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# **European Energy Award catalogue of measures**

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# 1. Development & Spatial Planning

# Municipal concept and strategy

### 1.1 Climate and energy strategy and concept

The municipality has binding guiding principles comprising qualified and quantified energy and climate (neutrality) targets for local policies that are in line with or more ambitious than national targets and cover all areas of eea.

The guiding principles are concretized within the framework of a concept which is aligned with medium-term and long-term goals and strategies towards climate neutrality. It contains a quantified pathway for increasing energy sufficiency and efficiency, expanding the share of renewable energies and reducing CO2 emissions.

## 1.2 Monitoring of climate and energy reductions path

The municipality conducts regular energy and climate analyses, monitors its defined pathways with suitable quantitative indicators and updates the concept and planning accordingly.

The monitoring includes indicators in the area of (renewable) energy production and consumption (heating/cooling, process energy, electricity and mobility).

# 1.3 Climate adaptation strategy and concept

The municipality has a climate adaptation strategy and concept that gives concrete shape to its guiding principles. The concept is aligned with medium-term and long-term goals and strategies. The municipality takes appropriate action to face climate change effects, taking into account the sensitivity of the municipal territory. The actions include the monitoring with suitable qualitative and quantitative incicators. The municipality updates the concept and planning accordingly.

# 1.4 Circular economy

The municipality has a strategy/concept for reducing the consumption of resources based on a strategy of

- 1. avoidance,
- 2. reuse (2nd hand, repair),
- 3. recycling and
- 4. total utilisation of the energy potential and material recovery of non-recyclable materials (waste).

Collection and separation is carried out efficiently (optimal collection logistics). The fees reflect the polluter pays principle.

# **Municipal planning tools**

### 1.5 Spatial energy planning

The municipality has a spatial energy planning that coordinates its future energy supply for its entire territory in accordance with spatial planning and the targets of climate/energy strategy (climate neutrality) and spatial/energy planning.

### 1.6 Mobility and traffic planning

The municipality has a mobility planning that coordinates the infrastructure on the entire municipal territory for all mobility participants. The planning aims to reduce motorised private transport and to make walking, cycling and public transport attractive. It coordinates its mobility and traffic planning with its spatial planning.

# Landowners' obligations

### 1.7 Tools binding for landowners

The building regulations for landowners reflect the municipality's energy, mobility and spatial planning in keeping with the targets of climate/energy strategy (climate neutrality), spatial/energy planning and mobility/traffic planning.

## 1.8 Innovative, sustainable urban and rural development

The municipality ensures that the urban development, architectural projects, competitions and selling or granting of long-term leases for municipal land are in line with its energy, mobility and spatial planning and in keeping with the targets of climate/energy strategy (climate neutrality), spatial/energy planning and mobility/traffic planning.

# **Building approval & monitoring**

## 1.9 Legal compliance during construction processes

The municipality monitors and documents the implementation of legal requirements concerning energy efficiency and renewable energies both when issuing building permits and on-site during the construction process. Non-compliant buildings are rejected.

### 1.10 Project planning and refurbishment of buildings

The municipality monitors and documents the implementation of legal requirements concerning energy efficiency and renewable energies both when issuing building permits and on-site during the construction process. Non-compliant buildings are rejected.

# 2. Municipal buildings, facilities

# **Exemplary management and construction of public buildings**

### 2.1 Standards for the construction and management of public buildings

The municipality has a declared commitment to constructing, refurbishing and managing its buildings according to the highest energy and environmental standards and standards for a sustainable adaptation to climate change (e.g., increased demand for cooling and protection against heat in summer, ventilation, greening, seepage, reduction of sealing, etc.). The declared standards are in line with climate neutrality targets and refer to nationally and internationally recognised standards.

## 2.2 Refurbishment concept for and consumption monitoring of buildings and facilities

The municipality monitors the resource consumption (electricity, heat, cooling, water, greenhouse gas emissions) of all relevant buildings and facilities and uses the results of its monitoring activities as a basis for developing a refurbishment concept that addresses energy saving potentials and the use of renewable energies. The refurbishment concept contains medium- and long-term measures for increasing energy efficiency and the share of renewable energies in keeping with the municipality's pathway towards climate neutrality.

The municipality conducts regular energy and climate analyses, monitors its defined pathways using suitable quantitative indicators and updates its concept and planning accordingly.

### 2.3 Implementation of actions (refurbishment, optimisation, sufficiency)

Based on the refurbishment concept and the results of monitoring, both short-term (operational optimisations) and long-term measures (refurbishment measures, behavioural changes, sufficiency) are implemented.

