


# ***Territorial Planning in Communities for Energy Neutrality***

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# Our experinces

- 1. Network of small RURAl communities for ENERgetic-neutrality, acronym RURENER proiect nr. IEE/07/547/SI2.499065; 2008-2011; Competitiveness and Innovation Framework Programme 2007-2013, Intelligent Energy Europe;**
  - 2. Towards 100% RES rural communities, acronym 100% RES-Communities, contract IEE/11/014/SI2.616363/ 2012-2015; Comisia Europeana, Competitiveness and Innovation Framework Programme 2007-2013, Intelligent Energy Europe;**
  - 3. Innovative Training in Forest Biomass for Sustainable Rural Development, Lifelong Learning Programme, Erasmus/Intensive Programmes, 2013;**
  - 4. Innovative Practices in Renewable Energies to Improve Rural Employability, IN2RURAL, Erasmus +, KA2**
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# Bacău County for CoM

[Overview](#)[Action Plan](#)

## Signatory

**12 Associated local authorities:** Slănic Moldova, Colonești, Stănișești, Plopana, Odobești, Izvorul Berheciului, Oncești, Horgești, Prăjești, Dealul Morii, Ungureni, Vultureni

**Mayor (or equivalent):** Andrei SERBAN

**Population:** 38,488 inhabitants

## Covenant status

**Date of admission:** 26 February 2013

Signature

Action Plan submitted

Results monitored

## Contact

**Main contact:** Eugen PONCOS

**Position:** Counselor- European Integration Department - Slanic Moldova

## Contact

**Main contact:** Liliana Topliceanu

Last updated at: 6 May 2015



Find a Signatory...

OK



## Download

the Covenant of Mayors text



## Latest Action Plans

**Fiume Veneto, Italy**

CO<sub>2</sub> emissions reduction target by 2020 **-21%**

**ISORELLA, Italy**

CO<sub>2</sub> emissions reduction target by 2020 **-47%**

**Postalesio, Italy**

CO<sub>2</sub> emissions reduction target by 2020 **-20%**

**Mentana, Italy**

CO<sub>2</sub> emissions reduction target by 2020 **-20%**

**Bagnolo Mella, Italy**

CO<sub>2</sub> emissions reduction target by 2020 **-40%**



## Latest Benchmarks

**MEDESANO, Italy**

# Covenant of Mayors



## The Covenant of Mayors



The [Covenant of Mayors](#) is the mainstream European movement involving local and regional authorities, voluntarily committing to increasing energy

The signatories of the Convention aim to achieve and overcome the **20% reduction of CO2 emissions** by 2020

In **2008**, following the adoption of the legislative package on climate and energy, **European Commission** launched the **Covenant of Mayors**, to sustaine and support the efforts of local authorities in implementing sustainable energy policies.

The Covenant of Mayors was considered the main European movement involving local and regional authorities which engage voluntarily to increase energy efficiency and use renewable energy sources in their territories.

15 October 2015 during a Ceremony in the European Parliament in Brussels : **the Covenant of Mayors for Climate and Energy**

