDUCATION WORKSHOPS

Organise local workshops to teach families simple, low-cost ways to save energy, such as adjusting thermostats or sealing drafty windows.



INSTALLATION OF LOW-COST WEATHER STRIPPING AND DRAFT STOPPERS

Provide households with weather stripping for doors and windows, along with draft stoppers, to prevent heat loss and improve indoor comfort.

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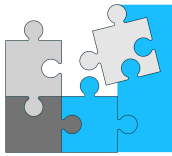
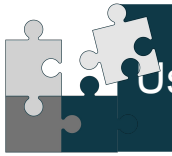
Measures to Tackle Energy Poverty



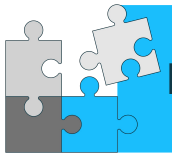
BULK PURCHASE OF HEATING AND COOLING EQUIPMENT

Governments or NGOs can negotiate discounted bulk purchases of energy-efficient heaters, fans, and air conditioners for vulnerable groups.



REPURPOSING MUNICIPAL BUILDINGS AS ENERGY SUPPORT CENTERS

Use community centers or libraries as “heat hubs” in winter or “cooling zones” in summer, offering safe spaces for energy-poor residents.



PROMOTION OF ENERGY-SAVING PRACTICES

Distribute easy-to-read, practical guides on energy-saving habits (e.g., unplugging devices, turning off unused lights, reducing standby power use).

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Key Takeaways

ENERGY POVERTY IS MULTI-DIMENSIONAL AND CONTEXT-SPECIFIC PHENOMENON.
It impacts developing countries through lack of access to basic energy services, while in developed countries, it manifests as affordability and efficiency issues. Addressing energy poverty requires tailored solutions based on economic, social, and technological factors.

STRUCTURAL CHANGE IS KEY TO BREAKING THE CYCLE
Investing in energy-efficient housing and modern infrastructure reduces long-term energy costs for vulnerable households.
Policies should focus on both short-term relief and long-term solutions.

RENEWABLE ENERGY COMMUNITIES (RECs) ARE TRANSFORMATIVE
RECs empower local communities to **produce, share, and manage energy**, fostering energy independence and reducing energy costs sustainably. They serve as scalable and replicable solutions for addressing energy poverty at the local level.

HEALTH IMPACTS OF ENERGY POVERTY ARE SEVERE AND FAR-REACHING
Energy poverty leads to respiratory and cardiovascular illnesses, mental health challenges, and impaired child development. Investments in warm and energy-efficient homes can reduce healthcare pressures and improve overall well-being.

CLIMATE CHANGE AND ENERGY POVERTY ARE INTERCONNECTED
Extreme weather conditions increase energy demand, making energy poverty worse for households already struggling. Transitioning to renewable energy mitigates climate risks while ensuring affordable energy access.

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Key Takeaways

ENERGY POVERTY WORSENS INEQUALITY
Vulnerable groups, such as the **elderly**, **low-income households**, and **racial minorities**, face disproportionate energy burdens. Tackling energy poverty is also a step towards achieving **social justice** and bridging inequalities.

LOCAL ACTION AND COMMUNITY-DRIVEN APPROACHES ARE CRITICAL
Empowering communities through education, energy audits, and hands-on support leads to practical, on-the-ground solutions. Collaboration between local governments, citizens, and organisations fosters sustainable progress.

POLICY CONSISTENCY AND GOVERNANCE MATTER
Frequent changes in energy policies create uncertainty. Strong, consistent policies are needed to encourage investments in energy efficiency and renewable solutions.

FOCUS ON PREVENTION, NOT JUST CURE
Address energy vulnerability by identifying households at risk before crises occur. Proactive measures such as energy audits and support programmes can prevent long-term deprivation.

TACKLING ENERGY POVERTY ACCELERATES THE ENERGY TRANSITION
Solutions like RECs, energy efficiency measures, and renewable energy adoption create opportunities for a cleaner, more inclusive energy future. Energy poverty initiatives align with broader climate goals, such as the European Green Deal and Energy Efficiency Directive.

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Thank you for your attention!
Q&As?

Alice Corovessi, Managing Director INZEB
Country Coordinator for Greece for the EU Climate Pact

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Which indicators can be used to address energy poverty in countries involved in the project?

