

Sustainable Energy Action Plan Covenant of Mayors «Progress report»



Signatory information:

Lakatamia Municipality

Country:

Cyprus

Contact person:

Mr. Marios Malaes, Mrs. Athina Kyriacou

Adhesion to CoM:

01/11/2012

SEAP Council approval:

01/11/2012

SEAP submission to CoM office:

19/08/2013

SEAP Approval by JRC:

22/01/2015

Monitoring period:

2010-2014

Action report (2 years)

Detailed implementation report including MEI (4 years)

Date of submission:

21/09/2015

Prepared and submitted by :

Cyprus Energy Agency

Contact person: Mr. Savvas Vlachos

Savvas.vlachos@cea.org.cy



OVERVIEW

Overall budget spent so far :

€ 3,199,200

Key Actions Status:

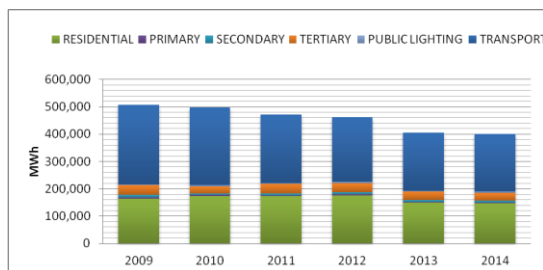
	Not started	In progress	Completed	Postponed	Canceled	Additional measures implemented	New measures foreseen or in progress
Number	1	11	3	4	3	6	10

CO₂ emissions:

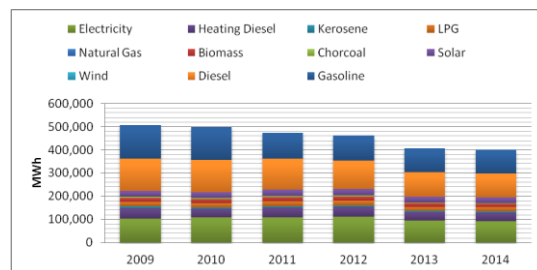
Baseline total emissions (2009)	Monitoring year total emissions (2014)	CO ₂ Reduction compared to baseline	Balance of CO ₂ emissions objective (2020)
183,394 tonnes CO ₂	149,729 tonnes CO ₂	18%	115,102 tonnes CO ₂

SEAP measures effect so far:

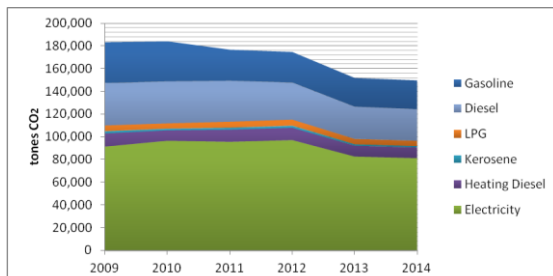
Energy Savings	Renewable energy sources production	CO ₂ savings
9,073.3 MWh/year	1,908.5 MWh/year	7,348.04 tonnes CO ₂ /year



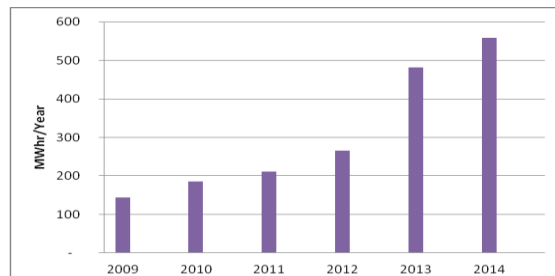
Graph 1. Final energy consumptions for the period 2009-2014 (by sector)



Graph 2. Final energy consumptions for the period 2009-2014 (by energy source)



Graph 3. CO₂ emissions for the period 2009-2014 (by energy source)



Graph 4. Electricity production from renewable energy sources (PV) for the period 2009-2014



