

**CAUSES
AND
CONSEQUENCES
OF
ENERGY POVERTY**

1

ENERGY POVERTY IN EUROPE.
CAUSES FUELING THE CRISIS

1.1

ECONOMIC FACTORS

LOW-INCOME LEVELS

HOUSEHOLDS WITH LOW INCOME STRUGGLE TO AFFORD ENERGY COSTS

Households with lower incomes face significant challenges in meeting their basic energy needs, such as heating, cooling, and electricity. This situation arises because their limited financial resources make it difficult to keep up with recurring energy costs, which are often substantial to their income. For these households, the trade-offs are harsh, as they may have to cut back on other essentials like food or healthcare to afford energy. Energy poverty is particularly severe in this group, contributing to poor living conditions and diminished quality of life.

HIGH ENERGY PRICES

RISING ENERGY PRICES OUTPACE INCOME GROWTH, INCREASING THE BURDEN ON HOUSEHOLDS

Rising energy costs, whether due to global market fluctuations or regional policies, disproportionately affect households, particularly those with stagnant or slow-growing incomes. When energy prices increase faster than household incomes, energy costs consume a larger share of the household budget. This scenario puts pressure on families, forcing them to allocate more money towards energy bills, often at the expense of other vital expenditures, further exacerbating economic hardship.

UNEMPLOYMENT

UNEMPLOYMENT LEADS TO REDUCED HOUSEHOLD INCOME, IMPACTING ENERGY AFFORDABILITY

Joblessness reduces household income and significantly affects a family's ability to afford basic services, including energy. With limited or no income, unemployed individuals and their families struggle to cover the costs of heating, electricity, and other essential energy services. Prolonged periods of unemployment often lead to energy debts, disconnections, and increased reliance on social safety nets or government support to meet basic energy needs.

ECONOMIC INEQUALITY

WIDENING INEQUALITY LEAVES DISADVANTAGED GROUPS UNABLE TO AFFORD ADEQUATE ENERGY

The growing divide between different socioeconomic groups exacerbates energy poverty. In societies with widening income inequality, low-income households are often left behind in accessing affordable and reliable energy. Wealthier households may have access to better housing and energy-efficient technologies, while disadvantaged groups face poor insulation, outdated heating systems, and higher relative energy costs. As a result, the gap in energy affordability and consumption worsens, deepening the divide in living standards.

ENERGY MARKET DEREGULATION

MARKET LIBERALISATION CAN LEAD TO PRICE VOLATILITY AND HIGHER CONSUMER COSTS

The deregulation of energy markets, often aimed at promoting competition and lowering prices, can have unintended consequences. In some cases, liberalisation leads to price volatility as market forces dictate energy costs, and without solid consumer protections, households may end up paying higher rates. Additionally, deregulated markets can create complexities in pricing structures that disproportionately affect vulnerable households, who may lack the knowledge or ability to navigate competitive energy markets, leading to higher energy bills and uncertainty in energy costs.

INFLATION

GENERAL INFLATION, ESPECIALLY IN ENERGY COMMODITIES, REDUCES PURCHASING POWER

Inflation, particularly in energy commodities such as oil, gas, and electricity, erodes the purchasing power of households. As prices rise, families are forced to spend more on energy to maintain the same level of consumption. This effect is especially pronounced for low- and middle-income households, where energy takes up a larger share of their total budget. The cumulative impact of inflation on energy costs can lead to energy poverty, where households struggle to afford adequate heating, cooling, or lighting, thereby affecting their overall well-being and standard of living.

1.2

INFRASTRUCTURE DEFICITS

POOR HOUSING QUALITY

INEFFICIENT BUILDINGS WITH POOR INSULATION LEAD TO HIGHER ENERGY CONSUMPTION

Homes that are poorly constructed or inadequately insulated often require more energy to maintain comfortable indoor temperatures, whether for winter heating or summer cooling. Inefficient buildings, particularly those lacking proper insulation, leak heat in the cold months and fail to keep out heat during warmer periods. As a result, residents are forced to consume more energy to compensate for these losses. This leads to higher utility bills and increased energy demand, especially in older or low-income housing stock, where retrofits are unavailable or unaffordable. Without energy-efficient solutions, households are trapped in a cycle of high energy consumption and rising costs.