Alice Corovessi, Managing Director INZEB
Country Coordinator for Greece for the EU Climate Pact

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Questionnaire Design

PURPOSE OF THE QUESTIONNAIRE: COLLECT QUANTITATIVE AND QUALITATIVE DATA

QUANTITATIVE
Focus on measurable data such as energy costs, housing conditions, and the percentage of income spent on energy. This helps provide an objective overview of energy poverty levels.

QUALITATIVE
Capture individual experiences, perceptions, and challenges faced by households. This information brings context and depth to the quantitative results, ensuring a holistic understanding.

ASSESS HOUSING CONDITIONS, ENERGY ACCESS, AND AFFORDABILITY

HOUSING CONDITIONS
Identify issues like inadequate insulation, mould, dampness, and outdated heating or cooling systems. Poor housing contributes to higher energy consumption and costs.

ENERGY ACCESS
Measure the availability and reliability of energy services. Include indicators for disconnections, outages, or limited access to modern energy sources.

AFFORDABILITY
Examine whether households struggle to pay their energy bills, identifying income-to-energy cost ratios and utility payment arrears.

UNDERSTAND SOCIAL IMPACT AND ENGAGEMENT

Explore the real-life impact of energy poverty on well-being, health, and social inclusion.
Investigate how energy poverty forces trade-offs (e.g., choosing between heating and buying food or medicine).
Assess community awareness about existing energy assistance programmes and their willingness to participate in energy-saving initiatives.

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Questionnaire Structure: Key Sections

SECTION 1
DEMOGRAPHICS

PURPOSE
To gather essential background information for data segmentation

Gender
Age
Country of residence
Educational level

SECTION 2
Financial Energy Challenges

PURPOSE
To assess the financial burden of energy costs on households

Arrears on utility bills
Annual family income
Portion of family income needed for energy bills

SECTION 3
Housing and Building Characteristics

PURPOSE
To evaluate housing conditions and their impact on energy use

Age of the building
Presence of thermal insulation
Insulation quality of doors and windows

SECTION 4
Energy Efficiency and Devices

PURPOSE
To measure the energy efficiency of households and their appliances

Energy efficiency of the building
Energy efficiency of devices

SECTION 5
Energy Access and Comfort

PURPOSE
To evaluate living conditions related to energy use during different seasons

Comfort level during summer
Comfort level during winter
Access to air conditioning
Access to heating

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Questionnaire Structure: Key Sections

SECTION 6
Housing Issues

PURPOSE
To identify structural problems affecting energy efficiency and comfort

Presence of leaks, damp, or rot in the dwelling

SECTION 7
Energy Costs and Affordability

PURPOSE
To determine perceptions of energy affordability.

Electricity prices
Natural gas prices

SECTION 8
Social and Economic Impact

PURPOSE
To assess the impact of energy costs on social participation and financial well-being.

Difficulty covering essential expenses (e.g., rent, food)Sacrificing social activities due to energy bills

SECTION 9
Household Composition and Space

PURPOSE
To understand household dynamics and space availability.

Ownership status of the home
Type of housing (apartment, house)
Number of people in the home
Number of rooms

SECTION 10
Type of Energy Carriers

PURPOSE
To identify the energy carriers used for various services in the household.

Heating
Domestic hot water
Cooling
Cooking
Lighting

Design Principles for the Questionnaire

- **CLARITY AND SIMPLICITY**
  Use simple, everyday language to ensure the questions are easy to understand for all respondents.
  Avoid technical jargon and long-winded questions.

- **FORMAT**
  Use a mix of multiple-choice questions (MCQs) and Yes/No options for quick responses.
  Include open-ended questions sparingly to collect detailed qualitative insights where needed.

- **LENGTH**
  Keep the questionnaire concise (10–15 minutes to complete) to avoid survey fatigue and ensure higher response rates.

- **ACCESSIBILITY**
  Design the questionnaire in both digital (online forms) and printable formats to cater to all demographics.
  Ensure mobile-friendliness for digital submissions.

- **ANONYMITY AND CONFIDENTIALITY**
  Assure respondents that their answers will remain confidential and used only for research purposes.

- **PILOT TESTING**
  Test the questionnaire with a small group to refine questions, clarify any ambiguities, and ensure smooth navigation.

