

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

35,89 (%) 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 long-term vision of the municipality of Spiazzo is based on the energy and environmental sustainability of the municipal territory. The aim of the local authority is indeed the promotion of the renewable energy, with particular attention on the facilities and funding for their usage, and,

3) Organisational and financial aspects

Coordination and organisational structures created/assigned	The municipal structure is composed by: the mayor ; the Energy and Environmental Department	
Staff capacity allocated	The SEAP was developed by two external consulting firms. For the monitoring phases the local authority would like to do it, when it is possible, with their own internal resources	
Involvement of stakeholders and citizens	In order to involve the stakeholders and the citizens the local authority has decided to organize public meeting and debates, and website	
Overall estimated budget	€	7.964.940,00
Foreseen financing sources for the investments within your action plan	Internal resources; european, national, regional funding; private funding	
Planned measures for monitoring and follow up	The first monitoring is planned in 2014 and it will analyze what it was done and what it has still to be done. The monitoring process will allow to adjust the actions that were thought in the case that ther	

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

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



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	Plant oil	Biofuel	Other biomass	Solar thermal	Geothermal	
BUILDINGS, EQUIPMENT/FACILITIES AND INDUSTRIES:																
Municipal buildings, equipment/facilities	100,59					565										665,59
Tertiary (non municipal) buildings, equipment/facilities	2043,24			113,63		8558,28							212,57			10927,72
Residential buildings	1572,73			1022,68		8118,41							1913,15			12626,97
Municipal public lighting	226,04															226,04
Industries (excluding industries involved in the EU Emission trading scheme - ETS)																0
Subtotal buildings, equipments/facilities and industries	3942,6	0	0	1136,31	0	17241,69	0	0	0	0	0	0	2125,72	0	0	24446,32
TRANSPORT:																
Municipal fleet						19,73	5,66									25,39
Public transport						111,53										111,53
Private and commercial transport				152,12		4023,38	2883,41									7058,91
Subtotal transport	0	0	0	152,12	0	4154,64	2889,07	0	0	0	0	0	0	0	0	7195,83
Total	3942,6	0	0	1288,43	0	21396,33	2889,07	0	0	0	0	0	2125,72	0	0	31642,15

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	Biofuel	Plant oil	Other biomass	Solar thermal	Geothermal	
BUILDINGS, EQUIPMENT/FACILITIES AND INDUSTRIES:																
Municipal buildings, equipment/facilities	48,08					150,855										198,93702
Tertiary (non municipal) buildings, equipement/facilities	976,67			25,79		2285,0608										3287,52349
Residential buildings	751,76			232,15		2167,6155										3151,52877
Municipal public lighting	108,05															108,04712
Industries (excluding industries involved in the EU Emission trading scheme - ETS)																0
Subtotal buildings, equipments/facilities and industries	1884,56	0,00	0,00	257,94	0,00	4603,53	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	6746,04
TRANSPORT:																
Municipal fleet						5,27	1,41									6,67725
Public transport						29,78										29,77851
Private and commercial transport				34,53		1074,24	717,97									1826,74279
Subtotal transport	0,00	0,00	0,00	34,53	0,00	1109,29	719,38	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1863,20
OTHER:																
Waste management																
Waste water management																
Please specify here your other emissions																
Total	1884,56	0,00	0,00	292,47	0,00	5712,82	719,38	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	8609,23

Corresponding CO2-emission factors in [t/MWh]

0,478 0,202 0,227 0,267 0,249 0 0 0 0 0 0 0 0 0 0

CO2 emission factor for electricity not produced locally [t/MWh]

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 > 20 MW)	Locally generated electricity [MWh]	Energy carrier input [MWh]										CO2 / CO2- eq emissions [t]	Corresponding CO2- emission factors for electricity production in [t/MWh]	
		Fossil fuels					Steam	Waste	Plant oil	Other biomass	Other renewable			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 / CO2-eq emissions [t]	Corresponding CO2-emission factors for heat/cold production in [t/MWh]
		Fossil fuels					Waste	Plant oil	Other biomass	Other renewable	other		
		Natural gas	Liquid gas	Heating oil	Lignite	Coal							
Combined Heat and Power													
District Heating plant(s)													
Other													
Please specify: _____													
Total													

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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SUSTAINABLE ENERGY ACTION PLAN

1) Title of your Sustainable Energy Action Plan

[? Instructions](#)

