

Implementation of EC Directives

Country

Croatia

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
1	Physical Planning and Building Act	legislative	Croatian Parliament	Existing, 2007

Quotations from the measure

Articles harmonised with EPBD introducing energy efficiency:

- heat savings and thermal protection stated as one of six essential building characteristics
- energy consumption (heating/cooling/ventilation) must be equal or lower than prescribed values
- prescribed energy characteristics must be provided in design, construction, maintenance and use of buildings
- satisfactory indoor climate conditions must be provided
- obligatory energy certification and presentation of certificates for public buildings

The Purpose of the measure

The Physical Planning and Building Act, published in Official Gazette No. 76/2007 laid the legal bases for the transposition of EPBD 2002/91/EC.

Article 15 of this Act transposed Articles 3, 4, 5, 6, 7 and 10, covering the part of EPBD under responsibility of the Ministry of Environmental Protection, Physical Planning and Construction.

This Act introduces obligation to prepare further regulation for complete implementation of the EPBD into national legislation.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x			x	x
Negative					

Effectiveness of the measure

New technical regulations have been introduced in 2008.

Energy certification will become obligatory starting from April 2010.

IV. IMPLEMENTATION OF EC DIRECTIVES

Country

Croatia

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
2	Prefeasibility study on application of alternative energy sources in new and existing buildings	legislative	Ministry of Environmental Protection, Physical Planning and Construction	Existing

Quotations from the measure

- obligatory for all new or existing buildings undergoing major renovation larger than 1000m²
- analysis of technical, ecology and economy feasibility of application of RES, cogeneration, district heating and cooling, heat pumps or fuel cells
- achievement of prescribed indoor microclimate conditions is by combination of energy efficient building envelope and complex thermo technical systems : heating, air-conditioning, ventilation and cooling
- calculated data and information on selected technical and constructional systems are used for heat demand for heating and cooling card, obligatory document in design documentation

The Purpose of the measure

A building must achieve its purpose by corresponding architectural and constructional characteristics of the external envelope and indoor area thus defining heat losses and gains to be balanced and to acquire prescribed indoor microclimate conditions. Parts of heat balance are also technology processes within the building and energy demand in a building which provides the input data for energy card introduced by Technical regulation on energy economy and heat retention in buildings (OG 110/08) and Energy certificate introduced by Regulation on energy certification of buildings (OG 113/08).

This study gives procedure to designers and is obligatory part of design documentation. The investor is requested to revise alternative systems and technical solutions, but application of these systems is not obligatory.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x			x	
Negative					

Effectiveness of the measure

From January 2010 this study is obligatory part of design documentation and aims to stimulate integral design concept, use of contemporary technologies and innovative solutions to result in primary energy reduction and energy, ecology and economy savings.

IV. IMPLEMENTATION OF EC DIRECTIVES

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#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
3	Technical regulation concerning energy economy and thermal protection in buildings	legislative	Ministry of Environmental Protection, Physical Planning and Construction	Existing from September 2008

Quotations from the measure

- technical requirements relating to energy economy and thermal protection which must be met when designing and constructing new buildings and using existing buildings heated at an indoor temperature above 12°C, according to HRN EN 13790:2008,
- technical requirements relating to energy economy and thermal protection which must be met when designing the renovation of existing buildings heated at an indoor temperature above 12°C,
- other technical requirements relating to energy economy and thermal protection in buildings,
- technical properties and other requirements relating to certain building products used in building construction for the purpose of energy economy and thermal protection, including certification of conformity of such products with the requirements specified,
- the content of the building design in relation to energy economy in heating and cooling and heat retention,
- the content of a certificate of energy need for heating and cooling of buildings, and
- maintenance of buildings in relation to energy economy and thermal protection.

The Purpose of the measure

This decree presents next step in the implementation of the EPBD. Establishes heat energy demand calculation procedure (EN 13790), maximum annual heat energy demand value for new and existing buildings under major reconstruction and content of the building design related to energy economy in heating and cooling.

This decree gives basic framework for the content of design documentation.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x			x	
Negative					

Effectiveness of the measure

This decree will be obligatory from April 2010. It aims to reduce energy demand and energy economy, introduce contemporary construction standard and significantly reduce energy demand and consumption when refurbishing new buildings. This measure will only indirectly impact district heating.

IV. IMPLEMENTATION OF EC DIRECTIVES

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#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
4	Ordinance on Energy Certification of buildings	legislative	Ministry of Environmental Protection, Physical Planning and Construction	Existing, obligatory from April 2010

Quotations from the measure

- buildings for which an energy certificate is required, and exemptions from energy certification,
- energy classes of buildings, from A+ (<15 kWh/m²) to G (>250 kWh/m²) energy for heating
- the content and format of an energy certificate, the issuance and validity period thereof,
- energy certification of new and existing buildings that are sold, rented out or leased,
- public sector buildings obliged to display the energy certificate to the public, the display method and energy certification,
- obligations of investors or owners of buildings,
- energy certification procedure, and
- Registry of energy performance certificates for buildings.