PART I – My overall strategy

1. Overall CO₂ reduction target (%) for 2020:

37%

2. Long term CO₂ reduction target (%):

-

3. Baseline year:

2009

4. CO₂ objectives:

Absolute reduction

Per capita reduction

5. Population estimates by 2020:

47,226

6. Vision:

“By respecting people and environment, to develop a modern, attractive, humane and prosperous city that meets the expectations of citizens and serve their needs by providing high quality services”

7. Coordination and organizational structures created/assigned:

Municipal Energy Team which is responsible for the implementation and monitoring of SEAP constituted with the following members:

- (i) Municipal Engineer Polys Polydorides (team leader)
- (ii) Senior health inspector Argyris Argyrou
- (iii) Health inspector Andreas Aristidou
- (iv) Agriculturist Marios Malaes
- (v) Technician Maria Zodiatou
- (vi) Administrator Athena Kyriakou

The Cyprus Energy Agency act's as covenant supporter by providing technical and other assistance.

8. Staff capacity allocated:

	Number of persons (n):	Man months per year (m):	Full time equivalent jobs:(E)=(n)*(m)/12
<input checked="" type="checkbox"/> Local authority	6	3	1.5
<input checked="" type="checkbox"/> Energy Agency	3	2	0.5
<input type="checkbox"/> External Consultant			
<input type="checkbox"/> Covenant territorial coordinator			
<input type="checkbox"/> Other (students, volunteers)			

9. Involvement of stakeholders and citizens:

The following stakeholders are directly involved during the SEAP implementation:

- Cycling clubs
- Volunteer teams
- Private local companies
- Parent's groups
- Local schools



10. Overall budget for your SEAP implementation:

		Budget spent so far (€)		Overall budget foreseen for SEAP implementation 2020 (€) – Submitted 2013		Overall budget foreseen for SEAP implementation 2020 (€) – Revised 2014	
		2010	2014	2010	2020	2010	2020
<input checked="" type="checkbox"/> Local authority	<input checked="" type="checkbox"/> Investment	70,300		1,265,200		907,600	
	<input checked="" type="checkbox"/> Non investment	3,061,900		223,300		4,441,600	
<input checked="" type="checkbox"/> Other actors	<input checked="" type="checkbox"/> Investment	0					
	<input checked="" type="checkbox"/> Non investment	67,000					
	Time period:	2010	2014	2010	2020	2010	2020

11. Financing sources used so far for SEAP implementation:

	Percentage (%)
<input checked="" type="checkbox"/> Local Authority's own resources	97.9
<input checked="" type="checkbox"/> National funds and programmes	0.1
<input checked="" type="checkbox"/> EU Funds and programmes	0.8
<input checked="" type="checkbox"/> Private	1.2

12. Monitoring process:

The Energy Team constituted, along with the support of the Cyprus Energy Agency, are responsible for the implementation and the monitoring of the SEAP. The key tools for the successful monitoring are the SEAP document, the monitoring tools provided and the SEAP annual budgeting.

13. Please rate (little/fair/strong/not applicable) the main problems encountered during SEAP implementation, either overall or by key Covenant sector.

	All sectors	Municipal	Tertiary	Residential	Transport
Limited financial sources	-	Strong	Strong	Strong	Fair
Absence of/weak regulatory framework	-	Little	Little	Little	Strong
Lack of technical expertise	-	Little	Little	Fair	Fair
Lack of support from stakeholders	Not applicable				
Lack of political support at other administrative levels	-	Fair	-	-	-
Changes in the local political priorities	-	Fair	Little	Little	Fair
Incompatibility with national policy orientations	-	Fair	-	-	-
Immature or high cost technologies	-	Fair	Fair	Fair	Strong

14. Additional comments:

Financial crisis in Cyprus, the memorandum and the reconstruction plans for the local authorities of Cyprus are the major barriers for the implementation of SEAPs. Specifically, in Lakatamia, the limited financing resources were driven the stagnation of development projects.



