Covenant of Mayors
for Climate & Energy
EUROPE

Reporting Guidelines on Energy Poverty

May 2022

I. INTRODUCTION

The [commitment](#) of European signatories defines the vision that by 2050, we will all be living in decarbonised and resilient cities with access to affordable, secure and sustainable energy. As part of the Covenant of Mayors - Europe movement, signatories commit to tackling energy poverty as one key action to ensure a just transition.

To support signatories in their planning and implementation efforts on energy poverty, the Covenant of Mayors Europe Office, in cooperation with the European Commission's [Join Research Centre](#) (JRC) and the [Energy Poverty Advisory Hub](#) (EPAH), and through engagement of a wide pool of practitioners, developed the energy poverty pillar of the CoM – Europe reporting and monitoring framework. The framework has been consulted with a group of city practitioners working on energy poverty. The pillar is also aligned with the recommendations of the [Global Covenant of Mayors](#).

The Covenant of Mayors Europe Office is closely collaborating with the EPAH - the leading EU initiative on energy poverty. EPAH provides a wide range of capacity building and hands-on support to local authorities across Europe, including though a dedicated Energy Poverty Helpdesk[1]. Covenant signatories are encouraged to consult the knowledge materials developed by the EPAH and approach their Helpdesk in parallel to using the Covenant framework on energy poverty. More information on the support provided by EPAH is contained in section III of these guidelines.

II. THE ENERGY POVERTY PILLAR IN THE COVENANT-EUROPE FRAMEWORK

The energy poverty pillar in the Covent – Europe reporting and monitoring framework serves as an instrument for planning and implementation of energy poverty measures. It is flexible in order to allow catering to the different needs and local circumstances of signatories. The CoM-Europe energy poverty pillar consists of: (i) goal; (ii) assessment; (iii) actions.

> To allow sufficient time for planning, there will be a **transition period until the end of 2024**.
>
> During the transition period there will be no mandatory data reporting requirements for signatories. Data which will become mandatory after the end of the transition period has been marked in yellow in MyCovenant along with a disclaimer on the application of the transition period.

Goal
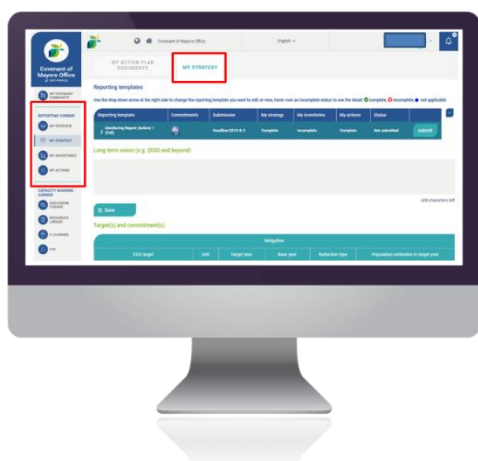
The goal on energy poverty in *MyCovenant* appears under **My strategy** in the Reporting corner > navigation tab **My strategy**.

The formulation of the goal has been aligned with the text of the commitment document: to tackle energy poverty to ensure a just transition. Signatories are to select the target year of this goal and a base year.

---

[1] See more about the Energy Poverty Helpdesk (info@energypoverty.eu) at https://energy-poverty.ec.europa.eu/get-support/helpdesk_en.

This is how the energy poverty goal appears in *MyCovenant*:

Energy poverty		
Goal	Target year	Base year
Tackle energy poverty by [select target year] to ensure a just transition.	2022 ⌄	1990 ⌄

Assessment
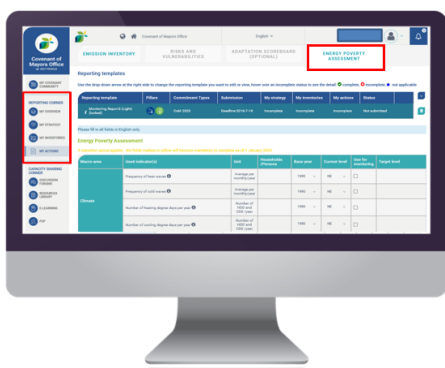
The assessment on energy poverty in *MyCovenant* appears under **My inventories** in the Reporting corner > navigation tab **Energy Poverty Assessment**.

