EUBIONET 3

Solutions for biomass fuel market barriers and raw material availability - IEE/07/777/SI2.499477

The legal and technical requirements of biomass and bioenergy in 18 EU-countries – National reports- D4.2.2

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INTELLIGENT ENERGY EUROPE

Content

Preface

This publication is part of the EUBIONET III Project (Solutions for biomass fuel market barriers and raw material availability - IEE/07/777/SI2.499477, www.eubionet.net) funded by the European Union's Intelligent Energy Programme. EUBIONETII is coordinated by VTT and other partners are Danish Technological Institute, DTI (Denmark), Energy Centre Bratislava, ECB (Slovakia), Ekodoma (Latvia), Fachagentur Nachwachsende Rohstoffe e.V., FNR (Germany), Swedish University of Agricultural Sciences, SLU (Sweden), Brno University of Technology,UPEI VUT (Czech), Norwegian University of Life Sciences, UMB (Norway), Centre wallon de Recherches agronomiques, CRA-W (Belgium), BLT-HBLuFA Francisco Josephinum, FJ-BLT (Austria), European Biomass Association, AEBIOM (Belgium), Centre for Renewable Energy Sources, CRES (Greece), Utrecht University, UU (Netherlands), University of Florence, UNIFI (Italy), Lithuanian Energy Institute, LEI (Lithuania), Imperial College of Science, Imperial (UK), Centro da Biomassa para a Energia, CBE (Portugal), Energy Restructuring Agency, ApE (Slovenia), Andalusian Energy Agency, AAE (Spain). EUBIONET III project will run 2008 – 2011.

The main objective of the project is to increase the use of biomass based fuels in the EU by finding ways to overcome the market barriers. The purpose is to promote international trade of biomass fuels to help demand and supply meet each other, while at the same time the availability of industrial raw material is to be secured at reasonable price. The EUBIONET III project will in the long run boost sustainable, transparent international biomass fuel trade, secure the most cost efficient and value-adding use of biomass for energy and industry, boost the investments on best practice technologies and new services on biomass heat sector and enhance sustainable and fair international trade of biomass fuels.

The overall aim of the work package "Legal and technical frameworks & sustainability of biomass fuels" is to improve the legal and technical framework for solid, liquid and gaseous biofuels from biomass and thereby to eliminate market barriers for biofuels. To reach the overall target, a study was carried out to look at legal incentives and other policy regulations and guidelines for bioenergy, which were force in beginning of 2010.

A short country report was prepared for each participating country. The results of the country reports are summarized in the report "Summary of the legal and technical requirements of biomass and bioenergy in 18 EU countries – D4.2.1". This report is an annex to the main summary report, presenting the country reports.

Authors, Jyväskylä & Gülzow, February 2011

1 Introduction

The overall aim of the work package "Legal and technical frameworks & sustainability of biomass fuels" is to improve the legal and technical framework for solid, liquid and gaseous biofuels from biomass and thereby to eliminate market barriers for biofuels. To reach the overall target, a study was carried out to look at legal incentives and other policy regulations and guidelines for bioenergy, which were force in beginning of 2010.

A short country report was prepared for each participating country. Some of the country reports have also been updated later to reflect the most recent developments in the legal framework. The results of the country reports are summarized in the report "Summary of the legal and technical requirements of biomass and bioenergy in 18 EU countries – D4.2.1". This report is an annex to the main summary report, presenting the country reports.

The study covered bioenergy and the whole supply chain. Especially it was encouraged to report the legal incentives for woody biomass and especially how they effect on round wood use. Also the changes and proposals under discussion has been reported.

A reporting template was prepared to provide a common structure for the country reports and thus to ease the task of drawing conclusions and preparing the summary report. Each country report has a short introduction, presenting the development of different legal regulations in the country in question.

The country reports are divided into the following parts:

1. Support for research, development and demonstrations
2. Energy taxation (e.g. CO_2 taxes for fossil fuels in heat production in Finland, Sweden)
3. Investment support (separate harvesting machinery and heat and power production)
4. Feed-in-tariffs and other support for heat and power production
5. Support for wood fuel and round wood supply (e.g. in Finland support for harvesting energy wood from young stands, chipping support)
6. Other (make your own if not under any of the previous) (e.g. support of agrobiomass of production of biomass for energy generation)

2 National reports

2.1 Austria

The main national legal framework for supporting bioenergy is defined within the Austrian Climate Change Strategy.

The Green Electricity Act is implementing the EU Directive on Electricity Production from Renewable Energy Sources 2001/77/EC and governs the aid for green energy and combined heat and power generation throughout the Federal Republic of Austria. This act established a uniform fee for power generated through CHP and renewable energy sources. Large parts of the Green Electricity Act (GEA) are designed to support the production of green electricity via a feed-in tariff, which is financed by the Austrian electricity consumers through a clearance mechanism. Since its promulgation in 2002, the Green Energy Act was amended three time in the year 2006, 2007 and the last one 2008, with some of the amendments taking effect or being further revised in 2009.

The amendment increased the target for the share of renewable energy in electricity production, to 15% by 2015 (excluding large hydro power plants). The target is to be met through additional installations between 2008 and 2015 of 700 MW of wind power, 700 MW of hydro power (of which 350 MW will be made up of installations with less than 20MW capacity), and 100 MW of biomass (depending on the supply situation).

The feed-in tariff period was extended to 15 years for biomass and biogas, and 13 years for other technologies. Small-scale hydro power (less than 2 MW) now benefits from a different support system of investment subsidies rather than a feed-in tariff.

The total annual funds available for purchasing green electricity through feed-in tariffs by the settlement cenre OeMAG was also increased, from EUR 17 million to EUR 21 million a year, resulting in a total of EUR 500 million made available up till 2015. The funding cap was also made flexible, with the possiblity of raising more funds if necessary.

In 2009, certain amendments took effect or were modified. For example, the system of a lump sum payment received by electricity customers to OeMAG was extended to 2012, and the possibility for reimbursement of payments for green-electricity by companies was limited.

The Austrian Climate Change Strategy covers the period 2008-2012 and covers all sectors, particularly focusing on those not covered by the EU Emissions Trading Scheme. The strategy, which was first adopted in 2002, was amended by the Austrian cabinet in March 2007, based on an evaluation of the 2002 strategy. The revised strategy outlines new and stronger measures required to meet Austria's Kyoto Protocol target, including by purchasing allowances from abroad. Austria has plans to more than double the contribution of renewables to total primary energy supply (TPES) by 2020, and increase the share of renewables in elecricity.

New specific targets were set in the government programme 2007-10 as follows:

- Increase of renewables in TPES to 25% by 2010, and by 45% by 2020;

- Increase the share of electricity from renewables to 80% by 2010, and 85% by 2020, compared to electricity production of 1997;

- Switch at least 400 000 households to renewable energy carriers by 2020, of which at least 100 000 by 2010;

- Increase use of alternative fuels in the transport sector to 10% by 2010 and to 20% by 2020; development of a methane-based transport fuel with a share of at least 20% methane by 2010; provide fuel coverage with a network of E85 and methane filling stations by 2010;

- Double the use of biomass by 2010;

- Improve the legal framework for feeding biogas into the gas distribution network;

- Develop a strategy for the optimal use of hydropower

The supporting mechanisms for woody biomass are mainly confined to investment incentives for heating plants powered with solid biomass. The volume of the subsidy depends on the size of the plant.(For example a lump sum of 120 €/kW for plants with a capacity lower than 50 kW and 60 € for any further kW up to plants with a capacity of 400 kW, but maximum 30 % of the investment costs)

A further supporting activity of woody biomass is the Combined Heat and Power Law (CHP Law - KWK Gesetz). Austria's Combined Heat and Power Law (CHP Law - KWK Gesetz) took effect in early 2009, to promote CHP through the partial reimbursement of operating expenses for new and modernized CHP plants for public district heating, and promoting investment grants for new CHP plants (except those covered by the Green Electricity Act).

New or modernized CHP plants for public district heating can receive investment subsidies, if they result in savings in energy and CO2 emissions compared with separate production of heat and electricity. An efficiency formula is used to determine whether savings occur.

From 2006 to 2012, EUR 55 million are available for the subsidies, with 30% allocated to cogeneration plants for industrial use.

New plants for which permits are received by 30 September 2012 and are in operation by 31 December 2014 can receive investment subsidies up to 10% of the total funds needed. Plants up to 100MW can receive a subsidy of EUR100/kW; those between 100 and 400MW EUR60/kW; and those above 400MW up to EUR40/kW.

Existing or modernized plants can receive subsidies in EUR cents/kWh based on several cost parameters, such as fuel costs, operation and maintenance costs, adequate return on employed capital, pension payments, administrative costs and taxes.

The use of woody biomass for electricity production is subsidized in the line of the Ökostromverordnung (feed-in tariffs) 2010 - ÖSVO 2010. New feed-in tariffs for renewable electricity were determined in February 2010 by the Federal Ministry for Economics and Labour, for new contracts for electricity produced from wind, biomass, biogas, landfill and sewage gas, geothermal and solar in EUR cents/kWh. (feed-in tariffs see in table 4. Feed-in-tariffs and other support for heat and power production by biomass)

Sources:

Kraft-Wärme-Kopplungs-Gesetz BGBl. I Nr. 111/2008

http://www.oem-ag.at/static/cms/sites/oem-ag.at/media/downloads/law/kwk-gesetz-bgbl1-111-2008.pdf

http://www.iea.org/textbase/pm/?mode=re&id=4433&action=detail

Ökostromverordnung 2010 - ÖSVO 2010 (Feed-in-tariffs for green electricity 2010) http://wko.at/up/enet/stellung/OESVO_2010_42-II.pdf,

http://www.bmwfj.gv.at/Presse/Archiv/Archiv%202010/Seiten/Mitterlehnererl%C3%A4sst%C3%96kostrom-VerordnungzuEinspeisetarifen.aspx

http://www.iea.org/textbase/pm/?mode=re&id=4483&action=detail

Ökostrom-Gesetz (Green Energy Act)
http://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20002168

http://www.iea.org/textbase/pm/Default.aspx?mode=pm&id=841&action=detail

http://www.public-consulting.at/kpc/de/home/frdermappe/erneuerbare_energie/

1. Support for research, development and demonstrations	
AUSTRIA	
Number of act, decree or guideline	Klima- und Energiefondsgesetz (KLI.EN-FondsG) und geänderte Fassung Version 2009- Climate- and Energy Fund Law 2006 and 2009 amendments
Ministry responsible for legislation	Federal Ministry of Agriculture, Forestry, Environment and Water Management Federal Ministry for Transport, Innovation and Technology
Name of legislation in local language	der Klima- und Energiefonds
Name of legislation in English	Climate and Energy Fund
Date of launched	2007 (amended 2009)
Date of expire	End of 2010
Geographical coverage:	Federal Republic of Austria
Scope	Established in 2007, the Austrian Climate and Energy Fund has a budget of approximately EUR 500 Million to spend over four years (2007-2010). The fund will support the implementation of the Climate Strategy through research, targeting sustainable energy technologies, increased energy efficiency and CO2 reduction in transport, and promoting deployment and diffusion of technology in the marketplace. The fund will support three main fields of activity: 1- R&D on sustainable energy technologies and climate change 2- public transport and mobility (2009: E-mobility, public transport, multimodal transport systems etc.) 3- technology deployment and diffusion (2008: incentive schemes for wood boilers, PV, other renewable energy sources; 2009: framework programme "The Building as power plant", including PV, renovation and solar thermal). In 2008 the new Austrian energy R&D programme was launched, called "New Energy 2020", and a third call for proposals with a budget of about EUR 40 million took place in October 2009. The 2009 annual programme was approved and published in May 2009. Another relevant document is the "Strategisches Planungsdokument", which has been approved by the Präsidium. In April 2009, the Fund's management was amended so that only two ministries (Environment, and Transport, innovation & technology) are represented in the Board, rather than four as was the case initially.
Internet address	Source for the scope : http://www.iea.org/textbase/pm/?mode=re&id=4080&action=detail Official internet address Klima- und Energiefonds http://www.klimafonds.gv.at/home/ueber-uns/aufgaben-und-ziele.html

2. Energy taxation

AUSTRIA

<table>
<tr><td>Number of act, decree or guideline</td><td>Biofuels Directive 2003/30/EC
Mineral Oil Tax Revision
Fuel Ordinance Amendment BGBl. II/417. Verordnung: Änderung der Kraftstoffverordnung</td></tr>
<tr><td>Ministry responsible for legislation</td><td>Federal Ministry of Agriculture, Forestry, Environment and Water Management</td></tr>
<tr><td>Name of legislation in local language</td><td>EU-Direktive 2003/30/EC</td></tr>
<tr><td>Name of legislation in English</td><td>Transposition of Biofuels Directive 2003/30/EC - Mineral Oil Tax Revision/Fuel Ordinance Amendment</td></tr>
<tr><td>Date of launched</td><td>2004</td></tr>
<tr><td>Date of expire</td><td>-</td></tr>
<tr><td>Geographical coverage:</td><td>Federal Republic of Austria</td></tr>
<tr><td>Scope</td><td>In November 2004, the Austrian Federal government transposed the Biofuel Directive - 2003/30/EC - into Austrian national law with an amendment to the Fuel Ordinance. This amendment required all fuel suppliers, from 1 October 2005, to offer 2.5% of their fuels' total energy quantity as biofuels. From 2007, this percentage will increase to 4.3%, and in 2008 the target of 5.75%, as stipulated in the Directive.
The Mineral Oil Tax was revised to accompany amendment of the Fuel Ordinance. Accordingly, tax concessions will be granted with a biofuel share of at least 4.4% (for diesel since 1 October 2005, for gasoline starting on 1 October 2007). However, to profit from the tax concessions, the fuel must also be sulphur-free (less than 10 mg sulphur per kg of fuel). The use of pure biofuels as motor fuel is exempt from tax.
Tax reduction because of biofuels:
<table>
<tr><td></td><td>Sulphur-free fuels with minimum 4,4% biofuel</td><td>Conventional fuel</td></tr>
<tr><td>diesel</td><td>-0.5 Cent/l (29.7 Cent/l) since 01.10.2005</td><td>+0.8 Cent/l (33.5 Cent/l) si 01.10.2005</td></tr>
<tr><td>gasoline</td><td>-0.5 Cent/l (41 Cent/l) since 01.10.2007</td><td>+1.3 Cent/l (44.5 Cent/l) si 01.10.2007</td></tr>
</table>
As of June 2007, the Austrian government had planned further biofuels promotion. Increasing the use of pure biofuel in the transport market would exceed the above-mentioned aim of 5.75% market share. In addition, biogas could account for a considerable share of motor fuels by 2010, following promotion programs for natural gas driven cars - taxi fleets and public transportation as a first step. In planning its biofuels policy, the Austrian government recognizes the European Council's discussion of an EU-wide 8% target for the proportion of biofuels during its 23 and 24 March 2006 meeting.</td></tr>
<tr><td>Further legal acts or standards referred</td><td>Fuel Ordinance Amendment 2004 and 2009 (BGBl. II/417. Verordnung) (BGBl. II 168 vom 3.6.2009).</td></tr>
<tr><td>Internet address</td><td>Source: http://www.iea.org/textbase/pm/?mode=re&id=2960&action=detail
source for tax reduction table: http://www.umweltbundesamt.at/umweltschutz/verkehr/kraftstoffe/biokraftstoff/</td></tr>
</table>

3. Investment support (note demonstrations under 1)	
AUSTRIA	
Number of act, decree or guideline	BGBl. I Nr. 111/2008
Ministry responsible for legislation	Federal Ministry of Economy, Family and Youth of the Republic of Austria
Name of legislation in local language	Kraft-Wärme-Kopplungs-Gesetz 111. Bundesgesetz, mit dem Bestimmungen auf dem Gebiet der Kraft-Wärme-Kopplung neu erlassen werden (KWK-Gesetz)
Name of legislation in English	Combined Heat and Power Law (CHP Law - KWK Gesetz)
Date of launched	08.08.2008
Date of expire	-
Geographical coverage:	Federal Republic of Austria
Scope	Austria's Combined Heat and Power Law (CHP Law - KWK Gesetz) took effect in early 2009, to promote CHP through the partial reimbursement of operating expenses for new and modernized CHP plants for public district heating, and promoting investment grants for new CHP plants (except those covered by the Green Electricity Act). New or modernized CHP plants for public district heating can receive investment subsidies, if they result in savings in energy and CO2 emissions compared with separate production of heat and electricity. An efficiency formula is used to determine whether savings occur. From 2006 to 2012, EUR 55 million are available for the subsidies, with 30% allocated to cogeneration plants for industrial use. New plants for which permits are received by 30 September 2012 and are in operation by 31 December 2014 can receive investment subsidies up to 10% of the total funds needed. Plants up to 100MW can receive a subsidy of EUR100/kW; those between 100 and 400MW EUR60/kW; and those above 400MW up to EUR40/kW. Existing or modernized plants can receive subsidies in EUR cents/kWh based on several cost parameters, such as fuel costs, operation and maintenance costs, adequate return on employed capital, pension payments, administrative costs and taxes.
Further legal acts or standards referred	Green Electricity Act Green Electricity Act - 2008 and 2009 amendments
Internet address	Available in internet, in German language: http://www.oem-ag.at/static/cms/sites/oem-ag.at/media/downloads/law/kwk-gesetz-bgbl1-111-2008.pdf Source: http://www.iea.org/textbase/pm/?mode=re&id=4433&action=detail

4. Feed-in-tariffs and other support for heat and power production by biomass

AUSTRIA

Number of act, decree or guideline	Ökostromverordnung 2010 - ÖSVO 2010
Ministry responsible for legislation	the Federal Ministry of Economy, Family and Youth of the Republic of Austria
Name of legislation in local language	Ökostromverordnung 2010 - ÖSVO 2010, 42. Verordnung
Name of legislation in English	Feed-in-tariffs for green electricity 2010
Date of launched	02.02.2010
Date of expire	31.12.2010
Geographical coverage:	Federal Republic of Austria
Scope	The ÖSVO 2010 supports the production of electricity from photovoltaic, wind power, geothermic, solid and liquid biomass, biogas and landfill gas. It includes the fixed feed-in-tariffs for all these renewable energy sources. This regulation refers to new plants (except photovoltaic plants with a capacity lower than 5kW peak), which are licensed by authority after 31.12.2004.

Feed-in-tariffs for photovoltaic plants, which are exclusively installed on buildings or noise barriers.

5 kW_{peak} to 20 kW_{peak}	38 Cent/kWh
over 20kW_{peak}	33 Cent/kWh

Feed-in-tariffs for photovoltaic plants, which are not exclusively installed on buildings or noise barriers.

5 kW_{peak} to 20 kW_{peak}	35 Cent/kWh
over 20kW_{peak}	25 Cent/kWh

Feed-in-tariff for energy from wind power plants:

9.7 Cent/kWh

Feed-in-tariff for green energy from geothermic plants:

7.5 Cent/kWh

Feed-in-tariff for energy from solid biomass and wastes with high content of biogenic portion.

maximum capacity up to 500 kW	14.98 Cent/kWh
maximum capacity from 500 kW to 1 MW	13.54 Cent/kWh
maximum capacity from 1 MW to 1.5 MW	13.10 Cent/kWh
maximum capacity from 1.5 MW to 2 MW	12.97 Cent/kWh
maximum capacity from 2 MW to 5 MW	12.26 Cent/kWh
maximum capacity from 5 MW to 10 MW	12.06 Cent/kWh
maximum capacity more than 10 MW	10 Cent/kWh

<table>
<tr><td></td><td>
If the contract is closed since 19.10.2009 and the capacity of the plant is exactly or more than 100 MW, the feed-in-tariff is fixed with 11.5 Cent/kWh.
Feed-in-tariff for green energy produced with liquid biomass:
<table>
<tr><td colspan="2">5.8 Cent/kWh</td></tr>
<tr><td colspan="2">There is an increase of 2.0 Cent/kWh for combined heat and power plants operated with liquid biomass according to Combined Heat and Power Law (CHP Law - KWK Gesetz) § 8 Abs. 2 KWK-Gesetz, BGBl. I Nr. 111/2008</td></tr>
</table>
Feed-in-tariff for energy from biogas plants:
<table>
<tr><td>maximum capacity up to 250 kW</td><td>18.5 Cent/kWh</td></tr>
<tr><td>maximum capacity from 250 to 500 kW</td><td>16.5 Cent/kWh</td></tr>
<tr><td>maximum capacity more than 500 kW</td><td>13.0 Cent/kWh.</td></tr>
<tr><td colspan="2">There is an increase of 2.0 Cent/kWh for combined heat and power biogas plants operated according to Combined Heat and Power Law (CHP Law - KWK Gesetz) § 8 Abs. 2 KWK-Gesetz, BGBl. I Nr. 111/2008</td></tr>
</table>
These fixed tariffs refer only to plants, which use minimum 30% of liquid manure in the substrate. The plant operator has to provide evidence about the input material in the plant substrate.
Feed-in tariff for energy from landfill and sewage gas
<table>
<tr><td>From landfill gas</td><td>6 Cent/kWh</td></tr>
<tr><td>From sewage gas</td><td>5 Cent/kWh</td></tr>
</table>
The period of validity of these feed-in-tariffs is for photovoltaic and wind power plants, geothermic and energy from landfill gas 13 years. The feed-in-tariff for green energy made from solid and liquid biomass and biogas is guaranteed for 15 years from the time bringing into service.
A minimum degree of fuel efficiency with 60% is required for plants operated with wastes with high content of biogenic portion, liquid and solid biomass. The feed-in-tariff for geothermic plants is only guaranteed in case when the plant is operated with a total energetic capacity factor of 60%. The minimum degree of fuel efficiency and the total energetic capacity must be submitted in a concept with the approval of installations. Further the plant operator has to provide evidence of these parameters every year.
</td></tr>
<tr><td>Changes and proposals under discussion</td><td>
The ÖSVO – feed-in-tariffs for green energy is every year revised and gets launched with new adapted feed-in-tariffs.
Changes from ÖSVO 2009 to the new ÖSVO 2010:
The fee-in-tariffs for wind power has increased by nearly 29%, because the Austrian green electricity strategy attaches great importance to wind power next to water power. Also the feed-in-tariffs for electricity made of biogas has increase slightly.
On the other hand, the feed-in-tariffs for electricity from solid and liquid biomass and photovoltaic has decrease in the new ÖSVO 2010.
</td></tr>
<tr><td>Further legal acts or standards referred</td><td>
Combined Heat and Power Law (CHP Law - KWK Gesetz)
Green Electricity Act 2002
Green Electricity Act - 2008 and 2009 amendments
</td></tr>
<tr><td>Internet address</td><td>
http://wko.at/up/enet/stellung/OESVO_2010_42-II.pdf,
http://www.bmwfj.gv.at/Presse/Archiv/Archiv%202010/Seiten/Mitterlehnererl%C3%A4sst%C3%96kostrom-VerordnungzuEinspeisetarifen.aspx
http://www.iea.org/textbase/pm/?mode=re&id=4483&action=detail
</td></tr>
<tr><td>Other information</td><td>
In addition, special tariffs are provided for producers of electricity out of all forms of biomass (solid, liquid, gaseous) who received tariffs under a previous regime for 10 to 13 or 15 years. The special tariffs are provided once these periods end, up to the 20th year of operation. Tariffs range from 7.00 to 9.00 EUR cents/kWh, depending on the size and type of biomass.
</td></tr>
</table>