PART III – My Sustainable Energy Action Plan

1. Title:

The Sustainable Energy Plan of Lakatamia Municipality

2. Decision body approving the plan:

Municipal Council of Lakatamia

3. SEAP webpage:

<http://www.lakatamia.org.cy/default.aspx>

4. Business as usual projections by 2020:

CO ₂ emissions (tonnes/year)	172,483
Final energy consumption (MWh/year)	602,042

5. Key Actions of the SEAP (coding explained in ANNEX):

	Key actions	Area of intervention	Policy instrument	Origin of the action	Responsible body	Implementation timeframe		Status (€)	Estimated implementation cost (€)	Implementation cost spent so far (€)	Estimates in 2020		
						Start	End				Energy savings MWh/year	Renewable energy production MWh/year	CO ₂ reductions tCO ₂ /year
						MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES							
1	MB.1 - Roof thermal insulation in Town Hall	A11	B19	C1	Lakatamia	2012	2015	D4 2016	10,000	-			
2	MB.2 - Roof thermal insulation in Municipal Theatre	A11	B19	C1	Lakatamia	2012	2015	D4 2016	10,000	-			
3	MB.3 - Roof thermal insulation in Municipal Library	A11	B19	C1	Lakatamia	2012	2015	D4 2016	10,000	-			
4	MB.4 – Voltage optimization to the town	A15	B12	C1	Lakatamia	2014	2014	D3	20,000	2,500	10	0	8.74



	hall												
5	MB.5 – Energy efficient lighting to the town hall	A14	B19	C1	Lakatamia	2012	2012	D2 2010	500	4,000	1.6		1.4
6	MB.6 – Maintenance of heating and cooling systems in Town Hall, Municipal theatre, Municipal library and Municipal health service	A13	B112	C1	Lakatamia	2012	2020	D2	6,300	6,000	8.4		7.3
7	MB.7* - Energy efficient heating/cooling equipment to the Town Hall and Multidynamic Centre building	A13	B112	C1	Lakatamia	2013	2014	D3	26,800	26,800	20		17.5
8	MB.8* - Energy Audit in Municipal swimming pool	A16	B112	C1	Lakatamia	2013	2013	D3	2,400	2,400			
9	MB.9* - Thermal insulation cover for the swimming pool	A13	B112	C1	Lakatamia	2013	2013	D3	15,000	15,000	497		128
TERTIARY BUILDINGS , EQUIPMENT/FACILITIES													
10	TB.1– No lighting day-Annual switching off of lights across the Pedieos river	A19	B11	C1	Lakatamia	2012	2020	D2 Annual	5,000	0	0.1		0.1
RESIDENTIAL BUILDINGS													
11	RB.1 – Seminar on Nearly Zero Energy Buildings and workshop on biomass and solar energy in the framework of the project Green Partnerships	A18	B11	C1, C3	Lakatamia	2012	2014	D3 2014	6,000	6,000 EU	26	26.5	46
12	RB.2 – Educational presentations at schools (NZEB, Green Partnerships, 50/50)	A18	B11	C1, C2	Lakatamia, Cyprus Energy Agency	2010	2020	D2 Annual	1,200	2,000	808	809	1413
13	RB.3 – Information about energy on Municipal's	A18	B11	C1	Lakatamia	2010	2020	D2 Annual	0	0	614	614	1073



