

2011 Survey of resource efficiency policies in EEA member and cooperating countries

COUNTRY PROFILE:

Cyprus



Country information on resource efficiency policies,
instruments, objectives, targets and indicators,
institutional setup and information needs

May 2011

This country profile is based on the information provided by Elena Stylianopoulou and Marilena Papastavrou from the Cypriot Ministry of Agriculture, Natural Resources and Environment. The information is current as of February 2011.

This country profile was prepared as part of the EEA-ETC/SCP 2011 survey of resource efficiency policies, which aims to collect, analyze and disseminate information about national experience in the development and implementation of resource efficiency policies in EEA member and collaborating countries. The work resulted in the following outcomes:

- **Short 'country profiles' (this document)** - self assessments prepared by countries, describing the current status of resource efficiency policies, including key strategies and action plans, policy objectives, instruments, targets and indicators used, institutional setup and information needs.
- **Summary report** - prepared by the EEA and ETC/SCP, the report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies information needs and knowledge gaps.
- A session on resource efficiency policies during the 2011 EIONET workshop to discuss further needs and to facilitate information sharing and experience exchange among EIONET members.

More information about resource efficiency policies, including an analytical report "Resource efficiency in Europe" and thirty one country profiles, can be found at:

<http://www.eea.europa.eu/resource-efficiency>

1. Resource use in Cyprus – facts and figures

1.1 General facts and figures about the country



Population (projected inhabitants for 2010) [1] 803,147
 ➤ Percent of total EEA-32 0.14%

Surface area (km²) [2] 9,251
 ➤ Percent of total EEA-32 0.16%



GDP at market prices – Purchasing Power Standard – Current Prices (Million Euro, 2009) [3] 18,528
 ➤ Percent of total EEA-32 (minus Liechtenstein) 0.14%

GDP per capita in Purchasing Power Standards (PPS) [4] 98
 EU27=100 (2009)

Urban population (rate of pop., 2009) [5] 70.1%

Main economic sectors and their share in total GDP (2009 est.) [2]

Agriculture 2.1%

Industry 18.6%

Services 79.3%

EU accession date [6] 1.5.2004

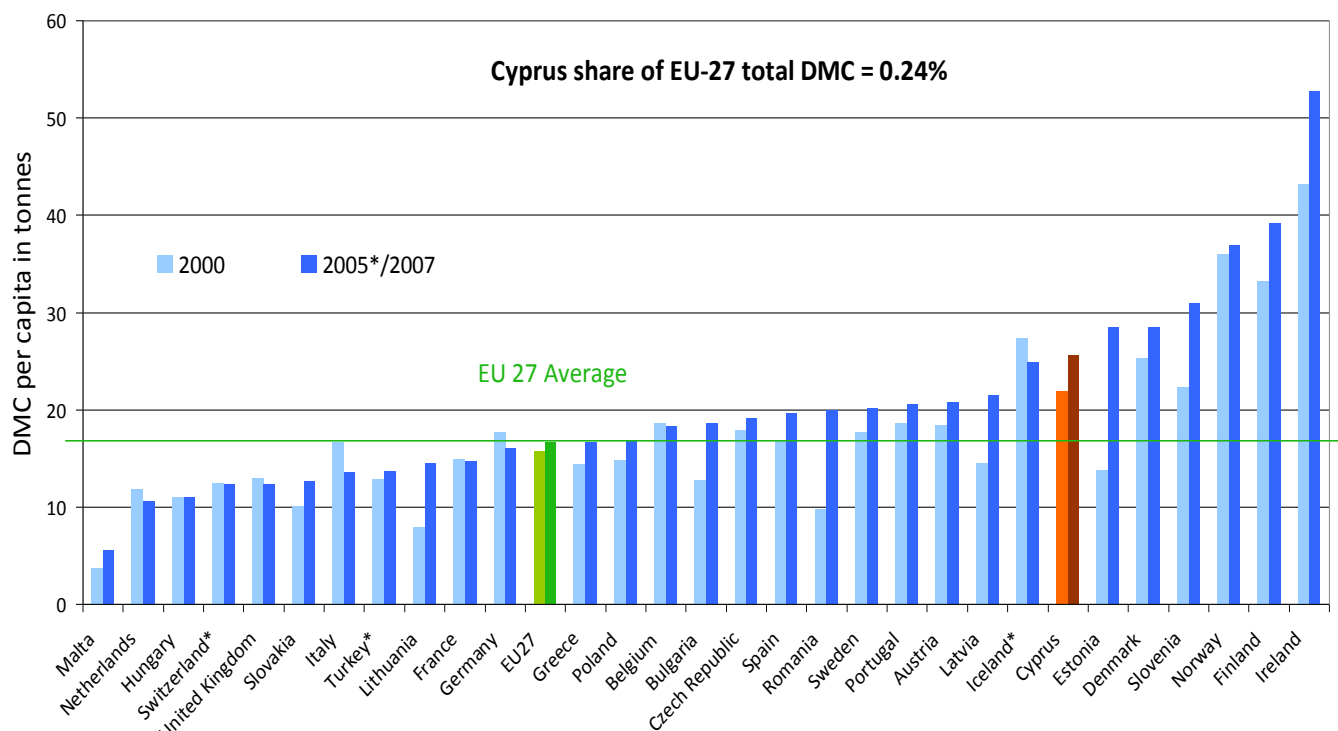
Source:
<https://www.cia.gov/library/publications/the-world-factbook/index.html>

