

#### RENEWABLE ENERGY POLICY REVIEW

### **CYPRUS**

Cyprus has no indigenous sources of energy and at the moment, it is almost entirely dependent on imported energy. In y 2007, imports of oil products, coal and pet coke for home consumption, amounted to 1.05 million Euros, representing approximately 16.7% of the country's domestic imports. Energy is therefore of vital importance to the island's economy.

The energy consumption in Cyprus is predominantly oil-based and amounts to 96% of the total energy consumption. Other forms of commercial energy used are Solid Fuels (coal and pet coke) for the production of cement, amounting to 2.0% of the total energy consumption. The remaining 2.0% is mainly solar energy and at the moment is the only substantial contribution of renewable energy sources, in the country's final energy consumption.

The high costs of imported energy are a burden on the economy of the country. Renewable energy sources (RES) constitute the only indigenous source of energy in Cyprus capable of making a significant contribution to the island's energy balance. However, until 2005, the contribution of RES was low. This started to change with the introduction of the New Support Scheme in 2006. In addition to this, in 2007 feed in tariffs for RES were set and the public interest for RES investment increased dramatically.

Cyprus is one of the leading countries in the use and construction of solar water heating systems. 92% of households are equipped with solar water heaters and 53% of hotels have installed large solar water heating systems. According to ESTIF (European Solar Industry Federation), in 2007 Cyprus had the larger number of solar collector installations per capita, with a 57 kWth per 1000 capita.<sup>1</sup>

- **KEY FIGURES**The **share of RES in total primary energy consumption** was of 2.4% in 2007 (with important contribution of solar thermal).
- The share of RES in the gross final energy consumption was 3.4 % in 2007.
- The share of RES electricity generation was 0.07 % in 2007 (from PV and biomass).

<sup>&</sup>lt;sup>1</sup> ESTIF

- The share of biofuels in the transport sector in 2007 was 0.1%.
- Cyprus energy dependence on imports amounts to 96 % in 2005

#### **RES POLICY**

In order to promote the uptake of RES, the Cyprus government adopted a framework for support measures which included the first Action Plan for the Promotion of Renewable Energy Sources, 2002-2010. Based on the experience gained during the first 5 years of operation of the Action Plan, a New Support Scheme was approved by the Council of Ministers and will be in operation as soon as it is approved by DG Competition of the European Union. The New Support Scheme (2009-2013) provides more generous incentives than the previous Scheme and sets more ambitious targets for the increase of renewable energy sources, to the total electricity consumption and overall to the total energy balance. It also includes a financial mechanism to encourage renewable energy sources and proposes strategies to eliminate administrative obstacles.

#### **RES TARGETS**

### Mandatory targets set by the Directive on the Promotion of the use of energy from renewable sources

- 13% share of RES on the final consumption of energy in 2020.
- At least 10% share of renewable energy of final consumption of energy in transport by 2020.

# Indicative Target set by the RES- electricity European Directive from 2001<sup>2</sup>

• 6 % Share of RES on gross electricity consumption by 2010

# Indicative Target set by the European Biofuels Directive from 2003<sup>3</sup>

• Biofuels consumption of 5.75% of petrol and diesel use for transport in 2010.

### **National commitments**

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<sup>&</sup>lt;sup>2</sup> Directive 2007/71/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market. Currently in force, sets targets up to 2010.

<sup>&</sup>lt;sup>3</sup> Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport currently in force, sets targets up to 2010, with indicative targets by 2005.

- The Action Plan for the Promotion of RES determines that the contribution of RES to the total energy consumption of Cyprus should rise from 4.5% in 1995 to 9% in 2010.
- As an indicative target, 1% biofuel by energy content in 2007 has been set as well a 2% biofuel by energy content for 2008, 2009 and 2010.
- There is no national target/commitment for heating and cooling.

### **Progress towards the Targets**

At present, there is a 6% target for RES electricity contribution, by the year 2010, which is considered to be attainable. It is expected that if the first wind farms (total capacity of 110 MW) are installed by the end of 2010 the target will be achieved.

The use of biofuels in Cyprus was 0.1% in 2007.

# **Support for RES electricity**

In 2009, Cyprus will introduce a New Support Scheme<sup>4</sup>, The Support Scheme covers investments regarding utilization of RES, and electricity-heating/cooling cogeneration. The percentage of subsidy and the funding per category as well as the form of public aid per category are shown in detail in Table 1.

For the calculation of operating supports, the respective investments supports as well as the estimated Electricity Authority of Cyprus (EAC) costs were taken into account.

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<sup>&</sup>lt;sup>4</sup> After its approval by the European Committee

Table 1.

Resource	Beneficiaries	Technology	% Investment grands	Feed-in tariff*	Duration [years that an investor is entitled to support]
PV	Individuals and Organizations, Engaged in Economic Activities	Capacity up to 20 KW, connected to the network	40% de minimis. Maximum amount €48000 per unit	0.205 €/KWh	15
			0%	0.36 €/KWh	20
		Capacity 21-150 KW connected to the network	0%	0.34 €/KWh	20
		Capacity up to 20 KW, NOT connected to the network	15-35% of eligible costs (according to the size of the enterprise).  Maximum amount €50000 per unit or  40% de minimis  Maximum amount €50000 per unit	0	
	Individuals and Organizations, NOT Engaged in	Capacity up to 20 KW, connected to	55% of eligible costs. Maximum amount €65000	0.225 €/KWh	15
	Economic Activities	the network	0%	0.383 €/KWh	15
		Capacity up to 20 KW, NOT connected to the network	55% of eligible costs. Maximum amount €65000	0	
CSP	Individuals and Organizations, Engaged in Economic Activities	Capacity up to 25 MW, connected to the network	0%	0.260 <b>€/</b> KWh	20
Wind	Individuals and Organizations, Engaged in Economic Activities	Wind farms**	0%	0.166 €/KWh	20
		Wind turbines <30kW	15-35% of eligible costs (according to the size of the enterprise).  Maximum amount €45000 per unit	EAC <sup>5</sup> subsidy only when connected to the network	

