

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

29,47 (%) by 2020



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 is based on the energy and environmental sustainability of the territory of Cembra Valley. 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, moreover, the reduction of the energetic consumption by the involving of the citizen and the stakeholders. The actions that are planned in the SEAP are based on renewable energy (hydroelectric, photovoltaic, biomass) and on the reduction of the energy consumption.

3) Organisational and financial aspects

Coordination and organisational structures created/assigned	Valley Community
Staff capacity allocated	The SEAP was developed by an 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	€ 16.336.000,00
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 it 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

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

2007

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

8019



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	614,27	308,93	818,36	36,23			1434,82									3212,61
Tertiary (non municipal) buildings,equipment/facilities	6086,55		2298,28	1413,94			8970,20									18768,97
Residential buildings	6593,43		7578,85	1007,58			51680,22						12668,03	261,50		79789,61
Municipal public lighting	1045,98															1045,98
Industries (excluding industries involved in the EU Emission trading scheme - ETS)	-															0,00
Subtotal buildings, equipments/facilities and industries	14340,23	308,93	10695,49	2457,75	0	62085,24	0	0	0	0	0	0	12668,03	261,50	0	102817,17
TRANSPORT:																
Municipal fleet	-					175,18	9,55									184,73
Public transport	-					1880,69										1880,69
Private and commercial transport	-		1003,88			25401,20	17534,37									43939,45
Subtotal transport	0	0	1003,88	0,00	0	27457,07	17543,92	0	0	0	0	0	0	0	0	46004,87
Total	14340,23	0	11699,37	2457,75	0	89542,31	17543,92	0	0	0	0	0	12668,03	261,50	0	148822,04

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.

[illegible]

Municipal buildings, equipment/facilities	296,69		165,31	8,22		383,10							0,00	0,00		853,32
Tertiary (non municipal) buildings, equipment/facilities	2939,80		464,25	320,96		2395,04							0,00	0,00		6120,05
Residential buildings	3184,63		1530,93	228,72		13798,62							0,00	0,00		18742,90
Municipal public lighting	505,21												0,00	0,00		505,21
Industries (excluding industries involved in the EU Emission trading scheme - ETS)	-												0,00	0,00		
Subtotal buildings, equipments/facilities and industries	6926,33	0	2160,49	557,90	0	16576,76	0	0	0	0	0	0	0	0	0	26221,48
TRANSPORT:																
Municipal fleet						46,77	2,38									49,15
Public transport						502,14										502,14
Private and commercial transport			202,78	0,00		6782,12	4366,06									11350,96
Subtotal transport	0	0	202,78	0,00	0	7331,03	4368,44	0	0	0	0	0	0	0	0	11902,25
OTHER:																
Waste management																
Waste water management																
Please specify here your other emissions																
Total	6926,33	0	2363,27	557,90	0	23907,79	4368,44	0	0	0	0	0	0	0	0	38123,73

Corresponding CO2-emission factors in [t/MWh]	0,482	0,202	0,227	0,267	0,249											
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CO2 emission factor for electricity not produced locally [t/MWh]	0,483
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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													0	
Hydroelectric power													0	
Photovoltaic													0	
Combined Heat and Power													0	
Other													0	
<i>Please specify: _____</i>													0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	

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 [t/MWh]
		Fossil fuels					Waste	Plant oil	Other biomass	Other renewable	other		
		Natural gas	Liquid gas	Heating oil	Lignite	Coal							
Combined Heat and Power												0	
District Heating plant(s)												0	
Other												0	
Please specify: _____												0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	