## 2015: New commitments

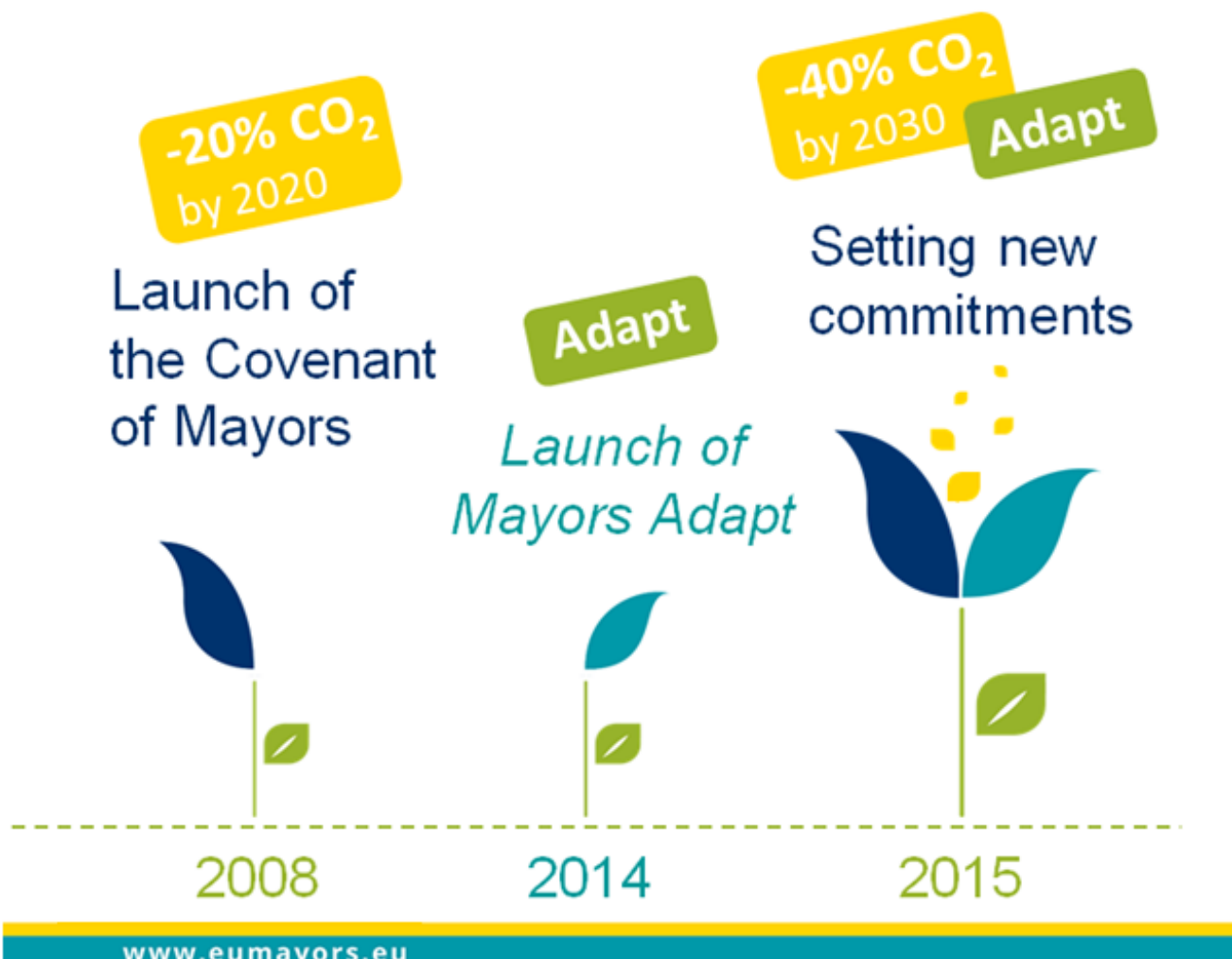
Signatories now pledge to:

- ❖ Reduce CO<sub>2</sub> emissions by at least **40% by 2030**;
- ❖ **Increase the resilience of their communities by adapting to the impacts of climate change**




- ❖ Translate their political commitment into local results by developing local **Sustainable Energy and Climate Action Plans** for 2030 and **reporting** on their implementation

# Evolution of the initiative




# Mayors Adapt integrated into the Covenant of Mayors


- ▶ The **Covenant of Mayors Initiative on Climate Change Adaptation**, known as **Mayors Adapt**, was set up by the European Commission to engage cities in taking action to adapt to climate change.
  - ▶ It was **launched in 2014 as a parallel** adaptation initiative to the Covenant of Mayors, which focused on mitigation.
  - ▶ In 2015, the European Commission **merged the two initiatives** in an effort to promote an integrated approach to climate and energy action. From 2017 onwards, adaptation and therefore the Mayors Adapt initiative, was integrated into the **Covenant of Mayors for Climate and Energy**.
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# What does adaptation mean for cities?