Additional relevant background information on Cyprus (and on 37 other EEA member and cooperating countries) can be found at the SOER2010 website:

<http://www.eea.europa.eu/soer/countries/cy>

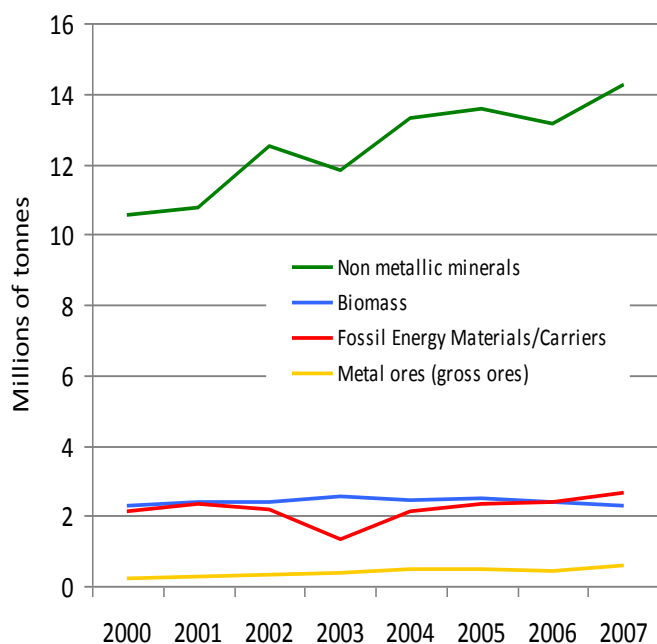
1.2 Facts and figures on resource efficiency for Cyprus

Use of resources per capita 2000 and 2007 [tonnes DMC/capita]



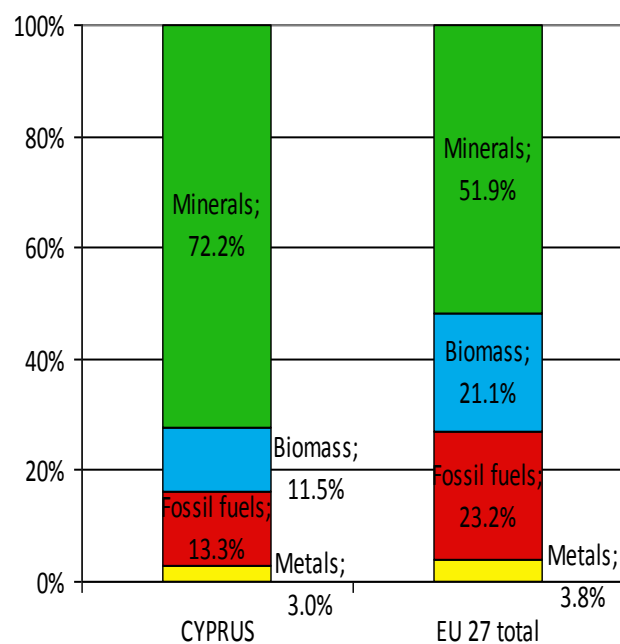
Source: Eurostat, OECD and Total Economy Database [7] * = For these countries data is for 2000 and 2005.