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Key Indicators to Address Energy Poverty

ENERGY COST BURDEN

- Share of household income spent on energy bills (>10% is critical).
- ***Metric:*** *Percentage of households with high energy cost burdens.*

HOUSING QUALITY

- Presence of poor insulation, dampness, leaks, or mold.
- ***Metric:*** *Percentage of homes with housing deficiencies.*

ENERGY ACCESS AND RELIABILITY

- Frequency of disconnections and missed payments.
- ***Metric:*** *Percentage of households reporting utility disconnections.*

THERMAL COMFORT

- Inability to keep the home adequately warm in winter or cool in summer.
- ***Metric:*** *Households reporting thermal discomfort.*

SELF-REPORTED ENERGY POVERTY

- Perceived energy poverty.
- ***Metric:*** *Percentage of respondents identifying as energy-poor.*

HEALTH AND WELL-BEING IMPACTS

- Impact of energy poverty on physical and mental health.
- ***Metric:*** *Households reporting health-related challenges due to energy issues.*

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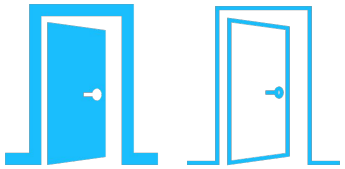
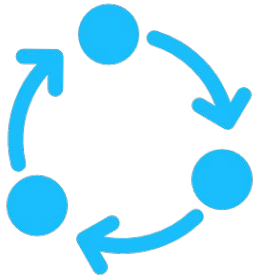
Social Engagement Strategies

WORKSHOPS & FOCUS GROUPS
Conduct meetings with residents to share concerns and validate survey findings.



DOOR-TO-DOOR ASSESSMENTS
Deploy community teams to engage households directly, ensuring higher participation rates.

LOCAL CHAMPIONS
Identify trusted local figures to promote the survey and encourage responses.



FEEDBACK LOOPS
Share results with communities and involve them in designing solutions (e.g., energy efficiency programmes).

Social Acceptance of the Survey

The success of any survey, particularly one addressing **energy poverty**, relies heavily on **social acceptance** and the willingness of individuals and communities to actively participate. Social acceptance ensures **accurate data collection**, builds trust, and fosters collaboration with target groups. Below are key aspects and strategies to achieve social acceptance of the survey:

KEY FACTORS INFLUENCING SOCIAL ACCEPTANCE

PERCEIVED PURPOSE AND BENEFITS

- Respondents must understand the clear **goal** of the survey and its benefits for their lives.
- Emphasise how the results will be used to **improve housing conditions**, reduce energy burdens, and inform future policy.

ACCESSIBILITY AND SIMPLICITY

- Design the survey to be clear, easy to understand, and available in multiple formats (digital, paper-based, and in multiple languages if necessary).

COMMUNITY INVOLVEMENT

- Engage local community leaders, municipalities, and trusted figures to promote the survey.
- Use **“local champions”** who can encourage participation and explain the importance of the survey in everyday language.

TRANSPARENCY

- Be transparent about **how the data will be used**, stored, and shared. Assure respondents that their information will remain anonymous and confidential.

CULTURAL SENSITIVITY

- Respect local customs, languages, and traditions when designing and distributing the survey.
- Tailor questions to fit the **context** of the community.

ENGAGEMENT THROUGH AWARENESS CAMPAIGNS

- Run local campaigns using simple posters, flyers, and social media to spread awareness about the survey and its benefits.

Strategies to Ensure Social Acceptance

CO-CREATE WITH LOCAL STAKEHOLDERS

- Involve local authorities, NGOs, and community leaders during the survey design phase. Their input increases credibility and acceptance.
- Organise workshops or focus groups to explain the survey's purpose and gather suggestions for improvement.

CLEAR AND TRANSPARENT COMMUNICATION

- Use simple, non-technical language when explaining the survey. Highlight:
  - What the survey aims to achieve.
  - How it will **positively impact** respondents' lives.
  - Assurances that the survey is confidential and voluntary.

ENGAGE LOCAL CHAMPIONS AND AMBASSADORS

- Identify trusted local figures (community leaders, teachers, municipal officers) who can promote the survey and build trust.
- They act as intermediaries to encourage participation among reluctant or hard-to-reach groups.

MULTI-CHANNEL DISTRIBUTION

- **Online** (accessible on mobile devices).
- **Door-to-door** visits (trained teams engage directly with households).
- **Paper-based versions** for households with limited internet access.

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