5. Support for wood fuel and round wood supply	
AUSTRIA	
Number of act, decree or guideline	-
Ministry responsible for legislation	Länder (federal states) Federal Ministry of Agriculture, Forestry, Environment and Water Management
Name of legislation in local language	Forstliche Förderung
Name of legislation in English	forestal subsidy program
Date of launched	-
Date of expire	-
Geographical coverage:	Federal State of Austria
Scope	The integration of forestry subsidisation measures into rural development represents an important method to expand the forest cultivation and to reach national renewable energy targets. State-aided are activities like reforestation. The sum of the aid depends on the composition of the tree species and the habitat. The reforestation has to be geared to the natural tree ecotypes. The opening of forests by building new logging roads and reconstruct or update old forest roads is also included in the forest subsidy program. New and modern logging roads force the use of forests for fuel production and round wood supply. New building activities are financed by 40 % of the investment cost, reconstruction activities by 25%. Activities like pest control, the advancement of protection forests and thinning are subsidized and part of the forestal subsidy program.
Further legal acts or standards referred	Austrian Forest Act
Internet address	Source: http://agrarnet.info/partner/parse.php?id=2500%2C%2C900156%2C

6. Education and Outreach	
AUSTRIA	
Number of act, decree or guideline	-
Ministry responsible for legislation	the Austrian Energy Agency Federal Ministry of Agriculture, Forestry, Environment and Water Management
Name of legislation in local language	Klima:active Programm
Name of legislation in English	klima:aktiv Programme
Date of launched	2004
Date of expire	2012
Geographical coverage:	Federal State of Austria
Scope	The klima:aktiv programme, running from 2004 to 2012, is overseen by the Ministry of Environment and managed by the Austrian Energy Agency. The programme aims to support energy efficiency and increased use of renewables in all sectors of the economy through direct grant support, information, and advice. The programme has four target groups: 1) Energy efficiency and buildings 2) Mobility 3) Communities 4) Renewable Energy These four categories comprise 22 sub-programmes, aimed at technology and service markets. They develop technological and organisational solutions able to compete on the market, take care of innovative quality standards, and promote training of all relevant professional groups. Six sub-programmes in the renewable energy category aim at: -promoting the right application of efficient heat pumps -providing for the increased use of solar heating in single-family homes, residential buildings and tourist enterprises -encouraging the development of as-yet unused wood resources and -the installation of wood biomass-based heating systems in homes -promoting electricity, heat and fuel production from renewable sources -encouraging biomass district heating plants to become more efficient The programme also trains klima:activ experts, for example on solar heating or heat pumps technology. These experts act as consultants. The programme will be present at about 1500 events in 2008 - 2.5 million customer contacts, half of them active enquiries, are estimated for 2008.
Internet address	Further information: www.klimaaktiv.at Source for scope: http://www.iea.org/textbase/pm/?mode=re&id=3940&action=detail

2.2 Belgium

Belgium is a Federal country composed by three regions: Brussels, Flanders and Wallonia. The competences are shared between the Federal and Regional level [1]. Consequently, in the field of energy and bioenergy in particular, most decisions in Belgium are taken at the regional level. Initiatives also exist at the Provinces level or local authorities, but they are not presented in this report. It consists in general in investment to support householders' projects.

Belgium has consequently 4 governments. The governments implement the main lines of official declarations. These declarations represent the government priorities. In its official declaration, the Walloon Government announces the wish to reach 20 % of renewable energy in the final consumption in 2020 in Wallonia [1].

This report presents the incentive tools implemented in Belgium at the federal and regional levels. The competences of each administrative level are detailed below.

Federal level

Competences

The Federal Authority is competent for all matters which require uniform implementation on the national level due to their technical or economic general interest, in particular [2]:

- the national infrastructure plan for the electricity sector;
- the nuclear fuel cycle;
- large-scale storage infrastructures, the transmission and production of energy;
- tariffs, market
- Public Health, Feed chain and environment.
- Marine spaces under Belgian jurisdiction pursuant to the international law of the sea

Current and future support to bioenergies

Belgian authorities pursue a sustainable energy policy that takes into account the economic and social interests of the energy sector as well as the exhaustion of fossil resources and environmental concerns.

In this context, renewable energy sources contribute to achieving the following targets [2]:

- reducing consumption of energy coming from fossil sources to safeguard future reserves;

- reducing the country's dependence on energy imports;

- reducing greenhouse gas emissions;

- minimising the impact of price fluctuations for energy from other sources;

- creating employment in the framework of an innovative economy;

- diversifying the available range of energy to improve the functioning of the energy market.

To support bioenergies, the Federal Authority has recourse to fiscal tools (tax deductions for companies and tax reductions for individuals) also added value tax

reduction. To promote the development of biofuels in the transport sector, the Federal Authority has set up a scheme of tax exempt biofuel quotas and has introduced the mandatory use of biofuel in the fuel mix [2]. The Federal level supports also the R&D with the help of research programs dealing with general interest matters as sustainable development.

The Federal level is also developing two law projects linked with bioenergy:

1) Wood pellets requirements to be traded for a non industrial use in Belgium.
2) Solid fuels technologies efficiency and emissions requirements to be traded in Belgium

These two laws would enter in force in 2011.

Regional level

Competences

The regional aspects of energy policy include:

- Distribution and local transmission of electricity by means of grids with a nominal voltage
- of 70,000 volt or less;
- Public distribution of gas;
- The use of coal mine methane and blast furnaces gas;
- District heating distribution networks;
- Slag heap recovery;
- New energy sources with the exception of those relating to nuclear energy;
- Energy recovery by industries and other users;
- Rational use of energy.

Current and future support to bioenergy

In the field of electricity generation, Belgium has set up a scheme of green certificates and guaranteed minimum prices to support the development of electricity generation from renewable sources. Each Region has its own rules to grant the green certificates [2].

In order to support the establishment of units producing energy from renewable sources, the Regions have initiated schemes to provide investment grants for companies and premiums for individuals and public bodies. Some smaller entities have sometimes their own incentive system in addition of the Regional one. Wallonia also supports R&D with the help of financial advances or grants.

For the remuneration of biogas as biofuel or injected into the grid, there is no application in Belgium for the moment.

In Wallonia, at the initiative of a working group created at the end of 2009, a specific regulatory frame for biomethanisation projects is currently being developed.

NREAP for Belgium

In its national renewable energy action plan, Belgium has identified the volution of the energy consumption and the contribution of bioenergies as presented in table below. This evolution curve takes into account the effects of energy efficiency and energy saving measures.

	2005		2010		2020	
Gross final			ktoe 40,517		ktoe 42,386	

energy consumption	**ktoe 38,209**								
Final bioenergy consumption	Electricity:			Electricity:			Electricity:		
	GWh	1,791		GWh	5,952.4		GWh	11,038.5	
	ktoe	153.9		ktoe	511.8		ktoe	949.1	
	Heating and cooling	477.4		Heating and cooling	161.4		Heating and cooling	2034	
	Transport	0		Transport	496.7		Transport	789.1	
	Total	**631.3**	**1.6 %**	**Total**	**1,169.95**	**2.9 %**	**Total**	**3,722.2**	**9.1 %**

Belgium is a country with a high population density and intense farmland activity. To increase the availability of biomass, the support for renewable energy sources creates new possibilities for using energy crops. Furthermore, there are forestry research and demonstration projects for forestry (short rotation) and other biomass plants under way, which also focus on the phyto-remediation of degraded land. The additional energetic potential of domestic forests is rather limited.

Nevertheless additional possibilities remain to implement a more efficient use of wood (residual flows) resulting from the management of road shoulders, nature reserves, parks and gardens. The service entities responsible for forest management stimulate these possibilities by the establishment of forest management plans.

The establishment for energy purposes can be reinforced by the improved collection of waste flows and of available residual waste. Furthermore, the improved use of biomass, liquefied by fermentation, in combination with manure and compost processing, offers an interesting perspective. The establishment of biomass for such applications is encouraged by granting support for biomass energy projects for investments and with the help of green certificates.

The estimation of primary energy production with inland resources of biomass in 2020 is estimated to 2,434.7 ktoe, coming mainly from agriculture and fisheries.

1. Support for research, development and demonstrations	
Belgium Federal level	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	BELSPO – Federal scientific politic service
Name of legislation in local language	4 mars 2005, approbation du programme «La science pour un développement durable» (2005-2010) ayant abouti à un accord de cooperation entre les entités fédérées et le federal. 20 juillet 2011, décision d'étendre le programme jusque 2011.
Name of legislation in English	4 march 2005, approbation of the program «La science pour un développement durable» (2005-2010) („Science for a sustainable development") linked to a cooperation agreement between federal level and regions. 20 juillet 2011, decision to extent the program up to 2011.
Date of launched	n/a
Date of expire	n/a
Geographical coverage:	Belgium
Scope	The missions of the service are to implement programs, actions and networking to promote research at the national and international levels. • Research programmes during several years answering to politic and public bodies needs in link with several topics as sustainable development • Research networking beetween universities inside the program "Pôles d'attraction interuniversitaires" (PAI); Across program, BELSPO provides funds to lead research en Science for a sustainable development e.g. This program targets research in energy but also in transport and mobility, food, health and environment, climate, biodiversity, atmosphere and ecosystems. Currently, 115 research networks are funded including 10 clusters for an amount of 70 M€.
Changes and proposals under discussion	n/a
Further legal acts or standards referred	n/a
Internet address	http://recherche-technologie.wallonie.be/fr/menu/profils/entreprise/pour-les-pme/pour-les-pme.html
Other information (e.g. woody biomass especially)	n/a

1. Support for research, development and demonstrations	
Belgium Wallonia	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Département de l'Energie et du Bâtiment durable - Direction générale opérationnelle Aménagement du territoire, Logement, Patrimoine et Energie (DGO4) du Service public Wallonie. (Walloon Public services)
Name of legislation in local language	Avance récupérable en R & D : • Décret du 5 juillet 1990 relatif aux aides et interventions de la Région wallonne pour la recherche et les technologies. • Arrêté du Gouvernement wallon du 29 septembre 1994 définissant la "petite et moyenne entreprise" en vue de l'octroi d'aides et interventions pour la recherche et les technologies. • Arrêté du Gouvernement wallon du 29 septembre 1994 relatif aux aides et interventions pour la recherche et les technologies.
Name of legislation in English	Reclaimable advance for R & D: • Décret du 5 juillet 1990 relatif aux aides et interventions de la Région wallonne pour la recherche et les technologies. • Arrêté du Gouvernement wallon du 29 septembre 1994 définissant la "petite et moyenne entreprise" en vue de l'octroi d'aides et interventions pour la recherche et les technologies. • Arrêté du Gouvernement wallon du 29 septembre 1994 relatif aux aides et interventions pour la recherche et les technologies.
Date of launched	-
Date of expire	-
Geographical coverage:	Wallonia
Scope	The Walloon region provides to society and small business located in Wallonia a financial help as an advance to allow them the starting of applied research projects and technology developments. • Small business: reclaimable advance of 50 to 70 % of the project cost. • Society: reclaimable advance of 50 % of the project cost. The repayment of the advance is requested only if the research results are used. The amount is fixed in relation with the advance received. The reimboursement is paid as a rent evaluated based on the monitored sales. To receive this advance, the following criteria have to be fulfilled: 1. The innovated product, process or service has to answer a market need (available market) and a good profitability; 2. The research on industrial applications have to reach, in the next 5 years since the beginning of the research, to a profitable economic activity in Wallonia; 3. The applicant society has to be financially at the balance or in having the possibility to find the needed financements to answer the current and futur costs oft he project; 4. The research team hast o be competent and motivated; 5. The research and its applications have to respect the environment.
Changes and proposals under	- A project call will be launched in 2011 called ERable to finance R & D

discussion	projects. - A virtual research center will be created in 2011 to help the small research unit to receive funds.
Further legal acts or standards referred	n/a
Internet address	http://energie.wallonie.be/fr/avance-recuperable-en-r-d.html?IDC=6376&IDD=12272
Other information(e.g. woody biomass especially)	n/a

1. Support for research, development and demonstrations	
Belgium Wallonia	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Département de l'Energie et du Bâtiment durable - Direction générale opérationnelle Aménagement du territoire, Logement, Patrimoine et Energie (DGO4) du Service public Wallonie. (Walloon Public services)
Name of legislation in local language	Aide pour l'agrément technique d'un produit contribuant à une meilleure maîtrise de la consommation d'énergie (AMURE): Arrêté du Gouvernement wallon du 30 mai 2002 relatif à l'octroi de subventions pour l'amélioration de l'efficience énergétique et la promotion d'utilisation plus rationnelle de l'énergie du secteur privé
Name of legislation in English	Support for the technic agreement of a product helping to improve the control of energy consumption.
Date of launched	01/09/2002
Date of expire	-
Geographical coverage:	Wallonia
Scope	The Public services of Wallonia provides an financial support to society that built a product improving the control of energy consumption to achieve the agreement procedure of the product. The application has to be sent before the starting of the agreement procedure. This regional financial support respects the minimis european rules, consequently the grant will be provided only if total financial support the society has already received during the 3 previous years is under 200,000 €. The amount of this support is equal to 50% of the agreement procedure costs (technical tests costs, administrative costs,...).
Changes and proposals under discussion	n/a
Further legal acts or standards referred	n/a
Internet address	http://energie.wallonie.be/fr/aide-pour-l-agrement-technique-d-un-produit-contribuant-a-une-meilleure-maitrise-de-la-consommation-d-energie-amure.html?IDC=6374&IDD=12325

1. Support for research, development and demonstrations	
Belgium Wallonia	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Service Public de Wallonie - Direction générale opérationnelle de l'Economie, de l'Emploi et de la Recherche"(DGO 6). Le Département du Développement technologique et le Département des Programmes de Recherche
Name of legislation in local language	n/a
Name of legislation in English	n/a
Date of launched	n/a
Date of expire	n/a
Geographical coverage:	Wallonia
Scope	Website presenting all financial supports to promote R&D and technological innovation. Financial supports are dedicated to industries, university, research centres and popularization organisations. The targeted activities are new technologies and products development, services, process, scientific expertise, etc. The existing supports are listed below but not detailed. a) Support to innovation: - „First entreprise" program: support for employement of searcher - „First entreprise international" program: support for employment of a searcher - Support to employ a research project leader b) To gather extern knowledges to achieve a project, financial help are available for: - the development of a new product or service - the development of a new lociciel - the acquisition of a new technology - the market study of a new product c) To lead a research project in industry d) To lead an experimental development project alone or with other industries e) To lead a research project in collaboration with a research body (CWALity program) f) To pratect an innovation g) To receive the EUREKA european label h) To pormote collaboration between public and private bodies i) To popularize science, research and innovation
Internet address	http://recherche-technologie.wallonie.be
Other information (e.g. woody biomass especially)	n/a

2. Energy taxation	
Belgium	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Federal Public Services finances
Name of legislation in local language	Arrêté royal n° 20, 20 juillet 1970, fixant les taux de la taxe sur la valeur ajoutée et déterminant la répartition des biens et des services selon ces taux
Name of legislation in English	Royal decree n°20, 20 July 1970 fixing added value tax levels and classifying goods and services following these levels.
Date of launched	Several extended deadlines. Current exercise: enter in force 07/01/2007
Date of expire	n/a
Geographical coverage:	Belgium
Scope	Classifying goods and services following three taxation levels: 21, 12 and 6 p.c.
Changes and proposals under discussion	n/a
Further legal acts or standards referred	n/a
Internet address	http://ccff02.minfin.fgov.be/KMWeb/document.do?method=view&nav=1&id=7a9c17c1-5af2-4f2f-98b5-f86de824c372&disableHighlightning=7a9c17c1-5af2-4f2f-98b5-f86de824c372/#findHighlighted
Other information (e.g. woody biomass especially	1) VAT of 6 % for vegetal products included wood logs, wood by-products 2) VAT of 6 % for services in building renovation if the house is more than 5 years old. Included wood stoves installation e.g.

2. Energy taxation	
Belgium	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Federal Public Service finance
Name of legislation in local language	1. Arrêté Royal du 4 Mars 2005 relatif aux dénominations et aux caractéristiques des biocarburants et d'autres carburants renouvelables pour les véhicules à moteur et pour les engins mobiles non routiers, M.B., 5 Mars 2005. http://www.ejustice.just.fgov.be/doc/rech_f.htm 2. Loi du 22 juillet 2009 relative à l'obligation d'incorporation de biocarburant dans les carburants fossiles mis à la consommation, M.B., 3 août 2008. 3. 10 JUIN 2006. - Loi concernant les biocarburants
Name of legislation in English	1. Royal Decree of 4 March 2005 Definitions and characteristics of biofuels and other renewable fuels for engines and moving machines outside road, M.B., 5 Mars 2005. http://www.ejustice.just.fgov.be/doc/rech_f.htm 2. Law of 22 July 2009 mandating incorporation levels of biocarburant in fossile fuels available for use, M.B., 3 août 2008. 3. 10 June 2006. – Law on biofuels for transport
Date of launched	05/03/2005
Date of expire	30/09/2013
Geographical coverage:	Belgium
Scope	In 2005, in order to support the Belgian biofuels market, the Belgian Government has decided an invitation to tender in 2006 a grant tax advantages on 380,000 m³ of biodiesel and on 250,000 m³ of bioethanol for 2006. The tax-exemptions are applicable from 1st October 2007 up to 30th September 2013. One condition is that these volumes have to be commercialized and bought in Belgium. In this context, seven biofuel Belgian producing companies were selected for the production of the tax exempted volumes. The criteria used to select these companies include the minimization of i) pesticides and fertilizers use for the cultivation of raw material and ii) the distance between the raw material cultivation locations and the biofuel production unit. The CO_2 balance of the final products (well-to-wheel) and the energetic efficiency of the plant were also taken into account. The selected companies are required to hand in an annual report concerning amongst others the origin raw material. Furthermore, an incorporation obligation of 4% in volume of biofuels in fossil fuels destined for consumption was fixed by the Belgian Government the 22nd July 2009. One condition to be considered in the above mentioned percentage is to prove the sustainability of the biofuels incorporated when they aren't supplied by one of the seven Belgian production companies selected in the framework of the invitation to tender in 2006.
Internet address	http://www.ejustice.just.fgov.be/doc/rech_f.htm

3. Investment support (note demonstrations under 1)	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Federal Public Service
Name of legislation in local language	Code des impôts sur les revenus 92 - Exercice d'imposition 2011 (revenus 2010) - Article 145/24, CIR 92
Name of legislation in English	Income tax code 92 – Tax year 2011 (income 2011) – Article 145/24, CIR 92
Date of launched	-
Date of expire	-
Geographical coverage:	Belgium
Scope	The Federal Public Service Finance grants a tax reduction when an owner undertakes some work to save energy. For energy-saving investments in a home that in the early work was inhabited for at least 5 years, the following expenses are eligible for a tax cut: • expenses for the replacement of old boilers; • expenses for the maintenance of boilers; • expenses for the installation of a heating water by using solar energy; • expenditure for the installation of photovoltaic panels to transform solar energy into electrical energy; • expenditure for the installation of all other devices geothermal energy production; • expenses for the installation of double glazing; • expenditure for the roof insulation; • expenses for placement of a regulation of a central heating system with thermostatic valves or room thermostat with clock; • expenses for an energy audit of the home. The tax reduction amounts to 40% of the actual work performed (VAT included). For reporting in 2012 (income 2011), this reduction amounts to more than 2830 euros per capita. For the installation of photovoltaic panels to transform solar energy into electrical energy, the maximum tax reduction is increased to 3680 euros.
Changes and proposals under discussion	n/a
Further legal acts or	n/a

standards referred	
Internet address	http://ccff02.minfin.fgov.be/KMWeb/document.do?method=view&id=59449d27-e4ed-4caa-bf79-3ef3e5522f58#findHighlighted
Other information (e.g. woody biomass especially	To qualify for the tax benefit the complete installation must be performed by a contractor registered with the Federal Public Service Finance, and the bills have to be paid during the tax period regardless of when carrying out the work.

3. Investment support (note demonstrations under 1)	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Public Service of Wallonia
Name of legislation in local language	22 MARS 2010. - Arrêté ministériel relatif aux modalités et à la procédure d'octroi des primes visant à favoriser l'utilisation rationnelle de l'énergie
Name of legislation in English	22 march 2010 - Ministerial Order on the rules and procedures for granting bonuses to encourage the rational use of energy
Date of launched	30/04/2010
Date of expire	-
Geographical coverage:	Wallonia
Scope	The installation in a building located in Wallonia, a biomass furnace (that is to say using renewable raw materials of plant origin such as wood, cereals) with automatic supply is part of subsidized work by the Walloon Region. The heater must meet the definitions, requirements, testing and marking of the European standard DIN EN 303-5. The device must have a thermal efficiency above 85% according to the performance requirements listed under the standard EN 303-5. The premium varies according to the power of the device: • When the power is greater than or equal to 50 kW: the amount of the premium is € 1,750 plus € 35 per kW from 50 to 100 kW; • When the power is greater than 100 kW: the amount of the premium is € 3,500 plus € 18 per kW from 100 to 500 kW; • When the power is greater than 500 kW: the amount of the premium is € 10,700 plus € 8 per kW in excess of 500 kW. The premium is 50% of the invoice amount to a maximum of € 15,000 per installation.
Internet address	Available in French: http://www.ejustice.just.fgov.be/cgi/api2.pl?lg=fr&pd=2010-05-03&numac=2010027061
Other information (e.g. woody biomass especially	The complete installation must be performed by a contractor registered with the Federal Public Service Finance.