Domestic Material Consumption by category over time, Cyprus



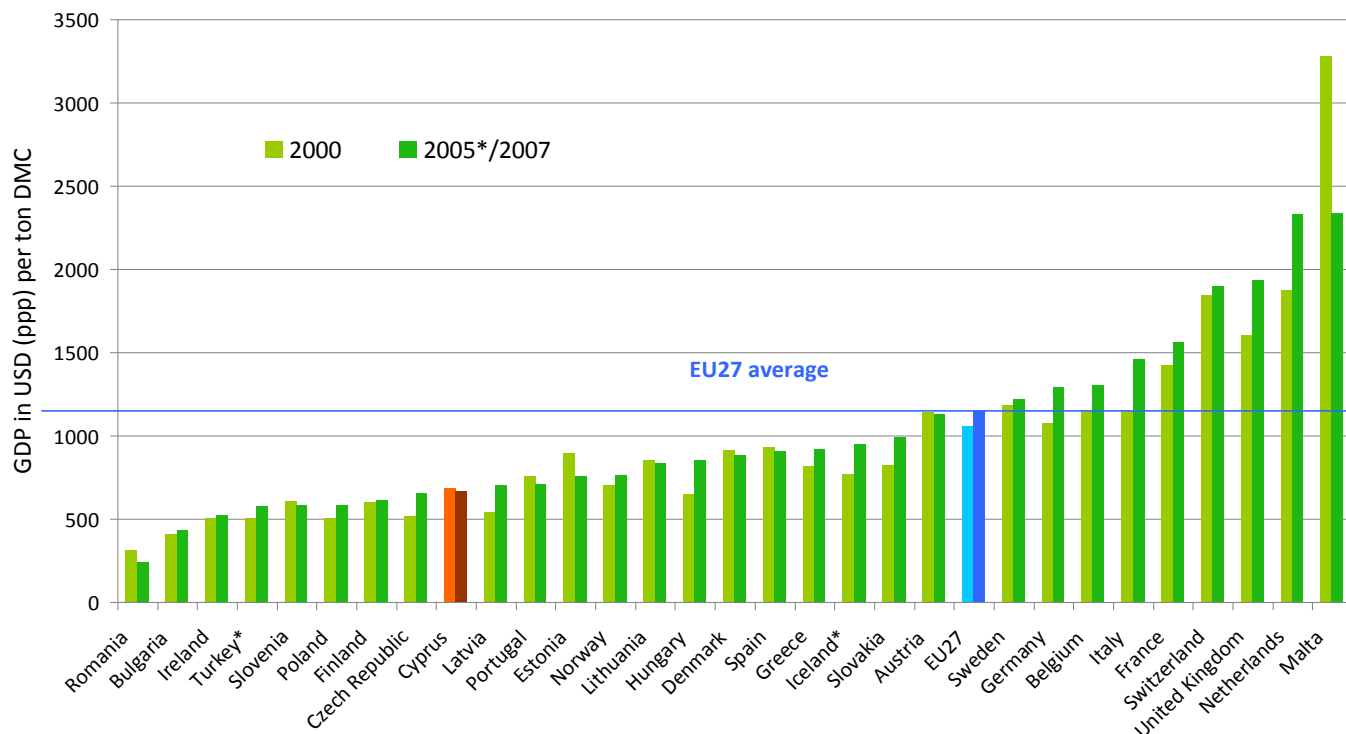
Source: Eurostat [8]