OUTDATED ENERGY INFRASTRUCTURE

AGING INFRASTRUCTURE CAN RESULT IN HIGHER COSTS AND LESS RELIABLE ENERGY SUPPLY

In many areas, especially in older cities or less developed regions, the energy infrastructure is ageing and needs modernisation. Outdated power grids, inefficient transmission systems, and deteriorating pipelines contribute to energy inefficiencies, including frequent power outages, transmission losses, and higher operational costs. These costs are often passed on to consumers, leading to higher energy bills. Additionally, older infrastructure is less capable of integrating modern, renewable energy sources, limiting the availability of affordable, clean energy. The lack of a reliable energy supply can have widespread social and economic consequences, particularly in areas where infrastructure investments are long overdue.

RURAL ISOLATION

REMOTE RURAL AREAS OFTEN HAVE LESS ACCESS TO ENERGY NETWORKS AND HIGHER ENERGY COSTS

Remote and rural areas often suffer from limited access to central energy networks, making energy supply less reliable and more expensive. Rural isolation results in fewer energy providers and less competition, which can drive up consumer costs. Moreover, these areas may rely on outdated energy delivery systems, such as local generators or biomass, which tend to be less efficient and more expensive than centralised networks. Transporting energy to these isolated regions also adds to the overall cost, ultimately passed on to the consumer. Consequently, rural residents face both higher energy prices and reduced access to modern, efficient energy services, further exacerbating energy poverty in these regions.

LACK OF ENERGY RENOVATION PROGRAMMES

INSUFFICIENT GOVERNMENT PROGRAMMES TO IMPROVE ENERGY EFFICIENCY IN HOMES

Many countries face a shortfall in government-led initiatives designed to promote energy efficiency, particularly for low-income households. When properly implemented, such programmes provide financial incentives, subsidies, or technical assistance to improve the energy performance of homes through insulation, modern heating systems, or energy-efficient appliances. However, in places where these programmes are underfunded or unavailable, households are left with outdated, inefficient energy systems that consume more energy and generate higher costs. The absence of support for energy-saving measures means that many homes, especially those inhabited by vulnerable populations, remain energy-inefficient, resulting in long-term financial strain on households and higher overall energy consumption.

1.3

POLITICAL & GOVERNANCE ISSUES

LACK OF GOVERNMENT SUPPORT INSUFFICIENT SUBSIDIES OR SOCIAL SUPPORT FOR LOW-INCOME HOUSEHOLDS

Government interventions, such as subsidies or social assistance programmes, are crucial in alleviating the burden of energy costs for low-income households. However, when governments fail to provide sufficient financial support, vulnerable populations are left to cope with high energy bills independently. Without targeted assistance, such as grants for home insulation or rebates for energy-efficient appliances, low-income households are more likely to experience energy poverty. Insufficient government support can worsen the socioeconomic divide and leave many households in a cycle of unaffordable energy costs, pushing them into further financial hardship.

INCONSISTENT ENERGY POLICIES FREQUENT CHANGES IN ENERGY POLICIES CREATE UNCERTAINTY AND DISCOURAGE INVESTMENT IN ENERGY EFFICIENCY

A lack of stable and coherent energy policies creates uncertainty for consumers and investors, particularly in terms of energy efficiency and renewable energy. Frequent changes in government regulations, policies, or incentives for renewable energy projects or energy-saving initiatives can discourage long-term investments. This uncertainty may deter households from investing in energy-efficient upgrades, such as insulation or modern heating systems, due to unclear future benefits or changes in financial support. The lack of a consistent, long-term vision in energy policy leaves both consumers and businesses in a state of confusion, ultimately delaying the transition to more efficient and affordable energy systems.

INADEQUATE REGULATION

POOR REGULATION OF ENERGY MARKETS CAN LEAD TO EXPLOITATION AND HIGHER PRICES

Poor regulation of energy markets can lead to situations where companies prioritise profit over consumer welfare, resulting in higher energy prices and reduced service quality. Without proper oversight, monopolistic practices can emerge, allowing energy providers to set higher prices with little competition, particularly in regions with limited alternative sources of energy. Inadequate regulation can also prevent the implementation of consumer protections that shield vulnerable households from disconnections or excessively high bills. Effective regulation is critical for ensuring fair pricing, preventing exploitation, and promoting investments in energy efficiency and renewable energy, which can reduce long-term costs for consumers.