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 (SEAP) template

SUSTAINABLE ENERGY ACTION PLAN

1) Title of your Sustainable Energy Action Plan

SEAP: Sustainable Energy Action Plan of the municipality of Zambana

Date of formal approval

Authority approving the plan



Instructions

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:								7655,27		5555,335
Municipal buildings, equipment/facilities	Action 1: Installation of flow reducers (water saving) in all the municipal buildings	Public Administration	2013 - 2020	Unquantifiable	74,25		17,43			
	Action 2: Adhesion to the Green light project in order to improve the lighting efficiency	Public Administration	2013 - 2020	Unquantifiable	12,44		6			
	Action 3a: Installation of solar panels on locker rooms sports field and school ALBIANO	Public Administration	2009	Investment already made	12,00		2,42			
	Action 3b: Installation of solar panels on service center Castelet GRAUNO	Public Administration	2009	Investment already made	6,00		1,221			
	Action 3c: Installation of solar panels on gym - schhol - locker rooms sports field	Public Administration	2013-2020	€ 6.843,76	6,23		1,26			
	Action 3d: Installation of solar panels on school FAVER	Public Administration	2013-2020	€ 1.710,94	1,56		0,314			
	Action 4a: Insulation public buildings	Public Administration	2007-2013	Investment already made	13,82		3,69			
	Action 4b: Insulation public buildings	Public Administration	2013-2020	€ 1.645.000,00	105,19		25,93			
	Action 5: Replacement traditional boilers with condensation boiler	Public Administration	2009-2013	Investment already made	38,66		7,81			
	Action 6: Replacement traditional gas oil boilers with methan boiler	Public Administration	2007-2013	Investment already made	0,00		41,73			
	Action 7: Installation of thermostatic valves	Public Administration	2013 - 2020	€ 20.000,00	338,66		82,18			
Tertiary (non municipal) buildings, equipment/facilities										
Residential buildings	Action 1: Insulation residential buildings	Private sector	2013 - 2020	€ 8.048.000,00	1836,84		390,72			
	Action 2: Installation of thermostatic valves	Private sector	2013 - 2020	€ 202.360,00	2195,88		466,75			
	Action 3: Replacement of lamps with high efficiency ones	Private sector	2013 - 2020	Unquantifiable	256,78		124,01			
	Action 4: Replacement antiquated appliances	Private sector	2013 - 2020	Unquantifiable	975,78		471,3			
	Action 5: Installation of solar panels on private buildings	Private sector	2013 - 2020	Unquantifiable	1511,54		322,48			
	Action 6: Replacement traditional gas oil boilers with methan boiler	Private sector	2013-2020	Unquantifiable	0,00		3459,85			
Municipal public lighting	Renewal of the municipal public lighting with high efficiency lighting	Public Administration	2013-2020	Unquantifiable	269,64		130,24			
Industries (excluding industries involved in the EU Emission trading scheme - ETS) & Small and Medium Sized Enterprises (SMEs)										
Other - please specify: _____										
TRANSPORT:								5375,12		1396
Municipal fleet	_____	_____	_____	_____	---	---	---			
	---	_____	_____	_____	---	---	---			
Public transport	---	---	---	---	---	---	---			
Private and commercial transport	Renewal of the private fleet	Private sector	2013 - 2020	Unquantifiable	5375,12		1396			