Breakdown of DMC by type of materials (2007)



Source: Eurostat [8]

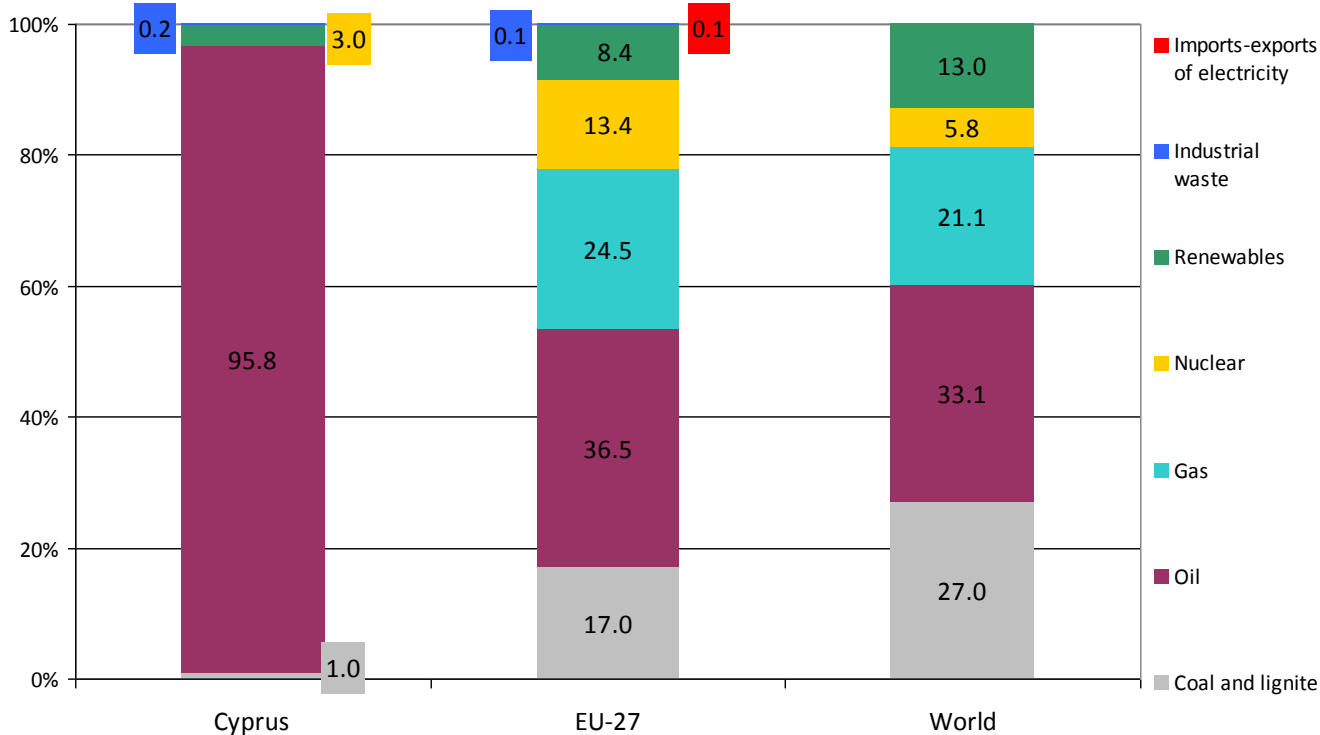
Material productivity 2000 and 2007 [USD ppp/ton DMC]



Source: The Conference Board, Total Economy Database, Eurostat [9]

* = For these countries data is for 2000 and 2005.

Primary energy consumption



Source: Eurostat [10]

2. Evolution and main drivers for the development of resource efficiency policies

A main driver leading towards resource efficiency is the increasing price throughout the years of non-renewable energy sources. The oil crisis in the 1970's could be considered a starting point as efforts focusing on energy savings and the penetration of renewable energy sources had started. Additionally, the environmental impacts from the extensive use of non-renewable energy sources, such as climate change play an important role in changing patterns of production.

