MAYORS IN ACTION
FOR A SUSTAINABLE FUTURE

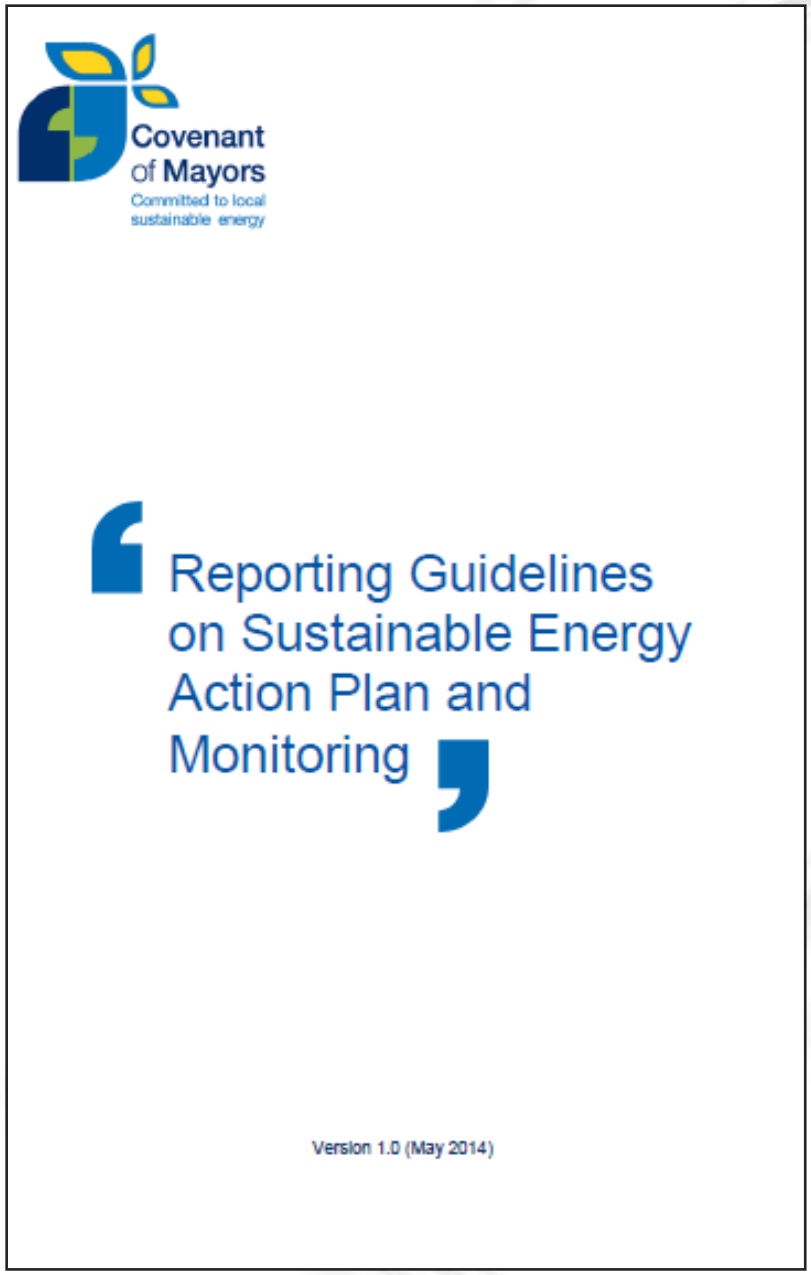
Monitoring of SEAP implementation

Julije Domac
North-West Croatia Regional Energy Agency

REGIONALNA ENERGETSKA AGENCIJA
NORTH-WEST CROATIA
SJEVEROZAPADNE HRVATSKE
REGIONAL ENERGY AGENCY

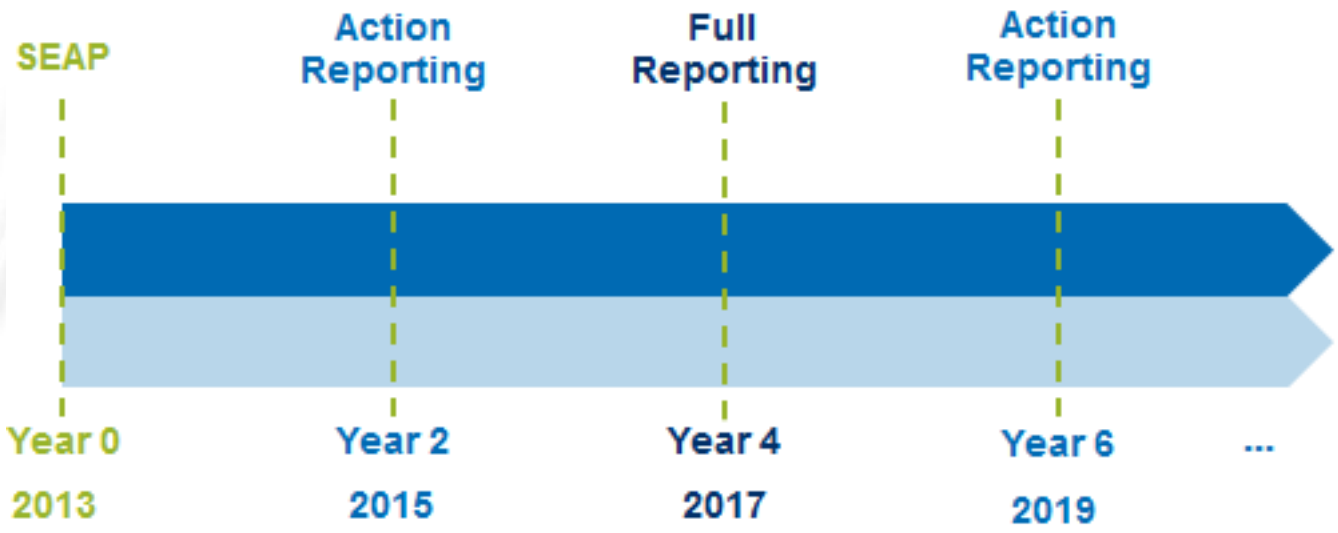
Centralized training for supporting structures

Zagreb, March 10, 2016



- Developed by the Covenant of Mayors Office in collaboration with the Joint Research Centre of the European Commission to assist signatories in understanding the Covenant reporting framework
- Step-by-step guidelines throughout the reporting process
- Practical recommendations and concrete examples
- Examples of indicators

Frequency of reporting



Content of SEAP reports

Part I
Overall Strategy

Part II
Emission Inventories

Part III
Sustainable Energy Action Plan

Type of SEAP Reports

- **Action Reporting**
  - Part I Overall Strategy – Specifies any changes to the overall strategy and provides updated figures on the attribution on staff and financial capacities
  - Part III Sustainable Energy Action Plan – Outlines the status of implementation of measures and their effect
- **Full Reporting**
  - Part I Overall Strategy
  - Part II Emission Inventories – Provides a Monitoring Emission Inventory (MEI)
  - Part III Sustainable Energy Action Plan

Part I Overall Strategy

- Overall CO_2 reduction target
- Vision
- Coordination and organisational structures created
- Staff capacity allocated (preparation and implementation)
- Involvement of stakeholders and citizens
- Overall budget for the implementation of SEAP
- Financing sources used so far for SEAP implementation
- Monitoring process (Main barriers to SEAP implementation)

Part I - template

1) Overall CO_2 reduction target	2020 target	%	Long-term target		%
	Baseline year	2008	Target year	Please choose!	
	Reduction target type	absolute			
	Population estimates by 2020				

2) Vision

(Max. 700 characters)

3) Coordination and organisational structures created/assigned

(Max. 700 characters)

4) Staff capacity allocated

SEAP preparation:

- Local authority
- Local/regional energy agency
- External consultant