- ▶ **To act in parallel on two ways:**

- ❑ to reducing greenhouse gas emissions, to mitigate climate change;
  - ❑ to strengthen their resilience to the impacts of climate change.
  - ❑ **Resons:**
  - ❑ The impact of climate change affects or will afect all cities across Europe;
  - ❑ European cities are vulnerable to extreme weather events: severe floods, heat waves or exceptional storms.
  - ❑ Consequences of climate change could be severe: effects on health, damage to homes, power and water supply failures, disruption of transport, and increased energy use for heating or cooling, which exacerbates climate change and increases energy bills.
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# 10 reasons to join the Covenant of Mayors for Climate and Energy

- ▶ 1. **Gain high international recognition and visibility** for local authority's climate and energy actions.
  - ▶ 2. **Contribute to shaping the EU's climate and energy policy** being part of a key initiative relevant to the EU's climate and energy policy
  - ▶ 3. **Strengthen the credibility of their commitments** through progress review and monitoring. Ensure that the action plan is coherent by submitting it to European Commission's Joint Research Centre.
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- ▶ **4. Secure long-term support for climate and energy actions** through municipality's voluntary commitment to the Covenant of Mayors.
  - ▶ **5. Boost access to financing** for the local climate and energy projects. Gain access to financial facilities specifically targeting Covenant of Mayors signatories.
  - ▶ **6. Participate in networking events, capacity building sessions and discussions.**
  - ▶ **7. Receive tailored guidance:** expert helpdesk, methodologies and tools guide local authority through effective energy and climate action.
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- ▶ **8. Enjoy easy access to ‘excellence know-how’ and find ways to successfully implement the projects.**
- ▶ **9. Benefit from facilitated selfassessment and benchmarking** through a common monitoring and reporting template.
- ▶ **10. Get connected to national and subnational authorities.** Cooperate with and receive tailored assistance from Covenant of Mayors Coordinators and Supporters

▶ *(source: CoM web pages)*



# Covenant Coordinators

Search for a Covenant Coordinator...

Italy Signatories

101 Covenant Coordinators found.

« Previous 1 2 3 4 5 6 Next »

Covenant Coordinators	Countries	Signatories
Consorzio di Bacino Verona Due del Quadrilatero	IT	
Consorzio di Bonifica 4 Basso Valdarno	IT	1
Consorzio Oltrepo Mantovano	IT	16
Consorzio per lo Sviluppo del Basso Veronese	IT	1
ENEA Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile	IT	
Energia Calabria Network	IT	85
Province of Agrigento	IT	11
Province of Alessandria	IT	1
Province of Avellino	IT	17
Province of Benevento	IT	41
Province of Bergamo	IT	188

# Covenant Coordinators

Search for a Covenant Coordinator...

Spain Signatories

**29 Covenant Coordinators found.**

1 2 Next »

Covenant Coordinators	Countries	Signatories
Àrea Metropolitana de Barcelona	ES	
Balearic Islands Government	ES	31
Basque Energy Agency - EVE	ES	20
Cabildo Insular de Tenerife	ES	11
Consejería de Fomento, Ordenación del Territorio y Medio Ambiente. Principado de Asturias	ES	
Consejería de Medio Ambiente y Ordenación del Territorio Junta de Andalucía	ES	544
CONSEJO INSULAR DE LA ENERGÍA DE GRAN CANARIA (CIEGC)	ES	9
Consell de Mallorca	ES	3
Consorci de la Ribera (València)	ES	30
County Council of Badajoz (Diputación de Badajoz)	ES	76

# Covenant Coordinators

Search for a Covenant Coordinator...