Another important incentive towards resource efficiency is waste management, where prevention of waste as well as further handling of recycled waste are of utmost importance. A policy focused on resource efficiency could contribute to the further promotion of prevention and recycling and to the "cradle to cradle" approach.

Additionally policies directed towards resource efficiency could have a positive effect on innovation and competitiveness among businesses in Europe.

3. Overall Policy Approach for Resource Efficiency

Cyprus does not have an explicit national resource efficiency strategy. However, the topic of resource efficiency is being addressed in a number of National Strategies and Action Plans.

- The **National Reform Programme for EU 2020** under the relative flagship initiative, briefly describes the main policies to promote efficient use of resource efficiency.
- The **National Sustainable Development Strategy** provides the overall framework and analyses extensively the goals and targets to reach sustainability and resource efficiency
- In addition, the **2nd National Energy efficiency Action Plan (NEEAP)**, which was submitted to the European Commission in July 2011, describes the targets for energy of 2016 onwards.

The **National Sustainable Development Strategy** (2007) and the updated **Reviewed National Sustainable Development Strategy** (NDS 2010): Resource efficiency represents a critical opportunity to address unsustainable paths. Within the NSDS, resource efficiency (atmosphere, forests, water resources, sea water, coastal areas, biodiversity, agriculture, mineral resources, energy and wastes) is addressed within the wider scope of sustainability vis-à-vis, halting depletion of resources, minimizing consumption, increasing material security, supporting lifecycle and closed-loops models of consumption and zero-waste models.

([http://www.moa.gov.cy/moa/agriculture.nsf/All/54EC18F7703AA4BCC22578100031309F/\\$file/NSDS_revised.pdf?OpenElement](http://www.moa.gov.cy/moa/agriculture.nsf/All/54EC18F7703AA4BCC22578100031309F/$file/NSDS_revised.pdf?OpenElement))

The **Reviewed National Sustainable Development Strategy 2010** was approved by the National Council of Ministers during the last trimester of 2010, and it covers 11 Thematic Priorities, among others Climate Change and Clean Energy, Transportation, Conservation and Management of Natural Resources. These three Thematic Priorities include targets and actions whose goal is the use of natural resources in a rational way in order to ensure sustainability and resource efficiency.

The NSDS refers to several Action Plans and Strategies (see following section), as well as specific targets regarding a number of resources e.g. water, biodiversity, energy, fuels, forests, atmosphere, minerals, agriculture etc.

The four main objectives of the NSDS are:

1. Environmental sustainability,
2. Economic welfare,
3. Social Coherence and Justice,
4. Uptake of International Responsibilities.

Reviewed National Sustainable Development Strategy 2010

<http://www.moa.gov.cy/moa/agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument>

4. Strategies or action plans to improve resource efficiency for individual economic sectors, products or product groups

Sector-specific strategies and action plans:

1. The Energy Efficiency National Action Plan 2007

Aims at implementation of certain measures in households, industry, and transportation in order to minimize energy consumption and increase energy efficiency. There's a target of 10% energy savings by 2016. There are also certain measures applied (e.g. subsidies) regarding the promotion of Renewable Energy Sources and Energy Saving Mechanisms, as well as horizontal measures such as educational programs, awareness campaigns, printed material etc.

