

## Sustainable Energy Action Plan (SEAP) template

*This is a working version for Covenant signatories to help in data collection. However the on-line SEAP template available in the Signatories' Corner (password restricted area) at: <http://members.eumayors.eu/> is the only REQUIRED template that all the signatories have to fill in at the same time when submitting the SEAP in their own (national) language.*

### OVERALL STRATEGY

#### 1) Overall CO2 emission reduction target

25 (%) by 2020

[? Instructions](#)

Please tick the corresponding box:

- ☒ Absolute reduction  
☐ Per capita reduction

#### 2) Long-term vision of your local authority (please include priority areas of action, main trends and challenges)

The strategic objective of the SEAP is in 2020 Vratsa to become a municipality of effective and sustainable management of energy resources and green economic growth, offering high quality services to the population, healthy and affordable living environment, real prospects for business investment.

Achieving the goal will be realized primarily by reducing energy costs and carbon emissions by respectively: Implementing an integrated package of measures to improve the energy efficiency of public buildings, improving energy efficiency in buildings in the municipality; increasing energy efficiency in the domestic industry, the introduction of energy management in the municipality. Besides improving the heat transfer characteristics of the buildings provides the fuel switch for local heating systems, expansion of the heating network and the introduction of local renewable energy (mainly solar, photovoltaic, geothermal, biomass). Possible obstacles to the realization of the plan related to attracting homeowners to implement energy efficiency measures, where the main reserve for energy savings, the high cost of new technologies, so that their use will be limited.

A significant measure, although it seems implied, is Public urban areas, creating pedestrian and bicycle trails, which will reduce the use of motor vehicles. The latter combined with the improved public transport will lead to further limit carbon emissions

#### 3) Organisational and financial aspects

Coordination and organisational structures created/assigned	Administrative structure assigned, including professionals from the following fields - experts from directorate "Protocol, administration of projects and international cooperation", specialist from directorate "Spatial Development, public infrastructure and environment"
Staff capacity allocated	Energy management is carried out by experts from the departments: Protocol administration of projects and international cooperation, Spatial Planning and Finance, economic analysis, local revenues and municipal property
Involvement of stakeholders and citizens	Energy days have been organized and are planned to be organized. Information campaigns for the tertiary sector will take place in the Municipality
Overall estimated budget	210 081 465.00 euro
Foreseen financing sources for the investments within your action plan	Own funds from the municipal budget, operational programs, international programs and initiatives, lines of credit, forms of public-private partnership
Planned measures for monitoring and follow up	Report on the implementation of the SEAP every two years.

Go to the [second part of the SEAP template](#) -> dedicated to your Baseline Emission Inventory!

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### BASELINE EMISSION INVENTORY

1) Inventory year

2010

For Covenant signatories who calculate their CO2 emissions per capita, please precise here the number of inhabitants during the inventory year:

74648

[? Instructions](#)

2) **Emission factors**

Please tick the corresponding box:

- ☒ Standard emission factors in line with the IPCC principles  
☐ LCA (Life Cycle Assessment) factors

Emission reporting unit

Please tick the corresponding box:

- ☐ CO2 emissions  
☒ CO2 equivalent emissions

### 3) Key results of the Baseline Emission Inventory

Green cells are compulsory fields

Grey fields are non editable

#### A. Final energy consumption

Please note that for separating decimals dot [.] is used. No thousand separators are allowed.

Category	FINAL ENERGY CONSUMPTION (MWh)															
	Electricity	Heat/cold	Fossil fuels								Renewable energies					Total
			Natural gas	Liquid gas	Heating Oil	Diesel	Gasoline	Lignite	Coal	Other fossil fuels	Wood	Biomass	Solar thermal	Geothermal		
BUILDINGS, EQUIPMENT/FACILITIES AND INDUSTRIES:																
Municipal buildings, equipment/facilities	4738	11335.46	0.44	0.004276				0.61								16042.51
Tertiary (non municipal) buildings, equipment/facilities	85101.32	15035.24														100136.56
Residential buildings	109098.11	61953.97														171052.08
Municipal public lighting	1450															1450.00
Industries (excluding Industries Involved In the EU Emission trading scheme - ETS)																0.00
Municipal buildings, equipment/facilities and industries	200115.87	88124.87	0.44	0.004276	0	0	0	0.61	0	0	0	0	0	0	0	288240.75
TRANSPORT:																
Municipal fleet				390.8		1166.69	226.19									1883.78
Public transport	1848.32		43.41			45.47	0.73									1938.93
Private and commercial transport						11883.36	6233.77									18117.13
Aviation transport	1348.32	0	31.43	390.8	0	21006.57	9440.50	0	0	0	0	0	0	0	0	23008.64
Total	202203.75	88324.67	43.85	590.904276	0	13096.52	6460.65	0.63	0	0	0	0	0	0	0	310720.99

Municipal purchases of certified green electricity (if any) [MWh]:

CO2 emission factor for certified green electricity purchases (for LCA approach):

#### B. CO2 or CO2 equivalent emissions

Please note that for separating decimals dot [.] is used. No thousand separators are allowed.