### 2.4 Exemplary new construction or refurbishment

The municipality has completed at least one innovative full refurbishment or new construction project with regard to energy efficiency and/or renewable energies and/or climate neutrality.

## Quantitative targets for energy, efficiency and climate impact

## 2.5 Renewable energies - heating

The municipality increases the share of renewable energies in meeting its energy requirements for the heating and cooling of municipal buildings and facilities (climate neutrality).

### 2.6 Share of renewable energies - electricity

The municipality increases the share of renewable/green energies in meeting its energy requirements for supplying electricity to municipal buildings and facilities (climate neutrality).

### 2.7 Energy efficiency - heating

The municipality improves the energy efficiency of heating and cooling systems in municipal buildings.

### 2.8 Energy efficiency – electricity

The municipality improves the energy efficiency of electricity usage in municipal buildings.

### 2.9 CO<sup>2</sup> and greenhouse gas emissions

The municipality reduces CO<sup>2</sup> and greenhouse gas emissions associated with the operation of municipally owned or managed buildings. The reductions to be achieved are in keeping with the municipality's pathway towards climate neutrality.

# Street lightning and water efficiency

### 2.10 Public lighting

The municipality increases the energy efficiency and reduces the energy consumption of public lighting in public areas based on state-of-the-art analyses and technology. It continuously monitors and improves energy efficiency and consumption based on recognised indicators and indices.

### 2.11 Water efficiency

The municipality increases the water efficiency of municipal buildings.

# 3. Supply & disposal

# Enterprise strategy, supply strategy

### 3.1 Enterprise strategy of energy suppliers

The municipality ensures that energy suppliers define strategies for the municipal territory to improve energy efficiency, increase the use of renewable energies, support climate protection and optimise grid regulation for all energy supplies (natural gas/biogas, electricity, district heating).

## 3.2 Charge on energy consumption and use of revenue

The municipality levies a charge on grid-bound (non-renewable) sources of energy or uses part of the revenue from concessions, dividends, etc. to promote energy efficiency, the use of renewable energies and climate protection.

# Products, rates, customer information

### 3.3 Product and service range

The energy supplier offers a comprehensive range of services in relation to energy efficiency and the promotion of renewable sources of energy.

(Recognised examples include energy consultancy, renewable electricity products and the promotion of energy efficiency and renewable energies)

# 3.4 Sale of electricity from renewable sources on the municipal territory

The municipality increases the sale of renewable/green electricity within the municipal territory.

# 3.5 Measures to influence energy consumption

The energy supplier (in coordination with the municipality) takes measures to increase customers' awareness of and motivation for the efficient use of energy, the utilisation of renewable energies and own electricity generation.

# Local energy production within the municipal territory

### 3.6 Heating and cooling from renewable sources of energy and waste heat within the municipal territory

The municipality increases the share of renewable sources of energy and the utilisation of waste heat from industrial operations for heating, hot water and cooling systems and fully utilises this potential.

The internal use of waste heat from industrial cooling systems is promoted.

### 3.7 Electricity from renewable sources of energy within the municipal territory

The municipality supports and promotes self-consumption and the full utilisation of existing potentials for renewable electricity production within the municipal territory.

### 3.8 Cogeneration and waste heat/cooling from power generation within the municipal territory

The municipality fully utilises its potential for the heat-controlled cogeneration of electricity for heating and cooling purposes.

# **Energy efficiency of water supply**

## 3.9 Efficiency and reliability of water supply

The municipality operates municipal water supply systems (collection, treatment, distribution) at a high level of energy efficiency and a low level of water losses. It monitors water supplies and losses based on indicators and indices.

The water supplier (in coordination with the municipality) takes measures to increase customers' awareness of and motivation for the efficient use of water.

### 3.10 Management of green spaces

The municipality plans and manages its green and open spaces according to the following aspects:

- Climate protection
- High biological diversity
- Adaptation to the consequences of climate change

The municipality retains, upgrades and/or extends green and open spaces in densely populated areas.

# **Energy efficiency - waste water treatment**

# 3.11 Waste water treatment

The municipality operates municipal waste water treatment systems at a high level of energy efficiency and evaluates them based on recognised indices. The sewage gas produced by waste water treatment plants is fully utilised (for energy production or fed into the gas grid).

The potential for generating heat from waste heat (waste water collection channels, waste water treatment plant) is fully utilised.

## 3.12 Rainwater management

The municipality's rainwater management takes into account rainwater use, retention and separation as well as sewage.

## **Energy from waste**

# 3.13 Waste management and energetic use of waste

Waste (municipal waste, recyclable waste, biomass, hazardous waste) within the municipal territory is managed efficiently and in a climate-friendly manner and utilised optimally in terms of reuse, upcycling and energy.