2. The New Energy Efficiency National Action Plan 2011 (submitted to EC in July 2011)

http://eu.europa.eu/energy/efficiency/doc/cy - energy_efficiency_action_plan.pdf

3. The Renewable Energy Sources National Action Plan 2010 – 2020

[http://www.mcit.gov.cy/mcit/mcit.nsf/All/789553C60B9DF658C225777D0033353D/\\$file/National%20Action%20Plan_Final.pdf](http://www.mcit.gov.cy/mcit/mcit.nsf/All/789553C60B9DF658C225777D0033353D/$file/National%20Action%20Plan_Final.pdf)

4. The Integrated Mobility Master Plan (2011)

Aims at increasing 10% of public transport by 2020:

<http://www.mcw.gov.cy/mcw/mcw.nsf/All/A292C778CAC81BAEC225781C00449D16?OpenDocument>

5. The National Action Plan for Green Public Procurements:

Resource efficiency is tackled through a number of measures including purchasing of green products. The GPP Action Plan incorporates the total number of criteria of EC GPP toolkit. Aims at increasing environmental criteria for public purchasing in order to minimize environmental impacts and increase financial sustainability. The GPP Action Plan is about promoting green products and services in government. There are 12 categories, Save energy (boilers, air conditions, computers, fridges, move photocells, heat insulation, printers, etc.), electricity (lamps, LED, solar panels etc), save water (dual flush cistern etc), food, buildings (heat insulation etc.), stationary, cleaning, products, furniture, mobile phones, textiles, gardening and transport.

[http://www.moa.gov.cy/moa/agriculture.nsf/All/22DF8A8CE48A4D4AC22572CF00727069/\\$file/GPP_ACTION_PLAN_WEB.pdf?OpenElement](http://www.moa.gov.cy/moa/agriculture.nsf/All/22DF8A8CE48A4D4AC22572CF00727069/$file/GPP_ACTION_PLAN_WEB.pdf?OpenElement)

6. The National Strategy for the update of management processes of Municipal Solid Wastes until 2020

Aims at reducing waste and increasing waste recovery and recycling.

7. Action Plan for the support of Public Transportation

Aims at minimizing fuel consumption as well as CO₂ emissions and increasing resource efficiency.

8. Waste Management Strategy

Aims at the promotion of recycling and recovery and sets the basis for waste prevention.

9. Measures for water efficiency in Cyprus

http://www.moa.gov.cy/moa/wdd/Wdd.nsf/measures_gr/measures_gr?OpenDocument

5. Individual types of resources identified as priority for national or sector-specific resource efficiency policies

According to the **Reviewed National Sustainable Development Strategy 2010** the distribution of natural resources under the Thematic Priority “Conservation and Management of Natural Resources” includes:

- Atmosphere
- Forests
- Water resources
- Fish resources
- Coasts
- Biodiversity
- Agriculture
- Mineral resources (chromite, asbestos, copper, gold, other industrial mineral resources e.g. bentonite, gypsum, argil, clay, chesil, lime etc)

For all of the above natural resources, work is underway to set up targets to be met, with the overall aim of minimising their demand and increasing their efficiency.

The Energy Efficiency National Action Plan 2007, and its Revision (under preparation)

Fossil and renewable resources as well as energy efficiency are addressed in these National Action Plans.

6. Strategic objectives, targets and indicators on resource efficiency

Strategic objectives included in the Reviewed NSDS 2010 (indicative list):

- Minimise the use of fossil fuels and thus the country’s dependence on imported energy resources
- Increase energy security

- Reduce environmental degradation
- Increase the use of Renewable Energy Resources
- Increase energy savings
- Increase recycling fraction
- Increase energy efficiency in households, industry, transportation
- Decrease energy demand
- Utilisation of biomass and biogas
- Promotion of mass transportation systems and reduction of usage of private vehicles
- Reduction of GHG emissions and noise in land transportation
- Participation to European ETS for air transportation
- Promotion of Green Public Procurements
- Promotion of Ecolabel Scheme
- Achieve good condition of atmospheric air and keep emissions within national maximum limits
- Conservation of forest areas and biodiversity
- Balance of water demand and supply
- Drought management
- Rational management of fish resources
- Development of fish areas and creation of new labour positions
- Protection and improvement of sea environment
- Quality and productivity improvement of sea environment
- Increase of "Natura 2000" network
- Combating erosion in mountainous and semi-mountainous areas
- Conservation of mineral resources for long-term needs

Targets (indicative list):