<sup>&</sup>lt;sup>5</sup> Electricity Advisory Committee

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			or		
			40% de minimis		
			Maximum amount		
			€45000 per unit		
			15-35% of eligible		
			costs (according to		
			the size of the		
	Individuals and		enterprise).		
	Organizations,	Windmills for	Maximum amount	0	
	Engaged in	water pumping	€20000 per unit	Ü	
Wind	Economic Activities		or		
VVIIIG			40% de minimis		
			Maximum amount		
			€20000 per unit		
	Individuals and		55% of eligible		
	Organizations, NOT	Wind turbines	costs. Maximum	EAC subsidy	
	Engaged in	<30kW	amount €51500 per	only	
	Economic Activities		unit	·	
	Charity				
	institutions,	Central systems	55% of eligible		
	municipalities, and	for heating and	costs. Maximum	0	
	other non-profit	cooling	amount €19000 per		
	organizations	G	unit		
			15-35% of eligible		
			costs (according to		
	Individuals and	Co-generation	the size of the		
			enterprise).		
		of heat and	Maximum amount		
		electricity using	€680000 per unit	0	
		biomass.	or		
		2.0	40% de minimis		
Biomass/biogas			Maximum amount		
Bioinass, biogas		ļ	€200000 per unit		
	Organizations,		3200000 per dilit	Up to 0.135	
	Engaged in Economic Activities	Electricity production from Biomass	0%	€/KWh	
				according to	
				the type and	20
				size of the	
				installation	
		Electricity production from biogas	0%	Up to	
				0.1145€/KWh	
				according to	20
				the type and	
				size of the	
				installation	

<sup>\*</sup>The total price comprises of 1) the purchased price by EAC and 2) the subsidy from the Renewable Energy Fund.

The initial electricity purchase price by the EAC may be modified due to decisions taken by the Cyprus Energy Regulatory Authority (CERA). It is noted that the total purchase price from the EAC, which includes the subsidy, will remain the same as the agreed price during the entire period of time that the agreement defines. Therefore, the percentage/amount of subsidy will be accordingly modified

\*\*Applications on this Support Scheme may not exceed 165MW

Source: Energy Service - Ministry of Commerce, Industry and Tourism

### Desalination using RES

• For Small, Medium and Large size enterprises, the grant will be 35%, 25% and 15% respectively of eligible costs or 40% de minimis. The maximum amount of grant is €175000

### Co-generation of heat and electricity

• For enterprises Subsidy plus 30% de minimis aid or 15-30% of eligible costs, Maximum amount of grant in any case €171000.

Subsidy:

Day Rate: 2.93 euro cents

Night Rate: 2.57 euro cent [Day=07:00-23:00 Night=23:00-07:00]

• For charity institutions, municipalities, and other non-profit organizations subsidy plus 45% of eligible costs, Maximum amount of grant €85500.

**Subsidy:** 

Day Rate: 6.53 – 2.93 euro cent = 3.5 euro cents/KWh Night Rate: 5.73 – 2.57 euro cent = 3.16 euro cents/KWh

[Day=07:00-23:00 Night=23:00-07:00]

### Geothermal heat-pumps for space heating/cooling

 For Small, Medium and Large size enterprises, the grant will be 35%, 25% and 15% respectively of eligible costs. Maximum amount of grant €850,000 or 40% de minimis with maximum amount of money €200,000.

## **Support for biofuels**

An exemption of excise duty for Biofuels imports exist.

**Investment Subsidies** 

D	Compared Lovel 10/1	Community
Resource	Support level [%]	Comments
	15, 25, or 35 % of the eligible costs	
	depending on the size of the	
	enterprise. Maximum amount of grant	Precondition: investment is materialized
biofuels	€680,000	in a selectable for regional funding zone
	Or	for 2007-2008.
	40% de minimis aid	
	Maximum amount of grant €200,000.	

# **Support for all RES**

A levy of 0.22 Euro cents/KWh is imposed on all electricity consumers. The income is used to finance activities aimed to promote the use of RES and Energy Saving.

### Sources:

**European Commission Factsheets by Country** 

http://ec.europa.eu/energy/energy\_policy/facts\_en.htm

Member States Reports in the framework of the Directive 2001/77/EC on renewable electricity

http://ec.europa.eu/energy/res/legislation/electricity\_member\_states\_en.htm

Member States Reports in the framework of the Directive 2003/30/EC on biofuels

http://ec.europa.eu/energy/res/legislation/biofuels members states en.htm

Cyprus Institute of energy

http://www.cie.org.cy/

Energy Service-Ministry of Commerce, Industry and Tourism <a href="http://www.mcit.gov.cy">http://www.mcit.gov.cy</a>

Cyprus Institute of energy <a href="http://www.cie.org.cy/">http://www.cie.org.cy/</a>

EurObserv'er Barometer

http://www.energies-renouvelables.org/observ-er/sig/eufores/sig.asp



In the framework of the EU co –funded project: RES 2020: Monitoring and Evaluation of the RES Directives implementation in EU27 and policy recommendations to 2020



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