The assessment contains a list of over 20 indicators, grouped in five macro-areas: climate, facilities/housing, mobility, socio-economic aspects, policy and regulatory framework, participation and awareness raising. A generic definition is included for each indicator, visible when hovering over the ⓘ symbol, along with the unit for the indicator.

The indicators in the energy poverty pillar have been collected and further developed through a series of exchanges with city practitioners and partners (JRC, EPAH and its predecessor the Energy Poverty Observatory), Eurostat, from various academic sources and available methodologies.

> Signatories are encouraged to use **as many indicators as they find relevant**.
>
> One indicator - Percentage of population or households spending up to *[specify value]* % of their income on energy services (marked in yellow in MyCovenant) and linked to the GCoM's reporting framework will become obligatory to complete after the end of the transition period.

For the indicator(s) that signatories found relevant, the following values need to be provided:
- Selection if the indicator applies to households or persons (if applicable);
- Base year, from a drop-down list;
- Current level, from a drop down list (if applicable); by default the notation key 'NE' (not estimated) is displayed.

There is also the possibility to select if the indicator for which data has been provided will be used for monitoring (by checking the monitoring box). In the case the monitoring box is checked, in the next monitoring period, the signatory needs to fill in the 'Target level' filed. This will allow to track progress over time and compare with the initially selected base year.

This is how the energy poverty assessment appears in *MyCovenant*:

Macro-area	Used indicator(s)	Unit	Households /Persons	Base year	Current level	Use for monitoring	Target level
Climate	Frequency of heat waves ⓘ	Average per monthly/year		1990 ˅	NS ˅	☐	
	Frequency of cold waves ⓘ	Average per monthly/year		1990 ˅	NS ˅	☐	
	Number of heating degree days per year ⓘ	Number of HDD and CDD /year		1990 ˅	NS ˅	☐	
	Number of cooling degree days per year ⓘ	Number of HDD and CDD /year		1990 ˅	NS ˅	☐	
Facilities / housing	F+G+H band (EPC) dwelling / total number of dwelling ⓘ	[%]		1990 ˅	NS ˅	☐	
	Energy consumption (electricity + heating) per capita / national energy consumption (electricity + heating) per capita ⓘ	[%]		1990 ˅	NS ˅	☐	
	Share of buildings renovated per year ⓘ	[%]		1990 ˅	NS ˅	☐	
	Share of households / population with presence of leak, damp, rot in their dwelling / total households or population ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	Percentage of households / persons within the municipality experiencing heating discomfort ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	Percentage of households / persons within the municipality experiencing cooling discomfort ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	Households / persons connected to the electricity grid / total households or persons ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	Households / persons connected to the gas grid / total households or persons ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
Mobility	Population / households not having access to essential services within 1 hour by walking, cycling or public transport / total population ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	People / households living more than one 1 km from nearest public transport station / number of population ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
Socio-economic	Percentage of persons / households spending up to NS% of their income on energy services ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☑	NS ˅
	Vulnerable households or persons / total households or persons ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	Arrears on utility bills / total population or households ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	Inability to keep home adequately warm ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	Inability to keep home adequately cool ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
	High share of energy expenditure in income (2M) ⓘ	[%]	Households ˅	1990 ˅	NS ˅	☐	
Policy and regulatory framework	Existence of energy poverty strategy ⓘ	Yes / No	Households ˅	1990 ˅	NS ˅	☐	
	Existing rent regulation ⓘ	Yes / No	Households ˅	1990 ˅	NS ˅	☐	
Participation / awareness-raising	Awareness-raising campaigns targeting vulnerable households ⓘ	Yes / No	Households ˅	1990 ˅	NS ˅	☐	
	Engagement and cooperation with local stakeholders on energy poverty ⓘ	Yes / No	Households ˅	1990 ˅	NS ˅	☐	

The indicators which appear by default in the energy poverty assessment have been considered widely applicable. However, throughout the process of development of indicators a much wider pool of indicators emerged. Therefore, it is possible to select additional indicators from a drop down list. Once selected, the additional indicator will be added to the assessment and the various values described above can be selected.