The Purpose of the measure

This decree presents next step in the implementation of the EPBD. Establishes obligatory energy certification. Energy certificate is issued on the basis of calculation data (EN 13790) and on the basis of energy audit. Energy certificate is provided by authorized persons who have acquired technical university degree, have appropriate working experience (5 years), who are successfully trained for energy audits and certification of buildings.

This decree gives framework, content and procedure of energy certification to be made by authorized energy certifiers and obligations of actors in this process.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x				x
Negative					

Effectiveness of the measure

This decree will be obligatory from April 2010. Classification of buildings according to energy consumption is new criteria in construction industry and is expected to influence building's market value. Public display of energy certificate is obligatory for all public buildings by 6/2012 latest. For all new buildings energy certification is introduced from 4/2010 and is the obligation of the investor. This measure only indirectly concerns district heating.

IV. IMPLEMENTATION OF EC DIRECTIVES

Country	Croatia
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#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
5	Ordinance on the requirements and criteria to be met by energy auditors and energy certifiers of buildings	legislative	Ministry of Environmental Protection, Physical Planning and Construction	Existing, September 2008

Quotations from the measure

- requirements and criteria for accrediting persons to conduct energy audits and energy certification of buildings (highly educated experts in engineering field with 5 years of professional experience who received appropriate training and are certified by responsible Ministry),
- granting, extension, validity period and amendments to accreditations for conducting energy audits and energy certification of buildings,
- documents required for issuance, extension and amending accreditations for conducting energy audits and energy certification of buildings,
- practices and exemption of persons accredited for conducting energy audits and energy certification of buildings,
- supervision of job performance of accredited persons and accreditation revocation,
- a register of persons accredited for conducting energy audits and energy certification of buildings,
- requirements and criteria for granting approval to run an education programme for energy auditors and energy certifiers for buildings (hereinafter referred to as "the Education Programme"), The education of the certified experts is carried out by the authorized institutions and organizations following the curriculum set out by the responsible Ministry,
- a register of Education Programme providers, and
- supervision of the work of Education Programme providers and withdrawal of approval.

The Purpose of the measure

This decree presents the next step in the implementation of the EPBD. It gives criteria for institutions and experts to conduct education, general framework for education program and eligibility criteria for the future energy certifiers.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x				x
Negative					

Effectiveness of the measure

Seven institutions have been authorized for conduction education and five courses have been conducted until the end of 2009 with up to 150 trainees. The accreditation of energy certifiers is in progress. This measure only indirectly applies to district heating.

IV. IMPLEMENTATION OF EC DIRECTIVES

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#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
6	Ordinance on heating and cooling systems in buildings	legislative	Ministry of Environmental Protection, Physical Planning and Construction	Existing, 2008

Quotations from the measure

- description of essential building requirements
- technical characteristics of heating and cooling systems in buildings
- requirements for designing, construction, use, maintenance and other special requirements

The Purpose of the measure

This decree presents the next step in the implementation of the EPBD. It gives guidelines and demands for design, performance, use and maintenance of heating and cooling systems (and products used in these systems) in buildings, the obligatory content of design documentation and the set of applicable technical standards.

This decree is intended for designers of heating and cooling systems.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x				x
Negative					

Effectiveness of the measure

In application since April 2009 and only indirectly applies to district heating.

IV. IMPLEMENTATION OF EC DIRECTIVES

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#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
7	Methodology of energy audits for the purpose of energy certification of buildings	legislative	Ministry of Environmental Protection, Physical Planning and Construction	Existing, obligatory from July 2009

Quotations from the measure

- determination of energy characteristics of new or existing buildings
- calculation of energy needs based on construction and energy system characteristics
- recommendations for energy efficiency improvement
- in non-residential buildings calculated energy need and analyzed energy costs are compared, also energy consumption measurements are conducted to determine actual energy consumption.

The Purpose of the measure

This decree presents the next step in the implementation of the EPBD. It establishes the methodology of energy audits for the purpose of energy certification of buildings, inputs for data collection and energy consumption calculation analysis for residential and non-residential buildings, simple or complex technical systems, recommendation of energy efficiency measures and appendix of relevant technical data. This decree is obligatory for experts conducting energy certification of buildings and it only indirectly affects the district heating.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x			x	
Negative					

Effectiveness of the measure

This decree will be obligatory from April 2010.

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
1	Law on District Heat	legislative	Croatian Parliament	planned

Quotations from the measure

The Law on District Heat, published in Official Gazette No. 42/2005, also laid the legal bases for the transposition of Cogeneration Directive 2004/8/EC. This Law entered into force on March 26th 2004.