3. Investment support (note demonstrations under 1)	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Public Service of Wallonia
Name of legislation in local language	11 MARS 2004. - Décret relatif aux incitants destinés à favoriser la protection de l'environnement et l'utilisation durable de l'énergie
Name of legislation in English	11th March 2004 - Decree on incentives designed to promote environmental protection and sustainable use of energy
Date of launched	01/10/2004
Date of expire	-
Geographical coverage:	Wallonia
Scope	The Walloon Government may grant incentives to the company with at least one place of business in Wallonia and carrying out an investment program that pursues one or more of the following objectives: 1. protection of the environment, ie any action to repair or prevent damage to physical surroundings or natural resources or to encourage the efficient use of resources; 2. sustainable use of the "energy," ie investment to: • the reduction of the consumption of "energy used during the production process; • the development of energy from renewable energy sources; • the development of cogeneration facilities quality. The Government determines the conditions and detailed rules for the granting of incentives, taking into account the size of the company and the importance of the effects of the investment program on sustainable development. The investment allowance is expressed as a percentage of the accepted investment program and may not exceed: • 30% gross investment by a company to go beyond community standards (see point 1); • 40% gross investment by a company in the sustainable use of the "energy"; • 15% gross investment by a small or medium business to comply with community standards.
Internet address	Available in French: http://www.ejustice.just.fgov.be/cgi/api2.pl?lg=fr&pd=2004-04-08&numac=2004200990

3. Investment support (note demonstrations under 1)	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Federal Public Service
Name of legislation in local language	Code des impôts sur les revenus 92 - Exercice d'imposition 2011 (revenus 2010) – Article 69, CIR 92
Name of legislation in English	Income tax code 92 – Tax year 2011 (income 2011) – Article 69, CIR 92
Date of launched	-
Date of expire	-
Geographical coverage:	Belgium
Scope	The energy-saving investments that match one of the following categories may be deducted for tax by companies and the professions: • limitation of energy losses in existing buildings or in the existing greenhouses; • limitation of energy losses by insulation of equipment, pipes, valves and ducts in use or transport by the recovery of baths of hot or cold liquid in use; • limitation of energy losses in the existing furnaces; • limited ventilation losses in existing buildings; • waste heat recovery; • use of energy released by relaxation of existing production processes or by the expansion of compressed fluids for transportation; • devices combined shape and heat; • combustion appliances, heating, air conditioning and lighting; • industrial production processes; • production and use of energy by chemical conversion, thermochemical and biochemical biomass and waste; • energy production from renewable energy sources; • transport by rail or shipping. Only included: • The tangible or intangible assets, acquired or created, in mint condition; • Affected in Belgium for the exclusive use of the company; • Amortized over a minimum of three tax periods; • Not for hire to a company. The amount of the deduction is 13.5% for investments made during the taxable period that relates to assessment year 2011 (income year 2010.) This is a single dip.
Internet address	http://ccff02.minfin.fgov.be/KMWeb/document.do?method=view&id=59449d27-e4ed-4caa-bf79-3ef3e5522f58#findHighlighted

4. Feed-in-tariffs and other support for heat and power production by biomass	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Ministry of the Brussels Capital Region
Name of legislation in local language	19 JUILLET 2007. - Arrêté du Gouvernement de la Région de Bruxelles-Capitale déterminant les modalités d'octroi des labels de garantie d'origine, précisant les obligations incombant aux fournisseurs, et modifiant l'arrêté du 6 mai 2004 relatif à la promotion de l'électricité verte et de la cogénération de qualité
Name of legislation in English	19th july 2007 - Order of the Government of the Brussels-Capital laying down detailed rules for granting security labels of origin, specifying the obligations on providers and amending the Decree of 6 May 2004 on the promotion of green electricity and quality cogeneration
Date of launched	16/09/2007
Date of expire	-
Geographical coverage:	Region Brussels Capital
Scope	The Commission grants a "guarantee label of origin" to the holder of a facility producing electricity from renewable energy sources and / or installation of cogeneration. The guarantee label of origin certifies that the production of electricity can really save CO2 emissions. The renewable energy sources are: wind energy, solar energy, geothermal energy, wave energy, tidal power, hydroelectric power, biomass, landfills gas, gas from sewage wastewater station and biogas.
Changes and proposals under discussion	n/a
Further legal acts or standards referred	n/a
Internet address	Available in French: http://www.ejustice.just.fgov.be/cgi/api2.pl?lg=fr&pd=2007-09-06&numac=2007031377
Other information (e.g. woody biomass especially	n/a

4. Feed-in-tariffs and other support for heat and power production by biomass	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Ministry of the Walloon Region
Name of legislation in local language	20 DECEMBRE 2007. - Arrêté du Gouvernement wallon portant diverses mesures en matière de promotion de l'électricité produite à partir de sources d'énergie renouvelables ou de cogénération
Name of legislation in English	20th December 2007 - Decree of the Walloon Government on various measures for promotion of electricity produced from renewable energy sources or cogeneration
Date of launched	01/01/2008
Date of expire	-
Geographical coverage:	Wallonia
Scope	Various measures promoting the electricity produced from renewable energy sources or cogeneration.
Changes and proposals under discussion	K factor will be review in 2011
Further legal acts or standards referred	n/a
Internet address	Available in French: http://www.ejustice.just.fgov.be/cgi/api2.pl?lg=fr&pd=2008-01-31&numac=2008200285

4. Feed-in-tariffs and other support for heat and power production by biomass	
BELGIUM	
Number of act, decree or guideline	
Ministry responsible for legislation	Ministry of the Walloon Region
Name of legislation in local language	30 NOVEMBRE 2006. – Arrêté du Gouvernement wallon relatif à la promotion de l'électricité verte
Name of legislation in English	30th November 2006 - Decree of the Walloon Government on the promotion of green electricity
Date of launched	01/01/2007
Date of expire	-
Geographical coverage:	Wallonia
Scope	The quality cogeneration installation or installation using renewable energy sources are issued green certificates by the Walloon Commission for Energy (CWAPE). A green certificate market is created by the requirement for each electricity supplier to obtain a quota of "green certificates" in proportion to its own volume of electricity sales. This quota to be met by suppliers is yearly and gradually increasing. 3% in 2003; 4% in 2004; 5% in 2005; 6% in 2006; 7% in 2007; 8% in 2008; 9% in 2009; 10,00% from 01/01/2010 to 31/03/2010 11,75% from 01/04/2010 to 31/12/2010; 13,50% in 2011; 15,75% in 2012. Issue of green certificates in proportion to the power generation facility and the rate of CO2 savings achieved. Currently, a green certificate is issued by 456 kg of non-renewable CO2 avoided compared to conventional installations. From 1 December 2009, any prior request for granting the guarantee of origin labels and / or green certificates submitted to the CWaPE for installation of a net developable power less than or equal to 10 kW results in a early grant of green certificates. Only if the plant does not benefit from the grant of the subsidy from the Ministerial Order of 20 December 2007 on detailed rules and procedure for granting bonuses to encourage the rational use of energy and if the producer has formally renounced it. Green certificates are issued in advance at the time of notification of the CWaPE acceptance of the application, up to the estimated number of green certificates to be received for a production period of five years and subject to a limit of 40 green certificates. The anticipated grant is made on terms established and published by CWaPE on its website.

Changes and proposals under discussion	The Walloon government adopted on first reading July 20, 2011 a draft decree that modifies the rate and duration for the grant of green certificates and only for solar photovoltaic installation if the power is less than or equal to 10 kWp . The amendments in this draft decree would come into force after adoption on final reading by the Walloon Government of the decree in question. This adoption is planned for late October 2011.
Further legal acts or standards referred	Decree of the Walloon Government of : • 25 January 2007; • 20 December 2007; • 8 January 2009; • 14 January 2010; • 4 February 2010;juillet 2010; • 15 July 2010 (2nd document); • 23 December 2010. Other certificates for "energetic performance" and "green heat" are under discussion. But no laws exist so far.
Internet address	Available in French: http://www.ejustice.just.fgov.be/cgi/api2.pl?lg=fr&pd=2006-12-29&numac=2006204237
Other information (e.g. woody biomass especially	Green certificates are issued for the production of green electricity if the installation has a warranty certificate of origin issued by an inspection body approved by the Region.

4. Feed-in-tariffs and other support for heat and power production by biomass	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	Flemish Government
Name of legislation in local language	Besluit van de Vlaamse regering van 5 maart 2004 inzake de bevordering van elektriciteitsopwekking uit hernieuwbare energiebronnen
Name of legislation in English	March 5, 2004. - Order of the Flemish Government to promote the production of electricity from renewable energy sources
Date of launched	02/04/2004
Date of expire	01/01/2011
Geographical coverage:	Flandria
Scope	Green electricity certificates are awarded for electricity generated by plants using only renewable energy sources include: 1. solar energy; 2. wind; 3. hydroelectric power; 4. wave and tidal energy; 5. geothermal energy; 6. biogas, landfill gas and gas treatment of sewage; 7. biomass
Internet address	http://www.ejustice.just.fgov.be/cgi/api2.pl?lg=fr&pd=2004-03-23&numac=2004035460

5. Support for wood fuel and round wood supply	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	SPW-DGO3-DNF (Nature and forests Department)
Name of legislation in local language	19 DECEMBRE 1854. - CODE FORESTIER. Titre 5. - Des adjudications de coupes. Section 3. - Dispositions particulières aux bois des communes et des établissements publics. – Article 47
Name of legislation in English	19th December 1854 – Forest Code. Title 5 – Auction logging. Section 3 – Special provisions for municipalities and public institutions wood. – Article 47
Date of launched	01/01/1855
Date of expire	15/07/2008
Geographical coverage:	Belgium
Scope	This is about a very old right called "droit d'affouage". This means the right for any inhabitant of a village to receive a part of the wood logged in the municipal forests. This wood can be firewood, construction wood or fencing wood. This law is less and less in application because the municipalities also have the right to sell the wood.
Changes and proposals under discussion	A new Forest Code has been voted in 2008 and launched the 15/07/2008
Further legal acts or standards referred	n/a
Internet address	Available in French: http://www.ejustice.just.fgov.be/cgi_loi/loi_a.pl
Other information	Updated on 25/06/2009

6. Use prioritization in Flanders	
BELGIUM	
Number of act, decree or guideline	n/a
Ministry responsible for legislation	VREG
Name of legislation in local language	Mededeling van de Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt van 8 juli 2008 Gewijzigd op 2 juni 2009 met betrekking tot de toepassing van artikel 15 van het besluit van de Vlaamse regering van 5 maart 2004 inzake de bevordering van elektriciteitsopwekking uit hernieuwbare energiebronnen betreffende de aanvaardbaarheid voor de certificatenverplichting van groenestroomcertificaten voor elektriciteitsproductie uit houtstromen
Name of legislation in English	Communication from the Flemish Regulator for the Electricity and Gas on July 8, 2008. Updated on June 2, 2009 regarding the application of Article 15 of the Decree of the Flemish Government of 5 March 2004 on the promotion of electricity produced from renewables on the acceptability certificates of obligation for electricity from green wood flows
Date of launched	-
Date of expire	-
Geographical coverage:	Flanders
Scope	Linked with the green certificates grant system in force in Flanders, this communication is specifically provided information regarding the way to award green certificates for production facilities that flows burn wood. Green certificates are allowed for biomass in general, and wood flows in particular. But this note aims to give an answer to the question "What kinds of wood, the electricity flows eligible for award of acceptable green. The answer could be "the timber flows that are not used as industrial raw material" to respect Lansink's ladder. A technical definition of the term "Industrial raw material" is the only legally correct option in the respect of the WTO. After consultation with wood industry federations, the VREG opted to the category 'timber flows that are not used as industrial raw material", as referred to in Article 15, § 1, 7 °, a) for the Green Power Decision to defined as consisting of wood flows below: - Bark - dust (sanding dust, dust filter, dust filter, dust free MDF) with a particle smaller than 0,2 mm - Fine prunings with a diameter smaller than 4 cm - Canopy of twigs with a diameter smaller than 4 cm - Stumps up to 30 cm above ground level - Other wood flows and which Federations declaration that they are not as industrial raw material Is eligible is also the wood coming from the "short rotation wood" that is defined by Article 1, § 2, 15 ° of the Green Power Decision as wood of fast growing woody plants at the aboveground biomass periodically up to 8 years after planting or after the previous crop, harvested in its entirety. The applicant in his application of green certificates will have to prove that those definition are met, according to a detailed list of the timber flows into the green power plant will be processed. This must be

	audited following by an accredited test institute: - The tracing of the route that the timber (product) has traveled from the harvest to the point a use for electricity: the listing of all the places where this wood product resided since the harvest, and the guarantee that wood products from the listed place of harvest comes. - The confirmation that the woody plants at the place where timber is harvested, systematically more than eight years after planting or after the previous harvest, both overall be harvested. This can e.g. be determined by counting annual rings on felled trees. Applicants must be based on an audit report to show that a particular timber flow falls under the heading "short rotation wood" or "timber flows that are not used as industrial commodity ". This audit report is prepared by an accredited inspection body that the geographical origin and type of wood that particular power in a way confirms clearly reveals that the wood is covered by a stream of both denominators. The audit report may up to 2 years old and the audit is to be repeated every two years. The applicant must all evidence (weighing receipts, delivery notes, invoices, warehouse register, waste register ...) that could be useful to substantiate the allegations in the audit report for a period of five years to keep up. In summary, under Article 15, § 1, 7 ° of the Green Power Decree that, depending on the type timber flows, one of the following five rules applies: 1) short rotation wood -> always entitled to reasonable green 2) waste wood -> green only acceptable if it does not qualify for material recycling and combustion are admitted according to the sectoral Implementation; 3) wood waste fraction -> just right and acceptable in the green installing an energy recovery occurs with PEB (primary energy) ≥ 35%; 4) industrial wood raw material flows -> green only acceptable if they are incorporated into existing plants or plants for which no planning or no environmental need; 5) any other wood flows -> always entitled to reasonable green. These criteria apply to both raw wood for wood-derived products, such as pellets, grains, ... for the production facilities in which the urban and environmental application was submitted after June 1, 2007.
Changes and proposals under discussion	In current discussion
Internet address	www.vreg.be

Additional references

1. The division of competences of 8 August 1980. — Loi spéciale de réformes institutionnelles (Special Institutional Reforms Act), M.B. of 15 August 1980.
2. Belgian national renewable energy action plan. 95 p. http://ec.europa.eu/energy/renewables/transparency_platform/doc/national_renewable_energy_action_plan_belgium_en.pdf

2.3 Czech Republic

Energy use of agricultural commodities and their treatment in the Czech Republic is used especially in the direct combustion of biomass, production and use of biogas and also utilization of liquid biofuels as a substitution of fossil fuels in transportation.

Biomass Action Plan

The national Biomass Action Plan draws on recommendations laid down in the EU Biomass Action Plan as well as takes into account the need to evaluate the possibilities of the limited biomass potential for the needs of the Czech Republic and to set fundamental rules and means for efficient utilization of biomass potential. Biomass Action Plan of the Czech Republic debates primarily energy utilization of biomass, but also takes into consideration other modes of biomass utilization. The Action Plan aims at setting the direction and amending the existing measures so that access to the utilization of biomass would become more efficient and so that in absolute terms its utilization would increase, which should be aided by implementing the measures proposed as part of the AP.

The Government of the Czech Republic accepted Biomass Action Plan for years 2009 – 2011 in the beginning of 2009.

Organic farming:

Since the beginning of organic farming in the Czech Republic the Ministry of Agriculture has been participating in financially supporting the foundation of organic farms. In 1993 the national logo BIO has been used. In 1998 government aid for organic farmers was introduced in the form of subsidies for areas registered in the organic farming system. In 2001 the European Commission included the Czech Republic in the List of Third Countries allowing free access of bio-products and bio-foodstuffs of Czech origin to the markets of EU countries.

Liquid Biofuels:

Multi-year programme of supporting further utilization of biofuels in transportation was accepted by the Government of the Czech Republic on 25th February 2008. The plan makes possible the pure biofuels and high-percentage mixtures of biofuels in transportation of Czech Republic to be partially or fully exempted from consumption taxes.

Most widespread liquid biofuels in Czech Republic are methyl ester of rape oil (metylester řepkového oleje - MEŘO) and bioethanol for diesel and gasoline substitution. Production and consumption of II. generation liquid biofuels from non-food base material is planned in next years.

Act on support for the use of renewable sources of energy (Act No. 180/2005 Coll.)

The Act regulates the rights and obligations of participants in the renewable electricity market and conditions of support for the purchase and registration of electricity production from renewable sources. The purpose of the Act is to support the use of renewable sources of energy, constant increasing of the share of renewable sources in the consumption of primary energy sources, economical use

of natural resources and meeting of an indicative target of the share of electricity produced from renewable sources.

Sources:

eAGRI Portal - http://eagri.cz/public/eagri/en/15958/

Ministry of Industry and Trade - http://www.mpo.cz/default_en.html

Ministry of Environment - http://www.mzp.cz/en/

1. Support for research, development and demonstrations	
CZECH REPUBLIC	
Number of act, decree or guideline	TIP
Ministry responsible for legislation	Ministry of Industry and Trade
Name of legislation in local language	Resortní program aplikovaného výzkumu a experimentálního vývoje TIP
Name of legislation in English	Departmental programme of applied research and experimental development
Date of launched	20.11.2008
Date of expire	2017
Geographical coverage:	Czech Republic
Scope	The purpose of programme TIP is further advancement of research and development projects. **Criteria for project suitability evaluation** Focus on the future Economical importance – respect to environment (wasteless technologies, recycling, improving of environment, ecological transportation, liquidation and reducing of ecological ballasts, usage of secondary raw material); producing forms to saving and more effective usage of sources, usage of renewable sources; etc. Applicability of results Scope of results **Aims of programme** New materials and products - sustainability and economization of sources, respect to ecological, energetical and social factors New progressive technologies New information and control systems
Internet address	http://www.mpo.cz/dokument73229.html

CZECH REPUBLIC	
Number of act, decree or guideline	TA
Ministry responsible for legislation	Ministry of Education, Youth and Sports
Name of legislation in local language	Podpora aplikovaného výzkumu a experimentálního vývoje „ALFA"
Name of legislation in English	Support of applied research and experimental development „ALFA"
Date of launched	24.3.2010
Date of expire	2016
Geographical coverage:	Czech Republic
Scope	Three subprograms: **Progressive technologies, materials and systems** **Sustainable growth of transportation** **Energy sources and environment protection and creation** The subprogram is focus on environmentally friendly technologies, products and procedures and energetical sources and systems to protect of environment and to sustainability of society and economics. Major goal of subprogram is to decrease quantity and quality of findings of applied research and experimental development in this sector. **Specific aims of subprogram are:** - Reduction of impacts of anthropogenic factors on environment - Reduction of negative consequences of natural disasters and their prevention - Enhancement of reliability and safety of energy supply from renewable energy sources - Ensuring of higher effectiveness of energy processing of fuels - Enhancement of capacity and efficiency of energy transportation
Internet address	http://www.tacr.cz/programy-ta-cr/

2. Energy taxation

CZECH REPUBLIC

Number of act, decree or guideline	No 86/2002 Coll. (§ 3a)
Ministry responsible for legislation	Ministry of Environment
Name of legislation in local language	Zákon o ochraně ovzduší
Name of legislation in English	Air Protection Law
Date of launched	2002
Date of expire	-
Geographical coverage:	Czech Republic
Scope	**Main pollutants**

Pollutant	(Kč/ton)
Particle emissions	3 000
Sulphur dioxide ☐	1 000
Nitrogen oxides	800
Volatile organic compounds	2 000
Heavy Metals and their compound	20 000
Carbon monoxide	600
Ammonia	1 000
Methane	1 000
Polycyclic aromatic hydrocarbons	20 000

Another pollutants

Pollutant	(Kč/ton)
Class I	20 000
☐lass II	10 000

Internet address	http://www.cizp.cz/files/=1669/86_02_212_06.pdf

3. Investment support (note demonstrations under 1)	
CZECH REPUBLIC	
Number of act, decree or guideline	OPŽP (OPE)
Ministry responsible for legislation	Ministry of Envirnment
Name of legislation in local language	Operační program životní prostředí
Name of legislation in English	The Operational Programme Environment
Date of launched	December 2007
Date of expire	2013
Geographical coverage:	Czech Republic
Scope	**Priority Axe 3:** The aim of support is to increase the use of renewable energy sources for generating heat and electric energy, as well as the use of waste heat. **Areas of Intervention:** - The construction of new facilities and the modernisation of the existing facilities with the aim to increase the use of renewable energy sources for heat generation, electric energy generation and for combined heat and electric energy generation- Almost EUR 363 million have been reserved for this area, representing 54% of Priority Axis 3's resources. - Realisation of energy savings and the use of waste heat - More than EUR 310 million have been reserved for this area, representing 46% of Priority Axis 3's resources. Supported Project Types **2.3.1.1 Heat generation** • The construction and modernisation of local and central heat sources using renewable energy sources for heating in buildings, cooling and hot water heating. **2.3.1.2 Electric energy generation** • The installation of photovoltaic systems for electric energy generation. • The construction and modernisation of wind and small water power plants. • The construction of geothermal power plants and biomass burning plants (solid, gaseous or liquid biomass). • Grants may account for 20% of the total eligible expenses, however, there is a maximum limit of CZK 50 million. **2.3.1.3 Combined generation of electric energy and heat** • The installation of co-generation facilities burning biogas, waste and sludge gas; biogas stations. • The installation of co-generation facilities using solid biomass. • Combined generation of electric energy and heat from geothermal energy. • Grants may account for 40% of the total eligible expenses; however, there is a maximum limit of CZK 100 million.

	2.3.1.4 The realisation of energy savings • Reducing energy consumption by improving the thermal insulation characteristics of building envelopes. **2.3.1.5 The use of waste heat** • Applying waste heat use technologies.
Internet address	http://en.opzp.cz/

2.4 Denmark

Support for renewable energy from biomass

Production of electricity from renewable sources supported by PSO (Public Service Obligation) payments by electricity consumers. The rates depend on the technology of electricity generated. Additional charge is for environmentally friendly power generation. Special surcharges are granted for the environmentally friendly power generation, which includes electricity generation using wind, biofuels, biogas, and waste and for natural gas on smaller works. Additional charge for waste and natural gas are described in Electricity Production Grant. Some surcharges are given as a constant allowance while others adjusted in proportion to the market so that the sum of market price, and surcharges ensures the producer a fixed payment.