Hungary Signatories

2 Covenant Coordinators found.

Covenant Coordinators	Countries	Signatories
ÉMI Non-Profit LLC	HU	1
South Transdanubian Regional Development Agency	HU	

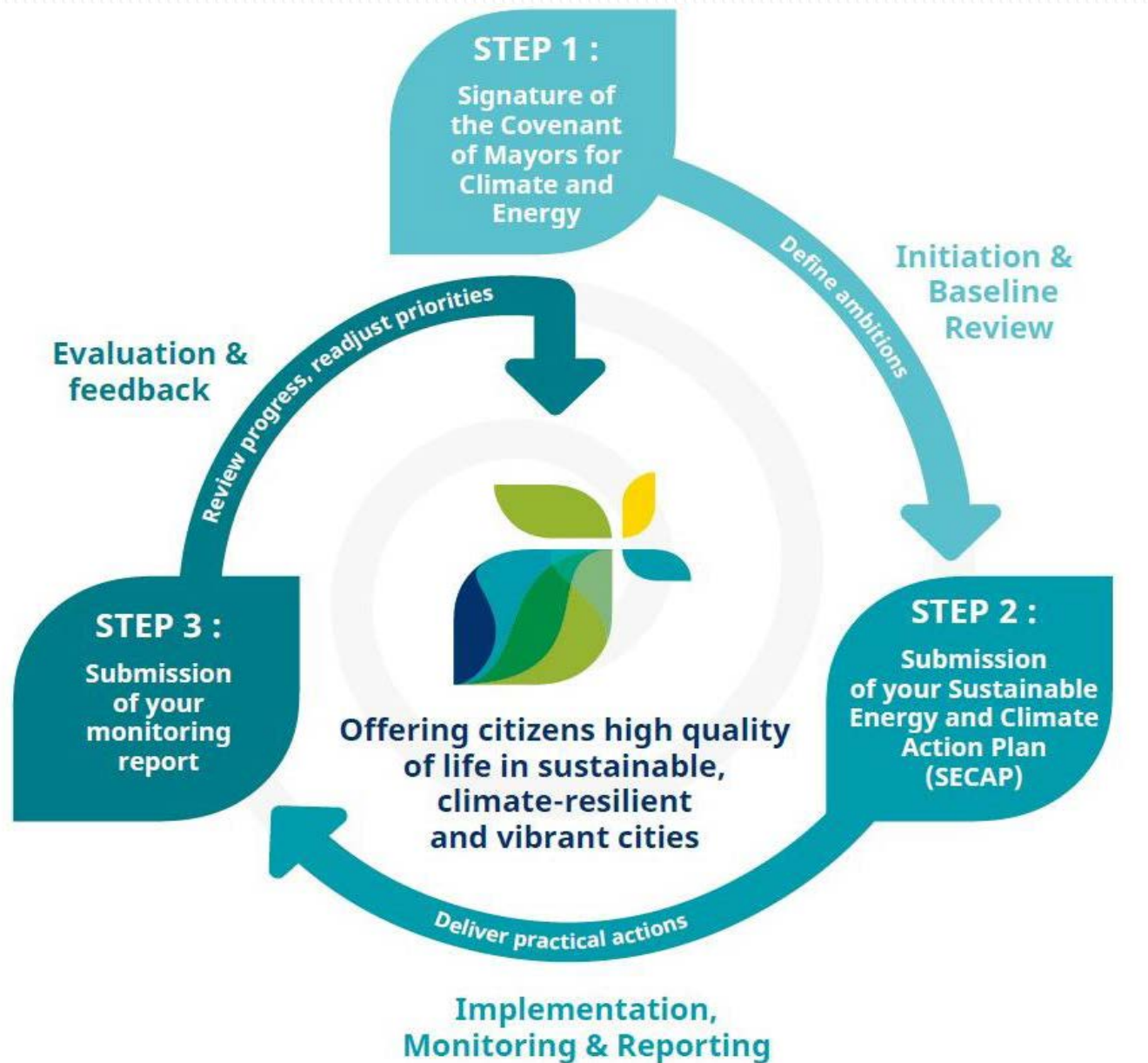
Search for a Covenant Coordinator...