	website and social media sites												
14	RB.4 – Information and awareness of the citizens through dissemination of informative materials (Newsletter on energy savings, Flyers in the framework of Green Partnerships project), TV spots (Elihmed)	A16	B11	C1, C2, C3	Lakatamia, CEA,	2012	2020	D2 2010-2014	20,000	5,000 Mun 800 CEA 1,200 Others 3,000 EU	50	50	87
15	RB.5* – Environmental messages in billboards on the streets	A16	B11	C1	Lakatamia	2014	2020	D1	1,000	-	-	-	-
16	RB.6* - Sustainable Energy week	A18	B11	C1	Lakatamia	2011	2020	D2	4,500	4,500	26	26.5	46
17	RB.7* - Construction of the environmental information centre in the framework of Green Partnership	A19	B17	C1, C3	Lakatamia	2015	2017	D1	400,000	17,000 EU 3,000 Mun	-	-	-
18	RB.8* - Ecological festival	A18	B11	C1, C3	Lakatamia	2010	2020	D2	24,000	12,000 Others 12,000 Mun	375	375	655
19	RB.9* - Energy renovation in 3 Low Income Households in Lakatamia	A16	B17	C1, C2	Lakatamia, Cyprus Energy Agency, Private sector	2013	2014	D3 2014	30,000	25,500 CEA 3,000 Mun. 1,500 Other	10.2	2.5	9
PUBLIC LIGHTING													
20	PL.1 – Energy efficient street lighting	A21	B23	C1, C2	Lakatamia, Cyprus Energy Agency	2013	2013	D2	604,000	5,000			
21	PL.2* – Energy efficient lighting in pedestrian crossings	A21	B26	C1, C2	Lakatamia	2010	2014	D2	5,000	5,000	29		25



INDUSTRY													
22	IN.1 – Seminar on Energy Efficiency for industrial processes	A32	B31	C1	Lakatamia	2013	2015	D2 2010	1,500	5,000	191		167
TRANSPORT													
23	TR.1 – Bicycle day (promoting cycling)	A44	B41	C1, C3	Lakatamia, Cycling clubs, Youth Committee	2012	2020	D2 2010	2,000	4,000	60		16
24	TR.2 – Eco cars day (promoting eco cars) - Cancelled	A410	B41	C1	Lakatamia	2012	2020	D5	-	-	-	-	-
25	TR.3 – Free parking for electric and hybrid cars in public spaces	A41	B42	C1	Lakatamia	2012	2017	D1 2015	38,000	-	-		-
26	TR.4 – Energy Saving in Municipality's fleet – Scrapping old vehicles(5 salons, 2 pickup trucks)	A41	B410	C1	Lakatamia	2013	2020	D4	60,000	-	135		36
27	TR.5 - Upgrading the network of cycle paths and pavements	A44	B44	C1	Lakatamia	2014	2020	D2	100,000		2190		585
28	TR6- Energy Saving in transport by promoting bicycle use (bicycle rental system) - Cancelled	A44	B410	C1	Lakatamia	2014	2015	D5	-				
29	TR.7* - Upgrading the network of cycle paths and pavements (3 km)	A44	B44	C1	Lakatamia	2015	2015	D1	750,000		-	-	-
30	TR.8* - Construction of pavements and pedestrian crossing in the territory of the municipality	A44	B44	C1	Lakatamia	2011	2014	D3	34,000	34,000	-	-	-
LOCAL ELECTRICITY PRODUCTION													
31	LE.1 – Photovoltaic system	A53	B58	C1	Lakatamia	2012	2015	D3	100,000	6,000		5	4



	to municipal building (3kW)							2014		Municipality			
32	LE.2 – Installation of photovoltaic park 150 kW - Cancelled	A53	B56	C1	Lakatamia	2014	2016	D5	-	-	-	-	-
33	LE.3* – Photovoltaic system to Municipal swimming pool (20 kW)	A53	B58	C1	Lakatamia	2017	2017	D1	40,000	-	-	-	-
OTHER													
34	OT.1- Development of Green Spaces (4000 tree planting per year)	A73	B72	C1	Lakatamia	2012	2020	D2 2010	3,000,000	2,975,000			1207
35	OT.2* - Green waste disposal area	A72	B74	C1	Lakatamia	2015	2015	D1	10,000	-	-	-	-
36	OT.3* - Placement of 3 discharge points (bins) for disposing recycled materials	A72	B74	C1	Lakatamia	2011	2011	D3	9,000	9,000	1222	-	1068
37	OT.4* - Feasibility study for exploitation of green waste	A72	B74	C1	Lakatamia	2015	2015	D1	3,000	3,000	2800	-	748

- The staff cost for the above actions was not included
- Numbers with green color considered as investments. With red color are those expenditures considered as non investments.