Quote from the Law on District Heat:

Article 3

The construction of cogeneration units, their maintenance and utilisation are of a special interest to the Republic of Croatia.

Article 9

(1) The construction of a cogeneration unit shall have priority in the selection of proposed energy projects and in deciding on the construction of energy units.

(2) An energy service company operating a cogeneration unit and using waste, biodegradable waste ingredients or renewable energy sources for heat production in an economically justifiable way, in compliance with environmental protection measures, may gain the status of an eligible heat producer.

(3) The status of an eligible heat producer shall be acquired by the energy service company referred to in paragraph 2 of this Article by virtue of a decision issued by the Agency and in compliance with the conditions prescribed by the Minister by ordinance.

(4) The ordinance referred to in paragraph 3 of this Article shall also define the assurance of the origin of energy by the eligible heat producer and the efficiency criteria, including the environmental impact.

(5) The ordinance referred to in paragraph 3 of this Article shall also define interconnection with a system for power transmission and power and heat distribution for cogenerations.

(6) The share of an eligible heat producer in the energy system of the Republic of Croatia shall depend on the type, power and performance of the plant, the fuel used, the environmental impact, and the potentials of the plant in the years to come.

(7) The parameters referred to in paragraph 6 of this Article, the amount and sources of financial support for the energy capacities of an eligible heat producer shall be determined by the Government of the Republic of Croatia.

The Purpose of the measure

This Law introduces obligation to prepare further regulation for complete implementation of the Cogeneration Directive into national legislation. This measure is on national level.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x			x	x
Negative					

Effectiveness of the measure

The new regulations are currently under preparation and are expected to be passed in the near future.

IV. IMPLEMENTATION OF EC DIRECTIVES

Country

Croatia

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
2	Energy Law	legislative	Croatian Parliament	existing

Quotations from the measure

The Energy Law (Official Gazette No. 68/01, 177/2004, 76/07 and 152/08) laid the legal bases for the transposition of Cogeneration Directive 2004/8/EC.

Quote from the Energy Law

Article 14

- (1) The use of renewable energy sources and cogeneration is in the interest of the Republic of Croatia.
- (2) The Ordinance on the use of renewable energy sources and cogeneration, passed by the Minister, shall specify the renewable energy sources to be used for energy production, conditions and possibilities for their use, including planning, design and construction of plants, registry of renewable energy sources and cogeneration projects, and other issues of importance for the use of renewable energy sources and cogeneration.
- (3) Financial incentives for the use of renewable energy sources, energy efficiency and cogeneration shall be governed by this Law, Law on District Heat, the Act on the Environmental Protection and Energy Efficiency Fund and the State Aid Act.
- (4) Entities granted incentives in project construction for the use of renewable energy sources and cogeneration shall not supply energy generated by such projects to international markets without approval of the Government of the Republic of Croatia.

The Purpose of the measure

This Law and its Amendments introduce obligation to prepare further regulation for complete implementation of the Cogeneration Directive into national legislation.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x			x	x
Negative					

Effectiveness of the measure

The new regulations (Ordinance on a minimal share of incentivized electricity production from RES and cogeneration, Tariff System for the production of electricity from RES and cogeneration, Ordinance on fees for incentivizing electricity production from RES and cogeneration, Ordinance on acquiring the status of eligible electricity producer) have been in force since July 1st 2007 with little or no effect on district heating.

In particular, the cogeneration plants in the category of public heating plants which produce electricity and heat to supply customers, not for their own purposes (e.g. district heating in cities) are excluded from provisions of Ordinance on a minimal share of incentivized electricity production from RES and cogeneration.

In addition, the conditions for acquiring the status of eligible producers of electricity in the form of the energy efficiency of plants, which are defined in the Ordinance on obtaining the status of eligible electricity producer are very strict, especially for units with installed electric power up to 35 MW, which requires that an annual plant efficiency is higher than 80%. Therefore, if hypothetically the possibility of incentives for cogeneration plants integrated into district heating systems would be allowed, they could not meet the prescribed requirements of energy efficiency. It is necessary to review the set criteria, as well as the energy efficiency of a reference plant based on which the primary energy savings are determined.

IV. IMPLEMENTATION OF EC DIRECTIVES

Country	Croatia
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#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
3	Law on Electricity Market	legislative	Croatian Parliament	existing

Quotations from the measure

The Law on Electricity Market, published in Official Gazette No. 177/2004 laid the legal bases for the transposition of Cogeneration Directive 2004/8/EC.

Quote from the Law on Electricity Market.

Article 8

(1) An energy undertaking that generates electricity and heat in a single plant and uses waste or renewable energy resources in an economically viable way in compliance with environmental protection may gain the status of eligible producer.