Other - please specify: _____											
LOCAL ELECTRICITY PRODUCTION:										4505,77	2176,3
Hydroelectric power	Action 1: Hydroelectric power plant on aqueduct of SEGONZANO	Public Administration	2013-2016	€ 55.532,00		40,80	19,7				
	Action 2: Hydroelectric power plant on aqueduct of SOVER	Public Administration	2013-2016	€ 130.000,00		56,00	27,05				
	Action 3: Hydroelectric power plant on aqueduct of FAVER	Public Administration	2013-2016	€ 74.500,00		28,00	13,52				
	Action 4: Hydroelectric power plant on aqueduct of GRAUNO	Public Administration	2013-2016	€ 34.685,00		19,00	9,18				
	Action 5: 4 Hydroelectric power plant on intermunicipality aqueduct of Cembra Valley	Public Administration	2013-2016	€ 186.870,00		136,00	65,69				
	Action 6: Hydroelectric power plant on aqueduct of surface water	Public Administration	2013-2020	€ 231.576,17		120,00	57,96				
	Action 7: Hydroelectric power plant on irrigation aqueduct	Consorzio Irriguo	2013 - 2020	Unquantifiable		82,00	39,61				
Wind power											
Photovoltaic	Action 1: Installation of a photovoltaic plant on roof elementary school and service center SEGONZANO	Public Administration	2009	Investment already made		23,97	11,58				
	Action 2: Installation of a photovoltaic plant on roof town hall and service center SOVER	Public Administration	2010-2013	Investment already made		14,38	6,95				
	Action 3: Installation of a photovoltaic plant on roof ex elementary school LISIGNAGO	Public Administration	2011	Investment already made		12,76	6,16				
	Action 4: Installation of a photovoltaic plant on roof school CEMBRA	Public Administration	2011	Investment already made		77,00	37,19				
	Action 5: Installation of a photovoltaic plant on roof school FAVER	Public Administration	2012	Investment already made		31,44	15,19				
	Action 6: Installation of a photovoltaic plant on roof service center VALDA	Public Administration	2009	Investment already made		11,65	5,63				
	Action 7: Installation of a photovoltaic plant on parking roof GRUMES	Public Administration	2011	Investment already made		38,11	18,41				
	Action 8: Installation of a photovoltaic plant on town hall roof GRAUNO	Public Administration	2013	Investment already made		17,70	8,55				
	Action 9: Installation of a photovoltaic plant on roof Casa del Porfido and municipal area ALBIANO	Public Administration	2013-2020	€ 612.000,00		310,53	149,98				
	Action 10: Installation of a photovoltaic plant on roof service center GRUMES	Public Administration	2013-2020	€ 87.750,00		46,02	22,23				
	Action 11: Installation of a photovoltaic plant in a municipal area GRAUNO	Public Administration	2013 - 2020	€ 317.520,00		160,87	77,7				
	Action 12: Installation of photovoltaic plants on residential buildings	Private sector	2008 - 2013	Investment already made		2479,94	1197,81				
	Action 13: Installation of photovoltaic plants on residential buildings	Private sector	2013 - 2020	Unquantifiable		799,60	386,21				
Combined Heat and Power											
Other - please specify: _____											
LOCAL DISTRICT HEATING / COOLING, CHPs:										5446	1902,13
Combined Heat and Power	Combined heat and Power - public CEMBRA	Public Administration	2013-2020	€ 2.600.000,00		3732	1449,75				
	Combined heat and Power - private GRUMES	Sawmill	2013-2020	€ 650.000,00							
District heating plant	District heating of municipal buildings GRUMES	Public Administration	2013	Investment already made		380	101,46				
	District heating of municipal buildings - SEGONZANO SOVER CEMBRA E FAVER	Public Administration	2013 - 2020	€ 847.219,97		1334	350,92				
Other - please specify: _____											

LAND USE PLANNING:								0	0	0
Strategic urban planning	Strategic urban planning and Energy Policy	Public Administration	2013 - 2020	Unquantifiable	Unquantifiable		Unquantifiable			
Transport / mobility planning										
Standards for refurbishment and new development										
Other - please specify: _____										
PUBLIC PROCUREMENT OF PRODUCTS AND SERVICES:								0	0	0
Energy efficiency requirements/standards										
Renewable energy requirements/standards										
Other - please specify: _____										
WORKING WITH THE CITIZENS AND STAKEHOLDERS:								0	0	0
Advisory services										
Financial support and grants										
Awareness raising and local networking	Action 1: Website and Newsletter	Public Administration	2013 - 2020	Unquantifiable	Unquantifiable		Unquantifiable			
	Action 2: Flyers and Brochure	Public Administration	2013 - 2020	€ 4.500,00	Unquantifiable		Unquantifiable			
	Action 3: Newspaper articles	Public Administration	2013 - 2020	Unquantifiable	Unquantifiable		Unquantifiable			
	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	Public Administration	2013 - 2020	Unquantifiable	Unquantifiable		Unquantifiable			
Training and education	Action 1: Educational activity in schools	Public Administration	2013 - 2020	Unquantifiable	Unquantifiable		Unquantifiable			
	Action 2: Public meetings and technical workshops	Public Administration	2013 - 2020	Unquantifiable	Unquantifiable		Unquantifiable			
Other - please specify: _____										
OTHER SECTOR(S) - Please specify: _____										
Other - Please specify: _____										
TOTAL:								13030,39	9951,77	11029,765

3) Web address

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

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