ANNEX I – CATEGORIES OF ACTIONS

AREA OF INTERVENTION	
A1	Municipal-Residential-Tertiary Buildings
A11	Building envelope
A12	Renewable energy for space heating and hot water
A13	Energy efficiency in space heating and hot water
A14	Energy efficient lighting systems
A15	Energy efficient electrical appliances
A16	Integrated action (all above)
A17	Information and Communication Technologies
A18	Behavioural changes
A19	Other
A2	Public Lighting
A21	Energy efficiency
A22	Integrated renewable power
A23	Information and Communication Technologies
A24	Other
A3	Industry
A31	Energy efficiency in industrial processes
A32	Energy efficiency in buildings
A33	Renewable energy
A34	Information and Communication Technologies
A35	Other

POLICY INSTRUMENT	
B1	Buildings
B11	Awareness raising / training
B12	Energy management
B13	Energy certification / labelling
B14	Energy suppliers obligations
B15	Energy / carbon taxes
B16	Grants and subsidies
B17	Third party financing. PPP
B18	Public procurement
B19	Building standards
B110	Land use planning regulation
B111	Not applicable
B112	Other
B2	Public Lighting
B21	Energy management
B22	Energy suppliers obligations
B23	Third party financing. PPP
B24	Public procurement
B25	Not applicable
B26	other
B3	Industry
B31	Awareness raising / training
B32	Energy management
B33	Energy certification / labelling
B34	Energy performance standards
B35	Energy / carbon taxes
B36	Grants and subsidies
B37	Third party financing. PPP
B38	Not applicable
B39	Other



AREA OF INTERVENTION

A4	Municipal - Public - Private Transport
A41	Cleaner/efficient vehicles
A42	Electric vehicles (incl. infrastructure)
A43	Modal shift to public transport
A44	Modal shift to walking & cycling
A45	Car sharing/pooling
A46	Improvement of logistics and urban freight transport
A47	Road network optimisation
A48	Mixed use development and sprawl containment
A49	Information and Communication Technologies
A410	Eco-driving
A411	Other

A5	Local Electricity Production
A51	Hydroelectric power
A52	Wind power
A53	Photovoltaics
A54	Biomass power plant
A55	Combined Heat and Power
A56	Smart grids
A57	Other

A7	Other
A71	Urban regeneration
A72	Waste & wastewater management
A73	Tree planting in urban areas
A74	Agriculture and forestry related
A75	Other

POLICY INSTRUMENT

B4	Transport
B41	Awareness raising/training
B42	Integrated ticketing and charging
B43	Grants and subsidies
B44	Road pricing
B45	Land use planning regulation
B46	Transport / mobility planning regulation
B47	Public procurement
B48	Voluntary agreements with stakeholders
B49	Not applicable
B410	Other

B5	Local Electricity Production
B51	Awareness raising / training
B52	Energy suppliers obligations
B53	Grants and subsidies
B54	Third party financing. PPP
B55	Building standards
B56	Land use planning
B57	Not applicable
B58	Other

B7	Other
B71	Awareness raising / training
B72	Land use planning
B73	Not applicable
B74	Other



Origin of the actions	
C1	Local Authority
C2	Covenant Territorial Coordinator
C3	Other (national, regional,...)
C4	Not possible to say