INSUFFICIENT RES INTEGRATION

SLOW ADOPTION OF RENEWABLES CAN LIMIT ACCESS TO AFFORDABLE, CLEAN ENERGY

The slow adoption of renewable energy technologies, such as solar, wind, and hydropower, limits the availability of affordable, sustainable energy. Renewable energy sources often have lower long-term costs than fossil fuels, and their integration into national grids can help stabilise prices by reducing reliance on volatile international energy markets. However, delays in transitioning to renewable energy are often due to political inertia, lack of investment, or inadequate infrastructure to support these technologies. Without a concerted effort to integrate renewables, countries remain dependent on costly and environmentally damaging fossil fuels, leading to higher consumer energy prices and exacerbating energy poverty.

1.4

ENVIRONMENTAL FACTORS

CLIMATE CHANGE

INCREASED ENERGY DEMAND DURING EXTREME WEATHER EVENTS CAN STRAIN THE SYSTEM AND RAISE COSTS

Climate change is driving more frequent and severe weather events, such as heatwaves, cold snaps, and storms. These extreme conditions lead to higher energy consumption as households and businesses increase their use of heating and cooling systems to maintain comfortable indoor environments. This spike in demand places additional stress on the energy grid, often leading to higher energy prices due to increased operational and maintenance costs. In regions without sufficient infrastructure to handle surging demand, energy shortages or blackouts may occur, further exacerbating the issue of energy poverty, particularly for vulnerable populations who may not be able to afford the increased costs.

DEPENDENCE ON FOSSIL FUELS

HEAVY RELIANCE ON FOSSIL FUELS SUBJECTS COUNTRIES TO PRICE VOLATILITY IN GLOBAL MARKETS

Many countries remain heavily reliant on fossil fuels like oil, gas, and coal for energy production. This dependence subjects them to the volatility of global energy markets, where prices can fluctuate significantly due to geopolitical events, supply chain disruptions, or changes in global demand. When fossil fuel prices spike, the cost is passed on to consumers, often leading to increased energy poverty as households struggle to keep up with the higher bills. Furthermore, fossil fuels contribute to greenhouse gas emissions, which accelerate climate change, creating a feedback loop of rising energy demand, higher costs, and increased environmental degradation.

NATURAL DISASTERS

DISRUPTIONS FROM NATURAL DISASTERS CAN AFFECT ENERGY SUPPLY AND INFRASTRUCTURE

Natural disasters such as hurricanes, floods, earthquakes, and wildfires can cause severe damage to energy infrastructure, including power plants, transmission lines, and pipelines. These events often result in prolonged power outages and disruptions to energy supply, leading to higher costs for both repairs and energy delivery. Restoring damaged infrastructure can take time and substantial investment, and the cost is often passed on to consumers in the form of increased energy prices. In regions prone to frequent natural disasters, the cumulative effects can contribute to chronic energy insecurity, further pushing vulnerable populations into energy poverty.

1.5

**SOCIAL AND DEMOGRAPHIC
FACTORS**

AGING POPULATION

OLDER ADULTS OFTEN HAVE LOWER INCOMES AND HIGHER ENERGY NEEDS

Older adults, particularly those on fixed or limited incomes, often face significant challenges in managing energy costs. As people age, their energy needs tend to increase due to longer periods spent indoors and a greater need for heating during colder months to maintain their health and comfort. At the same time, many elderly individuals experience a decline in income, particularly those reliant on pensions or savings, making it harder to afford the energy they need. This can lead to difficult choices between essential needs, such as food or healthcare, and adequate heating or cooling, which can worsen their health and overall quality of life.

SINGLE-PERSON HOUSEHOLDS

SINGLE-PERSON HOUSEHOLDS OFTEN FACE HIGHER PER CAPITA ENERGY COSTS

Single-person households often bear a disproportionate share of energy costs compared to multi-person households. This is because energy consumption for essential services such as heating, cooling, lighting, and appliances is primarily fixed, regardless of the number of occupants. As a result, the per capita energy expenditure is higher for individuals living alone, making it harder for them to economise on energy use. For those on limited incomes, such as elderly people living alone or single individuals in lower-income brackets, this can lead to energy poverty, where they struggle to afford the energy needed for a comfortable living environment.