Settlement Price is the sum of market price, and surcharges. The market price means the spot market price at Nord Pool in the area where the plant is connected. In addition to the surcharges is the law on promotion of renewable energy created a pool of 25 million annually for four years to encourage small renewable technologies.

Both the pool and surcharges administered by Energinet.dk.

Net Settlement for "self-producers"

A self-producer is a consumer of electricity, which produce electricity or heat in order to cover its own energy consumption. An self-producer producer on request only pay surcharges, etc. compared to the consumption of electricity as purchased through the collective power utility. It is a condition for net settlement, the power generation plant is owned 100% of the consumer and located at the place of consumption. To qualify for net billing for electricity generated by a wind turbine if the turbine is connected in own consumption installation.

Support for electricity produced from biomass

Support for existing and new biomass plant.

New and existing facilities that produce electricity by burning biomass, given the price premium of 0,15 DKK / kWh. Utility-funded facility will be first this extra charge when they have exhausted their current surcharges. Combines with support for decentralized CHP plants and warranty work.

Power Company financed plants for the burning of biomass

These are plants listed power companies as a result of the injunction or specific agreement. Plant owner shall provide for the marketing of production on the electricity market and the costs thereof. Granted surcharges, which together with the market price is 0,40 DKK / kWh. Price supplement granted for 10 years from commissioning, and at least 10 years from first August 2001. Furthermore, over the same period provided a surcharge of up to 100 DKK / ton biomass burned within a ceiling of a total of 30 million. DKK/year. Then yesterday the site over the price premium of 0,15 DKK / kWh.

Investment support

At the moment there are no national schemes for investment support for solid biomass utilization. Earlier subsidies were given for installation of small scale boilers.

1. Support for research, development and demonstrations	
DENMARK	
Number of act, decree or guideline	Law/Act No. 555 of June 2007
Ministry responsible for legislation	Ministry of climate and energy (Klima- og Energiministeriet)
Name of legislation in local language	Lov nr. 555 af 6. juni 2007 om et Energiteknologisk Udviklings- og Demonstrationsprogram
Name of legislation in English	Law/Act No. 555 of June 2007 on an Energy Technology Development and Demonstration Program
Date of launched	6. June 2007
Date of expire	-
Geographical coverage:	Denmark (excl. Greenland and the Faroe Islands)
Scope	The law aims to support the energy policy objectives of security, respect for the global climate and a cleaner environment and cost effectiveness. The law should also encourage the use and development of business potentials in the area for growth and employment. A European Energy Technology Development and Demonstration Program (EUDP) is established, aimed at the development, demonstration and market introduction of new energy. EUDP must - subsidize primary development and demonstration - actively promote cooperation between public and private actors and - strengthen interaction with international activities and programs related to energy technology. Cooperation between public and private actors must contribute to the elaboration of strategies for developing effective and environmentally friendly energy technologies and systems that cover the entire development chain from research to market introduction. Cooperation will also help to identify concrete actions that can serve as a basis for project applications and establishment of project consortia.
Further legal acts or standards referred	Bekendtgørelse om ikrafttræden af dele af lov om et Energiteknologisk Udviklings- og Demonstrationsprogram (Notice of entry into force of parts of the Act on an Energy Technology Development and Demonstration Program) https://www.retsinformation.dk/Forms/R0710.aspx?id=22696 Bekendtgørelse om ikrafttræden af dele af lov om et Energiteknologisk Udviklings- og Demonstrationsprogram(Notice of entry into force of parts of the Act on an Energy Technology Development and Demonstration Program) https://www.retsinformation.dk/Forms/R0710.aspx?id=114387
Internet address	https://www.retsinformation.dk/Forms/R0710.aspx?id=22684
Other information	-

2. Energy taxation	
DENMARK	
Number of act, decree or guideline	LBK nr 889 af 17/08/2006
Ministry responsible for legislation	Ministry of taxation (Skatteministeriet)
Name of legislation in local language	Bekendtgørelse af lov om kuldioxidafgift af visse energiprodukter
Name of legislation in English	Announcement of Law on the carbon dioxide tax on certain energy products
Date of launched	17. August 2006
Date of expire	-
Geographical coverage:	Denmark
Scope	To introduce CO_2-tax on certain energy products, basically fossil fuels.
Changes and proposals under discussion	https://www.retsinformation.dk/Forms/R0710.aspx?id=114236 https://www.retsinformation.dk/Forms/R0710.aspx?id=120335 https://www.retsinformation.dk/Forms/R0710.aspx?id=120339 https://www.retsinformation.dk/Forms/R0710.aspx?id=122826 https://www.retsinformation.dk/Forms/R0710.aspx?id=122941 https://www.retsinformation.dk/Forms/R0710.aspx?id=125342 https://www.retsinformation.dk/Forms/R0710.aspx?id=125442 https://www.retsinformation.dk/Forms/R0710.aspx?id=129534 https://www.retsinformation.dk/Forms/R0710.aspx?id=129580
Further legal acts or standards referred	Bekendtgørelse af lov om energiafgift af mineralolieprodukter m.v. (Notice on Law on Energy of petroleum expenses etc) https://www.retsinformation.dk/Forms/R0710.aspx?id=15758
Internet address	https://www.retsinformation.dk/Forms/R0710.aspx?id=17302

4. Feed-in-tariffs and other support for heat and power production by biomass	
DENMARK	
Number of act, decree or guideline	Law No. 1392 of 27 December 2008
Ministry responsible for legislation	Ministry of climate and energy (Klima- og Energiministeriet)
Name of legislation in local language	Lov nr. 1392 af 27 December 2008 om fremme af vedvarende energi.
Name of legislation in English	Law No. 1392 of 27 December 2008 on promoting renewable energy.
Date of launched	27.december 2008
Date of expire	-
Geographical coverage:	Denmark
Scope	§ 1 The Law/Act aims to promote the production of energy using renewable energy sources in accordance with climatic and environmental and socio-economic reasons in order to reduce dependence on fossil fuels, ensure supply security and reduce emissions of CO2 and other greenhouse gases. The Law/Act should particularly help to ensure compliance with national and international targets to increase the share of energy produced using renewable energy sources.
Changes and proposals under discussion	Changes: https://www.retsinformation.dk/Forms/R0710.aspx?id=124121 https://www.retsinformation.dk/Forms/R0710.aspx?id=125471 https://www.retsinformation.dk/Forms/R0710.aspx?id=128916 https://www.retsinformation.dk/Forms/R0710.aspx?id=129534 https://www.retsinformation.dk/Forms/R0710.aspx?id=132074
Further legal acts or standards referred	Bekendtgørelse om ikrafttræden af dele af lov om fremme af vedvarende energi (Notice of entry into force of parts of the law on promotion of renewable energy) https://www.retsinformation.dk/Forms/R0710.aspx?id=122810 Bekendtgørelse om ikrafttræden af dele af lov om fremme af vedvarende energi - Grøn ordning, udnyttelse af energi fra vand og vind på havet, pristillæg m.v. (Notice of entry into force of parts of the law on promotion of renewable energy -Green scheme, using energy from water and wind at sea, surcharges, etc.) https://www.retsinformation.dk/Forms/R0710.aspx?id=125181 Bekendtgørelse om ikrafttræden af dele af lov om fremme af vedvarende energi - Kompensation for CO_2-afgift (Notice of entry into force of parts of the law on promotion of renewable energy - Compensation for CO2 tax) https://www.retsinformation.dk/Forms/R0710.aspx?id=129223 Lovbekendtgørelse nr. 1115 af 8. november 2006 af lov om elforsyning (Consolidated Act No. 1115 of 8 November 2006 by the Electricity Supply Act) https://www.retsinformation.dk/Forms/R0710.aspx?id=22613 Lovbekendtgørelse nr. 1331 af 30. november 2007 om tilskud til elproduktion (Consolidated Act No. 1331 of 30 November 2007 on

	subsidies for power generation) https://www.retsinformation.dk/Forms/R0710.aspx?id=113831 Lov nr. 407 af 14. juni 1995 om statstilskud til omstilling af elopvarmede bygninger (Act No. 407 of 14 June 1995 on subsidies for the conversion of Buildings heated by electricity) https://www.retsinformation.dk/Forms/R0710.aspx?id=49395
Internet address	https://www.retsinformation.dk/Forms/R0710.aspx?id=122961

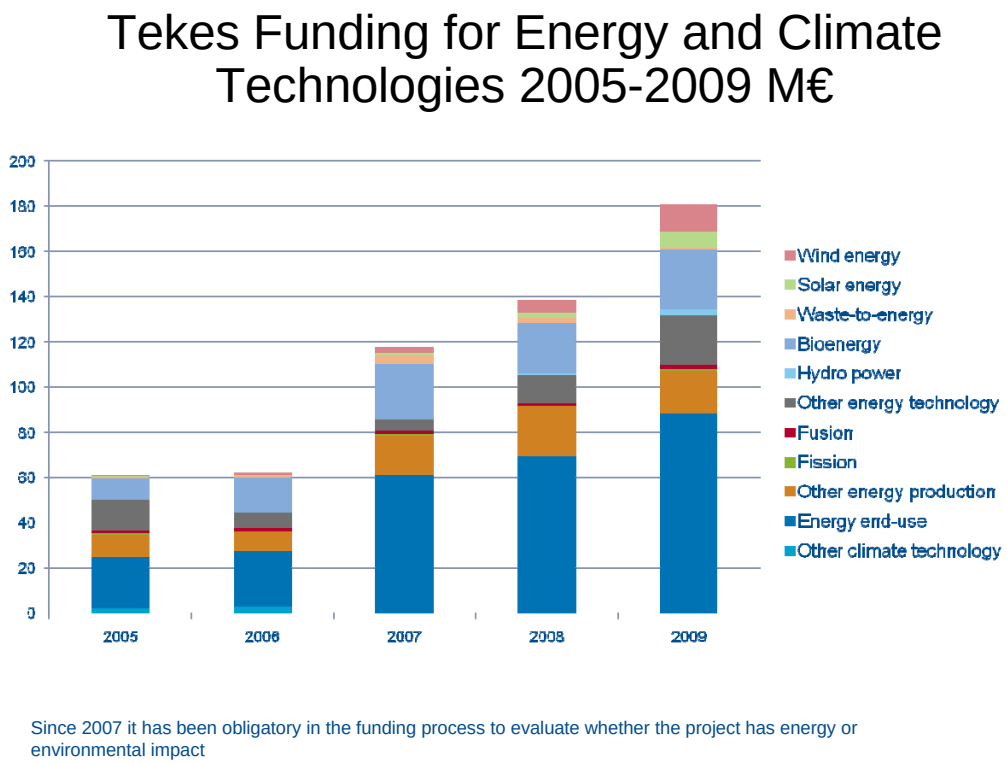
2.5 Finland

Current support system

The Finnish Government have employed funding of research and development projects, energy taxation, tax relief, production subsidies for electricity and forest chips and investment subsidies as financial measures to implement the energy policy. Generally, the Finnish financial incentives to utilise biomass in energy production are at quite a moderate level compared to some other EU countries that apply considerably stronger financial measures. In addition, the support system of bioenergy has been almost constant for several years.

Support for R&D

The competitiveness of renewable energy sources is promoted through investment in long-term technology research and development. Obstacles to getting the R&D findings and results onto the market will be lowered by supporting projects aimed at the commercialisation of new technologies. The Finnish Funding Agency for Technology and Innovation (Tekes) is the main public financer of technology R&D. Renewable energy technologies, belonging to sustainable development solutions, are in the strategic focus of Tekes. Various national programmes (e.g. BioRefine – New products from biomass, Groove – renewable energy – growth from internationalisation) and projects have involved RES technologies, the main focus being on bioenergy. According to the new Climate and Energy Strategy, research and innovation activities will be in a pivotal role for achieving the targets of the strategy. Tekes is also providing funding for Strategic Centres for Science, Technology and Innovation. CLEEN Ltd (energy and environment) and Forestcluster Ltd are operating in biomass and bioenergy sector. Puuska – activating business programme (2010 – 2013) is targeted for wood processing and energy wood sector. Tekes funding for environment friendly processes was in 2009 about 98 M€, of which bioenergy accounted 14%. In the Figure 1 the Tekes funding for energy and climate technologies is shown.



Tekes funding for Energy and Climate Technologies in 2005-2009.

Energy taxation on fuel for heat and power plants

Taxation is one of the main instruments related to climate change and the environmental policy. Energy taxation is a major source of financing for the state. State revenues from excise tax on energy amount to almost EUR 3 billion. In addition to the fiscal meaning (impact on public financing), energy taxation is a key instrument of energy and environmental policy. As such, it is used to curb the growth of energy consumption while guiding energy generation and use towards alternatives that cause lower emissions.

The Government changed the structure of energy taxes on fuel for transport and heat and power plants on 1 January 2011. The taxation now takes account of the energy content, carbon dioxide emissions and local/particle emissions that have adverse health effects.

The energy content tax has been sdjusted to reflect the volumetric energy content of the fuel. The energy tax component is levied on both fossil fuels and biofuels, based on the same taxation criteria. For the liquid fuels, the energy content is based on the heating values (MJ/litre) used in Directive 2009/28/EC (RES Directive).

The CO_2 tax is based on the CO_2 emissions of the fuel in question. The weight of levies on carbon dioxide has been raised from their 2010 levels. For fossil fuels, the CO_2 emission values (g/MJ) are based on the values used in the national fuel classification of Statistics Finland. The values used in the national fuel classification are based on values used in the International Energy Agency's and Eurostat's Fuel Classification.

The evaluation of the CO_2 content of biofuels is based on their treatment in the RES Directive. A flat rate tax reduction of 50% is applied to all biofuels that meet the sustainability criteria of the RES Directive. The so-called second-generation biofuels, as defined in the RES Directive (biomass originated from waste and residues), will be totally exempted from the CO_2 tax. The CO_2 tax does not apply to wood and other biomass (solid and gaseous) used in energy production.

In 2011, additional € 730 million will be collected in taxes on fuel for heat and power plants and energy taxes on electricity. Tax on natural gas is increased gradually until 2015. In addition, peat is now subject to a tax. The tax level for peat is increased gradually: it is 1.9 €/MWh in 2011, 2.9 €/MWh in 2013 and 3.9 €/MWh in 2015.

From the beginning of 2011, carbon dioxide levies for fossil fuels used in combined electricity and heat production were lowered by 50%. This was done to avoid overlapping carbon dioxide steering and to improve the competitiveness in combined electricity and heat production relative to separate heat production.

From the beginning of 2011 the electricity tax for industry (tax class II) has been raised from 0.263 c/kWh to 0.703 c/kWh. Together with this tax subsidies for renewable electricity production (e.g. electricity produced from forest chips still get subsidies along with wind power, small hydro, biogas and recycled fuel (REF)) were discontinued.

Energy prices are market based, and consumer prices reflect the changes in market prices. The Government does not have any instruments to directly influence the price setting for energy products. However, through energy taxation advantages have been given to industry in the form of a lower electricity tax and a tax refund system for energy intensive industries. In addition, farmers are entitled to excise duty refunds for electricity and oil products used for agricultural purposes and the

energy tax refunds for agriculture have been increased to offset the raise in taxation in agriculture.

The new taxes are presented in the table below.

Energy taxes related to traffic and heating fuels and electricity consumption as of 1 January 2011 (www.finlex.fi, 1399/2010, 1400/2010).

Product	Unit	Energy tax	CO_2 tax	Security of supply fee	Total
Motor petrol	EUR c/l	50.36	11.66	0.68	62.70
Moter petrol for small engines	EUR c/l	30.36	11.66	0.68	42.70
Bioetanol	EUR c/l	33.05	7.65	0.68	41.38
Bioetanol R	EUR c/l	33.05	3.83	0.68	37.56
Bioetanol T	EUR c/l	33.05	0.00	0.68	33.73
MTBE	EUR c/l	40.91	9.48	0.68	51.07
MTBE R	EUR c/l	40.91	8.43	0.68	50.02
MTBE T	EUR c/l	40.91	7.39	0.68	48.98
TAME	EUR c/l	44.06	10.21	0.68	54.95
TAME R	EUR c/l	44.06	9.29	0.68	54.03
TAME T	EUR c/l	44.06	8.37	0.68	53.11
ETBE	EUR c/l	42.49	9.84	0.68	53.01
ETBE R	EUR c/l	42.49	8.02	0.68	51.19
ETBE T	EUR c/l	42.49	6.20	0.68	49.37
TAEE	EUR c/l	45.64	10.57	0.68	56.89
TAEE R	EUR c/l	45.64	9.04	0.68	55.36
TAEE T	EUR c/l	45.64	7.51	0.68	53.83
Biogasoline	EUR c/l	50.36	11.66	0.68	62.70
Biogasoline R	EUR c/l	50.36	5.83	0.68	56.87
Biogasoline T	EUR c/l	50.36	0.00	0.68	51.04
Diesel oil	EUR c/l	30.70	13.25	0.35	44.30
Diesel oil para	EUR c/l	24.00	12.51	0.35	36.86
Biodiesel	EUR c/l	28.14	12.14	0.35	40.63
Biodiesel R	EUR c/l	28.14	6.07	0.35	34.56
Biodiesel T	EUR c/l	28.14	0.00	0.35	28.49
Biodiesel P	EUR c/l	24.00	12.51	0.35	36.86
Biodiesel P R	EUR c/l	24.00	6.26	0.35	30.61
Biodiesel P T	EUR c/l	24.00	0.00	0.35	24.35
Light fuel oil	EUR c/l	10.35	8.00	0.35	18.70
Light fuel oil, without sulphur	EUR c/l	7.70	8.00	0.35	16.05
Bio oil	EUR c/l	7.70	8.00	0.35	16.05
Bio oil R	EUR c/l	7.70	4.00	0.35	12.05
Bio oil T	EUR c/l	7.70	0.00	0.35	8.05
Heavy fuel oil	EUR c/kg	54.76	12.74	0.35	67.85
Coal	EUR/t	54.54	72.37	1.18	128.09
Natural gas*	EUR MWh	7.70	5.94	0.084	13.724
Electricity, class I	c/kWh	1.69		0.013	1.703
Electricity, class II	c/kWh	0.69		0.013	0.703
Tall oil	c/kg	18.79	-	0	18.79
Fuel peat **	€/MWh	3.90		0	3.90

* Energy tax is 3.00 €/MWh during 1.1.2011-31.12.2012, 5.50 €/MWh during 1.1.2013–31.12.2014.
** Energy tax for fuel peat is 1.90 €/MWh during 1.1.2011-31.12.2012 and 2.90 €/MWh during 1.1.2013–31.12.2014.

R = product includes renewable raw material according directive 2001/77/EU
T = product includes renewable raw material according directive 2001/77/EU and it produced from waste or residues which are not suitable for food like lignocelluloses material
P= paraffin diesel oil

Production subsidies for electricity

The production subsidies for renewable electricity were revised in 2006 because the start of emission trading has made the operating environment more favourable for renewable energy sources. Since the beginning of 2007, the aid for electricity produced from wood and fuel timber products (e.g. black liquor and other industrial wood waste and by-products) was abolished, except for electricity produced from forest chips. The production subsidies for renewable electricity are subject of revision as a part of introduction of feed-in-tariff for renewable energy sources.

The production subsidies for renewable electricity are subject of revision as a part of introduction of feed-in-tariff for wind power, biogas and wood fuel. The new law is entering into force 1 January 2011. Also energy taxation system was updated.

Power plants could be accepted into the subsidy scheme until the objective is met for increasing the utilisation of renewable sources of energy. Wind power plants would be accepted until the total output of generators exceeds 2,500 MVA. The corresponding limit for biogas power plants, utilising biogas as their primary fuel, would be 19 MVA. On the other hand, wood-fuel powered plants would be accepted into the scheme until the total output of generators exceeded 150 MVA and the number of power plants 50.

The 2011 budget proposal for a renewable energy production subsidy proposes a total appropriation of €55.35 million.

The feed-in tariff scheme's key purpose is to contribute to meeting the national objective set by the EU for increasing the utilisation of renewable energy sources. This will be done by achieving the target set for wind power of 6 terawatt hours of electricity, as well as going most of the way towards achieving the forest chips objective of 22 terawatt hours.

Investments grants

Subsidies granted for energy investments, development projects and energy conservation constitute an important means of implementing the National Energy and Climate Change Strategy. A particularly important function of the subsidies is to promote the use of renewable energy sources, and to reduce the environmental impacts arising from energy generation and use. In 2009, in total € 94.4 million was available for energy supports. The figure includes € 1.3 million in grants from the European Regional Development Fund. The volume of energy support was record amount, about three times higher than in the previous year. The target of this additional support was to speed up investments on renewable energy and energy efficiency in a way that also promotes economy and employment.

For small scale heating systems of residential buildings, the Government provides investment grants of additional € 30 million. Introduction of primary heating systems based on renewable energy sources is supported by maximum 20% of eligible investment costs. This subsidy came into force on 1 January 2011.

Support for the forestry and agriculture sector

In the Act on the Financing of Sustainable Forestry (544/2007), non-industrial, private forest owners are entitled to seek governmental grants for the afforestation of understocked areas, prescribed burning, the tending of young stands, the harvesting of energy wood, forest recovery, fertilisation, etc. Loans can be granted for joint ventures involving improvement ditching and forest road construction. On 10 December 2010 the Parliament decided on some amendments in the Act. The most important change is separating the financing of sustainable forestry and energy support for small trees. On the other hand, the current fuel timber harvesting and chipping supports will be combined. The Ministry of Agriculture and

Forestry will pay support for the harvesting, forestry transport and chipping of timber sold for fuel as part of the management of young plantations. The energy support for fuel wood from small trees will be € 10 per solid m^3 (about 5 €/MWh). The diameter at breast height should be less than 16 cm. Minimum supported amount is 40 solid m^3. The maximum support will be for 45 solid m^3 per hectare, so for stands with higher yield the actual support will be less than € 10 per solid m^3. The date when these amendments will come into force will be stated in a separate Decree. In 2007, a total of € 5.7 million was spent on fuel timber harvesting and chipping support.

Future prospects of support for renewable energy sources in Finland

On 20 April 2010, the Government's ministerial working group for climate and energy policy agreed on the contents of an extensive package of obligations concerning renewable energy, with the aim of increasing energy production based on renewable forms of energy in 2020. The Government has estimated that final energy consumption in Finland will total 327 TWh in 2020. Of this, if Finland is to meet its obligation to increase the share of renewable energy to 38 per cent of final consumption by 2020, the share of energy based on renewable energy sources must be 124 TWh. This gives an additional requirement for energy produced from renewable sources of 38 terawatt hours.