Category	CO2 emissions (t) / CO2 equivalent emissions (t)															
	Electricity	Heat/cold	Fossil fuels								Renewable energies					Total
			Natural gas	Liquid gas	Heating Oil	Diesel	Gasoline	Lignite	Coal	Other fossil fuels	Wood	Biomass	Solar thermal	Geothermal		
BUILDINGS, EQUIPMENT/FACILITIES AND INDUSTRIES:																
Municipal buildings, equipment/facilities	3854.21	3284.72	0.08	0.00099				0.22								9139.34099
Tertiary (non municipal) buildings, equipment/facilities	69697.98	7009.61														76707.59
Residential buildings	89351.35	28883.67														118235.02
Municipal public lighting	1187.55															1187.55
Industries (excluding industries involved in the EU Emission trading scheme - ETS)																0
Municipal buildings, equipment/facilities and industries	100001.09	43278	0.08	0.00099	0	0	0	0.22	0	0	0	0	0	0	0	225194.811
TRANSPORT:																
Municipal fleet				136.4979		269.51	56.31									462.3279
Public transport	1518.77		8.77			12.41	0.18									1539.73
Private and commercial transport						1172.86	1552.23									4725.07
Aviation transport	3748.73	0	8.77	136.4979	0	2404.78	2696.71	0	0	0	0	0	0	0	0	6713.5279
OTHER:																
Waste management																
Waste water management																
Please specify here your other emissions																
Total	105604.86	41170	8.86	136.4989	0	3454.78	1608.71	0.22	0	0	0	0	0	0	0	211991.9289

Corresponding CO2-emission factors in (t/MWh)

0.819

CO2 emission factor for electricity not produced locally (t/MWh)

0.819

### C. Local electricity production and corresponding CO2 emissions

Please note that for separating decimals dot [.] is used. No thousand separators are allowed.

Locally generated electricity (excluding ETS plants, and all plants/units < 30 MW)	Locally generated electricity (MWh)	Energy carrier input (MWh)										CO2 / CO2eq emissions (t)	Corresponding CO2-emission factors for electricity production in (t/MWh)	
		Fossil fuels					Steam	Waste	Plant oil	Other biomass	Other renewables			Other
		Natural gas	Liquid gas	Heating oil	Lignite	Coal								
Wind power														
Hydroelectric power														
Photovoltaic														
Combined Heat and Power														
Other														
Please specify: _____														
Total														

### D. Local heat/cold production (district heating/cooling, CHPs...) and corresponding CO2 emissions

Please note that for separating decimals dot [.] is used. No thousand separators are allowed.

Locally generated heat/cold	Locally generated heat/cold (MWh)	Energy carrier input (MWh)										CO2 / CO2eq emissions (t)	Corresponding CO2-emission factors for heat/cold production (t/MWh)
		Fossil fuels					Waste	Plant oil	Other biomass	Other renewables	Other		
		Natural gas	Liquid gas	Heating oil	Lignite	Coal							
Combined Heat and Power													
District Heating plant(s)	122600.77	221812.17										41170	0.18629
Other													
Please specify:													
Total	122600.77	221812.17	0	0	0	0	0	0	0	0	0	41170	

#### 4) Other CO2 emission inventories

If other inventory(ies) have been carried out, please click [here ->](#)

Otherwise go to the [last part of the SEAP template ->](#) dedicated to your Sustainable Energy Action Plan

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## 1) Title of your Sustainable Energy Action Plan

SUSTAINABLE ENERGY ACTION PLAN OF MUNICIPALITY OF VRATSA 2013-2020 "VRATSA 2020 – GREEN AND ENERGY SUSTAINABLE "