- Increasing renewable energy sources (RES) for electricity production to 6% until 2010
- Doubling RES contribution to the total energy consumption from 1,9% in 1997 to 3,8% in 2010
- Increase energy efficiency by 1% annually
- Total energy savings of up to 3% during 2008 – 2010 and up to 10% during 2008 – 2016
- 20% savings in total primary energy consumption until 2020
- 20% reduction (based on 1990) of GHG emissions until 2020
- Increase of RES share up to 13% in total energy consumption until 2020
- Increase of RES share in transportation sector up to 10% until 2020
- Installation of 165 MW wind turbines, 25 MW CPS, 10 MW PV systems, 4 MW biomass, and 3 MW biogas systems until 2015
- Substitution of 2,5% of fossil fuels with biofuels during 2008 – 2010 in transportation
- 100% use of high-efficiency electric household appliances by 2020
- 100% substitution of conventional light bulbs, with high-energy-efficient bulbs in households and tertiary sector.
- Public transport modernization in order to increase usage from 2% to 10% until 2015
- Achieve good ecological and chemical condition for all surface water until 2015
- Organic Farming increase to 1,5% until 2013
- Introduction of more than 70% of national forest land in "Natura 2000" network

Indicators (indicative list, more details are available in the Reviewed NSDS 2010):

- RES share in total energy consumption
- Total energy consumption
- Electricity production from PV systems in absolute value GWh/yr
- Electricity production from biomass in absolute value GWh/yr
- Forest area, expressed in hectares
- Organic Farming increase to 1,5% of total cultivated area until 2013
- Introduction of more than 70% of national forest land in “Natura 2000” network
- Number of Ecolabel awarded products/ services
- Percentage of water bodies that are under threat for having a “bad condition” until 2015

Percentage of area that is declared “prone to nitro pollution”

7. The institutional setup for the development and implementation of resource efficiency policies

The following five Ministries and one Bureau are the Responsible bodies for the development and implementation of resource efficiency policies in Cyprus:

- Ministry of Agriculture, Natural Resources and Environment through its Departments of Environment, the Water Development Department, Department of Forestry, Department of Fisheries;
- Ministry of Interior (Sector of Municipal waste management responsible for mixed municipal waste);
- Ministry of Communication and Works for transport policy;
- Ministry of Commerce, Industry and Tourism (Energy Service) for energy policy;
- Planning Bureau;
- Ministry of Finance.

Industries and companies have a voice through their participation in the decision making process for policy issues such as resource efficiency.

8. Selected policy instruments or initiatives on resource efficiency presented in more detail

Energy Initiative

The New Energy Efficiency Action Plan (expected July 2011), Ministry of Commerce, Industry and Tourism – Energy Service

http://www.mcit.gov.cy/mcit/mcit.nsf/dmlconservation_gr/dmlconservation_gr?OpenDocument
http://eu.europa.eu/energy/efficiency/doc/cy - energy_efficiency_action_plan.pdf

Because of its national particularities (e.g. small, island country), and with no direct connection with other EU energy networks, Cyprus gives great importance on energy saving and energy efficiency. This is the most clean, efficient and quick way to fulfil all the targets of its energy

policies vis-a-vis empowerment of energy security, reduction of energy dependence, increase of competitiveness, as well as sustainable development and environmental protection.

Energy saving is, in principle, the result of reducing the total amount of consumed energy without seriously affecting the process or the end results. Any reduction in the consumption of Energy always yields greater amounts of energy savings in the production sites.

Methods / Techniques used for achieving reduction of consumed energy

1. Implementing systems that manage the transmission and distribution of energy, efficiently and effectively.
2. Implementing systems that control the flow of reactive power.
3. Implementing controlling systems that reduce the maximum demand.
4. Implementing systems that utilise the excess or rejected energy. Cogeneration of electricity with heating or cooling.
5. Thermal insulation of pipes and other components, or even rooms and entire houses, so that the undesirable heat losses or gains are minimised.
6. Substitution of old components and/or machinery like motors, burners, compressors and chillers, with new ones of higher efficiency so that the consumption of energy is consumed without affecting the process or the result.