This package will promote the use of forest chips and other wood-based energy in particular, alongside wind power, the use of transport biofuels, and the increasing utilisation of heat pumps. In doing so it will enable Finland to meet its obligations set by the European Union, to increase the share of renewable energy to 38 per cent of final energy consumption in 2020 (Table 2) and decrease of annual greenhouse gas emissions would be 7 million tons of CO_2.

The aim is to increase use of forest chips from 5 million solid m^3 (10 TWh) in 2009 to 13,5 million solid m^3 (25 TWh) in 2020 by granting more support for harvesting and chipping of small-sized trees, variable electricity production support and feed-in-tariff for small-scale CHP plants. The Ministry of Employment and the Economy is proposing to increase support for renewable energy sources to 341 million € in 2020.

Renewable energy sources in Finland in 2005 and 2020. Source: Minister Mauri Pekkarinen, 20 April 2010 (set of slides)

Energy source (as primary energy)	**2005, TWh**	**2020, TWh**	**2005, PJ**	**2010, PJ**
Energy sources based on industrial use				
- Spent liquors	37	38	133.2	136.8
- Industrial wood residues	20	19	72.0	68.4
Total industrial renewable energy	57	56	205.2	201.6
Energy sources for policy measures				
- hydro power (normalised)	13.6	14	49.0	50.4
- hydro power, actual	13.4		48.2	
- Wind power	0	6	0	21.6
- Forest chips	6	25	21.6	90
- Small-scale use of wood fuels	13	12	46.8	43.2
- Heat pumps	2	8	7.2	28.8
- Liquid biofuels for transport	0	7	0	25.2
- Biogas	0	1	0	3.6
- Pellets	0	2	0	7.2
- Solid recovered fuels, renewable part	2	2	7.2	7.2
- Other RES, e.g. solar heat and power	0.4	0.4	1.4	1.4
Total for policy measures	37	77	133.2	277.2
Total renewable, primary energy	94	134	338.4	482.4
Renewable energy in final consumption	87	124	313.2	446.4
Total final energy consumption	303	327	1 090.8	1 177.2
RES share of final energy consumption, hydro normalised	28.5%		28.5%	
RES share of final energy consumption, estimated realised	28.5%	38%	28.5%	38%

Paper and board production is estimated to be 13.5 M tons and electricity consumption 98 TWh in 2020.

1. Support for research, development and demonstrations	
FINLAND	
Number of act, decree or guideline	1024/2007 (Tekes is under Ministry of Employment and the Economy)
Ministry responsible for legislation	Ministry of Employment and the Economy
Name of legislation in local language	Valtioneuvoston asetus työ- ja elinkeinoministeriöstä 15.11.2007/1024
Name of legislation in English	State decree of the Ministry of Employment and the Economy
Date of launched	15.11.2007
Date of expire	-
Geographical coverage:	Finland
Scope	Tekes funding and services are designed for promoting challenging and innovative research and development projects in companies, universities, other university-level institutions and research institutes. Tekes assists businesses in their search for new ideas, the finalisation of business plans and their quest to carry out meaningful and valuable research and development initiatives. **Research topics on energy and the environment** ▪ Sustainable solutions to raw material use ▪ Energy-efficient solutions and services ▪ Ecological production and products ▪ Equipment and systems for clean energy production ▪ Intelligent energy systems **Research topics on forest** ▪ Forests as a service platform ▪ High value-added products from wood ▪ New wood and fibre product solutions ▪ Scarce resource and intelligent production technologies ▪ Forests as a raw materials reserve
Internet address	www.tekes.fi, www.tekes.fi/biorefine, www.tekes.fi/groove
Other information	Woody biomass research and development is supported under BioRefine, Groove and Puuska programmes. Demonstrations are supported under investment support.

2. Energy taxation	
FINLAND	
Number of act, decree or guideline	1260/1996 and 1400/2010; 1472/1994 and 1399/2010
Ministry responsible for legislation	Ministry of Employment and the Economy Ministry of Finance (Legislation)
Name of legislation in local language	Laki sähkön ja eräiden polttoaineiden valmisteverosta 30.12.1996 ja 30.12.2010 Laki nestemäisten polttoaineiden valmisteverosta 29.12.1994/1472 ja 30.12.2010
Name of legislation in English	Act on Excise Duty on Electricity and Certain Fuels (1260/1996 and 1400/2010) Act on Excise Duty on Liquid Fuels (1472/1994 and 1399/2010)
Date of launched	30.12.1996 and 31.12.2010; 29.12.1994 and 31.12.2010
Date of expire	31.12.2014
Geographical coverage:	Finland
Scope	The taxation takes account of the energy content, carbon dioxide emissions and local/particle emissions that have adverse health effects. The energy content tax reflects the volumetric energy content of the fuel. The energy tax component is levied on both fossil fuels and biofuels, based on the same taxation criteria. The CO2 tax is based on the CO2 emissions of the fuel in question. The weight of levies on carbon dioxide have been raised from their 2010 levels.
Changes and proposals under discussion	The structure of energy taxes was changed on 1 January 2011 (see Table 1).
Further legal acts or standards referred	1390/1992 Act of security of supply
Internet address	www.tem.fi, www.finlex.fi
Other information	The CO_2 tax does not apply to wood and other biomass (solid or gaseous) used in energy production. Taxes on natural gas and peat are increased gradually until 2015.

3. Investment support (note demonstrations under 1)	
FINLAND	
Number of act, decree or guideline	688/2001 and 1313/2007 625/2002
Ministry responsible for legislation	Ministry of Employment and the Economy (grant more than 2 million €) Centres for Economic Development, Transport and the Environment (< 2 million €)
Name of legislation in local language	Valtion avustuslaki (688/2001) Valtion neuvoston asetus energiatuen myöntämisen yleisistä ehdoista 625/2002
Name of legislation in English	State support Act (688/2001) State act for general requirements for state support (1313/2007)
Date of launched	27.7.2001 and 25.7.2002
Date of expire	-
Geographical coverage:	Finland
Scope	Subsidies are granted for energy investments, development projects and energy conservation constitute. A particularly important function of the subsidies is to promote the use of renewable energy sources, and to reduce the environmental impacts arising from energy generation and use and enhance energy security and versatile energy system. The Government decision sets the following maximum percentages for the assistance granted to different types of renewable energy projects: ▪ Energy investment studies 40/50% ▪ Wind and solar energy investments 40% ▪ Other investments in renewable energy, conventional technology (renovation and modernisation projects) 30% and innovative projects 40% Projects involving innovative technology have the priority when energy support is granted. Investment grants are allotted for companies and communities, not for private persons or state organisations.
Further legal acts or standards referred	625/2002, EUVL C 37/2001 (Government decision), EU 69/2001, 1353/1999, 1354/1999
Internet address	www.finlex.fi
Other information (e.g. woody biomass especially)	Also investments on harvesting and handling technology woody and other biomass are supported.

FINLAND	
Number of act, decree or guideline	Government Decree on 21 December 2010
Ministry responsible for legislation	Ministry of the Environment
Name of legislation in local language	Valtioneuvoston asetus asuntojen korjaus-, energia- ja terveyshaitta-avustuksista annetun asetuksen muuttamisesta
Name of legislation in English	Government Decree altering the former Decree on renovation, energy and health hazard subsidies for residential buildings
Date of launched	1.1.2011
Date of expire	-
Geographical coverage:	Finland
Scope	The Government supports introduction of renewable heating systems in residential buildings with the new energy subsidy. The subsidy is directed to private households renovating old electricity or oil heating systems to introduce renewable energy system as the main heating source. The subsidy is at most 20% of eligible actual costs, excluding labour costs. For labour costs, it is possible to get household deduction in income taxation.
Further legal acts or standards referred	Government Decrees 128/2006 and 115/2008 (the altered decrees)
Internet address	www.finlex.fi

4. Feed-in-tariffs and other support for heat and power production by biomass	
FINLAND	
Number of act, decree or guideline	688/2001 1260/1996 (electricity production support for renewable energy sources)
Ministry responsible for legislation	Ministry of Employment and the Economy
Name of legislation in local language	Valtion avustuslaki (688/2001)
Name of legislation in English	State Support Act
Date of launched	2001
Date of expire	31.12.2010 (those plants which are accepted in feed-in-tariff system)
Geographical coverage:	Finland
Scope	The act (1260/1996) grant support for electricity production by renewable energy sources. Support is granted for wind power, hydro power $\leq$ 1 MVA, municipal solid waste, biogas and forest chips. Subsidies for electricity production are the following: wind 0.69, biogas 0.40, forest chips 0.69 and solid recovered fuels 0.25 € c/kWh. Forest chips are logging residues like tops, branches, needles, leaves and stumps which produced in forests, terminals or at mills. Municipal solid waste includes solid fuels, which are produced from dry, source-separated commercial or municipal waste produced mechanical treatment and their properties are known. Also product gas from thermal gasification of recovered fuels is included. As of 1 January 2011 this support will be paid only plants which are not in new feed-in-tariff system. Wind power and forest chips plants will get support 6.9 €/MWh, biogas and hydropower 4.2 €/MWh and electricity products should be at least 200 MWh. Biogas: support is granted if market price of electricity is less than 76.6 €/MWh for biogas. Forest chips plant: average annual price of emission allowance is less than 18 €.
Changes and proposals under discussion	Draft Government proposal on 21 April 2010 to new support for electricity production by renewable energy sources: feed-in-tariff for biogas, wind, variable electricity production support for forest chips and small-scale CHP.
Further legal acts or standards referred	386/1995, 2004/8/EU, 92/42/EU, 1306/2007
Internet address	www.finlex.fi
Other information	Only use of forest chips can be granted for electricity production support. The main target is to secure round wood supply for forest industry sector.

FINLAND	
Number of act, decree or guideline	1396/2010
Ministry responsible for legislation	Ministry of Employment and the Economy
Name of legislation in local language	Laki uusiutuvalla tuotetun sähkön tuotantotuesta
Name of legislation in English	Act of electricity production by sustainable energy sources
Date of launched	1.1.2011
Date of expire	31.12.2022
Geographical coverage:	Finland
Scope	Through the feed-in tariff scheme, electricity producers would receive support for a period of twelve years to cover the difference between the actual production costs of electricity and the market price of the energy source in question, or the costs of alternative fuel if plant is accepted in the system. Feed-in tariff is granted for wind power plants (up to total 2500 MVA), power plants fuelled by forest chips, power plants fuelled by wood fuels; forest chips, industrial wood residues (until 50 plants and 150 MVA) and biogas plants (up to 19 MVA). The target price would be €83.5 per MWh for wind power, biogas and wood fuel plants. The level of the feed-in tariff for forest chips plant is be based on the market price of emission allowance and maximum is €18 per MWh. If market price of electricity is less than 30 €/MWh, feed-in-tariff is calculated as follows: target price – 30 €/MWh. In forest chips plant the feed-in-tariff will be 18 €/MWh, if the 3 months average emission allowance price is maximum 10 €. The level of the feed-in tariff is based on the market price of emission allowance using the formula 18 – 18/13 * (P_e – 10), in which P_e is three-months average price of emission allowance. No feed-in-price will be paid if the average price of emission allowance is 23 €. Premium price for useful heat production is paid for biogas 50 €/MWh and for forest chips plants 20 €/MWh.
Changes and proposals under discussion	New legislation
Further legal acts or standards referred	Emission allowance legislation (683/2004)
Internet address	www.finlex.fi
Other information	Nominal output of plants should at least 100 kVA for forest chips plant, 500 kVA wind power plant, 100 kVA biogas, at least 100 kVA and maximum 8 MVA for wood fuel plant. Biogas and wood fuel plant should produced usable heat and total efficiency of the plant is at least 50% or nominal output of generators is 1 MVA and at least 70%.

5. Support for wood fuel and round wood supply	
FINLAND	
Number of act, decree or guideline	544/2007
Ministry responsible for legislation	Ministry of Agriculture and Forestry
Name of legislation in local language	Kestävän metsätalouden rahoituslaki (11.5.2007/544)
Name of legislation in English	Act on the Financing of Sustainable Forestry
Date of launched	11.5.2007
Date of expire	31.12.2013
Geographical coverage:	Finland
Scope	In the Act on the Financing of Sustainable Forestry (544/2007), non-industrial, private forest owners are entitled to seek governmental grants for the afforestation of understocked areas, prescribed burning, the tending of young stands, the harvesting of energy wood, forest recovery, fertilisation, etc. Loans can be granted for joint ventures involving improvement ditching and forest road construction. The Ministry of Agriculture and Forestry pays support in accordance with the law on forestry financing for the harvesting and forestry transport of timber sold for fuel as part of the management of young plantations. The aid for harvesting fuel wood is € 7 per solid cubic meter. Support of € 1.7 per loose m^3 may be obtained for chipping fuel timber. In 2007, a total of € 5.7 million was spent on fuel timber harvesting and chipping support.
Changes and proposals under discussion	Decision regarding amendment on 10 December 2010: ▪ Support for energy wood harvesting from young stands will be separated from support for sustainable forestry ▪ supports for fuel timber harvesting and chipping will be combined Draft Government proposals on 21 April 2010 ▪ The aim is to increase use of forest chips from 5 million solid m^3 (10 TWh) in 2009 to 13,5 million solid m^3 (25 TWh) in 2020 by granting support for harvesting and chipping of small-sized trees, variable electricity production support and feed-in-tariff for small-scale CHP plants ▪ Current support of harvesting and chipping is about 20 million € and proposal for year 2020 is 36 million €.
Further legal acts or standards referred	1093/1996, 688/2001
Internet address	www.finlex.fi

2.6 Germany

Bioenergy meets seven percent of Germany's final energy consumption[1]. This share will increase to 11 % in 2020 according the study "Lead scenario 2008"[2]. Estimates show that, in theory, it would be possible to double the share of bioenergy in Germany's energy supply by 2020, whereby it must be remembered, that imported biomass is playing an increasingly important role in Germany and meeting energy demand solely from domestic biomass is unrealistic for competitive reasons[3]. In order to support the bioenergy production and use, a number of laws and ordinances as well as promotion measures have been adopted in the last years.

Renewable Energy Sources Act (EEG) (first version 2000, the newest version of 1 Jan 2009):

The EEG, enacted by the government of Germany, promotes the development of renewable energy sources with a feed-in tariff scheme. The main objective of this legislation is to increase the amount of renewable energies in the German power supply to 12.5% by the year 2010. On 1 January 2009 the latest version of the EEG came into force.

Renewable Energies Heat Act (EEWärmeG) (since 1st Jan 2009):

New buildings have to use a defined share (dependent of energy source) of renewable energies for heating and cooling. The target of the act is a share of 14 % renewable energies of energy for heating in Germany in 2020. The law obliges owners of new buildings to use RES for heat and cooling to a certain amount. This obligation can be carried out e.g. with a share of 30 % of heat from biogas or 50% from liquid and solid biomass. Different energy sources can be used, also in combination. If the owner does not want to install RES devices, other energy saving measures can be used, also supply with heat from district heating fed with renewables or cogeneration based on biomass.

Market Incentive Programme (MAP):

The MAP promotes renewables-generated heat. MAP activities will focus on investment in buildings to increase the share of renewable energy in overall heat supply. For the period 2009-2012 there are 500 Mio € available for the programme.

Promotion under the Joint Task of Improving Agricultural Structures and Coastal Protection (GAK):

Since 2008 investment in supply systems for heat and electricity generated from biomass has been promoted by the German Federal Government and Länder under legislation of the Joint Task of Improving Agricultural Structures and Coastal Protection, with funding provided under the heading of integrated rural development. The federal government provides 60 % of the funding for GAK measures. GAK also provides for bioenergy advisory services.

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[1] Federal Ministry for the Environment, Nature Conservation and Nuclear safety (BMU): Development of Renewable Energy Sources in Germany 2009 (March 2010), available at: http://www.bmu.de/files/pdfs/allgemein/application/pdf/ee_hintergrund_2009_en_bf.pdf

[2] BMU: Lead Study 2008 – Further development of the "Strategy to increase the use of renewable energies" within the context of the current climate protection goals of Germany and Europe , October 2008, available at: http://www.bmu.de/files/pdfs/allgemein/application/pdf/leitstudie2008_en.pdf

[3] Federal Ministry of Food, Agriculture and Consumer Protection (BMELV) and BMU: National Biomass Action Plan for Germany (2009),available at: http://www.erneuerbare-energien.de/files/english/pdf/application/pdf/broschuere_biomasseaktionsplan_en_bf.pdf

Simplified biogas feed-in into the natural gas grid:

The Gas Grid Access Ordinance (GasNZV), Gas Grid Payment Ordinance (GASNeV) and Incentives Ordinance (AregV) have been amended accordingly to improve conditions for the feed-in of biomethane into the natural gas grid. The aim of the legislation is to contribute to the target of covering 6 billion Nm^3 of Germany's demand for natural gas with biomethane in 2020 and 10 billion Nm^3 in 2030. By the end of 2009 the feed-in of biomethane into the natural gas grid was roughly 0,18 billion Nm^3 (30 plants with an average hourly production of about 750 m^3).

1. Support for research, development and demonstrations	
GERMANY	
Number of act, decree or guideline	In Germany there are several funding programmes for research and demonstrations projects in the field of bioenergy. In the following some these programmes are shortly described.
Ministry responsible for legislation	German Federal Ministry for Food, Agriculture and Consumer Protection (BMELV) German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) German Federal Ministry for Research and Education (BMBF)
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	-
Date of expire	-
Geographical coverage:	-
Scope	Promoting projects to optimize biomass energy use April 2009-2011 Amount: of supporting: 30 Mio. € German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) has drawn up a program for „Promoting projects to optimise biomass energy use" in the framework of the German Climate Initiative. The program supports further development of the current discourse on the generation of power, heat and fuels from biomass, up to the preparation of a sustainable and supportable biomass strategy. Furthermore, the funding program will focus on the development and optimisation of climate-friendly and energy-efficient technologies for the utilisation of biomass for energy, taking into consideration their sustainability and climate protection aspects. Funding is provided for studies, pilots and demonstration projects in seven thematic areas. - Utilisation of residues - International cooperation (focus on Non-EU Eastern Europe States) - Biomass gasifi cation (Combined heat and power, CHP) - Biomethane strategy - Bioenergy strategy (biofuels) - Regional bioenergy (regional concepts, small-scale combustion plants) - Strategy development: biomass (strategic projects, service- and support project etc.)

BMU Environmental Innovation Programme

Since 1997

2.6.1 Loans and grants for environmental projects with demonstration character

The BMU Environmental Innovation Programme finances major industrial demonstration projects that illustrate for the first time in what ways modern technological procedures and combinations of procedures can be realised to reduce environmental pollution and how ecologically sound products can be manufactured and used.

2.6.2 A project may be financed

- if the planned technique/technology is not yet being used on a large scale or
- where known technologies are to be utilised in a new procedural combination for the first time (innovative character).

In addition, further identical or similar facilities should exist or be assumed to exist and to which the innovative techniques/technologies can be applied with the result of comparable environmentally positive impacts (demonstrative character).

2.6.3 Your advantages:

- Long-term financing at an attractive interest rate
- Interest grant from the BMU to the KfW loan
- Where applicable, investment grant of up to 30% of the eligible costs

Directive on Bioenergy Demonstration Projects

Agency for Renewable Resources (FNR)

Since 2005

FNR is the central coordinating agency in Germany for the funding of research, development and demonstration projects. However, its tasks also include providing information and advice to a wide range of different target groups as well as supporting the market introduction of products made from renewable resources. While energy production from biomass is increasingly viewed as important due to decreasing stocks of fossil fuels and concerns about climate change, the market situation of these renewable fuels leaves a lot to be desired. To improve this situation, a directive issued by the Federal Ministry for Food, Agriculture and Consumer Protection in December 2005 makes it possible for FNR to support bioenergy demonstration projects.

The scheme concentrates on plants and technologies whose practicability has already been proven at pilot stage. Furthermore, they must be state of the art and likely to continue running on a commercial scale after the demonstration project. Support is given either as an investment grant or an allowance for operating costs, never as a combination of both.

The directive is set to expire on 31st December 2010.

Research Programme "Renewable Resources"

Agency for Renewable Resources

Since 1993

Amount of support in 2010: 51,5 Mio. €

Under the "Renewable Resources" programme, projects can be supported which either

- Build up production chains of renewable resources (from production to end uses),
- Open up further possible applications in the non-food sector,
- Provide information and counsel, especially for producers, processors and users of renewable resources or
- Engage in marketing and public relations work.

Projects can only be funded if they align with the three aims of the programme, i.e. if they

	• Contribute to a sustainable allocation of raw materials and energy. • Help the environment by saving resources, producing environmentally friendly goods and decreasing CO2 emissions. • Improve the competitiveness of the German agricultural and forestry sector as well as upstream and downstream business areas. The fields which can be supported include starch, sugar, biogenous oils and fats, fibres, lignocellulose/wood, wood as a construction/industrial material, proteins, plant extractives (for the pharmaceutic, cosmetic or food industry etc) and energy uses of solid, liquid and gaseous fuels, as well as public relations work improving public acceptance of renewable resources and increasing the demand for products made from them. There is no fixed budget allocated to bioenergy; in recent years between 10 and 22 million of the total funds were spent on bioenergy related projects. BioEnergie2021 (BMBF, PtJ) (Bioenergy 2021 – Research for utilising biomass) 2008-2013 50 M Euro The "Bioenergy 2021" initiative is established by the Federal Ministry of Education and Research (BMBF). The major goal of funded research is the increase in the net energy yield per unit of area in terms of the efficient conversion of biomass. Research projects seeking funding within programme can address the whole range of potential usage of biomass (fuel, electricity and heat), in particular the use of specific energy plants and the use of biological remainders and waste. The funding covers three different modules – "Biorefinery of the future" (module A), "Energy crops" (module B) and "Bioenergy idea contest" (module C) – which represent different approaches in terms of raw materials and conversion with different medium- and long-term objectives. The research activities in all the modules are required to focus on a holistic reflection of the technological challenges along the value creation chain, whilst also taking into account current and future economic and ecological requirements.
Internet address	http://www.umweltbundesamt.de/service/uip/index.htm (in German), http://www.energetische-biomassenutzung.de/fileadmin/user_upload/Downloads/Programminformationen/poster_englisch.pdf (in English), http://www.fnr-server.de/cms35/index.php?id=139 (in English), http://www.fz-juelich.de/ptj/bioenergie2021 (in German)

2. Energy taxation

GERMANY

Number of act, decree or guideline	EnergiStG
Ministry responsible for legislation	German Federal Ministry of Finance
Name of legislation in local language	Energiesteuergesetz
Name of legislation in English	Energy Tax Law
Date of launched	15.07.2006
Date of expire	-
Geographical coverage:	-
Scope	The energy law sets tax rates for motor and heating fuels incl. biofuels. Germany has reduced tax levels for biodiesel and plant oil, if the sustainability requirements are fulfilled. 2. generation biofuels, fuel with an ethanol share of 70-90% and biogas are exempt from the energy tax.
Changes and proposals under discussion	Tax levels for 2010, 2011 and 2012 revised under the "Wachstumsbeschleunigungsgesetz" and approved by the EC in Apr 2010
Further legal acts or standards referred	For biofuels the key support instrument is the biofuels quota act setting minimum levels for biofuels in total road transport fuel consumption.
Internet address	http://bundesrecht.juris.de/energiestg/index.html (in German)
Other information	Wood and peat are excluded from the energy tax law.