- Covenant Territorial Coordinator
- Other

SEAP implementation*:

- Local authority
- Local/regional energy agency
- External consultant
- Covenant Territorial Coordinator
- Other

(Max. 700 characters)

* : at least one checkbox is mandatory

5) Involvement of stakeholders and citizens

Part I - template

6) Overall estimated budget for the implementation of your SEAP

	Budget spent so far (€)	Overall budget foreseen for SEAP implementation (€)
Local Authority*	Investment Non-investment	Investment Non-investment
Other Actors*	Investment Non-investment	Investment Non-investment
	0 Total	0 Total implementation cost
Time period	Please choose! Please choose! years	Please choose! Please choose! years

(Max. 700 characters)

* : at least one checkbox is mandatory

7) Foreseen financing sources for the implementation of your SEAP

- **public**
  - Local Authority's own resources
  - National Funds and Programmes
  - EU Funds and Programmes
- **private**
  - Private

(Max. 700 characters)

8) Monitoring process

(Max. 700 characters)

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

	All sectors	Transport	Municipal	Tertiary	Residential
Limited financial sources					
Absence of / weak regulatory framework					
Lack of technical expertise					
Lack of support from stakeholders					
Lack of political support at other admin. levels					
Changes in the local political priorities					
Incompatibility with national policy orientations					
Immature or high cost technologies					

Part II Emission Inventories

The key sectors included in emission inventory are:

- **Buildings**
  - Municipal buildings
  - Tertiary buildings
  - Residential buildings
- **Transport**
  - Municipal fleet (Vehicles owned and used by the local authority administration)
  - Public transport (bus, tram, metro urban rail transportation)
  - Private and commercial transport
- **Public lighting**

Part II Emission Inventories - data needed

- **Analysis of energy consumption in the building sector**
  - Buildings number and characteristics
  - Energy source
  - Total heated floor area (m^2)
  - Thermal energy consumption (kWh/year) and
  - Electricity consumption (kWh/year)