Romania Signatories

2 Covenant Coordinators found.

Covenant Coordinators	Countries	Signatories
Centru Regional Development Agency	RO	8
County Council Alba	RO	14


# Steps to be part of New Covenant of Mayors




# Signature of the Covenant of Mayors for Climate and Energy

- ▶ Joining the Covenant of Mayors requires a formal political commitment. **The adhesion form needs to be signed by the Mayor or an equivalent representative of the municipal council.**
  
- ▶ **Adherence to the Covenant of Mayors implies the assumption of obligations, including:**
- ▶ - to develop adequate administrative structures with sufficient human resources to carry out the necessary actions:
  - - to communicate with stakeholders and population;
  - - to realize the Baseline inventory and Climate Risk & Vulnerability Assessment(s) (RVAs);
  - - to develop the SECAP.

# SEAP versus SECAP

- ▶ What is the difference between Sustainable Energy Action Plan (SEAP) and Sustainable Energy and Climate Action Plan (SECAP)?
  - ▶ Signatories of the former **Covenant of Mayors** addressing **only energy and climate change mitigation** have committed to prepare and implement a Sustainable Energy Action Plan (SEAP) before 2020.
  - ▶ Signatories of the new **Covenant of Mayors for Climate and Energy** now commit to prepare and implement Sustainable Energy and Climate Action Plan (SECAP), addressing **both climate mitigation and adaptation** before 2030.
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# Roll of city hall authorities - **Directions of action**

- ▶ **The Covenant signatories will take action in several or all of their possible roles:**
  - ▶ **Consumer and model:** All local authorities are responsible for their own energy consumption. At the same time, they play an exemplary role by encouraging citizens and other stakeholders to use energy more efficiently.
  - ▶ **Planner, developer and regulator:** All local authorities are usually responsible for building, transport and land use planning policies. They have the power to: optimize the energy performance of new facilities, integrate sustainable transport measures and adaptation strategies in local planning practice. They shape transport/energy performance by legal decisions and regulatory instruments.
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- ▶ **Producer and supplier:** Local authorities may also act as a local utility or service provider, promoting local energy production and using renewable energy sources (e.g. Combined Heat and Power/CHPs, district heating systems)
- ▶ **Advisor and motivator:** Awareness-raising activities are important to engage the whole community to support sustainable energy and climate policies. Local authorities can act as advisor and educator for citizens and other stakeholders (e.g. architects, planners or craftsmen).

# SECAP Eligibility Criteria – the minimum requirements

- ▶ -The action plan must be approved by the Municipal Council or equivalent body –it has to be sent within two years following the formal signing.
- ▶ - The action plan must clearly specify the Covenant mitigation (i.e. at least 40% CO2 emission reduction by 2030) and adaptation commitments.
- ▶ - The action plan must be based on the results of Baseline Emission Inventory (BEI) and Climate Risk & Vulnerability Assessment(s) (RVAs).
- ▶ - For mitigation, the action plan must cover the key sectors of activity (Municipal, Tertiary, Residential and Transport):
  - - The Baseline Emission Inventory must cover at least three out of four key sectors.
  - - The mitigation actions must cover at least two out of four key sectors.

# Sustainable Energy and Climate Action Plan Template

- It is an excel document with several worksheets..
- Home page**

Template Structure		Minimum Reporting Requirements			Link to Tab
		At the registration stage	Within 2 years	Within 4 years (and then every 2 years)	
Strategy		optional	*	*	➡
Mitigation	Emission Inventories	optional	* (BEI)	* (MEI every 4 years)	➡
	Mitigation Actions	optional	*	*	➡
	Mitigation Report				➡
	Monitoring Report				➡
Adaptation	Adaptation Scoreboard	*	*	*	➡
	Risks and Vulnerabilities	optional	*	*	➡
	Adaptation Actions	optional	optional	* (min. 3 Benchmarks)	➡
	Adaptation Report				➡
	Adaptation Indicators				➡