Year	Biodiesel (cent/l)	Plant oil (cent/l)
Aug. 2006	9,00	0
2007	9,00	2,15
2008	14,90	9,90
2009	18,30	18,25
2010	18,60	18,50
2011	18,60	18,50
2012	18,60	18,50
ab 2013	45,03	45,03

3. Investment support (note demonstrations under 1)

GERMANY

Number of act, decree or guideline	Marktanreizprogramm zur Förderung von erneuerbaren Energien
Ministry responsible for legislation	Federal Ministry for Environment, Nature Conservation and Nuclear Safety
Name of legislation in local language	Richtlinie zur Förderung von Maßnahmen zur Nutzung erneuerbarer Energien im Wärmemarkt
Name of legislation in English	Market Incentive Programm
Date of launched	1999
Date of expire	-
Geographical coverage:	Germany
Scope	The Market Incentive Programme (MAP), which supports installations using renewable energies (primarily promoting the heat generation from biomass, solar power and geothermal energy) by providing investment grants, low-interest loans and repayment grants, was introduced in 2009. The Programme was amended in 2008 and the Renewable Energies Heat Act (1.1.2009) continued with this support programme. Funding of the programme was increased, making more than 500 million Euro available to the scheme yearly. The MAP consists of two parts: investment grants, which are granted by the Federal Office of Economics and Export Control (BAFA) and low-interest loans and repayment grants, which are financed through the KfW Bankengruppe[4]. Overview of the investment grants for solid biomass[5]

Plant type	Support	Level of funding (new building)	Level of funding (old building)	Combination bonus	Efficiency bonus	Circulation pump bonus	Innovation support
Pellet stove (air-based) (5 kW up to 100 kW)		375 €	500 €	750 € (if a thermal solar plant, which is eligible for funding under MAP, is installed at the same time)	Level 1: 0,5x basic funding Level 2: 1X basic funding (For biomass plants in buildings with high (Level 1) or very high (Level 2) insulation standard	200 € per plant	-
Pellet stove (water based) (5 kW up to 100 kW)		27 €/kW installed, but min. 750 €	36 €/kW installed, but min. 1000 €				500 € per measure (e.g. funded are measures for increasing the heat yield through flue gas condensation and/or particle separator)
Pellet boiler (5 kW up tp 100 kW)		27 €/kW installed, but min. 1500 €	36 €/kW installed, but min. 2000 €				
Pellet boiler plus newly fitted buffer storage with a capacity of at least 30 l/kW (5kW up to 100 kW)		27 €/kW installed, but min. 1875 €	36 €/kW installed, but min. 2500 €				
Wood chip heating system plus newly fitted buffer storage with a capacity of at least 30 l/kW (5kW up to		750 € per plant	1000 € per plant				

100 kW)						
Firewood gasifier boiler plus newly fitted buffer storage with a capacity of at least 55 l/kW (5kW up to 100 kW)	843,75 € per plant	1125 € per plant				

The KfW Renewable Energies Programme approves loans for electricity from solar energy (photovoltaics), biomass, biogas, wind energy, hydropower, geothermal energy and electricity and heat from renewable energies, generated in combined heat and power stations. The conditions of the long-term and low-interset loans are attractive and for heat generated in large plantsthere is the possibilty of repayment grants, where a part of loan sum is waived and small neterprises are preferred, they pay a lower interset rate than large enterprises.

Measure	Repayment grant
Units for combustion/gasification of solid biomass over 100 kW for heating	20€/kW, max. 50 000 € per plant Increase of 10 €/kW if buffer volume min. 30 l/kW Increase of 20 €/kW if dust emissions max 15 mg/m³ In total max. 100 000 €/unit
Units for combustion/gasification of solid biomass from 100 kW to 2000 kW for combined heat and power generation	40 €/kW

Changes and proposals under discussion	An immediate ban on further support payments under the MAP has been ordered on 3.5.2010 by the German Ministry for Environmental Affairs.The measure is based on a budget freeze put in place by the German Federal Parliament.
Further legal acts or standards referred	Emission limits for combustion plants from the 1.BImSchV (1.Federal Immission Protection Ordinance) have to be met
Internet address	More information available in German language under http://www.erneuerbare-energien.de/inhalt/43273/41238/
Other information	Information referred is valid for solid biomass (pellets, wood chips, firewood). Also installations for other renewable energy sources are funded, more information can be found on the web page above, Since 03.05.2010 a temporary ban on further support payments because of a budget freeze by the German Parliament

GERMANY	
Number of act, decree or guideline	GAK
Ministry responsible for legislation	Federal Ministry for Food, Agriculture and Consumer Protection
Name of legislation in local language	Gemeinschaftsaufgabe "Verbesserung der Agrarstruktur und des Küstenschutzes" (GAK)
Name of legislation in English	Promotion under the Joint Task of Improving Agricultural Structures and Coastal Protection (GAK)
Date of launched	1973
Date of expire	-
Geographical coverage:	Germany
Scope	Since 2008 investment in supply systems for heat and electricity generated from biomass has been promoted by the German Government and Länder under legislation of the Joint Task of Improving Agricultural Structures and Coastal Protection, with funding provided under the heading of integrated rural development. The federal government provides 60 % of the funding for GAK measures. GAK also provides for bioenergy advisory services.
Internet address	http://www.bmelv.de/cln_163/sid_E3AD5FF9C54C1DB90945020AA88E4979/DE/Landwirtschaft/Direktzahlungen-Foerderung/GAK/gak_node.html (in German)

4. Feed-in-tariffs and other support for heat and power production by biomass

GERMANY

Number of act, decree or guideline	EEG
Ministry responsible for legislation	Federal Ministry for Environment, Nature Conservation and Nuclear Safety
Name of legislation in local language	Erneuerbare-Energien-Gesetz (EEG)
Name of legislation in English	Renewable Energy Sources Act
Date of launched	1.4.2000, major amendments made in 2004 and 2008
Date of expire	-
Geographical coverage:	Federal Republic of Germany
Scope	The EEG supports the production of electricity from wind and water power, solar radiation, biomass, sewage and landfill gas and geothermic energy. The EEG guarantees each plant operator free access to the grid and a fixed feed-in-tariff for electricity generated from renewable energy sources. The tariff depends on the type and capacity of installation and on the year of its commissioning. For electricity generated from biomass in an installation commissioned in 2009 the tariff is 7.79-11.67 c/kWh, depending on the capacity. The tariff is paid for a period of 20 years and is increased - with a technology bonus of two cents per kilowatt-hour if innovative technologies (e.g. thermochemical gasification, organic Rankine cycles) are used - with a bonus of 6 cents per kWh for the first 500 kW of the output if the electricity is generated from energy crops, and 4 cents for further output between 500 kW and 5 MW (with the exception of electricity from biogas, for which the summed bonuses are between 4 and 13 cent per kWh) - with a bonus of 3 cents per kilowatt-hour if the electricity is from combined heat and power generation (CHP bonus) - by 1 cent per kilowatt-hour for electricity from installations which utilise biogas and are a subject to licensing in accordance with the Federal Immission Control Act and comply with formaldehyde values set out in the Technical Instructions on Air Quality The tariffs and bonuses for new installations are lowered every year by a fixed percentage (degression rate) and this tariff is valid for the installation for the entire period of 20 years. For electricity generated from biomass the degression rate is 1.0 percent. **Payments for installations generating electricity from biomass**

Year of commissioning	Up to 150 kW_{el} in ct/kWh	150-500 kW_{el} in ct/kWh	500 kW_{el}-5MW_{el} in ct/kWh	5MW_{el}l-20MW_{el} in ct/kWh
2009	11,67	9,18	8,25	7,79
2010	11,55	9,08	8,17	7,71

	2012	11,32	8,91	8,00	7,56
	2013	11,21	8,82	7,92	7,48
	2014	11,10	8,73	7,85	7,41
	2015	10,99	8,64	7,77	7,33
	2016	10,88	8,56	7,96	7,26
	2017	10,77	8,47	7,61	7,19
	2018	10,66	8,39	7,54	7,12
Changes and proposals under discussion	Under discussion is an amendment of the EEG, which would lower the tariffs for energy from photovoltaic between 11 and 16 per cents from 1.7.2010. Legislation to ensure conformity with EU legislation is under consultation (link in German) http://www.erneuerbare-energien.de/files/pdfs/allgemein/application/pdf/ee_europarechtsanpassungsgesetz.pdf				
Further legal acts or standards referred	Federal Immission Control Act (Bundesimmissionschutzgesetz, BImSchG) (licensing of installations, which utilize gas produced from anaerobic fermentation) Technical Instructions on Air Quality Control (Technische Anleitung zur Reinhaltung der Luft, TA Luft) (limits for formaldehyde from biogas installations)				
Internet address	Available in German http://www.umweltministerium.de/erneuerbar1e_energien/erneuerbare-energien-gesetz/doc/40508.php and in English http://www.umweltministerium.de/english/renewable_energy/downloads/doc/42934.php				
Other information (e.g. woody biomass especially)	The bonus for electricity from energy crops applies also for wood. Exception: If the output is between 500 kW_{el} and 5 MW_{el}, the tariff for energy from burning wood other than form short-rotation plantations and landscape management activities is 2,5 cent/kWh (instead of 4 cent/kWh)				

GERMANY	
Number of act, decree or guideline	BioSt-NachV
Ministry responsible for legislation	Federal Ministry for Environment, Nature Conservation and Nuclear Safety
Name of legislation in local language	Biomassestrom-Nachhaltigkeitsverordnung (BioSt-NachV
Name of legislation in English	Ordinance on requirements pertaining to sustainable production of bioliquids for electricity production
Date of launched	29.07.2009
Date of expire	-
Geographical coverage:	Federal Republic of Germany
Scope (Source: Translation of the ordinance, address see below)	The BioSt-NachV is aimed at ensuring that bioliquids used for electricity production, and eligible for the pertinent payment framework under the EEG, are always produced in full compliance with binding sustainability standards. Consequently, bioliquids that are produced in nonsustainable ways will in future no longer be eligible for the pertinent payment framework un-der the EEG. This will ensure that intensified energy-related use of biomass does not have undesirable impacts on natural systems, on climate and on social welfare. As of 1 January 2010, therefore, eligibility (with regard to bioliquids) for basic tariff pursuant to the EEG will be tied to documentation of compliance with specific requirements pertaining to sustainable management of agricultural land and to the conservation of landscapes worthy of special protection. Furthermore, bioliquids for electricity production must show a specified potential, in light of the entire relevant value-creation chain, for reducing greenhouse-gas emissions. These requirements conform to the standardised European requirements approved by the European Union in Directive 2009/28/EC. In the interest of environmental and climate protection, the energy crop bonus of the EEG shall be made subject, starting immediately, to the fulfilment of the potential for greenhouse-gas-emissions reductions. In addition, the Ordinance will provide a foundation for effective private-economic certification and control systems that guarantee compliance with the prescribed standards, throughout all parts of the value-creation chain, and that enable all stakeholders to review the quality of their goods clearly and completely, at all times.
Further legal acts or standards referred	EEG
Internet address	http://www.bmu.de/files/english/pdf/application/pdf/nachv_verordnung_en_bf.pdf

6. Other (specify the name)	
GERMANY	
Number of act, decree or guideline	EEWärmeG
Ministry responsible for legislation	Federal Ministry for Environment, Nature Conservation and Nuclear Safety
Name of legislation in local language	Erneuerbare-Energien-Wärmegesetz
Name of legislation in English	The Renewable Energies Heat Act
Date of launched	Came into force on 1st January 2009
Date of expire	-
Geographical coverage:	Germany
Scope (Source: http://www.erneuerbare-energien.de/files/pdfs/allgemein/application/pdf/ee_waermegesetz_fragen_en.pdf and http://www.bmu.de/english/renewable_energy/downloads/doc/42193.php)	The Heat Act stipulates that by 2020 14 percent of Germany's heat must come from renewable energies. The Act is intended to protect the environment and help reduce emissions of harmful greenhouse gases. Its aim is both to conserve resources and to ensure a secure and sustainable energy supply. There are three aspects to the Act: 1. The obligation to use renewables: From 1 January 2009 owners of newly erected buildings must use renewable energies for their heat requirements. All owners are subject to this obligation, whether private individuals, the state or businesses. All forms of renewables, or combinations of them, can be used. Renewable energies include solar radiation, geothermal energy, ambient heat and biomass. Those who do not wish to use renewable energies can take other climate protection measures: improve the insulation of their buildings, obtain heat from district heating systems or use heat from combined heat and power generation (CHP). Those who use solid biomass, geothermal heat or ambient heat must cover at least 50 percent of their heat needs by these means. In addition, the Act lays down specific environmental and technical standards which are intended to ensure that the technologies have minimum overall environmental impact. For example, heat pumps must have a certain seasonal performance factor. Liquid and gaseous biomass are a special case among renewable energies. Biogas and vegetable oil are not available in unlimited quantities. It is therefore a requirement that systems integrating vegetable oil and biogas deploy the most efficient technologies available – the most modern condensing boilers in the case of vegetable oil and combined heat and power plants in the case of biogas. In addition, those who use biogas and vegetable oil must demonstrate that these fuels meet specific sustainability standards. Owners of new buildings who opt to use biogas must cover at least 30 percent of their heat needs by this means; if bio-oil is used the minimum coverage is 50 percent. 2. Financial support: The use of renewable energies will continue to be financially supported. The government will inject more money into the existing market incentive programme, increasing funding for this support instrument to as much as 500 million Euro per year. This means better planning certainty for investors. (See

	Market incentive Programme) 3. Heat grids: The Act makes it easier for heat grids to be extended. It makes provision for local authorities to prescribe connection to and use of such a grid in the interests of climate protection
Further legal acts or standards referred	Market Incentive Programm
Internet address	The law available in internet under http://www.erneuerbare-energien.de/files/pdfs/allgemein/application/pdf/ee_waermeg.pdf and in English under http://www.bmu.de/english/renewable_energy/downloads/doc/42193.php

2.7 Greece

The use of solid biofuels in heat generation, in Greece, remains low. The use of solid biofuels is applied only in the domestic sector (house heating) and industrial sector (heat generation for operational processes and space heating,) like wood industry, agro-industry and food industry.

The contribution of biomass, in the Gross Domestic Energy Consumption, was estimated by CRES on 4.4% (0,94 Mtoe). The type of biomass mainly used for energy production is wood logs, and it is consumed in domestic sector for heating. The energy content of used quantities raised up to 0,7 Mtoe. The rest 0,24 Mtoe were produced from agricultural, forest and industrial (agro and wood) residues and biogas produced in landfills and sewage treatments. The installed capacity of power generation systems raised up to 103 MWe.

National Strategic Reference Framework (NSRF):

The national development planning is the outcome of a demanding effort to combine proposals and to blend priorities and covers a multi-level approach that touches upon the global development choices of the country's economy and society, the EU guidelines, the economic circumstances and the objective potential for efficient and effective project implementation. Within the framework of the planning process, a very broad consultation was carried out with a view to achieving the largest possible participation and consensus in drawing up the strategic choices that would lead to the achievement of a long-term development vision for the country. The Ministry of Economy and Finance (MEF) is responsible for elaborating the National Strategic Reference Framework (NSRF) proposal for 2007-2013 and for coordinating all relevant procedures. The NSRF was drawn up in cooperation with the competent Ministries, Regional and Local Authorities, and in consultation with the EU, within the framework of a partnership stronger than in the previous period, in accordance with article 28 of the General Regulation of Structural Funds (http://www.espa.gr).

Rural Development Programme 2007-2013 (RDP):

The new programming period 2007-2013 presents a great opportunity to boost Greek agriculture competitiveness, improve the environment and broadly develop a country's rural areas through financing support supplied by the European Agricultural Fund for Rural Development (EARFD).The rural development policy for Greece is implemented through the Rural Development Programme 2007-2013 (RDP) focusing on the following Axes :

- Improvement of the Competitiveness of the Agricultural and Forestry Sector
- Improvement of the Environment and the Countryside
- Quality of Life in Rural Areas and Diversification of the Rural Economy
- Implementation of LEADER Approach

1. Support for research, development and demonstrations	
GREECE	
Number of act, decree or guideline	Sectoral Operational Programme "Competitiveness and Entrepreneurship" • Priority Axis 1 • Priority Axis 4
Ministry responsible for legislation	Ministry of Economy, Competiveness and Shipping
Name of legislation in local language	Εθνικό Στρατηγικό Πλαίσιο Αναφοράς (ΕΣΠΑ)
Name of legislation in English	National Strategic Reference Framework (NSRF)
Date of launched	2007
Date of expire	2013
Geographical coverage:	National
Scope	• Priority Axis 1, "Creation and utilisation of Innovation supported by Research and Technological Development", aims at the acceleration of the transition to a knowledge economy, the incorporation of research, technology and innovation into the country's productive fabric, as its principal motor for development and competitiveness, as well as the broad dissemination of the results of research and innovation in the Greek economy and society • Priority Axis 4 "Completion of the country's energy system and reinforcing sustainability" aims at ensuring the country's energy supply and its accession to international energy transport networks, the rational management of natural resources and the promotion of renewable sources of energy (www.espa.gr)
Internet address	http://www.espa.gr/en/Pages/staticOPCompetitivenessAndEntrepreneurship.aspx

GREECE	
Number of act, decree or guideline	Sectoral Operational Programme "Environment & Sustainable Development" • Priority Axis A1
Ministry responsible for legislation	Ministry of Economy, Competiveness and Shipping
Name of legislation in local language	Εθνικό Στρατηγικό Πλαίσιο Αναφοράς (ΕΣΠΑ)
Name of legislation in English	National Strategic Reference Framework (NSRF)
Date of launched	2007
Date of expire	2013
Geographical coverage:	National
Scope	• Priority Axis A1, "Protecting the Atmospheric Environment & Urban Transportation – Managing Climate Change - Renewable Energy Sources.", aims at the protection, upgrading and sustainable management of the environment, the improvement of citizens' quality of life, as well as contribute to the enhancement of the competitiveness of the Economy (www.espa.gr)
Internet address	http://www.espa.gr/en/Pages/staticOPCompetitivenessAndEntrepreneurship.aspx

GREECE	
Number of act, decree or guideline	Law 3851/2010
Ministry responsible for legislation	Min. of Environment, Energy and Climate Change
Name of legislation in local language	Επιτάχυνση της ανάπτυξης των Ανανεώσιμων Πηγών Ενέργειας για την αντιμετώπιση της κλιματικής αλλαγής και άλλες διατάξεις σε θέματα αρμοδιότητας του Υπουργείου Περιβάλλοντος, Ενέργειας και Κλιματικής Αλλαγής
Name of legislation in English	Accelerating the development of Renewable Energy Sources to deal with climate change and other regulations in topics under the authority of MEECC
Date of launched	04/06/2010
Date of expire	-
Geographical coverage:	National
Scope	The environmental protection against the climate change through the promotion and encouragement of RES application for power production. The contribution of RES in the national energy production system in a 20% of the gross energy consumption equivalent. The contribution of power production from RES in a 40% of the total electricity consumption. The contribution of energy production from RES in a 20% of the total energy consumption equivalent for heating and cooling. The contribution of energy production from RES in a 10% of the total energy consumption equivalent for transportation.
Changes and proposals under discussion	The installed capacity of RES application in the country is determined by the Ministry of Environment, Energy and Climate Change and it will be updated every two years or earlier if necessary.
Further legal acts or standards referred	The first announcement for the determination of installed capacity of RES applications will be done tree months after the publication of Law 3851/2010
Internet address	http://www.et.gr

2. Energy taxation	
GREECE	
Number of act, decree or guideline	Law 3522/2006
Ministry responsible for legislation	Min. of Finance
Name of legislation in local language	Μεταβολές στη φορολογία εισοδήματος, απλουστεύσεις στον Κώδικα Βιβλίων και Στοιχείων και άλλες διατάξεις.
Name of legislation in English	Changes in the taxation of income, simplifications in the Tax Codes and other provisions
Date of launched	22/12/2006
Date of expire	-
Geographical coverage:	National
Scope	The law reactivates tax deductions with financial benefits. Small RES heating systems are eligible for a 20% tax deduction capped at € 700,00 per system and it applies to: • co-generation systems using RES for electrical and heating-cooling needs • replacement of an oil, burning boiler with a district heating installation or for new district heating installation It also provides the same tax deduction for thermal insulation works in existing buildings.
Internet address	http://www.et.gr

3. Investment support	
GREECE	
Number of act, decree or guideline	Sectoral Operational Programme "Competitiveness and Entrepreneurship" • Priority Axis 4
Ministry responsible for legislation	Ministry of Economy, Competiveness and Shipping
Name of legislation in local language	Εθνικό Στρατηγικό Πλαίσιο Αναφοράς (ΕΣΠΑ)
Name of legislation in English	National Strategic Reference Framework (NSRF)
Date of launched	2007
Date of expire	2013
Geographical coverage:	National
Scope	Priority Axis 4 "Completion of the country's energy system and reinforcing sustainability" aims at ensuring the country's energy supply and its accession to international energy transport networks, the rational management of natural resources and the promotion of renewable sources of energy (www.espa.gr).
Internet address	http://www.espa.gr/en/Pages/staticOPCompetitivenessAndEntrepreneurship.aspx