Authority approving the plan **Municipal Council**

### Green cells are compulsory fields

**Grey fields are non editable**

SECTORS  & fields of action	KPI actions/measures  and field of action	Responsible department, government company (in case of involvement of 3rd parties)	Implementation start & end time	Estimated costs  per action/measure	Expected energy saving MWh annually (MWh/a)	Expected renewable energy production MWh annually (MWh/a)	Expected CO2 reduction tCO2 annually (t/a)	Emission saving target annually (tCO2) in 2020	Total renewable energy production target annually (MWh) in 2020	CO2 reduction target annually (tCO2) in 2020
BUILDINGS, EQUIPMENT / FACILITIES & INDUSTRIES								2170	9	2190
Municipal buildings, equipment/facilities	Action 1. Energy audits of buildings, municipal ownership - GO process starts. Action 2. Reconstruction, maintenance and Implementation of energy efficiency measures in educational institutions - kindergartens, primary and secondary schools Action 3. Utilization and development of the territory of the former military base for the construction of a public area with cultural, recreational and sports facilities, recreational facilities and activities. Action 4. Renovation and Implementation of energy efficiency measures in the building of the former school "Metropol Konstantin" for the new center - European Geopark "Vratsanski Balkan". Action 5. Reconstruction, maintenance and implementation of energy efficiency measures of cultural centers, theaters, community centers, libraries and other facilities related to the cultural life Action 6. Construction, reconstruction, maintenance and Implementation of energy efficiency measures in public buildings Action 7. Reconstruction, maintenance and implementation of energy efficiency measures in health facilities Action 8. Increasing the energy efficiency of "Covered athletics track to Sports Complex "Iristo Botev" -. Vratsa."	Directorate "Protocol, administration of projects and International cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1. 2013-2014 Action 2. 2013-2016 Action 3. 2014-2020 Action 4. 2016-2020 Action 5. 2014-2020 Action 6. 2014-2020 Action 7. 2013-2020 Action 8. 2013-2014	Action 1. 1 500 000 EUR Action 2. 19 450 000 EUR Action 3. 15 550 000 EUR Action 4. 980 000 EUR Action 5. 880 000 EUR Action 6. 3 000 000 EUR Action 7. 1 500 000 EUR Action 8. 340 000 EUR	Action 1. Action 2. 800 Action 3. 900 Action 4. 200 Action 5. 600 Action 6. 1006 Action 7. 500 Action 8. 394		Action 1. Action 2. 433 Action 3. 300 Action 4. 70 Action 5. 350 Action 6. 600 Action 7. 300 Action 8. 240			
Tertiary (non municipal) buildings, equipment/facilities	Action 1. Perform audits for energy efficiency; Action 2. Introduction of packages of energy efficiency measures	Directorate "Protocol, administration of projects and International cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1. 2015-2020 Action 2. 2015-2020	Action 1. 900 000 EUR Action 2. 2 000 000 EUR	Action 1. Action 2. 10013		Action 1. Action 2. 7670			
Residential buildings	Action 1. Perform audits for energy efficiency of residential buildings in the municipality; Action 2. Introduction of packages of energy efficiency measures in residential buildings in the municipality, and primarily of multi-family residential buildings; Action 3. Development and implementation of local financial mechanisms to support the implementation of energy efficiency measures in residential buildings.	Directorate "Protocol, administration of projects and International cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1. 2013-2020 Action 2. 2013-2020 Action 3. 2013-2020	Action 1. 500 000 EUR Action 2. 2 000 000 EUR Action 3. 2 000 000 EUR	Action 1. Action 2. 10000 Action 3. 7104		Action 1. Action 2. 6912 Action 3. 4910			
Municipal public lighting Industries (excluding industries involved in the EU Emission trading scheme - ETS) & Small and Medium Sized Enterprises (SMEs)	Action 1. Preparation and implementation of a project for the repair of the existing and construction of new energy efficient street lighting; Action 2. Gradual establishment an autonomously energy efficient street lighting in problem neighborhoods and sectors; Action 3. Development of effective systems for maintenance and exploitation of street lighting, including with the participation of citizens.	Directorate "Protocol, administration of projects and International cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1. 2013-2015 Action 2. 2013-2020 Action 3. 2013-2020	Action 1. 500 000 EUR Action 2. 1 000 000 EUR Action 3. 500 000 EUR	Action 1. 40 Action 2. 65 Action 3. 40		Action 1. 95 Action 2. 49 Action 3. 95			