URBANISATION

RAPID URBANISATION CAN STRAIN EXISTING ENERGY INFRASTRUCTURE

The rapid growth of urban areas, particularly in developing regions, can strain existing energy infrastructure immensely. As cities expand, the demand for energy increases dramatically, often outpacing the capacity of current energy grids and supply systems. This can result in overloaded grids, frequent blackouts, and higher energy costs as utilities struggle to meet demand. Additionally, the rapid influx of people into urban areas can lead to energy shortages and uneven distribution, leaving newly urbanised populations without reliable access to affordable energy. Urbanisation can also exacerbate social inequalities, as wealthier areas may receive more stable energy services, while low-income or informal settlements are left with inadequate infrastructure.

MIGRATORY PATTERNS

INFLUX OF MIGRANTS CAN INCREASE DEMAND AND STRAIN RESOURCES IN CERTAIN AREAS

Large-scale migration, whether driven by economic opportunities, conflict, or environmental factors, can significantly impact local energy systems. In areas experiencing a high influx of migrants, the sudden increase in population can place additional pressure on energy resources and infrastructure, leading to shortages and increased costs. This is especially true in regions where infrastructure is already underdeveloped or strained. Migrants may settle in areas with limited access to energy, such as informal settlements or rural areas, further intensifying competition for already scarce resources. This can create challenges in energy distribution, leading to increased prices and reduced access to reliable energy for both local residents and new arrivals.

1.6

TECHNOLOGICAL FACTORS

ENERGY-INTENSIVE INDUSTRIES

HIGH DEMAND FROM ENERGY-INTENSIVE INDUSTRIES CAN DRIVE UP COSTS FOR HOUSEHOLDS

Specific industries, such as manufacturing, mining, and heavy industry, consume vast amounts of energy to operate. In regions where these energy-intensive industries are prominent, the high demand they create can increase household energy prices. This is because energy providers often need to scale up production or invest in additional infrastructure to meet industrial demands, costs which are then passed on to consumers. In some cases, energy-intensive industries may receive preferential pricing, while households, particularly low-income ones, face higher energy bills as a result of this uneven distribution of energy resources.

SLOW ADOPTION OF TECHNOLOGIES

DELAY IN ADOPTING NEW TECHNOLOGIES KEEPS ENERGY CONSUMPTION HIGH

Technologies designed to reduce energy consumption, such as energy-efficient appliances, LED lighting, and smart thermostats, have the potential to significantly lower energy use and costs. However, the slow adoption of these technologies, particularly in lower-income households or older buildings, results in continued high levels of energy consumption. Several barriers to the widespread adoption of energy-saving technologies include high upfront costs, lack of awareness, or inadequate government incentives. As a result, many households are stuck using outdated, inefficient appliances and systems, leading to higher energy consumption and expenses over time.

1.7

**MARKET AND SUPPLY CHAIN
ISSUES**

SUPPLY CHAIN DISRUPTIONS

INTERRUPTIONS IN THE ENERGY SUPPLY CHAIN, DUE TO POLITICAL OR ECONOMIC REASONS, CAN CAUSE PRICE HIKES

The energy supply chain, which includes everything from fuel extraction and transportation to power generation and distribution, is vulnerable to a variety of disruptions. Political instability, economic sanctions, labor strikes, and natural disasters can all interrupt the supply of essential energy resources. When disruptions occur, energy companies may face higher costs to secure alternative supplies or repair damaged infrastructure. These costs are frequently passed on to consumers in the form of higher energy bills. Supply chain disruptions can also cause shortages, further driving up prices and reducing access to affordable energy, particularly in regions heavily dependent on a single source or route of energy supply.

CROSS-BORDER ENERGY DEPENDENCE

DEPENDENCE ON ENERGY IMPORTS FROM OTHER COUNTRIES CAN LEAD TO PRICE FLUCTUATIONS AND INSECURITY

Many countries rely heavily on energy imports from neighboring or distant countries to meet their domestic energy needs. While cross-border energy trade can provide a reliable supply under stable conditions, it also makes countries vulnerable to price fluctuations and supply disruptions due to external factors. Changes in international energy markets, diplomatic tensions, or geopolitical conflicts can all affect the availability and price of imported energy. This dependence on foreign energy sources can lead to volatile prices and energy insecurity, especially during times of political or economic instability, which can severely impact households' ability to afford consistent and reliable energy.