GREECE	
Number of act, decree or guideline	Law 3299/2004 supplemented by Law 3522/2006
Ministry responsible for legislation	Ministry of Finance
Name of legislation in local language	Κίνητρα για τις ιδιωτικές επενδύσεις για την οικονομική ανάπτυξη και την περιφερειακή σύγκλιση
Name of legislation in English	Incentives for private investments for economic development and regional convergence
Date of launched	2004
Date of expire	-
Geographical coverage:	National
Scope	This legal framework provides economic incentives in the form of grants covering a part of investment costs or in the form of subsidy, tax rebate, or cost of creation of new employment. This frame work covers mainly RES electricity generation projects, as well as, RES heating projects like biomass for generation of heating and cooling (individual central plant and distribution to the surrounding area or district heating and cooling) and biomass for co-generation
Internet address	http://www.et.gr

4. Feed-in-tariffs and other support for heat and power by biomass	
GREECE	
Number of act, decree or guideline	Law 3851/2010
Ministry responsible for legislation	Min. of Environment, Energy and Climate Change
Name of legislation in local language	Επιτάχυνση της ανάπτυξης των Ανανεώσιμων Πηγών Ενέργειας για την αντιμετώπιση της κλιματικής αλλαγής και άλλες διατάξεις σε θέματα αρμοδιότητας του Υπουργείου Περιβάλλοντος, Ενέργειας και Κλιματικής Αλλαγής
Name of legislation in English	Accelerating the development of Renewable Energy Sources to deal with climate change and other regulations in topics under the authority of MEECC
Date of launched	04/06/2010
Date of expire	-
Geographical coverage:	National
Scope	Law 3851/2010 rationalizes further the existing feed-in tariff system and the relevant Power Purchase Agreement contract duration and attempts to promote RES investments such as geothermal plants, biomass and biogas plants for which no significant investment interest has been exhibited so far. It eliminates any pricing differentiation for energy produced in the mainland or in the non-interconnected islands and provides for further increase of the tariffs set, in case the producer does not receive any investment subsidy or tax exemption/reduction/refund. (www.ypeka.gr)

<table>
<tr><td></td><td>
<table>
<tr><th colspan="3">Feed in tariffs set by L3851/2010, valid as from June 2010</th></tr>
<tr><th rowspan="2">Electricity production from:</th><th colspan="2">(€/MWh)</th></tr>
<tr><th>Mainland</th><th>Non-interconnected islands</th></tr>
<tr><td>Biomass ≤1MW (excluding biodegradable sewages)</td><td colspan="2">200</td></tr>
<tr><td>(a) Biomass >1 and ≤5MW (excluding biodegradable sewages)</td><td colspan="2">175</td></tr>
<tr><td>(b) Biomass >5MW (excluding biodegradable sewages)</td><td colspan="2">150</td></tr>
<tr><td>(c) Landfill gases sewage treatment plants and biogases (including biodegradable sewages) ≤2MW</td><td colspan="2">120</td></tr>
<tr><td>(d) Landfill gases sewage treatment plants and biogases (including biodegradable sewages) >2MW</td><td colspan="2">99.45</td></tr>
<tr><td>(e) Gas from biomass ≤3MW</td><td colspan="2">220</td></tr>
<tr><td>(f) Gas from biomass >3MW</td><td colspan="2">200</td></tr>
</table>
Power Purchase Agreements (PPA) are valid for 20 years (instead of 10+10 years till now) for all RES units. The PPA duration may be extended after a bilateral agreement (Operator-Producer) provided that the relevant generation license is still valid. For biomass/biogas feed in tariffs are increased by 15% if no state subsidy is made available to the producer.
</td></tr>
<tr><td>Internet address</td><td>www.et.gr</td></tr>
</table>

5. Support for wood fuel and round wood supply	
GREECE	
Number of act, decree or guideline	Presidential Decree 126/ 1986
Ministry responsible for legislation	Min. of Environment, Energy and Climate Change
Name of legislation in local language	Διαδικασία παραχώρησης της εκμετάλλευσης, συντήρησης και βελτίωσης των δασών που ανήκουν στο δημόσιο και στα νομικά πρόσωπα δημοσίου δικαίου στους δασικούς συνεταιρισμούς
Name of legislation in English	Process for the concession of exploitation and improvement of forests, owned by the state and public legal entities, in the forest cooperatives
Date of launched	17/04/1986
Date of expire	-
Geographical coverage:	National
Scope	Members of forest cooperatives are able to use fuelwood harvested in state forests (or forests owned by public legal entities) located in areas where they live, in order to cover their needs for heating. Fees or taxes for the exploitation of these fuelwood quantities, estimated by the forest management plan, are not rqequired
Internet address	www.et.gr

6. Other (Financial support for farmers)	
GREECE	
Number of act, decree or guideline	RDP 2007-2013, Action 2
Ministry responsible for legislation	Min. of Rural Development and Food
Name of legislation in local language	Προστασία του Περιβάλλοντος και Αειφόρος Διαχείριση των Φυσικών Πόρων
Name of legislation in English	Protection of Natural Environment and Sustainable Management of Natural Resources
Date of launched	2007
Date of expire	2013
Geographical coverage:	National
Scope	The support for the farmers of "mountainous" and "other disadvantageous" areas and their activities to cultivate non-food crops (energy crops). The financial support ranges from 100€/ha to 140€/ha depending on the farmers (younger that 30, others) and on the location of mountainous areas, and from 100€/ha to 125€/ha for the rest of disadvantageous areas.
Internet address	http://www.agrotikianaptixi.gr/index.php?op=Axis&todo=Load&id=a08bbfbdbb6a45b6

2.8 Italy

Several programmes are available at national level for support to research, development and demonstration in the renewable energy field, thus including bioenergy. The main Ministries involved are the Ministry of Economic development, Ministry of Education, University and Scientific Research and the Ministry Of Agricultural and Forestry policies.

Some programmes, such as the Operational Programme 2007-13: Research and Competitiveness, are directly linked to the European Commission actions.

The Italian government offers interesting incentive systems to support the expansion of renewable electricity across the Country.

Two main incentives are available for electricity production: the Green certificates and the feed in tariff for renewables except PV and CSP for whom it is a available a specific Feed-in Premium, awarded for 20 years to energy produced in PV and thermodynamic plants (CSP), to be added to the revenue from the electricity sold.

Green Certificates are an Obligation for producers and importers from non-RES to feed into the grid a percentage of electricity produced from RES via "new" plants; such Green Certificates can be sold or purchased through bilateral agreements or through GME trading platform. The Support is granted through 15 years.

With the Feed-in Tariff, energy is purchased at "incentive prices" inclusive of energy granted incentive and value; support duration is 15 years.

Regarding support specifically for wood fuels, a major issue that emerges from the laws that characterize the forest sector in Italy is the lack of funding instruments in favour of forestry. This weakness is certainly attributable to the absence of wood between the agricultural support measures falling under the Common Agricultural Policy (CAP) and the resulting responsibility for the Member States to develop specific tools to support the forestry activities.

The major support to the forestry sector is through the Rural Development Programmes (PSR) the tool of the European Community to reach the targets of the EC Regulation 1698/2005. Such a tool is managed and put into action at Regional level.

1. Support for research, development and demonstrations	
ITALY	
Number of act, decree or guideline	D.L. 16/03/1999, n.79 D.M. 26/01/2000 and following D.M. 19/3/2009 Renew
Ministry responsible for legislation	Ministry of Economic development
Name of legislation in local language	Ricerca di sistema nel settore elettrico.
Name of legislation in English	System research in the electricity sector
Date of launched	20/3/2009
Date of expire	-
Geographical coverage:	National
Scope	This is a structural plan which is valuable in the pursuit of medium- and long-term objectives. It is managed by the Ministry of Economic Development in cooperation with the Authority for Electricity and Gas. The renewed 2009-2011 three-year plan makes about €291 million available for projects by research organisations and companies; part of this is aimed at renewables.
Internet address	www.ricercadisistema.it www.autorita.energia.it Home > Atti e provvedimenti > Provvedimenti

ITALY	
Number of act, decree or guideline	Law decree September 22, 2006
Ministry responsible for legislation	Ministry of Economic development
Name of legislation in local language	Industria 2015
Name of legislation in English	Industry 2015
Date of launched	-
Date of expire	-
Geographical coverage:	National
Scope	The programme establishes strategic guidelines to ensure development and competitiveness of the Country's economic system, and defines new tools aimed at encouraging investment: Industrial Innovation Projects Such support measures are aimed at promoting investment in high-innovation programmes within strategic sectors for Italy's development – i.e. energy efficiency, sustainable mobility, new technologies for living, new technologies for Italian export industries, and innovative technologies for cultural heritage. Enterprise Networks An enterprise network is a form of contractually-based coordination among enterprises. It is specifically designed for SMEs seeking to achieve critical mass and greater market power without being forced to merge under the control of a single entity. Fund for Corporate Finance The Fund for Corporate Finance is intended to make it easier for enterprises (notably SMEs) to obtain credit and risk capital. The Fund will support operations involving the adoption of new credit risk mitigation instruments and private equity initiatives proposed by banks and/or financial intermediaries. The criteria and priorities for carrying out the deals are determined in accordance with guidelines established by Italy's Ministry for Economic Development (MiSE).
Internet address	www.industria2015.ipi.it

ITALY	
Number of act, decree or guideline	Ministry Decree D.M. 246 October 23, 2007
Ministry responsible for legislation	Ministry of Agricultural and Forestry Policies
Name of legislation in local language	Bando Ministero Politiche Agricole Alimentari e Forestali per il finanziamento di progetti di ricerca nel settore Bioenergetico.
Name of legislation in English	Ministry for Agriculture, Food and Forestry call for bids for research funding for the bioenergy sector
Date of launched	23/10/2007
Date of expire	09/02/2008
Geographical coverage:	National
Scope	This call for bids makes resources available for research projects relating to the following subjects: optimisation of existing sectors using agronomic and genetic research and life-cycle assessments, development of manufacturing processes to obtain second-generation biofuels, development within the biodiesel sector of programmes to recover by-products, development within the biogas sector of programmes to recover waste products and the optimisation of biomass fermentation.
Internet address	www.politicheagricole.it Home › Concorsi e Gare

ITALY	
Number of act, decree or guideline	Operational Programme 2007-13: Research and Competitiveness
Ministry responsible for legislation	Ministry of Education, University and Scientific Research
Name of legislation in local language	PON Ricerca e Competitività
Name of legislation in English	National Operational Programme Research and Competitiveness
Date of launched	Several calls since year 2009
Date of expire	31/12/2013
Geographical coverage:	multi-regional
Scope	On 21 December 2007, the European Commission approved the multi-regional "Research and Competitiveness" Operational Programme for the Italian regions of Calabria, Campania, Puglia and Sicily for the period 2007-13. The Programme falls within the framework laid out for the Convergence Objective and has a total budget of around €6.2 billion. The aim of the Programme is to improve the region's overall performance with regard to research and innovation and to close the existing gap with the rest of the Northern Italian regions and other European regions via high value-added economy by improving knowledge and encouraging innovation. The programme will build business capacity to become more innovative, develop and take-up new and improved products, processes and services. It will also enable businesses to grow and to improve their competitiveness and productivity through technological advances.
Internet address	www.ponrec.it
Other information	Calls where RES/Bioenergy may be included: • Bando Start-up - Legge 46/82 F.I.T. ▪ Call starts: 23/09/2009 - Call closes: 21/01/2010 • Invito per la presentazione di progetti di ricerca industriale ▪ Call starts: 10/02/2010 - Call closes: 09/04/2010 • Bando Sportello PON - Legge 46/82 F.I.T. ▪ Call starts: 14/12/2009 - Call closes: 12/04/2010 • Two actions: "Distretti tecnologici e relative reti" and "Laboratori pubblico-privati e relative reti" ▪ Call starts: 16/12/2010 - Call closes: 15/02/2011 • DM 23 luglio 2009 (Investimenti produttivi innovativi) - Bando Obiettivi Innovativi ▪ Call starts: 08/12/2010 - Call closes: 07/04/2011 • DM 23 luglio 2009 (Investimenti produttivi innovativi) - Bando Industrializzazione ▪ Call starts: 10/12/2010 - Call closes: 09/04/2011 • Procedura Negoziale - Legge 46/82 F.I.T. ▪ Call starts: 29/07/2009 - Call closes: 31/12/2013

2. Energy taxation	
ITALY	
Number of act, decree or guideline	Decr.Leg. 26/10/1995 n.504 and following updates
Ministry responsible for legislation	Ministry of Treasure Agenzia delle Dogane
Name of legislation in local language	Testo Unico Accise
Name of legislation in English	Excises Duties
Date of launched	1995
Date of expire	-
Geographical coverage:	National
Scope	Council Directive 2003/96/EC – Energy taxation Directive The energy taxation Directive (2003/96/EC – "energy Directive") was adopted in 2003 and defines the fiscal structures and the levels of taxation to be imposed on energy products and electricity. It replaces, with effect from 1 January 2004, Council Directive 92/81/EEC (on the harmonisation of the structures of excise duties on mineral oils) and Council Directive 92/82/EEC (on the approximation of the rates of excise duties on mineral oils).
Internet address	http://www.agenziadogane.it/ Agenzia -> Accise -> Aliquote accisa nazionali e comunitarie
Other information	No Excise on electricity produced using Pure Vegetable Oil [D.Lgs. 02/02/2007, n. 26, Art. 1 , comma 1, lettera cc) , punto 5]

3. Investment support	
ITALY	
Number of act, decree or guideline	DM 24-01-2008
Ministry responsible for legislation	Ministry of Economic development
Name of legislation in local language	Contratti di programma
Name of legislation in English	Programme Contract
Date of launched	25/07/2008
Date of expire	-
Geographical coverage:	National
Scope	A Programme Contract is an agreement between the Ministry for Economic Development, acting through Invitalia and the companies involved with a view to implementing industrial projects. For industrial project it is meant a business venture, possibly run by several companies, finalized to the production of properties and services for whose accomplishment one or more programmes for productive investments are necessary, including programmes for experimental development, linked in a productive framework conceived for the accomplishment of final products. The tool is entirely managed by Invitalia who handles all the stages of the procedure: it assesses business applications and defines project viability, manages aid disbursement and executes project monitoring. Investment programmes falling within the manufacturing, mining and quarrying, power generation are eligible. All investment programmes must be implemented within a framework of productive sites in specific areas selected as eligible. The following programmes are eligible for incentives: ▪ setting-up of new establishments; ▪ extension of existing establishments; ▪ diversification of the output of an establishment into new additional products; ▪ fundamental change in the overall production process of an existing establishment. Incentives can be granted against experimental development programmes implemented in the whole country. These programmes can include also industrial research activities. In any case, as for eligible costs, the experimental development share must be larger than the industrial research one.
Internet address	http://www.invitalia.it - in english Home -> Business Environment -> Incentives

4. Feed-in-tariffs and other support for heat and power production by biomass	
ITALY	
Number of act, decree or guideline	Several acts and decrees: DM Sviluppo Economico del 18 dicembre 2008 (also known as Decreto Rinnovabili)
Ministry responsible for legislation	Ministero Sviluppo Economico (Ministry of Economic Development)
Name of legislation in local language	Tariffa Omnicomprensiva
Name of legislation in English	All inclusive tariff
Date of launched	-
Date of expire	-
Geographical coverage:	National Territory
Scope	Support to the electricity production from Renewables It is an alternative support *instead of* Green Certificates (Certificati Verdi) GSE (Gestore Servizi Energetici, a publicly-owned company promoting and supporting renewable energy sources in Italy) qualifies plants as RES-E ("IAFR") plants in view of: i) subsequently issuing Green Certificates in respect of their electricity generation (subject to specific conditions); or ii) granting the all-inclusive feed-in tariff for the electricity generated and injected into the grid. **All-inclusive feed-in tariff** The Tariff is available for renewable energy plants matching the following criteria: Electrical Nominal Power greater than 1kW and less than 1 MW (0.2MW for Wind Energy); in operation from after 31/12/2007; the plant must be IAFR qualified from GSE. The all inclusive tariff is given for each produced kWh put into the electricity network. The tariff is different depending on the Renewable Energy Source. The tariff is available to the plant for 15 years The tariff is "all inclusive". It includes the value of the electric energy (selling price) and the support. It is not possible for the plant owner to further sell the energy that is supported by this incentive. The all inclusive tariffs for biomass to energy are the following, depending on the source: 1) Biogas, Biomass and Pure Vegetable Oil whose traceability is possible through the integrated management system as from the Council Regulation (EC) No 73/2009 of 19 January 2009; **0.28€/kWh** 2) Dump Gas, residual gases from depuration, Liquid Biofuels except for Pure Vegetable Oil whose traceability is possible through the integrated management system as from the Council Regulation (EC) No 73/2009 of 19 January 2009; **0.18€/kWh** For plants in operation from after 30/06/2009 the all inclusive tariff can not be cumulated with any other kind of Local, Regional, National and European incentive or financial contribution, *except for* agricultural, zoo-

	technical and agro-forestry enterprises using biogas, biomass or pure vegetable oil whose traceability is possible through the integrated management system as from the Council Regulation (EC) No 73/2009 of 19 January 2009. Apart from for a few exceptions specified in the Ministerial Decree of 18 Dec. 2008, photovoltaic plants are not eligible for these forms of support, as they only benefit from the support referred to in the Ministerial Decree of 19 Dec. 2007 (PV feed-in scheme).
Internet address	http://www.gse.it English> Activities > Support for renewable energy sources > Criteria and procedures for granting the support (*in English)*

ITALY	
Number of act, decree or guideline	Green Certificates Mechanism
Ministry responsible for legislation	Ministry of Economic Develoment; Ministry of Economy and Finances
Name of legislation in local language	Certificati Verdi
Name of legislation in English	Green Certificates
Date of launched	April 1, 1999
Date of expire	-
Geographical coverage:	National
Scope	Support to ELECTRICITY production from renewables (except PV) The Legislative Decree No 79/1999 introduced the obligation for producers and importers of electricity from non-renewable sources to feed an annual minimum quota of electricity: 1. by plants fed by renewable sources into the national electricity system, OR 2. by buying green certificates from other producers. GSE (Gestore Servizi Energetici, a publicly-owned company promoting and supporting renewable energy sources in Italy) qualifies plants as RES-E ("IAFR") plants in view of: i) subsequently issuing Green Certificates in respect of their electricity generation (subject to specific conditions); or ii) granting the all-inclusive feed-in tariff for the electricity generated and injected into the grid. **Green Certificates** The producers of green electricity receive a Green Certificate for each unit of electric energy produced; this certificate can be traded on a Tradable Green Certificate (TGC) market. The TGC system is combined with mandatory targets on the share of renewable energy production, supply or consumption. The plants that GSE has qualified as RES-E ("IAFR") plants receive a number of Green Certificates (each worth 1 MWh) equal to the product between their supportable net electricity generation and the multiplicative factors (differentiated by source); for Biomass to energy, the following factors are considered: 3. Biodegradable waste and biomass (other than the one indicated in the following point); factor=1.30 4. Biomass and biogases obtained from agriculture, animal husbandry and forestry on a short supply-line basis; factor=1.8 As a matter of comparison, Wind and Hydro have a factor equal to 1. Under art. 10, para. 1 of the Ministerial Decree of 18 Dec. 2008, IAFR-qualified plants are eligible for Green Certificates for: a. 15 years - only for supported RES-E generation in plants (including hybrid ones) which have been commissioned after 31 December 2007; b. 15 years - for electricity generation in thermal plants which have been commissioned before 1 Apr. 1999 and have started operating as hybrid plants after 31 December 2007;

	c. 12 years - only for supported RES-E generation in plants which have been commissioned until 31 December 2007; d. 12 years – for electricity generation in thermal plants which have been commissioned before 1 Apr. 1999 and have started operating as hybrid plants before 31 December 2007; e. 8 years – only for supported non-RES-E generation in CHP plants combined with district heating; f. 8 years – for supported non-RES-E generation in plants (including hybrid ones): i) using non-biodegradable waste; ii) commissioned within 31 December 2006; and iii) eligible for Green Certificates under the legislation applicable until that date. If the plants mentioned in subparas. c. and d. above are fed by biomass under supply-line agreements, they will be eligible for Green Certificates for another 4 years. Green Certificates will only cover 60% of their supportable electricity generation in each of the above 4 years. If the plants mentioned in subpara f. above have been commissioned after 14 Feb. 2004 and before 1 Jan. 2007 and are fuelled by non-biodegradable waste, they will be eligible for Green Certificates for another 4 years. Green Certificates will cover 60% of their supportable electricity generation in each of the 4 years. Green Certificates do not add to the other forms of support provided for in art. 2, para. 152 of the Italian Budget Law 2008, i.e. national, regional, local or Community support in the form of feed-in schemes, grants or loans with advanced capitalisation. In the following picture the Quotations of the Green Certificates within the period 2008-2010, update: November 17, 2010 **2008** / **2009** / **2010** Minimum Price (€/MWh) 75.00 / 79.80 / 78.80 Maximum Price (€/MWh) 88.55 / 89.90 / 88.80 Average Price (€/MWh) 85.35 / 85.93 / 83.80 Negotiated Green Certificates 4,765 / 930,250 / 1,268,986 *Source: www.mercatoelettrico.org*
Changes and proposals under discussion	The mechanism is continuously under change
Further legal acts or standards referred	The mechanism is continuously under change
Internet address	http://www.gse.it Attività > Incentivazioni Fonti Rinnovabili > Servizi > Rilascio Certificati Verdi (*in Italian*) English> Activities > Support for renewable energy sources > Criteria and procedures for granting the support (*in English)* http://www.autorita.energia.it/it/glossario/termini/termine-certificativerdi.htm Regulatory Authority for Electricity and Gas (*in Italian*) No specific page is available in the Ministry sites. A detailed summary of the History of Green Certificates in Italy is available here: http://www.nextville.it/index/331 "La tormentata storia dei Certificati Verdi in Italia" (*The troubled history of Green Certificates in Italy - in Italian*)

5. Support for wood fuel and round wood supply	
ITALY	
Number of act, decree or guideline	No national act, decree or guideline available
Ministry responsible for legislation	Ministero delle Politiche Agricole Alimentari e Forestali *Ministry of Agricultural, Food and Forestry Policies*
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	-
Date of expire	-
Geographical coverage:	-
Scope	-
Changes and proposals under discussion	-
Further legal acts or standards referred	-
Internet address	
Other information	A major issue that emerges from the laws that characterize the forest sector in Italy is the lack of funding instruments in favor of forestry. This weakness is certainly attributable to the absence of wood between the agricultural support measures falling under the Common Agricultural Policy (CAP) and the resulting responsibility for the Member States to develop specific tools to support the forestry activities. *Source: FRATINI R., RICCIOLI F., 2009 - Le politiche regionali nel sostegno della selvicoltura. Un caso applicativo in Toscana. (Regional policies to support forestry activities. An application case in Tuscany.) Atti del Terzo Congresso Nazionale di Selvicoltura. Taormina (ME), 16-19 ottobre 2008. Accademia Italiana di Scienze Forestali, Firenze, p. 1089-1094.*