# **4 Mobility**

# Mobility in administration

### 4.1 Mobility awareness in administration

The municipality promotes intelligent, sustainable mobility behaviours among its staff.

### 4.2 Municipal vehicles

The municipality procures its vehicles according to sustainable procurement guidelines (alternative fuels, efficient vehicles) and ensures efficient vehicle use.

# Traffic calming, parking

# 4.3 Parking space management

All public car parks, including those outside centres, are managed (price-based regulation, parking guidance systems) with a view to reducing motorised mobility.

## 4.4 Main transport axes

The municipality ensures smooth traffic flows along main axes at low speed levels in the form of resident-oriented rather than traffic-oriented management.

### 4.5 Attractive design of public spaces and speed reduction

The municipality provides attractive public spaces and implements reduced-speed and pedestrian and cycling priority zones across the entire municipal territory.

## 4.6 Municipal supply systems

The municipality supports short distances for providing access to basic supplies for the general population and promotes initiatives for efficient logistics systems for supplying the business sector.

# Non-motorised mobility

### 4.7 Network of footpaths, signage

The municipality provides an attractive and secure network of footpaths across the entire municipal territory. All key destinations are signposted.

# 4.8 Network of cycle paths, signage and parking spaces

The municipality provides a safe and attractive network of cycle paths across the entire municipal territory along with a sufficient number of safe, attractive and easily accessible bicycle parking spaces. All key destinations are signposted.

# **Public transport**

### 4.9 Quality of available public transport

The municipality ensures high-quality public transport that covers the entire municipal territory and connects with regional and national transport systems.

# 4.10 Public transport priority

The municipality ensures that public transport is given priority at critical points on the streets.

### 4.11 Multi-modal mobility

The municipality provides options for environmentally friendly multi-modal mobility and raises awareness of relevant options among the population.

# **Mobility marketing**

# 4.12 Mobility marketing in the municipality

The municipality ensures that regular, active PR and marketing activities are conducted in order to promote efficient and sustainable mobility to various target groups.

# **5 Internal Organisation**

### Internal structures

### 5.1 Human resources, organisation

The municipality ensures that the necessary human resources (in terms of both quality and quantity) are available for energy and climate protection as well as the monitoring of the eea process within the local administration.

#### 5.2 Committee

There is an eea committee/energy committee responsible for elaborating, implementing and monitoring the energy and climate concept and eea process.

# **Internal processes**

## 5.3 Integration of staff

The municipality has a defined system to sensitise and motivate its staff to implement energy and climate measures in their daily work and become role models.

### 5.4 Performance review and annual planning

The municipal energy and climate committee conducts annual reviews / monitoring of eea processes based on the defined climate reduction pathway / energy and climate policy programme. The energy policy programme is adapted based on the results of the review and monitoring process. Annual reviews are communicated both internally and externally.

## 5.5 Further training / continuous development

The municipality promotes and requires energy- and climate-relevant, target group-specific development and training for its staff and political representatives. Participation is documented.

### 5.6 Procurement

The municipality implements procurement guidelines that take into account energy (operation and production) and climate factors as well as life cycle costs.

The municipality evaluates the implementation of these guidelines.

### **Finance**

### 5.7 Budget for energy policy within the municipality's work

The municipality provides an annual budget for energy and climate policy to fund the ongoing development of basic concepts, requisite human resources, calls for experts, PR work and cooperation in order to implement resolved measures and monitor their implementation.

# 6 Communication, cooperation

# **Communication strategy**

### 6.1 Communication and cooperation concept

The municipality has a concept for planning the various communication and cooperation activities. This concept includes the communication target, the target group, the means of communication and relevant measures. The municipality defines and takes an active role in the cooperative process.

## 6.2 Model effect, corporate identity

The municipality incorporates an innovative energy and climate policy as part of its identity and communicates this commitment actively.

# **Cooperation and communication with authorities**

### 6.3 Public housing institutions

The municipality cooperates with public housing institutions and cooperatives in order to implement high standards of energy efficiency, the use of renewable energies and climate protection.

### 6.4 Other municipalities and regions

The municipality cooperates with other municipalities on issues of sustainable energy policy at a regional, national and/or international level. Synergies in measure implementation are systematically analysed and utilised.

### 6.5 Regional and national authorities

The municipality introduces energy and climate strategy at a regional and national level.

# 6.6 Universities and research

The municipality cooperates with universities and researchers in the areas of sustainable energy use, transport and climate.

## 6.7 Schools, pre-schools

The municipality cooperates with schools and pre-schools (involving students, teachers and building managers) in order to implement high standards of energy efficiency, promote the use of renewable energies, support climate protection and conduct energy projects.