2

**THE SILENT STRAIN.
UNVEILING THE HEALTH TOLL
OF ENERGY POVERTY**

2.1

PHYSICAL HEALTH IMPACTS

RESPIRATORY DISEASES

INCREASED EXPOSURE TO COLD AND DAMP ENVIRONMENTS CAN EXACERBATE RESPIRATORY CONDITIONS

Living in cold and damp environments significantly increases the risk of developing or worsening respiratory conditions such as asthma, bronchitis, and other lung diseases. Poor heating often results in excess moisture in homes, which promotes the growth of mold and dust mites—both of which are known to trigger or exacerbate respiratory problems. Prolonged exposure to these conditions, especially in children and the elderly, can lead to chronic respiratory issues, reducing overall quality of life and increasing healthcare costs

CARDIOVASCULAR DISEASES

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

Cold homes contribute to a higher incidence of cardiovascular diseases, including heart attacks and strokes. The body's natural response to cold—such as constricting blood vessels to conserve heat—can increase blood pressure and strain the heart. For individuals with pre-existing conditions like hypertension or heart disease, cold or heat exposure can trigger serious events. Cold stress is particularly harmful to elderly people, whose bodies are less capable of adjusting to temperature changes, leading to an increased risk of cardiovascular issues.

CHRONIC ILLNESSES

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

Long-term exposure to cold environments not only worsens chronic respiratory and cardiovascular illnesses but can also aggravate conditions such as arthritis, diabetes, and other health problems. Cold can induce pain and discomfort in individuals suffering from joint or muscle issues, reducing mobility and overall quality of life. Chronic exposure to low temperatures also weakens the immune system, making people more susceptible to infections and illnesses.

INCREASED MORTALITY RATES

ENERGY POVERTY IS ASSOCIATED WITH HIGHER MORTALITY RATES DURING WINTER MONTHS

There is a link between energy poverty and higher mortality rates during winter months, particularly in regions with colder climates. The inability to afford adequate heating leads to cold-related deaths, especially among the elderly, infants, and those with pre-existing health conditions. Cold stress puts additional strain on the body, increasing the likelihood of fatal outcomes, such as heart attacks or respiratory failure. Winter mortality rates are significantly higher in energy-poor households, highlighting the critical health risks posed by inadequate heating.

2.2

MENTAL HEALTH IMPACTS

STRESS AND ANXIETY

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

The financial burden of high energy bills, combined with the challenge of maintaining a warm home, creates constant stress for those living in energy poverty. Households, especially those with lower incomes, often struggle to balance essential needs like food and healthcare with energy costs. This financial pressure leads to chronic anxiety about being able to meet basic living standards, and the worry about potential utility disconnections can further heighten stress levels. Over time, this financial strain significantly affects mental well-being, contributing to persistent feelings of insecurity and emotional distress.

DEPRESSION

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

Living in cold, damp, and uncomfortable conditions has been linked to higher rates of depression. The physical discomfort of inadequate heating or cooling, combined with the stress of financial strain, often leads to feelings of hopelessness and despair. This is particularly true in households where there seems to be no clear solution to escape energy poverty. Prolonged exposure to these conditions, without relief, worsens depressive symptoms, leading to a diminished sense of well-being and, in some cases, clinical depression.

SOCIAL ISOLATION

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

Energy poverty often prevents individuals from engaging in normal social interactions. People living in cold, poorly heated homes may feel embarrassed or uncomfortable inviting friends and family over, leading to a sense of social exclusion. As the home environment becomes less welcoming due to inadequate heating, people may withdraw from social activities and avoid interactions that would otherwise improve their emotional and psychological well-being. This isolation can further contribute to loneliness and exacerbate mental health issues, particularly among the elderly or those living alone.

COGNITIVE DECLINE

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

Cold-induced stress and poor living conditions have a particularly adverse effect on older adults, who may experience a decline in cognitive functions such as memory, attention, and decision-making. Living in stressful, cold environments places an additional cognitive load on the elderly, who may already be dealing with age-related cognitive impairments. The constant stress from trying to cope with poor living conditions can accelerate cognitive decline, contributing to conditions like dementia and Alzheimer's disease.