Progress	
D1	Not started
D2	In progress
D3	Completed
D4	Postponed
D5	Canceled



ANNEX II – BUSINESS AS USUAL AND SEAP SCENARIOS

1. BUSINESS AS USUAL SCENARIO

	Urban developed
BAU Scenario:	
RESIDENTIAL SECTOR	
Residential	2.0%
Residential storage heaters	2.0%
PRIMARY SECTOR	
Agriculture, Forestry and Fishing [A]	0.5%
Mining and Quarrying [B]	0.5%
SECONDARY SECTOR	
Manufacturing [C]	1.5%
Electricity, Gas, Steam and Air Conditioning Supply [D]	0.0%
Water Supply; Sewerage, Waste Management and Remediation Activities [E]	1.0%
Construction [F]	2.0%
TERTIARY SECTOR	
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles [G]	2.0%
Transportation and Storage [H]	2.0%
Accommodation and Food Service Activities [I]	2.0%
Information and Communication [J]	2.0%
Financial and Insurance Activities [K]	2.0%
Real Estate Activities [L]	2.0%
Professional, Scientific and Technical Activities [M]	2.0%
Administrative and Support Service Activities [N]	2.0%
Public Administration and Defence; Compulsory Social Security [O]	2.0%
Education [P]	2.0%
Human Health and Social Work Activities [Q]	2.0%
Arts, Entertainment and Recreation [R]	2.0%
Other Service Activities [S]	2.0%
Activities of Households As Employers [T]	2.0%
Activities of Extraterritorial Organisations and Bodies [U]	2.0%
PUBLIC LIGHTING	
Public Lighting - Urban areas	2.5%
Public Lighting - Rural areas	2.5%
Public Lighting - Traffic Lights	2.5%
Public Lighting - Other Lighting	2.5%
TRANSPORTS	
Urban and suburban passenger road land transport	3.0%
Other passenger road transport services (taxi, tourism, school buses, etc.)	3.0%
Local Electricity Production from Renewable Energy Sources	4.0%

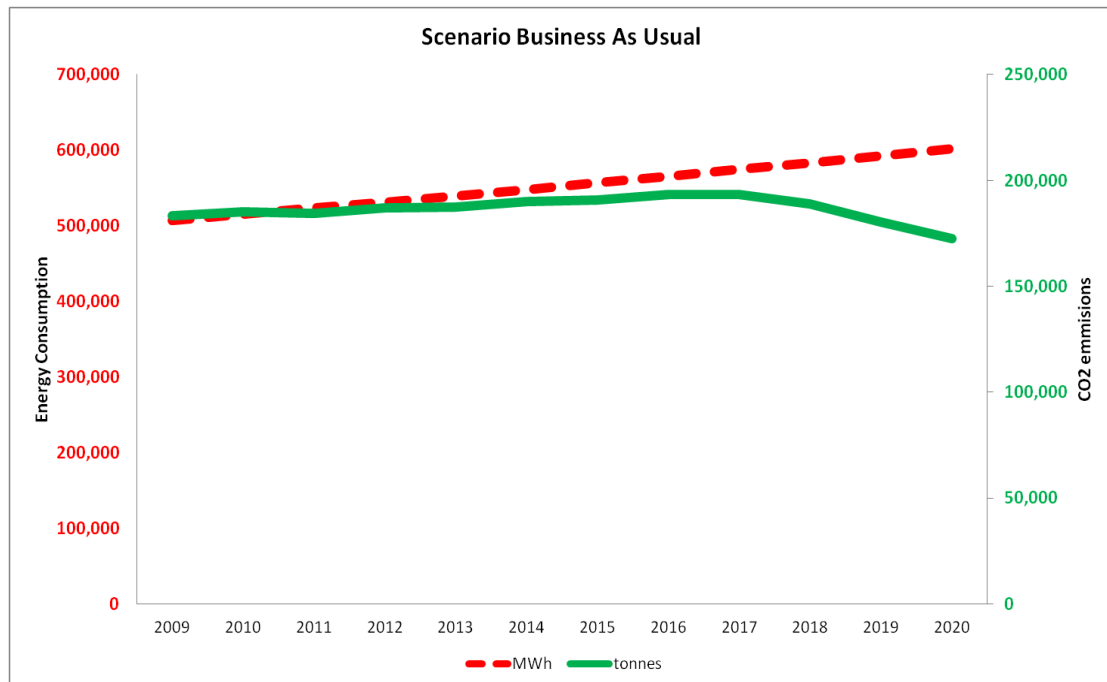


Annual rate of change

Increase of Energy efficiency (National Energy Efficiency Action Plan)	1%
--	----

	tonnes Total CO2 emissions	MWh Total Energy Consumption
2009	183,394	507,082
2010	185,207	515,251
2011	184,592	523,268
2012	187,140	531,425
2013	187,543	539,724
2014	190,154	548,169
2015	190,675	556,762
2016	193,351	565,505
2017	193,404	574,402
2018	188,784	583,455
2019	180,166	592,667
2020	172,483	602,042