The RES National Action Plan 2010 – 2020, Ministry of Commerce, Industry and Tourism – Energy Service

http://www.mcit.gov.cy/mcit/mcit.nsf/dmlenergy_gr/dmlenergy_gr?OpenDocument

Water Initiative (under implementation)

Water Management Plan

Pricing Policies

9. Topics of interest and information needs for follow up work

- Comparison of resource efficiency policies and the way they are implemented in different countries (sharing of good practices)
- How resource efficiency policies are integrated into other policy areas
- Convergence of resource efficiency and sustainable production and consumption policies.

10. References

10.1 Facts and figures about the country

[1] Eurostat, 2011 [demo_pjan]

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en

[2] CIA World Factbook (2009 est.)

<https://www.cia.gov/library/publications/the-world-factbook/index.html>

[3] Eurostat, 2011 [nama_gdp_c]

<http://appsso.eurostat.ec.europa.eu/nui/show.do>

[4] Eurostat 2011 [tsieb010]

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsieb010&plugin=0>

[5] World Bank, Migration and Remittances Factbook 2011

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21352016~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

[6] European Commission 2008

http://europa.eu/abc/12lessons/key_dates/index_en.htm visited December 15, 2008

[7] Eurostat, OECD and Total Economy Database

DMC data from Eurostat Database, Material Flow Accounts, and OECD, Population data from Eurostat Database, Population, and The Conference Board — Total Economy Database, September 2010. www.conference-board.org/data/economydatabase/

[8] Eurostat

Material flow accounts, env_ac_mfa, uploaded June 2010

[9] The Conference Board, Total Economy Database, Eurostat

GDP data from The Conference Board — Total Economy Database, September 2010, www.conference-board.org/data/economydatabase/ ; DMC data from Eurostat Database on Environmental Accounts, and OECD.

[10] Eurostat

Energy statistics, uploaded Oct 2010

<http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/database>

10.2 Resource Efficiency Policy References

Reviewed National Sustainable Development Strategy 2010

<http://www.moa.gov.cy/moa/agriculture.nsf/All/04D327E3AEAEA22DC22573B100627691?OpenDocument>

The Renewable Energy Sources National Action Plan 2010 – 2020

[http://www.mcit.gov.cy/mcit/mcit.nsf/All/789553C60B9DF658C225777D0033353D/\\$file/National%20Action%20Plan_Final.pdf](http://www.mcit.gov.cy/mcit/mcit.nsf/All/789553C60B9DF658C225777D0033353D/$file/National%20Action%20Plan_Final.pdf)

The National Action Plan for Green Public Procurements

[http://www.moa.gov.cy/moa/agriculture.nsf/All/22DF8A8CE48A4D4AC22572CF00727069/\\$file/GPP_ACTION_PLAN_WEB.pdf?OpenElement](http://www.moa.gov.cy/moa/agriculture.nsf/All/22DF8A8CE48A4D4AC22572CF00727069/$file/GPP_ACTION_PLAN_WEB.pdf?OpenElement)

Measures for water efficiency in Cyprus

http://www.moa.gov.cy/moa/wdd/Wdd.nsf/measures_gr/measures_gr?OpenDocument

The New Energy Efficiency Action Plan (expected July 2011)

http://www.mcit.gov.cy/mcit/mcit.nsf/dmlconservation_gr/dmlconservation_gr?OpenDocument

The RES National Action Plan 2010 – 2020

http://www.mcit.gov.cy/mcit/mcit.nsf/dmlenergy_gr/dmlenergy_gr?OpenDocument

Policies and approaches in 31 EEA member and cooperating countries

Further information about resource efficiency policies, including the analytical report and thirty-one detailed country profiles, are available on the EEA website:

<http://www.eea.europa.eu/resource-efficiency>

Selected examples of resource efficiency policies, instruments or targets presented in the thirty one detailed country profiles