# Cooperation and communication with industry, business and trade

## 6.8 Industry, businesses, trade and service providers

The municipality cooperates with industry, businesses, trade and service providers in order to implement high standards of energy efficiency, promote the use of renewable energies and support climate protection.

## 6.9 Professional investors

The municipality cooperates with professional investors in order to implement high standards of energy efficiency, promote the use of renewable energies and support climate protection.

### 6.10 Location marketing

An innovative energy and climate policy represents the most significant factor in the location marketing of environmental businesses, sustainable tourism and leisure activities. The municipality focuses on sustainable location policies and the establishment of environmentally friendly businesses and "green" commercial zones.

## 6.11 Forestry and agriculture

#### **Forestry**

The municipality supports and manages the sustainable and climate change-adapted use of forests (tree species, etc.) and protects forest services facing climate change challenges (protection against natural hazards, fire, wood production, energy wood, biodiversity, recreation areas, etc.).

#### **Agriculture**

The municipality supports and manages sustainable, organic and climate change-adapted food production within its territory and its immediate surroundings as well as on green roofs. It promotes local sales of produce.

- Organic farming, biodiversity
- Resistant crops (drought, stagnant water, etc.)
- New cultivation areas (without hazard potential)

# Communication and cooperation with residents and local multipliers

# 6.12 Working groups, participation

The municipality involves its citizens in its decision-making processes and forms working groups to initiate, support and implement energy or climate-related projects.

### 6.13 Local population

The municipality sensitises and motivates the local population to implement energy and climate measures in their decisions and to achieve sustainable living standards.

### 6.14 Multipliers (NGOs, religious institutions, associations)

The municipality sensitises and motivates multipliers to implement energy and climate measures in their decisions and to become role models.

The municipality works together with multipliers and integrates them into its activities.

## Support for private activities

### 6.15 Information centre for energy, mobility, ecology

The municipality maintains, supports or participates in an information centre to provide consultancy and advice on renewable energies, building maintenance, energy-related behavioural measures and mobility behaviours. It advises builders/constructors at the point in time that delivers the greatest scope of action within the construction process.

### 6.16 Beacon project

Private stakeholders have implemented an ambitious energy or climate project with substantial municipal support.

### 6.17 Financial support

The municipality provides financial support for energy and climate protection projects of private households, industry and trade within the municipality.

# 7 Climate Adaptation (voluntary area)

# **Principles and organisation**

### 7.1 Political principle for energy and climate

Builds on measure 1.1: Climate and energy strategy.

The municipality assures that the binding guiding principles also comprise climate adaptation aspects.

## 7.2 Climate adaptation strategy and concept

Builds on measure 1.1: Climate and energy strategy.

The municipality has a climate adaptation strategy and concept that gives concrete shape to its guiding principles. The concept and its actions are based on an analysis of local and regional climate change effects (present and future).

The concept is aligned with medium-term and long-term goals and strategies. The municipality takes appropriate action to face climate change effects, considering the sensitivity of the municipal territory.

The actions include the monitoring with suitable indicators (qualitative and quantitative). The municipality updates the actions and planning accordingly.

# 7.3 Human and financial resources, organisation

Builds on measure 5.1: Human resources, organisation and 5.1: Committee.

The municipality ensures that the necessary qualified human and financial resources are available for climate issues. There is an interdisciplinary supporting team responsible for the management and implementation of climate related issues.

## 7.2 Planning, management, implementation

# 7.4 Protection of people and property from natural hazards

The municipality knows the local risks of natural hazards and the consequences. It plans and implements measures to reduce the risks and protect people and property (e.g. buildings, infrastructure for transport, communication, energy, etc.).

## 7.5 Urban development and special planning

Builds on measure 1.5: Spatial energy planning.

The municipality plans its spatial and settlement planning with a focus on the avoidance of and adaptation to the effects of climate change (incl. natural hazard risks).

- reduced heat islands, increased air exchange,
- risk areas (flood, drought, fire, heat, sea level rise, etc.),
- rainwater management (areas for retention, seepage areas, etc.),
- building density,
- Reduction of ground sealing,

- green areas,
- etc.

The planning is based on

- the investigation of the climatic and air-hygienic situation in the municipality/region (wind conditions, temperature situation, cold air production, cold air transport, air pollution and heat risks).
- the climate adaptation strategy and concept
- the evaluation of the risks of natural hazards on municipal and regional territory.

### 7.6 Energy planning

Builds on measure 1.5: Spatial energy planning.