Other - please specify: Green system in the Municipality of Vratsa and gasification		Action 1. Construction of public green area in housing estate "Dabnika"; Action 2. Rehabilitation and renovation of public park "Hijata"; Action 3. Construction of park zone in the region of Medkovsko dera from the Boulevard "Vrati Yun" to "Vasil Kanchov"; Action 4. Reconstruction of the central pedestrian zone; Action 5. Rehabilitation of green areas in the Industrial zone - Reconstruction of pedestrian and bike trails, energy efficient lighting, planting; Action 6. Improvement of spaces between apartment buildings; Action 7. Creation of a network of gasification and connecting customers to the network.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1: 2013-2014 Action 2: 2013-2014 Action 3: 2013-2014 Action 4: 2014-2020 Action 5: 2014-2020 Action 6: 2014-2020 Action 7: 2013 - 2014	Action 1: 1 515 650 EUR Action 2: 562 715 EUR Action 3: 180 000 EUR Action 4: 8 150 000 EUR Action 5: 2 000 000 EUR Action 6: 200 000 EUR Action 7: 10 000 000 EUR							
TRANSPORT:										864	0	542.58
Municipal fleet		Action 1. Use of vehicles that have low fuel consumption; Action 2. Use of vehicles that are loaded with biodiesel.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1: 2014-2020 Action 2: 2014-2020	Action 1: 50 000 EUR Action 2: 200 000 EUR	Action 1: 100 Action 2: 98		Action 1: 16.58 Action 2: 16				
Public transport		Action 1. Feasibility study for integrated urban transport; Action 2. Preparation of working draft for the construction of new bus routes; Action 3. Preparation of working draft for upgrading / renovation of existing contact network and reconstruction of routes trolleybus network; Action 4. Preparation of working draft for the reconstruction of the road network of trolleybus routes, including and all related activities: repair stops platforms for people with disabilities, light and audio announcements of stops and information for blind and changeable message signs, installing pedestrian traffic lights with audible alarm for the blind, rehabilitation of walkways and sidewalks, building of bike lanes, street lighting with energy efficient, building surveillance, build signs and markings; Action 5. Preparation of working draft for construction of multistorey open parking in complex Dabnika; Action 6. Preparation of working draft for the implementation of an automated control system - centralized computer system, traffic control and modernization of traffic lights; Action 7. Modernization and expansion of public transport trolley in the city. Action 8. Rehabilitation and reconstruction of street networks and constructions; Action 9. Repair, implementation of energy efficiency measures and cool the rooms that will accommodate the operational centers of the system for safe urban environment and risk prevention.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1: 2013-2015 Action 2: 2013-2015 Action 3: 2013-2015 Action 4: 2013-2015 Action 5: 2013-2015 Action 6: 2013-2015 Action 7: 2015-2020 Action 8: 2015-2020 Action 9: 2015-2020	Action 1: 10 000 EUR Action 2: 10 000 EUR Action 3: 12 500 EUR Action 4: 580 000 EUR Action 5: 1 600 EUR Action 6: 60 000 EUR Action 7: 20 000 000 EUR Action 8: 13 000 000 EUR Action 9: 490 000 EUR	Action 1: 100 Action 2: 98 Action 3: Action 4: Action 5: Action 6: Action 7: 350 Action 8: 134 Action 9:		Action 1: 16.58 Action 2: 16 Action 3: Action 4: Action 5: Action 6: Action 7: 28 Action 8: 10 Action 9:				
Private and commercial transport		Action 1. Organizing local information days to reduce the number of cars traveling in the center; Action 2. Encouraging people to use carpool; Action 3. Promoting the use of bicycles. Action 4. Construction of bike lanes; Action 5. Construction of public parking lots with energy efficient lighting and landscaping.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1: 2014-2020 Action 2: 2014-2020 Action 3: 2014-2020 Action 4: 2014-2020 Action 5: 2014-2020	Action 1: 1 500 EUR Action 2: 1 500 EUR Action 3: 1 500 EUR Action 4: 600 000 EUR Action 5: 30 000 EUR	Action 1: 20 Action 2: 20 Action 3: 20 Action 4: 62 Action 5: 60		Action 1: 50 Action 2: 50 Action 3: 50 Action 4: 162 Action 5: 160				
Other - please specify: _____												
LOCAL ELECTRICITY PRODUCTION:										36650	36150	30016.15
Hydroelectric power												
Wind power		Action 1. Construction of a wind plant with a capacity of 36 MW	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1: 2014-2020	Action 1: 25 000 000 EUR	Action 1: 5650 Action 1: 5650		Action 1: 4627.3				
Photovoltaic		Action 1. Development of photovoltaic power plants in the municipality with a total capacity of 25 MWh and 1620 kWp; Action 2. Installing the 25 thermo hot water installations on municipal buildings with year round use (municipal administration, children and social institutions). Action 3. Installation of photovoltaic systems to generate electricity for use by the municipal sector.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1: 2012-2015 Action 2: 2020 Action 3: 2020	Action 1: 64 000 000 EUR Action 2: 400 000 EUR Action 3: 1 000 000 EUR	Action 1: 28000 Action 2: 1000 Action 3: 1000	Action 1: 28000 Action 2: 1000 Action 3: 1000	Action 1: 23170 Action 2: 700 Action 3: 700				
Combined Heat and Power		Action 1. Integrated project for the construction of installation for utilization of renewable energy sources to satisfy the energy needs of a complex of public buildings in the central city area; Action 2. Construction of thermal solar heating for hot water; Action 3. Construction of biomass heating plant.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1: 2013-2020 Action 2: 2013-2020 Action 3: 2013-2020	Action 1: 1 500 000 EUR Action 2: 4 000 000 EUR Action 3: 5 000 000 EUR	Action 1: 500 Action 2: 250 Action 3: 250	Action 1: 250 Action 2: 125 Action 3: 125	Action 1: 419 Action 2: 200 Action 3: 200				
Other - please specify: _____												
LOCAL DISTRICT HEATING / COOLING, CHPs:												
Combined Heat and Power												
District heating plant												
Other - please specify: _____												