\* mandatory

# Strategy

## Strategy

### 1) Vision

To make our city/ community climate-neutral

### 2) Commitments

Mitigation					
<u>CO<sub>2</sub> Target</u>	<u>Unit</u>	<u>Target Year</u>	<u>Base Year</u>	<u>Reduction Type</u>	<u>Population estimates in target year</u>
	%	2020	[drop -down]	[drop -down]	
	%	2030	[drop -down]	[drop -down]	
		[drop -down]	[drop -down]	[drop -down]	


Adaptation			
<u>Goal</u>	<u>Unit</u> (% or other)	<u>Target year</u>	<u>Base Year</u>
		[drop -down]	[drop -down]
		[drop -down]	[drop -down]

ⓘ Add as many rows as necessary.

3) Coordination and organisational structures created/assigned

4) Staff capacity allocated

Type	Plan Preparation		MONITORING
		<u>Full-time equivalent job(s)</u>	Plan Implementation
Local authority	[Select x]		[Select x]
<u>Covenant Coordinator</u>	[Select x]		[Select x]
<u>Covenant Supporter</u>	[Select x]		[Select x]
External consultant	[Select x]		[Select x]
Other	[Select x]		[Select x]
Total		0	

 Select x for the ones that are applicable.

5) Involvement of stakeholders and citizens

6) Overall budget for implementation and financing sources

7) Monitoring process

8) Assessment of the Adaptation Options

9) Strategy in case of extreme climate events


# Baseline Emission Inventory (BEI)

## Informative data

- 1) Inventory year- the reference year against which your target will be compared.
- 2) Number of inhabitants in the inventory year;
- 3) Emission factors - coefficients which quantify the CO<sub>2</sub> emissions per unit of activity.
  - IPCC5 – emission factors for fuel combustion – based on the carbon content of each fuel; (Intergovernmental Panel on Climate Change)
  - LCA (Life Cycle Assessment) – emission factors for the overall life cycle of each energy.
- 4) Emission reporting unit:
  - tonnes CO<sub>2</sub> – if you choose to report only CO<sub>2</sub> emissions;
  - tonnes CO<sub>2</sub> equivalent – if you choose to include also other GHGs
- 5) Methodological notes- relevant notes for the understanding of the emission inventory.

- ▶ **A. Final energy consumption** - in which should be reported the final energy consumption data by sector and by supplier.
- ▶ **B. Energy supply** - data related to municipal green electricity purchases and local energy production, if applicable
- ▶ **C. CO2 emissions** - in which has to be reported the emission factors applied – making possible the automatic computation of CO2 emissions.

## ▶ **A) FINAL ENERGY CONSUMPTION**

- ▶ In this part are identified the main sectors where local authorities can influence energy consumption and consequently reduce related CO2 emissions.
- 



<b>Municipal buildings, equipment/facilities</b>		Buildings and facilities owned by the local authority. Facilities refer to energy consuming entities that are not buildings, such as wastewater treatment plants.
<b>Tertiary (non municipal) buildings, equipment/facilities</b>		Buildings and facilities of the tertiary sector (services), for example offices of private companies, banks, commercial and retail activities, hospitals, etc.
<b>Residential buildings</b>		Buildings that are primarily used as residential buildings. Social housing is included in this sector.
<b>Public lighting</b>		Public lighting owned or operated by the local authority (e.g. street lighting and traffic lights). Non-municipal public lighting is included in the sector of “Tertiary buildings, equipment/facilities”.
<b>Industries</b>	<b>Non-ETS</b>	industries not covered in the EU Emissions Trading Scheme (EU-ETS).
	<b>ETS (not recommended)</b>	industries covered in the EU-ETS

TRANSPORT								
<u>Municipal fleet</u>								
<u>Public transport</u>								
<u>Private and commercial transport</u>								
Subtotal	0	0	0	0	0	0	0	0
OTHER								
<u>Agriculture, Forestry, Fisheries</u>								
TOTAL	0	0	0	0	0	0	0	0

<b>Municipal fleet</b>	Vehicles owned and used by the local authority's administration
<b>Public transport</b>	Bus, tramway, metro, urban rail transportation and local ferries used for passenger transport.
<b>Private and commercial transport</b>	Road, rail and boat transport in the territory of the local authority which refer to the transport of persons and goods not specified above (e.g. private passenger cars and freight transport).