% of change	-5.9%	18.7%
-------------	-------	-------

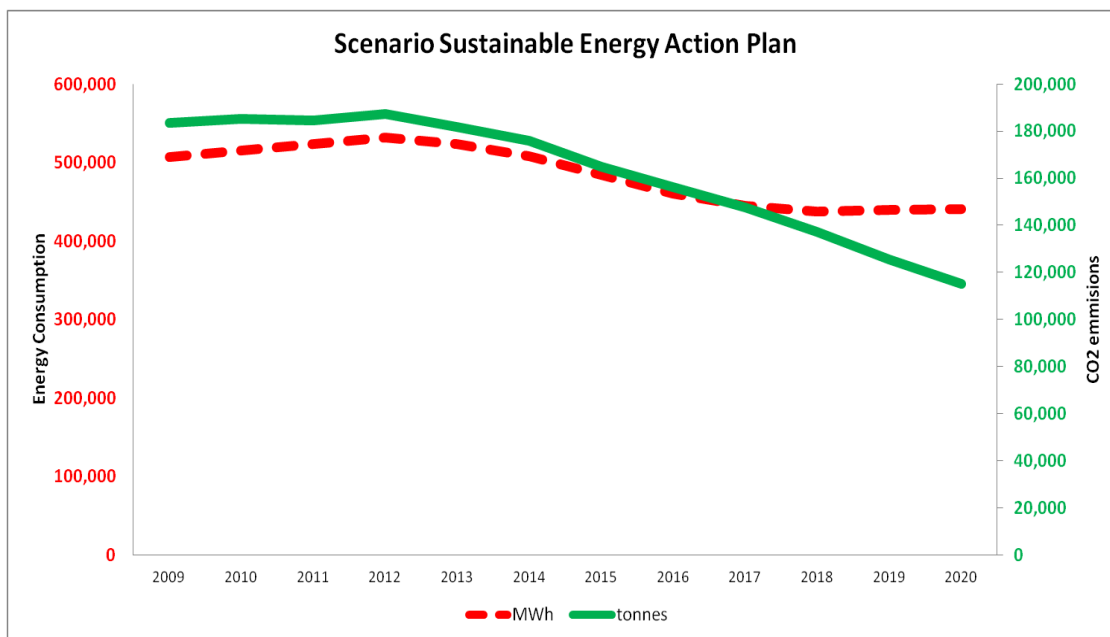


2. SUSTAINABLE ENERGY ACTION PLAN SCENARIO

Select SEAP Scenario: **Mid term**

Enter the Energy savings from the SEAP estimated for year 2020- Local Actions	161,549	MWh
Enter the CO2 savings from the SEAP estimated for year 2020 - Local Actions	57,381	tonnes

		MWh	tonnes
		Total Energy Consumption	Total CO2 emmisions
	2009	507,082	183,394
	2010	515,251	185,207
	2011	523,268	184,592
	2012	531,425	187,140
	2013	523,569	181,805
	2014	507,782	175,808
	2015	484,065	164,853
	2016	460,498	156,053
	2017	445,163	147,500
	2018	438,061	137,141
	2019	439,196	125,654
	2020	440,493	115,102
% of change		-13.1%	-37.2%



ANNEX III – MONITORING OF SEAP

ACTUAL ENERGY RESULTS

		MWh	tonnes
		ACTUAL DATA Total Energy Consumption	ACTUAL DATA Total CO₂ emmissions
	2009	507,082	183,394
	2010	498,949	184,204
	2011	472,586	176,806
	2012	461,627	174,815
	2013	405,861	151,908
	2014	400,676	149,729