The complete list of indicators is contained in the annex to these guidelines.
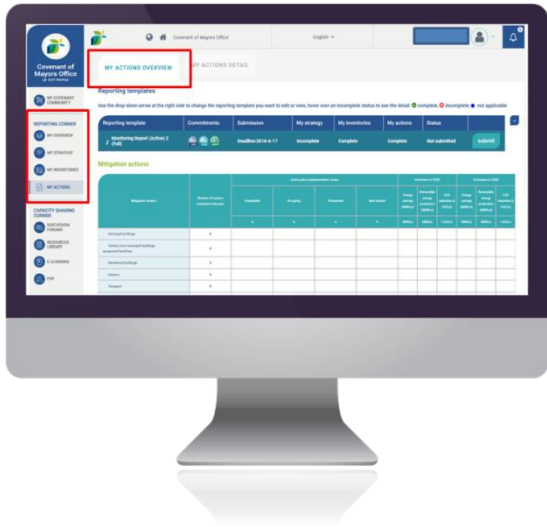
Add another indicator

Choose one indicator to add

Any comments and notes concerning the assessment and used indicators can be included in the Comments section.

Comments

˅ (click the arrow to expand or collapse)

700 characters left

Actions

The actions on energy poverty in *MyCovenant* appear under **My actions** in the Reporting corner > navigation tabs **My Actions Overview** and **Action Details.**

In the 'My Actions Overview' tab the signatory is to indicate only the approximate number of actions included in the action plan document, per macro-area. At the monitoring stage the action implementation status fields appear.

This is how the energy poverty assessment actions overview appear in *MyCovenant*:

Energy poverty macro areas	Number of actions included in the plan	Action plan implementation status				
		Completed	On-going	Postponed	Not-started	Sum
		%	%	%	%	%
Climate						0.00
Facilities / housing						0.00
Mobility						0.00
Policy and regulatory framework						0.00
Participation / awareness-raising						0.00
Socio-economic aspects'						0.00
Total	0.00					

When creating an individual action in the 'Action details' navigation tab (via the button 'Add new'), the signatory is to complete the generic information for actions which apply to any type of action irrespective if marked as mitigation, adaptation or energy poverty (e.g. title, origin, responsible body, description, implementation status, etc.).

When an action is specifically marked as 'Energy poverty' action, the following energy-poverty specific information is to be provided:
- Macro-area(s) that the action addresses;
- Vulnerable population group(s) targeted;
- Outcome(s) reached, including an indicator.

This is how the energy-poverty specific action details appear in *MyCovenant*:

Macro area(s)	
Climate	☐
Socio-economic aspects'	☐
Facilities / housing	☐
Mobility	☐
Policy and regulatory framework	☐
Participation / awareness-raising	☐

Vulnerable population group(s) targeted	
Women and girls	☐
Children	☐
Youth	☐
Elderly	☐
Marginalized groups	☐
Persons with disabilities	☐
Persons with chronic diseases	☐
Low-income households	☐
Unemployed persons	☐
Persons living in sub-standard housing	☐
Migrants and displaced people	☐
Other	☐
All	☐

Outcome(s) reached

Description	

| Outcome reached indicator	Specify indicator	Specify value	Specify unit

III. SUPPORT TO SIGNATORIES ON ENERGY POVERTY
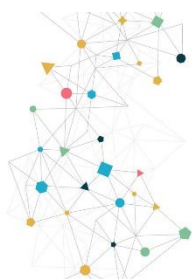
The Energy Poverty Advisory Hub (EPAH) is the leading EU initiative run by the European Commission in close collaboration with the Covenant of Mayors Europe. It is a collaborative network of stakeholders aiming to eradicate energy poverty and accelerate the just energy transition of European local governments, through empowering municipalities to take actions.