- ▶ If there aren't energy consumption data available at the individual sectors' level (residential, tertiary, etc.) it can be reported aggregated data at the level of the macro-sector

## ▶ **B) ENERGY SUPPLY**

- ▶ In this part information about local energy production are required.

Please select when applicable:

☐ Municipal purchases of certified green electricity

Local/distributed electricity production:

☐ Wind

☐ Hydroelectric

☒ Photovoltaics

☐ Geothermal

☒ Combined Heat & Power

☐ Other

Local heat/cold production:

☒ Combined Heat & Power

☐ District heating (heat-only)

☐ Other

- ▶ Detailed information about the quantity and characteristics of the energy in term of CO2 emission will be also necessary.

# Mitigation (Former SEAP part - Type of actions

## **Municipal buildings, equipment/facilities**

- ▶ Action 1: Energetic audit and thermal rehabilitation of schools and municipal buildings.
- ▶ Action 2. Replacing conventional stoves with biomass heating central or gazeification heating systems for public buildings.
- ▶ Action 3. Upgrading interior lighting for municipal buildings consisting in replacing traditional lamps with efficient lamps.
- ▶ Action 4. Application of the national program "Green House" for heritage buildings.


## **Tertiary (non municipal) buildings, equipment/facilities**

- ▶ Action 1. Implementation of intelligent metering systems for electricity and heat in buildings - commercial area, offices, headquarters.
- ▶ Action 2. Promoting the introduction of minimum energy performance requirements for buildings, according to the law 372/2005 regarding the energy.

## **Residential buildings**

- ▶ Action 1. Thermal insulation for 3 % of residential buildings / year.
- ▶ Action 2. Implementation of intelligent metering systems for electricity to households.
- ▶ Action 3. Promotion of residential building energy labeling.
- ▶ Action 4. Local tax deductions for owners which insulate the apartments from its own sources of financing.
- ▶ Action 5. Promoting the use of electronic tracking and self assessment programs of energy consumption in homes.

## **Public lighting**

- ▶ Action 1. Energy efficiency using photovoltaic panels for street lighting.
  - ▶ Action 2. Replacing the classical lamps with LED lamps
- 

# **TRANSPORT**

## **Municipal fleet**

- ▶ Action 1. Modernization of streets and agricultural access roads.
- ▶ Action 2. Rationalization of municipal fleet travels.

## **Public transport**

## **Private and commercial transport**


# **LOCAL ELECTRICITY PRODUCTION**

Action 1: Hydropower development of a local river –Slanic river;

Action 2: Installation of two horizontal axis wind turbine with power of 270 W / turbine for power supply of administrative buildings – Colonesti.

Action 3: Installation of photovoltaic systems for power supply of administrative buildings



- ▶ **WORKING WITH THE CITIZENS AND STAKEHOLDERS**
  - ▶ A1. Annual education campaign for rational use of energy, purchasing efficient appliances and green energy production
  - ▶ A2. Initiating education programs in schools on awareness of energy saving benefits.
  - ▶ A3. Promotion school competitions on issues of responsible energy management
- 

# Adaptation

- ▶ **The template for Sustainable Energy and Climate Action Plans (SECAP)** contains: an adaptation scoreboard where cities can conduct a self-assessment of their adaptation status; a template to realize a risk and vulnerabilities assessment, and a template to draw an integrated action plan, addressing the impacts of climate change on all sectors.
  - ▶ Adapting to climate change is a way of making cities a safer, healthier, greener, and more livable place for its citizens and visitors.
  - ▶ Effective adaptation action also often reduces CO<sub>2</sub> emissions, while in the first place has the goal to limit overall damage costs, preserve natural and human assets, and stimulate the economic growth.
- 