(2) The status of eligible producer shall be acquired on the basis of a decision to be issued by the Agency in accordance with the requirements prescribed by the Minister.

(3) Eligible producers, with the exception of power stations exceeding 10 MW of capacity, may claim an incentive price based on the tariff system for the generation of electricity from renewable energy sources and cogeneration.

(4) The fee for incentivizing renewable energy resources and cogeneration shall be collected from the suppliers of both tariff and eligible customers by the market operator.

(5) The allocation of funds collected from the fee referred to in paragraph 4 of this Article shall be regulated in the tariff system for the generation of electricity from renewable energy sources and cogeneration.

(6) The transmission system operator or distribution system operator shall secure the taking over from the eligible producers of the total electricity produced as provided for in the prescribed conditions.

From Article 26

(4) The Government of the Republic of Croatia shall prescribe by regulation a minimum share of electricity produced from renewable energy sources and cogeneration, which each energy undertaking performing electricity supply shall take over, taking into account the potential of each individual renewable source of energy, and of cogeneration, and taking into account environmental protection.

This Law entered into force on December 11th 2004.

The Purpose of the measure

This Law introduces obligation to prepare further regulation for complete implementation of the Cogeneration Directive into national legislation.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x			x	x
Negative					

Effectiveness of the measure

The new regulations (Ordinance on a minimal share of incentivized electricity production from RES and cogeneration, Tariff System for the production of electricity from RES and cogeneration, Ordinance on fees for incentivizing electricity production from RES and cogeneration, Ordinance on acquiring the status of eligible electricity producer) have been in force since July 1st 2007 with little or no effect on district heating.

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IV. IMPLEMENTATION OF EC RES DIRECTIVE

Country

Croatia

#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
	<i>explanation</i>			planned

Quotations from the measure

Regarding the transposition of Directive 2009/28/EC into Croatian legislation, so far, only Action plan to encourage use of RES within the accession negotiations and the obligation to fulfil benchmarks for closing the Chapter 15 Energy are prepared. This Action plan, verified by the EC, however is focused on the calculation of targets for Croatia, and the share of RES in year 2020 (in gross energy consumption) by default methodology from (then applicable) Proposal for a Directive 2009/28/EC. In addition to the above, the supporting measures are stated in the Strategy of Energy Development of the Republic of Croatia (Official Gazette 130/09).

Also, a complete National Action Plan for RES is planned to be created by June 2010, which will comply with the Directive and will officially be forwarded to EU.

Further on, by December 2010, it is necessary to transpose the Directive into Croatian legal system. Conceptually, the idea has matured, additionally supported by adoption of new RES Directive, to create a unique Law on Renewable Energy Sources which will integrate electrical energy and heat produced from RES, as well as bio fuels for transport.

Regarding the district heating / cooling scope within RES Directive, it will be dealt with as part of technical assistance for the preparation of technical basis for implementing regulations to encourage the production of heating/cooling from RES in the future.

The Purpose of the measure

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive					
Negative					

Effectiveness of the measure

Monitoring of, & Input to National Renewable Energy Action Plans

Proposed Implementing Measures

IV. IMPLEMENTATION OF EC DIRECTIVES

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#	Name and reference of measure	Type of measure	Responsible organ	Existing or planned?
1	Act on rational utilization of energy in final consumption	legislative	Croatian Parliament	existing, 2008

Quotations from the measure

- rational utilisation of energy in final consumption
- adoption and enforcement of programs and plans for energy efficiency improvement, energy efficiency measures and in particular activities in energy services and energy audits
- responsibilities of public sector, energy entities and large consumers
- rights of consumers in implementation of energy efficiency measures

The Purpose of the measure

Implementation of 2006/32/EC Energy end use efficiency and energy services. Exercise of sustainable development, reduction of energy sectors negative impact on the environment, security of energy supply, meeting energy demand in final consumption, meeting of national obligations in GHG reduction, enhancing implementation of energy efficiency measures in final consumption.

This Act has impact on national, regional and local level.

Impact of Measure

	Planning	Generation	Distribution	Demand	Organization
Positive	x				x
Negative					

Effectiveness of the measure

This Act establishes powers in the scope of energy efficiency programs and planning to Ministry of Economy, Labour and Entrepreneurship, Ministry of Environmental Protection, Physical Planning and Construction and Fund for Environmental Protection and Energy Efficiency, defines obligations of local and regional authorities and large consumers, defines activities in energy services and energy audits, defines responsibilities of public sector, energy subjects and rights of small consumers in implementation of energy efficiency measures.

The effectiveness of this Act is partially answered through the previously described measure of the Fund for Environmental Protection and Energy Efficiency, and in part through Energy Efficiency Master Plan as well as many ongoing campaigns regarding the improvement of energy efficiency in households and governmental buildings, Campaign on energy management in cities and many more to follow.