LAND USE PLANNING:									
Strategic urban planning									
Transport / mobility planning									
Standards for refurbishment and new development									
Other - please specify: _____									
PUBLIC PROCUREMENT OF PRODUCTS AND SERVICES:									
Energy efficiency requirements/standards									
Renewable energy requirements/standards									
Other - please specify: _____									
WORKING WITH THE CITIZENS AND STAKEHOLDERS:							635.25		535.83
Advisory services									
Financial support and grants									
Awareness raising and local networking	Action 1. Conduct of municipal information campaign for promote the use of renewable energy sources residential buildings, especially thermo collection, economic and environmental benefits and informing local residents about possible financial schemes for the implementation of private projects renewable energy sources; Action 2. Organizing and conducting awareness campaigns based on the principles of social marketing; Action 3. Build partnerships with local and regional civil society, media and businesses to conduct joint initiatives to promote energy efficiency measures in households; Action 4. Organizing information campaigns, conferences, business breakfasts, seminars and other meetings for representatives of local businesses; Action 5. Administrative stimulate business and industrial to use the renewable energy through tax preferences, specialized administrative services and other stimulus; Action 6. Establishment of the energy database of installed generating capacity from renewable energy sources in the municipality.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1. 2013-2020 Action 2. 2013-2020 Action 3. 2013-2020 Action 4. 2013-2020 Action 5. 2013-2020 Action 6. 2013-2020	Action 1. 1 500 EUR Action 2. 1 500 EUR Action 4. 1 500 EUR Action 5. 1 500 EUR Action 6. 2 000 EUR	Action 1. 270 Action 2. 30.25 Action 3. Action 4. 100 Action 5. 235 Action 6.	Action 1. 229.36 Action 2. 24.57 Action 3. Action 4. 81.9 Action 5. 200 Action 6.			
Training and education	Action 1. Establishment of structural unit of the municipal administration, which takes responsibility for coordinating the overall process of planning, implementation and monitoring of sustainable energy policies at the local level; Action 2. Introduce a system of training of experts in the local administration of sectoral units engaged in the planning, implementation and control of capital investment and regional development policies; Action 3. Improve the system of reporting, monitoring and analysis of energy consumption in Municipality of Vratze; Action 4. Creation of international partnerships, preparation and implementation of partnership projects in the field of energy efficiency; Action 5. Development and implementation of a training programme in the school and outside the school.	Directorate "Protocol, administration of projects and international cooperation" and Directorate "Spatial Development, public infrastructure and environment"	Action 1. 2013-2014 Action 2. 2014-2015 Action 3. 2014-2018 Action 4. 2013-2020 Action 5. 2014-2016	Action 1. 5 000 EUR Action 2. 5 000 EUR Action 3. 5 000 EUR Action 4. 5 000 EUR Action 5. 5 000 EUR					
Other - please specify: _____									
OTHER SECTOR(S) - (Please specify):									
Other - Please specify: _____									
TOTAL:							69411.25	36350	31988.74

### 3) Web address

Direct link to the webpage dedicated to your SEAP (if any)

<http://www.vratze.bg/?category=42>

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