The municipality plans its future energy supply (heating, cooling and local electricity production) for its entire territory in accordance with the urban development and spatial planning and the targets of climate/energy strategy and spatial/energy planning. They take into account the local and regional climate change effects and their impacts on the energy supply and demand.

The planning includes methods for evaluation.

### 7.7 Tools binding for landowners

Builds on measure 1.7: Tools binding for landowners.

The building regulations for landowners reflect the municipality's urban development and spatial planning and the energy planning. They include requirements on how to face climate adaptation aspects sustainably:

- Higher demands of cooling,
- Heat protection in summer,
- Ventilation,
- Green areas,
- Roof greening,
- Seepage,
- Natural hazards,
- Reduction of sealing,
- Ftc.

### 7.8 Exemplary management and construction of public buildings

Builds on measure 2.1: Exemplary management and construction of public buildings.

The municipality has a declared commitment to constructing, refurbishing and managing its buildings according to the highest energy criteria as well as criteria for a sustainable adaptation to climate changes (e.g., increased demands of cooling, heat protection in summer, ventilation, greening, seepage, reduction of sealing, etc.) with reference to nationally and internationally recognized standards.

### 7.9 Water supply management

Builds on measure 3.9: Efficiency and reliability of water supply.

The municipality supports reliable access to water with high quality and enough quantity. The municipality has an adaptation strategy on how to face the (regional) impacts of climate change risks (drought, flooding, land-slides, etc.) on the water supply (quality and quantity of water). It creates decentralized supply (higher resilience) and disposal facilities and develops new sources of water supply and expansion of storage capacities.

The municipality considers the conflicts of water-use (energy production, agriculture, industry, potable water, fire-fighting water, tourism, shipping, etc.).

### 7.10 Creation, expansion and ecological management of green areas and open spaces

Builds on measure 3.10: Management of green spaces.

The municipality manages its green areas and open spaces based on the urban development and spatial planning to support climate protection and adaptation. It retains, upgrades and/or extends green and open spaces in densely populated areas.

- Expansion,
- Planting of (local) trees,
- Ecological cultivation; native and resistant plants,
- Reduction of sealing,
- Roof greening,
- Renaturation of rivers and streams.

The municipality enhances the biodiversity within the settlement area (green areas, aquatic areas) in view of the local/regional climate changes (e.g. management of invasive neophytes).

### 7.11 Urban drainage and management

Builds on measure 3.12: Rainwater management.

The drainage plan of the municipality is geared to the increasing demands of climate change and is continuously implemented. The following topics are part of the plan:

- Separation of rainwater and wastewater
- Promotion of infiltration of rainwater (avoidance of sealing, green roofs, dimensioning according to future rainfall patterns, etc.)
- Use of rainwater
- Protection of infrastructure to natural hazards

Optimum treatment of waste water.

## **Communication**, cooperation

# 7.12 Communication with local population

Builds on measure 6.1: Communication and cooperation concept.

The municipality sensitizes and motivates the local population to implement energy and climate measures in their decisions and to achieve sustainable living standards.

### 7.13 Sustainable Tourism, businesses

Builds on measure 6.8: Industry, businesses, trade and service providers.

The community cooperates closely with local businesses and tourism to help them better prepare for the consequences of climate change:

- Identifying possible impacts of climate change on the company and its employees
- Adapting corporate strategy to climate change (e.g., offers for sustainable year-round activities)

Definition and implementation of measures to strengthen resilience and adjustment of alignment.

### 7.14 Sustainable forestry

Builds on measure 6.11: Forestry and agriculture.

The municipality supports/manages the sustainable and climate change adapted use of forests (tree species, etc.) and secures the forest services facing climate changes (protection against natural hazards, wood production, energy wood, biodiversity, recreation areas, etc.).

### 7.15 Sustainable agriculture

Builds on measure 6.11: Forestry and agriculture.

The municipality supports/manages sustainable/organic and climate change adapted food production in the city and its immediate surroundings as well as on green roofs and promotes local sales.

- Organic farming, biodiversity
- Resistant crops (drought, stagnant water, etc.)

New cultivation areas (without hazard risks).

### 7.16 Health

The municipality has a protection and emergency plan on how to protect, inform and sensitize its population of health effects caused by climate changes and natural hazards (e.g. heat waves, floods, landslides, changed flora and fauna which leads to transmission of diseases, allergens, etc).

### 7.17 Financial support

Builds on measure 6.17: Financial support.

The municipality provides financial support for energy and climate protection and adaptation projects of private households, industry and trade within the municipality.

Examples for climate adaptation projects:

- Support of sustainable cooling for private properties
- Financial incentives for roof and facade greening

Financial incentives for the population to reduce water consumption.