2.3

CHILDHOOD HEALTH IMPACTS

IMPAIRED DEVELOPMENT

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

Children growing up in energy-poor households are at higher risk of experiencing delayed physical and cognitive development. Cold and damp environments can lead to poor overall health, affecting their ability to grow and thrive. Inadequate heating and poor indoor air quality weaken children's immune systems, making them more susceptible to illnesses. The early years of a child's life are critical for development, and living in energy-poor conditions can have long-term effects on both physical growth and educational outcomes.

INCREASED ABSENTEEISM FROM SCHOOL

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

Children living in cold homes are more likely to suffer from frequent illnesses like colds, respiratory infections, and flu. As a result, they may miss more school days due to poor health. Absenteeism disrupts their education and makes it harder for them to keep up with their peers academically. In the long term, consistent absences from school can have lasting effects on a child's academic performance and future opportunities. Energy poverty can, therefore create a cycle where poor living conditions directly impact a child's education and ability to break out of poverty.

2.4

ELDERLY HEALTH IMPACTS

REDUCED MOBILITY

COLD CONDITIONS CAN EXACERBATE ARTHRITIS AND OTHER CONDITIONS THAT LIMIT MOBILITY

Cold conditions can significantly worsen conditions like arthritis and other musculoskeletal disorders, limiting mobility in older adults. The cold stiffens joints and muscles, making movement more painful and difficult. This can lead to a decrease in physical activity, further weakening muscles and exacerbating mobility issues. Reduced mobility not only affects the ability to move around the home but also contributes to isolation, as elderly individuals may be less likely to go outside or engage in social activities due to discomfort or fear of injury.

COGNITIVE IMPAIRMENT

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

Living in consistently cold environments can negatively affect cognitive function in the elderly, leading to or worsening cognitive impairments such as memory loss, confusion, and diminished mental sharpness. Cold-induced stress can also exacerbate pre-existing conditions like dementia or Alzheimer's disease. Older adults, who are already at risk for cognitive decline, experience additional strain from living in uncomfortable conditions, which impairs their ability to think clearly and make decisions. This combination of physical and mental stress can accelerate cognitive deterioration, reducing the quality of life and independence of elderly individuals.

2.5

**OVERALL COMMUNITY HEALTH
IMPACTS**

INCREASED PRESSURE ON HEALTHCARE SERVICES

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

Energy poverty leads to higher rates of illness due to cold and unhealthy living conditions, placing significant strain on healthcare systems. Hospitals and healthcare providers experience increased demand for services, particularly during winter when cold-related illnesses, such as respiratory infections, hypothermia, and cardiovascular issues, surge. This extra burden can overwhelm already stretched healthcare services, leading to wait times and increased costs longer. The constant influx of patients with preventable illnesses related to energy poverty also diverts resources from other healthcare needs.

POOR NUTRITIONAL OUTCOMES

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

Households facing high energy bills often have to make difficult trade-offs between heating their homes and buying sufficient or nutritious food. This "heat or eat" dilemma is especially pronounced in low-income households, where energy costs consume a disproportionate share of the budget. Families may cut back on food, leading to malnutrition and poor dietary health, particularly in children and the elderly. Malnutrition weakens the immune system, making individuals more susceptible to illness, and exacerbates the physical health impacts of living in cold, energy-poor environments.

WORSENERD HEALTH INEQUALITIES

ENERGY POVERTY EXACERBATES EXISTING HEALTH INEQUALITIES ACROSS DIFFERENT SOCIAL GROUPS

Energy poverty exacerbates existing health inequalities, disproportionately affecting marginalised and low-income social groups. Vulnerable populations, such as the elderly, single-parent households, and migrant communities, are more likely to live in poorly insulated homes and face higher energy costs, which worsens their health outcomes compared to more affluent groups. These disparities reinforce cycles of poverty and ill health, as disadvantaged groups suffer more from the physical and mental impacts of living in cold, unhealthy conditions. This unequal burden contributes to broader social and economic inequalities in communities.