SEAP: Sustainable Energy Action Plan of the municipality of Spiazzo

Date of formal approval

Authority approving the plan

2) Key elements of your Sustainable Energy Action Plan

Green cells are compulsory fields

Grey fields are non editable

SECTORS & fields of action	KEY actions/measures per field of action	Responsible department, person or company (in case of involvement of 3rd parties)	Implementation [start & end time]	Estimated costs per action/measure	Expected energy saving per measure [MWh/a]	Expected renewable energy production per measure [MWh/a]	Expected CO2 reduction per measure [t/a]	Energy saving target per sector [MWh] in 2020	Local renewable energy production target per sector [MWh] in 2020	CO2 reduction target per sector [t] in 2020
BUILDINGS, EQUIPMENT / FACILITIES & INDUSTRIES:								1590,87		506,21
Municipal buildings, equipment/facilities	Action 1: Installation of flow reducers (water saving) in all the municipal buildings Action 2: Adhesion to the Green light project in order to improve the lighting efficiency Action 3: Installation of thermostatic valves Action 4: Installation of solar panels on school building	1: Public Administration 2: Public Administration 3: Public Administration 4: Public Administration	1. 2013 - 2020 2. 2012 - 2016 3. 2013 - 2020 4. 2012	1. € 500 2. Unquantifiable 3. € 6000 4. investment already made	1. 12.65 2. 1.66 3. 84.75 4. 9.00		1. 3.38 2. 0.79 3. 22.63 4. 2.40			
Tertiary (non municipal) buildings, equipment/facilities										
Residential buildings	Action 1: Installation of heat pump insulation residential buildings Action 2: Installation of thermostatic valves Action 3: replacement of lamps with high efficiency ones Action 4: replacement of antiquated appliances Action 5: installation of solar panels (2007-2012) Action 7: installation of solar panels(2012-2020)	1: Private sector 2: Private sector 3: Private sector 4: Private sector 5: Private sector 6: Private sector 7: Private sector	1. 2013 - 2020 2. 2012 - 2020 3. 2012 - 2020 4. 2013 - 2020 5. 2012 - 2020 6. 2007 - 2012 7. 2012 - 2020	1. Unquantifiable 2. € 1500000 3. € 35000 4. Unquantifiable 5. Unquantifiable 6. investment already made 7. € 200000	1. 331.63 2. 205.62 3. 342.06 4. 73.22 5. 171.12 6. 114.16 7. 105.00		1. 88.54 2. 54.90 3. 91.33 4. 35.00 5. 81.80 6. 30.48 7. 28.04			
Municipal public lighting	Renewal of the municipal public lighting with high efficiency lighting	Public Administration	2013-2020	€ 667.940	140		66,92			
Industries (excluding industries involved in the EU Emission trading scheme - ETS) & Small and Medium Sized Enterprises (SMEs) Other - please specify: _____										
TRANSPORT:								1798,04		466,58
Municipal fleet	Replacement of municipal vehicles with more efficient ones	Public Administration	2012	Unquantifiable	1,22		0,33			
Public transport										
Private and commercial transport	Renewal of the private fleet	Private sector	2013 - 2020	Unquantifiable	1796,82		466,25			
Other - please specify: _____ _____										
LOCAL ELECTRICITY PRODUCTION:									3038,03	1467,25
Hydroelectric power	Action 1: Hydroelectric power plant on Bedù Action 2: Hydroelectric power plant on aqueduct of Spiazzo	1: Public Administration 2: Public Administration	1. 2012 - 2016 2. 2012 - 2016	1. € 1.400.000 2. € 95000		1. 2.000,00 2. 218.42	1. 966,00 2. 105.50			
Wind power										

Photovoltaic	<u>Action 1:</u> installation of a photovoltaic plant on municipal building <u>Action 2:</u> installation of photovoltaic plants on earth <u>Action 3:</u> installation of photovoltaic plants on residential buildings (2007 - 2012) <u>Action 4:</u> installation of photovoltaic plants on residential buildings (2012 - 2020) <u>Action 5:</u> installation of photovoltaic plants on tertiary buildings (2007 - 2012) <u>Action 6:</u> installation of photovoltaic plants on tertiary buildings (2012 - 2020)	1: Public Administration 2: Public Administration 3: Private sector 4: Private sector 5: Private sector 6: Private sector	1. 2010 2. 2012 - 2016 3. 2007 - 2012 4. 2012 - 2020 5. 2007 - 2012 6. 2012 - 2020	1. investment already made 2. € 20000 investment already made € 100000 investment already made 500000	3. 4. 5. 6. €	1. 24.11 2. 14.40 3. 52.59 4. 69.30 5. 312.71 6. 346.5	1. 11.52 2. 6.96 3. 25.40 4. 33.47 5. 151.04 6. 167.36		
Combined Heat and Power									
Other - please specify: _____									
LOCAL DISTRICT HEATING / COOLING, CHPs:									
Combined Heat and Power								2435	650,15
District heating plant	District heating of municipal buildings	Public Administration	2012 - 2020	€ 3.434.000		2435	650,15		
Other - please specify: _____									

LAND USE PLANNING:										
Strategic urban planning	Strategic urban planning and Energy Policy	Public Administration	2013			Unquantifiable	Unquantifiable			
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:										
Advisory services										
Financial support and grants										
Awareness raising and local networking	Action 1: Website and Newsletter Action 2: Flyers and Brochure Action 3: Newspaper articles Action 4: Deployment of an Energy meter (tools that allows to measure the electricity consumption in real time) to all the families of the municipality	1: Public Administration 2: Public Administration 3: Public Administration 4: Public Administration	1: 2013 2: 2013 - 2020 3: 2013 - 2020 4: 2013 - 2020	3. 4.	1. € 1000 2. € 1500 3. Unquantifiable 4. € 7500	1. Unquantifiable 2. Unquantifiable 3. Unquantifiable 4. Unquantifiable	1. Unquantifiable 2. Unquantifiable 3. Unquantifiable 4. Unquantifiable			
Training and education	Action 1: Educational activity in schools Action 2: Public meetings and technical workshops	1: Public Administration 2: Public Administration	1. 2013 - 2020 2. 2013 - 2020	2.	1. € 4000 2. Unquantifiable	1. Unquantifiable 2. Unquantifiable	1. Unquantifiable 2. Unquantifiable			
Other - please specify: _____										
OTHER SECTOR(S) - Please specify: _____										
Other - Please specify: _____										
TOTAL:								3388,91	5473,03	3090,19

3) Web address

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

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