EPAH's services are designed to support local authorities to effectively tackle energy poverty. EPAH's website provides inspiration and an avenue to discover local actions on energy poverty. Different European cities, villages and towns already started to address energy poverty by adopting a local approach that fits the needs of the communities. You can read the "Tackling energy poverty through local actions – Inspiring cases from across Europe" and explore the online EPAH ATLAS to get inspired by many case studies and local measures.
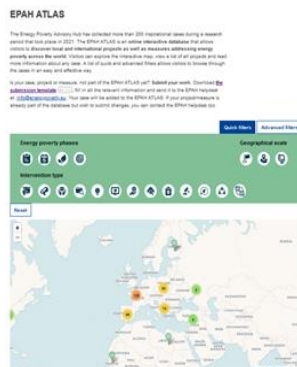
Introduction to energy poverty and the EPAH – Introductory course

The "Introduction to energy poverty and the EPAH – *Introductory course*" is a short course open to all stakeholders interested in addressing energy poverty. It provides an overview of energy poverty from a practical–political perspective.

The course is open to all, and no prerequisites are needed.

The duration is approximately one hour and is made up of six lessons divided into three modules, which can be taken individually. Participants that complete all the modules will receive a course certificate.

The course is available in English with subtitles in 21 languages. The course is offered by the Energy Poverty Advisory Hub (EPAH), the leading EU initiative run by the European Commission at the request of the European Parliament, aiming to eradicate energy poverty and accelerate the just energy transition of European local governments.

👥 **Open to all**
📅 **Available now**
🕐 **Estimated effort:** 1 hour
📍 **Alternative languages:** Bulgarian, Croatian, Czech, Danish, Dutch, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Polish, Portuguese, Romanian, Slovak, Slovenian, Spanish, Swedish

Join the course

Understanding, measuring, and monitoring energy poverty is an important step to alleviate it. For this reason EPAH provides free access to practical learning tools that can guide you in the process. Open **online training courses** enable participants to enhance skills and competences in order to develop their own approach to combat energy poverty. You will have access to information and guidance to the local indicators adopted by the Covenant Community to guide you in assessing the status of energy poverty at a local scale.

Several publications by EPAH can guide you to take concrete actions. Among these, the **three handbooks,** each dedicated to one of the main phases to develop energy poverty actions (diagnosis, planning, implementing), are developed as a practical methodology specifically for local governments with intentions on taking actions on energy poverty such as the Covenant Community.

CONTACT HELPDESK
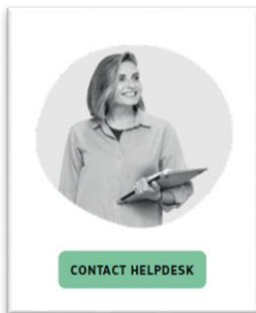
EPAH furthermore directly supports cities or municipalities who want to launch local actions on energy poverty, and need guidance. The **EPAH helpdesk**, (info@energypoverty.eu), closely linked to the central helpdesk of the Covenant of Mayors, will point you in the right direction. Moreover, you will have the chance to apply for support dedicated to municipalities. Through this support cities will be guided by expert organisations and the EPAH team to take their next step in local energy poverty planning.

