

Sustainable Energy Action Plan (SEAP) of Strovolos Municipality

SUSTAINABLE ENERGY ACTION PLAN

1) Title of your Sustainable Energy Action Plan

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Instructions

Date of formal approval 16/3/2010

Authority approving the plan Municipal Council

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]	CO2 reduction target per sector [t] in 2020
BUILDINGS, EQUIPMENT / FACILITIES & INDUSTRIES:										
Municipal buildings, equipment/facilities	Action 1: Thermal insulation (roof) of Acropolis Park building	Strovolos Municipality	2011	18.000€	43	0	23	45.752	8.187	41.865
	Action 2: Power factor installation to the Municipality Building	Strovolos Municipality	2011	46.000€	69	0	55			
	Action 3: Thermal insulation (roof) of the Municipality Building	Strovolos Municipality	2011	45.000€	150	0	80			
	Action 4: 250 HPS lamps replacement with fluorescent lamps in the Municipality building (THEATER) and 100 conventional lamps replacement with fluorescent lamps in the Municipality building (DIFSCS)	Strovolos Municipality	2011	1.500€	14	0	11			
	Action 5: 20 kW photovoltaics installation on Acropolis Park building	Strovolos Municipality	2011	44.000€	0	30	24			
	Action 6: 20 kW photovoltaics installation on Municipality storerooms building	Strovolos Municipality	2012	44.000€	0	30	24			
	Action 7: CREATING A NEW CULTURAL CENTRE IN THE MUNICIPALITY OF STROVOLOS with energy efficient design	Strovolos Municipality	2013	464.000€	150	0	118			
Tertiary (non municipal) buildings, equipment/facilities	Action 1: Regulation for the Energy Performance of new buildings	Energy service (Ministry)	2009	-€	6270	0	4.612			
	Action 2: Regulation for the inspection of heating/cooling equipments	Energy service (Ministry)	2010-2011	-€	3010	0	2.214			
	Action 3: Subsidies for the installation of solar thermal systems	Energy service (Ministry)	2009	-€	1053	0	775			
	Action 4: Subsidies for the installation of geothermal heat pumps	Energy service (Ministry)	2009	-€	752	0	553			
	Action 5: Regulation for the energy efficiency of electric appliances	Energy service (Ministry)	2008	-€	5788	0	4.257			
	Action 6: Subsidies for the installation PV and wind systems	Energy service (Ministry)	2009	-€	0	1935	1.423			
	Action 7: Regulation for the obligation of new buildings to install solar water heaters	Energy service (Ministry)	2011	-€	664	0	488			
	Action 8: Regulation for the Energy Performance of existing buildings with area over 1000 m2	Energy service (Ministry)	2010	-€	6270	0	4.612			
Residential buildings	Action 1: Regulation for the Energy Performance of new buildings	Energy service (Ministry)	2009	-€	6.645	0	4.712			
	Action 2: Regulation for the inspection of heating/cooling equipments	Energy service (Ministry)	2010-2011	-€	3190	0	2.262			
	Action 3: Subsidies for the installation of solar thermal systems	Energy service (Ministry)	2009	-€	1116	0	792			
	Action 4: Subsidies for the installation of geothermal heat pumps	Energy service (Ministry)	2009	-€	797	0	565			
	Action 5: Regulation for the energy efficiency of electric appliances	Energy service (Ministry)	2008	-€	4731	0	3.355			
	Action 6: Subsidies for the installation PV and wind systems	Energy service (Ministry)	2009	-€	0	2322	1.647			
	Action 7: Regulation for the obligation of new buildings to install solar water heaters	Energy service (Ministry)	2011	-€	591	0	419			
Municipal public lighting	Action 1: Replacement 8000 conventional lamps with new LED lamps	Electricity Authority of Cyprus - Strovolos Municipality	2013-2014	1.600.000€	3200	0	2.525			
	Action 2: Improvement of the operating hours of the municipal public lighting	Electricity Authority of Cyprus - Strovolos Municipality	2013-2014	8.000€	320	0	252			
Industries (excluding industries involved in the EU Emission trading scheme - ETS) & Small and Medium Sized Enterprises (SMEs)	Action 1: Regulation for the Energy Performance of new buildings	Energy service (Ministry)	2009	-€	793	0	579			
	Action 2: Regulation for the inspection of heating/cooling equipments	Energy service (Ministry)	2010-2011	-€	381	0	278			
	Action 3: Subsidies for the installation of solar thermal systems	Energy service (Ministry)	2009	-€	133	0	97			
	Action 4: Subsidies for the installation of geothermal heat pumps	Energy service (Ministry)	2009	-€	95	0	69			