Part II Emission Inventories - data needed

- **Analysis of Energy Consumption of the Transport Sector**
  - Structure of the fleet owned by the City according to fuel type
  - Structure and characteristics of public transport in the City
  - Number and type of registered private and combined-use vehicles
  - Consumption of various fuel types for the fleet owned by the City
  - Consumption of various fuel types for public transport
  - Consumption of various fuel types for private and commercial transport
- **Analysis of energy consumption of the public lighting sector**
  - Structure of electrical network of the public lighting
  - Types of electrical lighting sources (electric bulbs)
  - Categories of electrical lighting facilities (lamps)
  - Total consumption of electricity of the sector (kWh)

Part II - Template

Sector	FINAL ENERGY CONSUMPTION [MWh]															
			Fossil fuels								Renewable energies					Total
	Electricity	Heat/cold	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 INDUS																
Municipal buildings, equipment/facilities																0
Tertiary (non municipal) buildings, equipment/facilities																0
Residential buildings																0
Public lighting																0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TRANSPORT																
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Part III – Sustainable Energy Action Plan

Key Actions	Area of intervention	Policy Instrument	Origin of the action	Responsible body
MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES				
Solar thermal collectors for education,administration and municipality building	Renewable energy for space heating and hot water	Energy management	Local authority	City of Ivanic-Grad, REGEA, City administrative office for development
Reconstruction of indoor lightning in primary schools classrooms	Energy efficient lighting systems	Energy management	Local authority	City of Ivanic-Grad, REGEA, City administrative office for development
Placement of thermometer in every room in municipality buildings	Behavioural changes	Awareness raising / training	Local authority	City of Ivanic-Grad, REGEA, City administrative office for development
Thermal insulation envelop and roof insulation refurbishment in 10 municipality buildings	Building envelope	Energy management	Local authority	City of Ivanic-Grad, REGEA, City administrative office for development
Energy high efficiency doors and windows mounting on 10 municipality buildings	Building envelope	Energy management	Local authority	City of Ivanic-Grad, REGEA, City administrative office for development
Thermostatic radiator sets installation in all municipality buildings	Behavioural changes	Awareness raising / training	Local authority	City of Ivanic-Grad, REGEA, City administrative office for development
Mounting energy savings lamps in municipality building	Energy efficient lighting systems	Energy management	Local authority	City of Ivanic-Grad, REGEA, City administrative office for development
Energy labelling	Behavioural changes	Energy certification / labelling	Local authority	City of Ivanić-Grad

Part III – Sustainable Energy Action Plan

Key Actions	Implementation timeframe		Status of implementation	Estimated implementation cost (€)	Implementation cost spent so far (€)	Estimates in 2020		
	Start time	End time				Energy savings [MWh/a]	Renewable energy production [MWh/a]	CO_2 reduction [t CO_2 /a]
MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES								
Solar thermal collectors for education,administration and municipality building	2016	2020	Not started	232877	0	0	815	163.70
Reconstruction of indoor lightning in primary schools classrooms	2016	2020	Not started	35000	0	43.25	0	13.96
Placement of thermometer in every room in municipality buildings	2016	2020	Not started	600	0	277.50	0	55.74
Thermal insulation envelop and roof insulation refurbishment in 10 municipality buildings	2011	2020	Ongoing	350000	310054.22	1350	0	271.20
Energy high efficiency doors and windows mounting on 10 municipality buildings	2011	2020	Not started	470000	0	590.50	0	118.60
Thermostatic radiator sets installation in all municipality buildings	2011	2018	Not started	79500	0	554	0	111.30
Mounting energy savings lamps in municipality building	2011	2017	Not started	0	0	197	0	63.63
Energy labelling	2015	2017	Ongoing	186513.32	13815.79	17.84		3.67

Current status of Reporting

EU

SEAPs accepted	3.831
Number of submitted Action report s (without MEI)	595
Number of submitted Full reports (with MEI)	275
Total number of submitted monitoring reports	871

Croatia

SEAP accepted	50
Number of submitted Action report s (without MEI)	11
Number of submitted Full reports (with MEI)	-
Total number of submitted monitoring reports	11

Conclusion and recommendations

- By signing the Covenant of Mayors, cities are obliged to develop a Sustainable Energy Action Plan and to continuously inform the European Commission on implementation progress and efficiency every two years
- Action or Full reporting
- The same Methodology as in SEAPs
- Necessary steps:
  - Establish successful scheme for continuous collection of requested energy indicators of each subsector
  - Identify available national and international financial sources for SEAP implementation – City budget should be the last option if there are no other financial sources at all
- Education, Education, Education!!!

REGIONALNA ENERGETSKA AGENCIJA
NORTH-WEST CROATIA
SJEVEROZAPADNE HRVATSKE
REGIONAL ENERGY AGENCY

Thank you for your attention!

jdomac@regea.org

www.regea.org