ANNEX

Energy poverty indicators

Macro-area	Indicators	Description	Unit
Climate	Frequency of heat waves	Frequency of heat waves per month in a year	Average per monthly/year
	Frequency of cold waves	Frequency of cold waves per month in a year	Average per monthly/year
	Number of heating degree days per year	Heating degree day is a measurement designed to quantify the demand for energy needed to heat a building, it is based on the outside temperature where heating is needed	Number of HDD and CDD /year
	Number of cooling degree days per year	Cooling degree day is a measurement designed to quantify the demand for energy needed to cool a building, it is based on the outside temperature where cooling is needed	Number of HDD and CDD /year
Facilities / housing	F+G + H band (EPC) dwelling / total number of dwelling	Percentage of buildings with Energy Performance Certifications bands F, G and H in the municipality	[%]
	Energy consumption (electricity + heating) per capita / national energy consumption (electricity + heating) per capita	Share of municipal energy consumption per capita out of national energy consumption per capita	[%]
	Share of buildings renovated per year	Share of buildings renovated per year ouzt of total buildings	[%]
	Share of households / population with presence of leak, damp, rot in their dwelling / total households or population	Share of population / households with leak, damp or rot in their dwelling, based on question "Do you have any of the following problems with your dwelling / accommodation? a leaking roof; damp walls/floors/foundation; rot in window frames or floor.	[%]
	Percentage of households / persons within the municipality experiencing heating discomfort	Share of household / persons experiencing heating discomfort out of total households	[%]
	Percentage of households / persons within the municipality experiencing cooling discomfort	Share of household / persons experiencing and cooling discomfort out of total households	[%]
	Households / persons connected to the electricity grid / total households or persons	Share of households /persons connected to the electricity grid out of total households	[%]
	Households / persons connected to the gas grid / total households or persons	Share of households / persons connected to the gas grid out of total households	[%]
	EPC bands of dwelling higher than B	Percentage of dwellings with EPC higher than B out of total dwellings with certificate	[%]
	Households with centralised heating system / total households	Share of households with a centralised heating system out of total households	[%]
	Ownership of heating and cooling systems	Share of households with heating and cooling systems out of total households	[%]
	Number of social housing apartments/total number of apartments	Percentage of social housing apartments in total number of apartments	[%]
	Average energy demand of social housing buildings / sq.m.	Share of energy demand of social housing of median national demand	[kWh/sqm]

	Low absolute energy expenditure (M/2)	The M/2 indicator presents the share of households whose absolute energy expenditure is below half the national median, or in other words abnormally low. This could be due to high energy efficiency standards, but may also be indicative of households dangerously under-consuming energy. M/2 is a relatively new indicator that has been used in Belgian to complement other expenditure and self-reported indicators. Note: this indicator is influenced by the underlying distribution of absolute energy expenses in the lower half of households. If the median is relatively high and the distribution below very unequal, the M/2 indicator is high	[%]
	Number of households with only oil boilers, wood calefactions, conventional gas boilers	Share of households with oil boilers, wood calefactions, conventional gas boilers out of total households	[%]
	Households with centralised cooling system / total households	Share of households with a centralised cooling system out of total households	[%]
	Households with centralised cooling system older than 10 y / total households with cooling system	Share of households with a centralised cooling system older than 10 years old out of total households with centralised cooling system	[%]
	Average age of the buildings	Average age of buildings per period of construction	Years
	Dwelling ownership	Percentage of households that own the dwelling out of total households	[%]
	Over and under occupation of dwellings	Percentage of households according to number of occupants	[%]
	Percentage of households / persons within the municipality with access to clean cooking fuels and technologies	Proportion of households / persons with primary reliance on clean fuels and technology is calculated as the number of people using clean fuels and technologies for cooking, heating and lighting divided by total population reporting that any cooking, heating or lighting, expressed as percentage. "Clean" is defined by the emission rate targets and specific fuel recommendations (i.e. against unprocessed coal and kerosene) included in the normative guidance WHO guidelines for indoor air quality: household fuel combustion.	[%]
Mobility	Population / households not having access to essential services within 1 hour by walking, cycling or public transport / total population	Percentage of population / households not having access to essential services (pharmacies, food stores, health facilities) within 1h by walking, cycling or public transport out of total population	[%]
	People / households living more than one 1 km from nearest public transport station / number of population	Percentage of people / households living more than one 1 km from nearest public transport station out of total population	[%]
	The local public transport travel frequently enough, covering the essential necessities for the population	Yes or no answer to the question: "do the local public transport travel frequently enough, covering the essential necessities for the population"?	Yes / No
	Social housing apartments not having easy access to public transport (*)/ all social housing apartments	Percentage of social housing households not having easy access to public transport out of total number of social housing	[%]
	Inhabitants / households receiving support to pay public transport services/public transport users	Percentage of inhabitants / households receiving support to pay public transport services out of total public transport users	[%]
Socio-economic aspects	Percentage of persons / households spending up to XX % their income on energy services	Share of persons / households spending more than an specific percentage of their	[%]