	Action 5: Regulation for the energy efficiency of electric appliances	Energy service (Ministry)	2008	-€	825	0	602			
	Action 6: Subsidies for the installation PV and wind systems	Energy service (Ministry)	2009	-€	0	3870	2.822			
	Action 7: Regulation for the obligation of new buildings to install solar water heaters	Energy service (Ministry)	2011	-€	96	0	70			
	Action 8: Regulation for the Energy Performance of existing buildings with area over 1000 m2	Energy service (Ministry)	2010	-€	317	0	231			
	Action 9: Subsidies for cogeneration	Energy service (Ministry)	2009	-€	1809	0	1.319			
TRANSPORT:										
Municipal fleet	Action 1: Replacement of 5 saloon cars, with electric/hybrid cars	Strovolos Municipality	2016 - 2020	60.000€	46	0	12	179.864	0	45.435
	Action 2: Optimization of municipal fleet transportation routes	Strovolos Municipality	2011-2020	10.000€	100	0	27			
Public transport										
Private and commercial transport	Action 1: Increase the share of public transport in Cyprus cities	Ministry of Communications and works	2010-2015		76591	0	19.347			
	Action 2: MOT car inspections and service	Ministry of Communications and works	2008		50770	0	12.824			
	Action 3: Subsidy scheme for withdrawal from the market of old cars	Ministry of Communications and works	2008		12185	0	1.078			
	Action 4: Subsidies for new car with low CO2 emissions	Energy service (Ministry)	2009-2012		6499	0	1.642			
	Action 5: Low Taxes for cars with low CO2 emissions	Ministry of Communications and works	2008		8123	0	2.052			
	Action 6: Bike sharing system, Nicosia City network, 500 Bicycles	Municipalities of Nicosia Region	2011	200.000€	4380	0	1.106			
	Action 7: Free parking for electric and hybrid cars (20 CARS)	Strovolos Municipality	2011-2015	100.000€	14600	0	14600			
	Action 8: Free parking for electric and hybrid cars (20 CARS)	Strovolos Municipality	2010-2020	70.000€	5110	0	1.291			
	Action 9: Charging points for electric cars	Strovolos Municipality	2012	2.500€	1460	0	369			
LOCAL ELECTRICITY PRODUCTION:										
Hydroelectric power								0	450	355
Wind power										
Photovoltaic	Action 1: 2 Photovoltaic Parks 150 kW each	Strovolos Municipality	2012 and 2014	600.000€	450	0	355			
Combined Heat and Power										
PUBLIC PROCUREMENT OF PRODUCTS AND SERVICES:										
Energy efficiency requirements/standards								0	0	0
Renewable energy requirements/standards										
WORKING WITH THE CITIZENS AND STAKEHOLDERS:										
Advisory services	Action A1. Free of charge provided services to the citizens (about RES etc)	Strovolos Municipality	2011-2013	18.000€	3098	70	1.555	32732	770	18.205
Awareness raising and local networking	Action A2. Booklets distribution	Strovolos Municipality	2010-2011	20.000€	8276	120	3.175			
	Action A3. Radio and TV spots	Strovolos Municipality	2010-2012	8.000€	7400	130	481			
	Action A4. Energy saving and Renewable Energy day	Strovolos Municipality	2011-2020	10.000€	6144	0	4.734			
	Action A5. Website informations	Strovolos Municipality	2011-2020	-€	4100	100	2.000			
	Action A6. Bicycle motion day (once a year)	Strovolos Municipality	2009-2020	2.000€	995	0	258			
	Action A7. Eco cars day (once a year)	Strovolos Municipality	2011-2020	4.500€	1243	0	321			
	Action A8. No lighting day	Strovolos Municipality	2011-2020	5.000€	3600	0	2.330			
	Action A9. Presentations to the public	Strovolos Municipality	2010-2012	6.000€	1000	200	310			
Training and education	Action A10. Educational presentations for students	Strovolos Municipality	2010-2012	1.800€	2000	50	1.000			
	Action A11. Yearly seminar about RES	Strovolos Municipality	2010-2012	3.000€	540	100	526			
	Action A12. Yearly seminar about saving energy in industries	Strovolos Municipality	2013-2015	3.000€	1512	0	1.184			
	Action A13. Yearly seminar about Energy Saving	Strovolos Municipality	2010-2012	3.000€	504	0	326			
	Action A14. Lessons about eco driving	Strovolos Municipality	2011-2020	1.000€	20	0	5			
	Land use and plan							0	0	90
Green area development	Action G1: Planting	Strovolos Municipality	2011-2020	1.000€			60			
	Action G2: Tree care	Strovolos Municipality	2011-2020	8.000€			30			
TOTAL:								225.616	8.637	105.950

TOTAL ESTIMATED COST SINCE 2020 €3.409.300

SUBSIDIES €166.600

Annual Income from Photovoltaics (Strov. Municipality) €166.500

2009 (t CO2) 493.106 2020 BAU (t CO2) 500.902 2020 WITH MEASURES (t CO2) 394.953

TOTAL CO2 SAVING IN 2020 -20%

394.485 €