INCREASED DOMESTIC ACCIDENTS

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

The use of unsafe heating methods, such as open fires, portable gas heaters, or old, faulty electrical appliances, is more common in energy-poor households that cannot afford modern, safe heating systems. These makeshift solutions increase the risk of domestic accidents, including burns, carbon monoxide poisoning, and fires. Additionally, the lack of proper heating can lead to the use of flammable materials or unsafe behaviors to stay warm, further increasing the risk of injury. These accidents not only pose immediate health risks but also contribute to long-term financial and emotional burdens on families.

3

BEYOND THE BILLS.
THE FAR-REACHING EFFECTS
OF **ENERGY POVERTY**

3.1

ECONOMIC IMPACTS

INCREASED FINANCIAL BURDEN

HOUSEHOLDS MAY DIVERT MONEY FROM OTHER ESSENTIALS TO PAY FOR ENERGY

Energy poverty forces households, particularly low-income ones, to allocate a disproportionate share of their income to energy costs. As energy bills rise, families may have to divert funds from other essential needs, such as food, healthcare, education, or transportation, to cover the costs of heating, cooling and electricity. This creates a cycle of financial strain where households face difficult trade-offs, exacerbating overall poverty and reducing their quality of life. For many, these high energy bills result in chronic financial stress and make it harder to escape poverty in the long term.

REDUCED ECONOMIC PRODUCTIVITY

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

Living in energy poverty can affect individuals' ability to work or study effectively, especially in extreme weather conditions. Cold or excessively hot homes can lead to poor physical health, fatigue, and stress, making it difficult for people to concentrate, stay productive, or even go to work. For those who work from home, poor thermal comfort directly reduces productivity. In more severe cases, frequent illness or discomfort caused by inadequate heating or cooling may result in missed workdays, lost income, and overall lower economic output, which can negatively impact both individuals and broader economic activity.

HOUSING MARKET IMPACTS

PROPERTIES IN ENERGY-POOR AREAS MAY DECLINE IN VALUE

Properties located in areas where energy poverty is prevalent often suffer a decline in value. Homes that are energy-inefficient or located in regions with high energy costs are less attractive to buyers or renters due to the high ongoing expenses required to heat or cool them. This devaluation of property can lead to wider economic issues, such as neighborhood decline, as property owners are unable to invest in necessary improvements. Additionally, the inability to sell or rent homes at competitive prices further entrenches financial hardship for those already affected by energy poverty.

INCREASED DEBT LEVELS

HOUSEHOLDS MAY INCUR DEBT TO COVER ENERGY BILLS

Households struggling to keep up with energy costs may incur debt to avoid disconnection or to maintain a minimal level of heating or electricity. This often means borrowing money, falling behind on other bills, or entering into energy debt repayment schemes. For many, this leads to a cycle of debt that is difficult to escape, as they may continue to face high energy bills without the means to pay them off. In extreme cases, energy debt can lead to disconnections, further isolating households and deepening their financial struggles, while also affecting their creditworthiness and financial stability in the long term.

3.2

POLITICAL & GOVERNANCE IMPACTS

POLICY CHALLENGES

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

Addressing energy poverty presents significant challenges for policymakers, as they must balance the need for affordable energy with environmental goals, such as reducing carbon emissions and transitioning to cleaner energy sources. Policies that focus on sustainability, like carbon taxes or regulations to phase out fossil fuels, can inadvertently increase energy costs for low-income households, exacerbating energy poverty. On the other hand, policies aimed at keeping energy affordable, such as subsidies for fossil fuels, may hinder progress toward environmental targets. This balancing act requires nuanced policymaking that supports both social equity and environmental sustainability, such as targeted energy efficiency programmes and renewable energy access for low-income households.

PUBLIC TRUST

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

Governments' perceived inability to effectively address energy poverty can lead to a decline in public trust in institutions. Frustration builds when households, particularly low-income ones, face rising energy costs or inadequate support for affordable energy access. If government policies are seen as ineffective, inconsistent, or favouring wealthier groups, citizens may lose faith in their leaders' ability to solve pressing issues. This erosion of trust can weaken social cohesion and increase political discontent, making it harder to implement future energy reforms or gain public support for initiatives to transition to renewable energy or reduce emissions.

 **INZEB** *initialising energy balance towards zero*

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