		incomes on energy services putting them in an situation of energy poverty	
	Vulnerable households or persons / total households or persons	[This description is an example only; municipalities can define on their own] Households with lone parents, parents with more than three children, families with low income, households receiving social support, families with low level of education.	[%]
	Arrears on utility bills / total population or households	Share of (sub-) population / households having arrears on utility bills, based on question "In the last twelve months, has the household been in arrears, i.e. has been unable to pay on time due to financial difficulties for utility bills (heating, electricity, gas, water, etc.) for the main dwelling?"	[%]
	Inability to keep home adequately warm	Share of population / households not able to keep their home adequately warm.	[%]
	Inability to keep home adequately cool	Share of population / households not able to keep their home adequately cool.	[%]
	High share of energy expenditure in income (2M)	The 2M indicator presents the proportion of households whose share of energy expenditure in income is more than twice the national median share. Note: where income distributions are more equal, variance in energy expenditure translates to higher 2M shares. High variance in energy/income shares can occur due to structural differences in energy expenditure between household groups, as well as in situations where energy is often, but not exclusively, included in rent.	[%]
	Average price of electricity	Average price in [€] of the consumed electricity kwh in the municipal households	[€]
	Average price of gas	Average price in [€] of the consumed gas (m3/kwh) in the municipal households	[€]
	Energy related expenditure / local GDP	Relationship between the yearly energy cost the households and the local GDP, percentage average of the local GDP designated to the energy cost	[%]
	Citizens / households under poverty threshold / number of citizens / households	Percentage of the local population / households suffering from poverty, persons / households and families under the limit of incomes considering the family size	[%]
	At-risk-of-poverty rate	People / households at risk of poverty or social exclusion (% of population). The at-risk-of-poverty rate is the share of people with an equalized disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equalized disposable income after social transfers.	[%]
	Citizens / households with social support	Number of citizens / households receiving financial assistance from administrative institutions	[%]
	Money spent to support energy poor households or persons / in relation to local GDP	Percentage of public funds spent in support programs out of total local GDP	[%]
	Energy poor households / persons supported / total energy poor households asking for support	Percentage of energy poor households / persons that benefit from some kind of support program out of total number of households asking for support	[%]

	Energy poor households / persons supported / total energy poor households detected	Percentage of energy poor households / persons that benefit from some kind of support program out of total number of energy poor households	[%]
	Unemployment rate	The unemployment rate is a measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed individuals by all individuals currently in the labor force	[%]
	Persons aged under 12	Persons aged under 12 / total population	[%]
	Persons aged over 65	Persons aged over 65 / total population	[%]
	Persons with respiratory and circulatory problems	Persons with respiratory and circulatory problems / total population	[%]
	Persons with an education level under lower secondary school	Taking in account the International Standard Classification of education (ISCED from the Unesco) a lower education level refers to an education level under lower secondary school	[%]
Policy and regulatory framework	Existence of energy poverty strategy	Yes or no answer to the question: "Is there a energy poverty strategy"?	Yes / No
	Existing rent regulation	Yes or no answer to the question: "Are there rent regulation"?	Yes / No
	Specific measures related energy poverty	Yes or no answer to the question: "Are there energy poverty specific measures"?	Yes / No
	Existing incentives for landlord's programs	Yes or no answer to the question: "are there incentives/programs for landlords"?	Yes / No
Participation / awareness-raising	Awareness-raising campaigns targeting vulnerable households	Preventing rent increases due to energy retrofits, balancing the PRS with interest in homeownership and social housing	Yes / No
	Engagement and cooperation with local stakeholders on energy poverty	Yes or no answer to the question: "Is there engagement and cooperation with local stakeholders for energy poverty reduction"?	Yes / No

Covenant of Mayors
for Climate & Energy
E U R O P E

Part of the:
GLOBAL COVENANT
of MAYORS for
CLIMATE & ENERGY

Published by the Covenant of Mayors - Europe Office in May 2022