ITALY	
Number of act, decree or guideline	Implementation of European Commission Reg. (CE) n. 1698/05
Ministry responsible for legislation	Ministero delle Politiche Agricole Alimentari e Forestali *Ministry of Agricultural, Food and Forestry Policies*
Name of legislation in local language	Piano di Sviluppo Rurale 2007/2013
Name of legislation in English	Rural Development Plan - 2007/2013
Date of launched	1/1/2007
Date of expire	31/12/2013
Geographical coverage:	Italy - national territory The application is at Regional Level
Scope	Financial support for the production of woody biomass are available at Regional Level through the Rural Development Programmes (PSR) the tool of the European Community to reach the targets of the EC Regulation 1698/2005. Support for rural development shall contribute to achieving the following objectives (COUNCIL REGULATION N.1698/2005): (a) improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation; (b) improving the environment and the countryside by supporting land management; (c) improving the quality of life in rural areas and encouraging diversification of economic activity. Four axes to implement the objectives: Axis 1 – Making the agricultural and forestry sector more competitive; Axis 2 – Improving the environment and rural space; Axis 3 – Quality of life in rural areas and diversification of the rural economy; Axis 4 – Leaders. Main Forestry Measures within the Support to Rural Development: Axis 1; Improvement of the competitiveness within the Agricultural and Forestry sectors. Measures 114, 115, 122, 123, 124, 125 Axis 2; Management of the territory. Measures 221, 222, 223, 224, 225, 226, 227

Tabella 8.1 – Principali misure forestali nello Sviluppo rurale 2007-2013

	Misure a favore delle foreste Reg. 1698/2005	Contenuto delle misure	Novità
Asse 1: Miglioramento della competitività dei settori agricolo e forestale	114 - Utilizzo dei servizi di consulenza	Sostegno agli imprenditori e proprietari forestali per migliorare il reddito globale dell'azienda, per le spese di consulenza sui CGO e sicurezza sul lavoro.	Importo massimo di 1.500 Euro a copertura dell'80% del costo ammissibile
	115 - Avviamento di servizi di assistenza alla gestione, di sostituzione e di consulenza aziendale.	Sostegno a copertura delle spese di avvio di servizi alla gestione, sostituzione e consulenza aziendale e assistenza tecnica.	Contributo decrescente per 5 anni
	122 - Miglioramento del valore economico delle foreste	Sostegno agli investimenti aziendali che si basano su Piani di gestione, per proprietà forestali private e pubbliche o di loro associazioni	Sostegno pubblico 50% e 60% nelle ZS, Natura2000
	123 - Accrescimento del valore aggiunto dei prodotti agricoli e forestali	Sostegno gli investimenti materiali e immateriali diretti a migliorare il rendimento globale dell'impresa, per la trasformazione e commercializzazione dei prodotti della silvicoltura	Aiuto alle sole microimprese (meno di 10 addetti e fatturato annuo non superiore ai 2 milioni di euro), del 40% (50% nelle Regioni convergenza)
	124 - Cooperazione per lo sviluppo di prodotti, processi e tecnologie nei settori agricolo e alimentare e in quello forestale	Sostegno alla cooperazione tra produttori, industria di trasformazione e terze parti (ricerca), al fine di introdurre innovazione nei processi di trasformazione dei prodotti.	Finanziamento limitato al costo del progetto di cooperazione.
	125 – Infrastrutture connesse allo sviluppo e all'adeguamento dell'agricoltura e della silvicoltura	Sostegno ai costi di realizzazione di infrastrutture interaziendali per acceso alle sup. forestali, consolidamento e miglioramento fondiario, fornitura di energia e gestione delle risorse idriche.	
Asse 2: Gestione del territorio	221 - Imboschimento delle superfici agricole	Sostegno ai proprietari o affittuari privati, per l'impianto, copertura dei costi di manutenzione (premio annuo/ettaro per 5 anni) e perdita di reddito (premio annuo/ettaro per 15 anni). Per proprietari pubblici vengono coperti unicamente i costi di impianto.	Cofinanziamento per l'impianto all'80% del costo e premio annuo/ettaro per la perdita di reddito massimo di 700 euro per agricoltori o loro associazioni e di 150 euro per ogni altra persona fisica o entità di diritto privato.
	222 - Primo impianto di sistemi agroforestali su terreni agricoli	Sostegno agli agricoltori per i costi di impianto nella creazione di sistemi agroforestali con silvicoltura e agricoltura estensiva.	Cofinanziamento del fino al 80%. Sostegno non concesso per l'impianto di abeti natalizi e specie a rapido accrescimento.
	223 - Imboschimento di superfici non agricole	Sostegno dei soli costi di impianto. Per i terreni agricoli incolti (da almeno 2 anni), anche i costi di manutenzione (premio annuo/ettaro per 5 anni)	Cofinanziamento per l'impianto all'80% del costo,
	224 - Indennità natura2000	Sostegno ai proprietari privati e loro associazioni per i costi e il mancato guadagno derivanti dai vincoli imposti all'uso del bosco dalle direttive 79/409/CEE e 92/73/CEE. La concessione si basa sui Piani di gestione.	Sostegno a ettaro da un importo minimo di 40 euro ad un massimo di 200 euro.
	225 - Pagamenti silvo-ambientali	Pagamento per ettaro ai beneficiari che assumono volontariamente impegni silvo-ambientali che vadano oltre i "pertinenti" requisiti obbligatori di gestione forestale, per compensazione dei costi aggiuntivi connessi.	Compensazione per un periodo tra i 5 e i 7 anni. Sostegno a ettaro da un importo minimo di 40 euro ad un massimo di 200 euro
	226 - Ricostruzione del potenziale silvicolo e introduzione di azioni di prevenzione	Sostegno alla ricostruzione da disastri naturali e incendi, introduzione di azioni di prevenzione per le zone ad alto e medio rischio di incendio.	
	227 - Investimenti non produttivi	Interventi per aumentare l'utilità pubblica e la valorizzazione ambientale dei boschi.	Interventi prima compresi in "Altre misure forestali".

Fonte:INEA

Table Source: Storti, D., Zumpano, C., LE POLITICHE COMUNITARIE PER LO SVILUPPO RURALE - Il quadro degli interventi in Italia - Rapporto 2008/2009 INEA

Other measures may also provide support to the biomass for energy use, depending on the orientation given from each region. As a matter of example, Measure 121 (Modernisation of agricultural holdings) in the Veneto Region, makes available financial support to the agricultural entrepreneurs, under action *S*, in order to set up energy crops pluriennial plantations

(*source: Zampieri, R. - "Gli incentivi per le produzioni legnose nella regione del Veneto" - 2007 - Atti del Convegno "Arboricoltura e biomasse legnose"*).

Wider details regarding the implementation of PSR at Regional level may be found at the following web address: www.reterurale.it where a short synthesis of the Regional implementation is available in English for each Region.

Internet address	www.reterurale.it -> Programmazione -> PSR Italia

2.9 Latvia

The legislations on renewable resources in Latvia have been developing very slowly. "Law on Pollution" that came in force in 2001 can be considered the first legal act on renewable resources. One of the aims of this law was to prevent or, if not possible, to reduce energy use of non-renewable resources and greenhouse gas emissions.

The next legal acts related renewable resources were introduced in 2005 and are the following:

- "Biofuel Law" - promotes biofuel trade, thereby supporting the utilization of environmentally friendly and safe in supply renewable energy resources.

- "Electricity Market Law" - promotes electricity production from renewable sources. Two regulations have been developed under this law that are currently the most important regulations that define calculation methods for feed-in tariff for electricity production from renewable energy resources. To support the implementation of Electricity Market Law, Regulation of Cabinet of Ministers No.772 was developed. The regulation sets terms of biofuel quality standards, conformity assessment, market surveillance and consumer information order.

- "Natural Resources Tax Law" - promotes economically efficient use of natural resources, restrict pollution of the environment, reduce manufacturing and sale of environment polluting substances, promote implementation of new, environment-friendly technology, support sustainable development in the economy, as well as ensures environment protection measures financially.

In 2006 the law "Electricity Tax Law" was introduced. This law provides the procedure how electricity is assessed with electricity tax in Latvia. Under this law regulation on financially eligible quotas for biofuels has been established.

Currently the most important law regarding usage of renewable resources is being under development. The aim of the law "Renewable energy resources energy law" is to promote and increase energy production and usage of renewable resources taking into account the economical aspects, environmental quality, and concerns of national energy independence. The law will be introduced in July 1st 2011.

Several national programs have been developed to promote energy production or usage of renewable resources. No direct support has been defined within these programs. The only mechanism to promote use of bioenergy in Latvia is feed-in tariff system for heat and electricity production from renewable resources.

Also few incentives to promote use of bioneregy have been developed on support for research and energy production from renewable resources. These incentives are based on financial support from European Regional Development Fund and European Cohesion Fund. Projects on renewable resources in Latvia can further receive support from the Environment Protection Fund, Environment investment fund for soft loans, EEA Financial Mechanisms and Norwegian Financial Mechanisms as well as Green Investment Scheme.

The investment support of use of bioenergy and support for wood fuel and round wood supply systems has not been developed in Latvia.

1. Support for research, development and demonstrations	
LATVIA	
Number of act, decree or guideline	Regulations of Cabinet of Ministers Nr.752
Ministry responsible for legislation	Ministry of Education and Science
Name of legislation in local language	Noteikumi par darbības programmas "Uzņēmējdarbība un inovācijas" papildinājuma 2.1.1.1.aktivitāti "Atbalsts zinātnei un pētniecībai"
Name of legislation in English	Rules of Action Programme 'Entrepreneurship and Innovation ", Appendix 2.1.1.1. activity " Support for science and research "
Date of launched	01.08.2009
Date of expire	-
Geographical coverage:	National
Scope	The aim of the regulations is to support practical guidance for research projects, which promotes scientific and industrial integration, and results of research implementation according to the priority directions of science in country. Following priority directions of science in 2010 – 2013 are defined: 1) Energy and Environment (RES extraction and usage technologies, climate change-absorbing technology and biodiversity); 2) Innovative materials and technologies; 3) National identity; 4) Public health; 5) Sustainable usage of local resources (subsoil, forest and food) - new products and technologies. The total available funding of European Regional Development Fund within the activity - 51 204 291 Euro. In the project application the total minimum eligible costs are 100 400 Euro, the total maximum eligible costs are 702 802 Euro. The deadline of submitting the project applications are March 9, 2010. Currently the evaluation of project application is in progress. No results have been published yet.
Changes and proposals under discussion	During the implementation time the changes have been made in several paragraphs of the regulations: the aim of the regulations, the support from national funds, etc. The changes do not affect the results of this regulation greatly.
Further legal acts or standards referred	Regulations developed under European Union Structural and Cohesion Funds Management Law
Internet address	http://www.likumi.lv/doc.php?id=195564
Other information	On of the especially supported scientific direction - forest science (new products, technologies in forest science and technologies for wood processing).

2. Energy taxation	
LATVIA	
Number of act, decree or guideline	Act
Ministry responsible for legislation	Ministry of Finance
Name of legislation in local language	Elektroenerģijas nodokļa likums
Name of legislation in English	Electricity Tax Law
Date of launched	19.12.2006
Date of expire	-
Geographical coverage:	National
Scope	The taxable object is electricity supplied to an end user, as well as electricity, which is supplied for home consumption, shall be taxable, except for the cases specified in this Law. Scope of Application of this Law: ▪ This Law prescribes the procedures, by which electricity is taxed by the electricity tax in the Republic of Latvia; ▪ This Act applies to persons engaged in electricity generation, distribution, supply, marketing and other activities with electricity; ▪ This Act does not apply to the autonomous producers of electricity produced and consumed by their own use, under the following conditions: o The total production capacity of two megawatts; o The production of electricity used for energy, which levied an excise tax on coal, which are subject to an environmental tax or electricity subject to tax on electricity. The tax rate for electricity shall be 1.01 Euro per megawatt hour. Electricity obtained from the following resources shall be exempt from tax: ▪ From renewable energy resources; ▪ In hydroelectric power stations; ▪ In cogeneration electric stations complying with the efficiency criteria specified in the regulatory enactments regarding the generation of electricity through the process of cogeneration.
Further legal acts or standards referred	The Law is developed under the Directives 2003/96/EK, 2004/74/EK, and 2003/96/EK. Further legal acts: Regulations of Cabinet of Ministers No.382 "Application of Electricity tax exemption procedures" and No.128 "Rules for electricity tax return form and filling procedure".
Internet address	http://www.ttc.lv/export/sites/default/docs/LRTA/Likumi/Electricity_Tax_Law.doc

4. Feed-in-tariffs and other support for heat and power production by biomass	
LATVIA	
Number of act, decree or guideline	Act
Ministry responsible for legislation	Ministry of Economics
Name of legislation in local language	Atjaunojamās enerģijas likums
Name of legislation in English	Renewable Energy Law
Date of launched	01.07.2011
Date of expire	-
Geographical coverage:	National
Scope	The promotion of local renewable energy economy needs to establish a stable long-term regulatory investment environment for renewable energy production. The law sets the state and local government rights and responsibilities of the renewable energy sector, the support instruments (additional payment for elecricity production from RES, including promotion of renewable electricity consumption in the household sector) for promotion of renewable energy usage, and transitional provisions.
Further legal acts or standards referred	The Law is developed under the Directive 2009/28/EC on the promotion of renewable energy, which repealing the following directive 2001/77/EC and 2003/30/EC.

<table>
<tr><th colspan="2">LATVIA</th></tr>
<tr><td>Number of act, decree or guideline</td><td>Regulation of Cabinet of Ministers No.262</td></tr>
<tr><td>Ministry responsible for legislation</td><td>Ministry of Economics</td></tr>
<tr><td>Name of legislation in local language</td><td>Noteikumi par elektroenerģijas ražošanu, izmantojot atjaunojamos energoresursus, un cenu noteikšanas kārtību</td></tr>
<tr><td>Name of legislation in English</td><td>Regulation for electricity production from renewable resources, and price determination process</td></tr>
<tr><td>Date of launched</td><td>01.04.2010</td></tr>
<tr><td>Date of expire</td><td>-</td></tr>
<tr><td>Geographical coverage:</td><td>National</td></tr>
<tr><td>Scope</td><td>The main support instrument in the renewable electricity sector in Latvia is feed-in tariff system.
The following abbreviations were chosen for the formulas in the following two tables for calculating the feed in tariffs:
C – purchase price of RES-E without VAT
e – exchange rate of Latvian Lats (LVL) and Euro on the date of electricity bill
Tg – end user natural gas price approved by the Regulatory Authority (without VAT)
k – certain coefficient depending on the installed capacity
Calculation of the coefficient k
<table>
<tr><th colspan="2">Installed capacity</th><th rowspan="2">K factor</th></tr>
<tr><th>From including [MW]</th><th>To excluding [MW]</th></tr>
<tr><td>0.00</td><td>0.08</td><td>1.240</td></tr>
<tr><td>0.08</td><td>0.15</td><td>1.231</td></tr>
<tr><td>0.15</td><td>0.20</td><td>1.202</td></tr>
<tr><td>0.20</td><td>0.40</td><td>1.131</td></tr>
<tr><td>0.40</td><td>0.60</td><td>1.086</td></tr>
<tr><td>0.60</td><td>0.80</td><td>1.072</td></tr>
<tr><td>0.80</td><td>1.00</td><td>1.055</td></tr>
<tr><td>1.00</td><td>1.50</td><td>1.035</td></tr>
<tr><td>1.50</td><td>2.00</td><td>1.008</td></tr>
<tr><td>2.00</td><td>2.50</td><td>0.992</td></tr>
<tr><td>2.50</td><td>3.00</td><td>0.982</td></tr>
<tr><td>3.00</td><td>3.50</td><td>0.974</td></tr>
<tr><td>3.50</td><td>10.00</td><td>0.965</td></tr>
<tr><td>10.00</td><td>20.00</td><td>0.950</td></tr>
<tr><td>20.00</td><td>40.00</td><td>0.920</td></tr>
<tr><td>40.00</td><td>60.00</td><td>0.890</td></tr>
<tr><td>60.00</td><td>80.00</td><td>0.860</td></tr>
<tr><td>80.00</td><td>100.00</td><td>0.830</td></tr>
<tr><td>100.00</td><td>-</td><td>0.800</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td>
<table>
<tr><th rowspan="2">Technology</th><th rowspan="2">Capacity restriction</th><th colspan="2">Support level 1 (First 10 years)</th><th colspan="2">Support level 2 (Following 10 years)</th></tr>
<tr><th>Formula</th><th>Price range (€/MWh)</th><th>Formula</th><th>Price range (€/MWh)</th></tr>
<tr><td>Wind</td><td>< 0,25 MW</td><td>C=147*e*k</td><td>117-128</td><td>C=147*e*k*0,6</td><td>70-77</td></tr>
<tr><td></td><td>Other</td><td>C=120*e*k</td><td>67-95</td><td>C=120*e*k*0,6</td><td>40-57</td></tr>
<tr><td rowspan="2">Biomass, biogas</td><td>Biomass < 4 MW</td><td rowspan="2">$C=\frac{T_g*k}{9,3}*4,5$</td><td>61-78[a]
107-138[b]</td><td rowspan="2">$C=\frac{T_g*k}{9,3}*3,4$</td><td>46-59[a]
81-104[b]</td></tr>
<tr><td>Biogas > 2 MW</td><td>50-62[a]
89-110[b]</td><td>38-47[a]
67-83[b]</td></tr>
<tr><td>Biomass</td><td>> 4 MW</td><td>$C=\frac{T_g*k}{9,3}*3,6$</td><td>40-49[a]
71-86[b]</td><td>$C=\frac{T_g*k}{9,3}*3,0$</td><td>34-40[a]
59-72[b]</td></tr>
<tr><td>Biogas</td><td>< 2 MW</td><td>C=188*e*k</td><td>133-164</td><td>C=188*e*k*0,8</td><td>107-131</td></tr>
<tr><td>Hydro</td><td>< 5 MW</td><td>C=159*e*k</td><td>108-139</td><td>C=159*e*k*0,8</td><td>86-111</td></tr>
<tr><td>Solar</td><td>-</td><td>C=427*e</td><td>330</td><td>C=427*e</td><td>330</td></tr>
<tr><td colspan="6">If the information in the annual report on electricity production from renewable resources does not match the information submitted in the application to the Ministry of Economics on obtaining the right to sell electricity from biomass and biogas.</td></tr>
<tr><td rowspan="2">Biomass, biogas</td><td>Biomass < 4 MW</td><td rowspan="2">$C=\frac{T_g*k}{9,3}*3,6$</td><td>40-50[a]
86-110[b]</td><td rowspan="2">$C=\frac{T_g*k}{9,3}*2,72$</td><td>37-47[a]
65-83[b]</td></tr>
<tr><td>Biogas > 2 MW</td><td>40-50[a]
71-88[b]</td><td>30-38[a]
54-67[b]</td></tr>
<tr><td>Biomass</td><td>> 4 MW</td><td>$C=\frac{T_g*k}{9,3}*2,88$</td><td>32-39[a]
57-69[b]</td><td>$C=\frac{T_g*k}{9,3}*2,4$</td><td>27-32[a]
47-75[b]</td></tr>
<tr><td>Biogas</td><td>< 2 MW</td><td>C=188*e*k*0,8</td><td>107-131</td><td>C=188*e*k*0,64</td><td>85-105</td></tr>
</table>
a: at a price of 130 LVL/1000 Nm^3
b: at a price of 230 LVL/1000 Nm^3
The feed-in tariff is capped so that electricity producers have the right to sell their electricity at the above described fixed price until a certain share of RES-E in the total electricity consumption is reached.
</td></tr>
<tr><td>Further legal acts or standards referred</td><td>The regulation is made under the Electricity Market Law.</td></tr>
<tr><td>Internet address</td><td>http://www.likumi.lv/doc.php?id=207458&from=off</td></tr>
</table>

LATVIA	
Number of act, decree or guideline	Regulation of Cabinet of Ministers No.221
Ministry responsible for legislation	Ministry of Economics
Name of legislation in local language	Noteikumi par elektroenerģijas ražošanu un cenu noteikšanu, ražojot elektroenerģiju koģenerācijā
Name of legislation in English	Regulations Regarding Electricity Production and Price Determination Upon Production of Electricity in Cogeneration
Date of launched	10.03.2009
Date of expire	-
Geographical coverage:	National
Scope	The regulations prescribe the criteria for qualification of cogeneration units using RES to acquire the right to sell the produced electricity within the framework of the mandatory procurement or to receive guaranteed payment for the installed electric capacity in a cogeneration unit.
Changes and proposals under discussion	Recently (01.11.2010) an important change of the regulations has been made. From the regulations the article which stated feed-in tariff for natural gas and peat co-generation plants with installed electric capacity below 4 MW was removed.
Further legal acts or standards referred	The regulation is made under the Electricity Market Law.
Internet address	http://www.likumi.lv/doc.php?id=189260 (also, available on ENG)
Other information	http://www.em.gov.lv/em/2nd/?cat=30317

LATVIA	
Number of act, decree or guideline	Regulation of Cabinet of Ministers No.165
Ministry responsible for legislation	Ministry of Economics Collaboration institution: Investment and Development Agency of Latvia
Name of legislation in local language	Noteikumi par darbības programmas "Infrastruktūra un pakalpojumi" papildinājuma 3.5.2.2.aktivitāti "Atjaunojamo energoresursu izmantojošu koģenerācijas elektrostaciju attīstība"
Name of legislation in English	Regulations of Action Programme "Infrastructure and Services" Appendix 3.5.2.2. activity "Development of co-generation power plants using renewable resources"
Date of launched	12.03.2009
Date of expire	-
Geographical coverage:	National
Scope	The aim of the regulations is to increase substantially the electricity and heat generation from renewable resources, thus reducing the Latvian independence of import of primary energy resources. The total available funding of European Cohesion Fund within the activity - 34 679 998 Euro. Within the activity will be covered 50% of the total eligible costs of one project. In the project application the total minimum eligible costs are 142 287 Euro, maximum eligible costs per one project are 5 691 488 Euro. The project is rejected if the total project costs are over 50 000 000 Euro. The time period for submitting the project applications are from April 14 till August 31, 2009. The Ministry of Economics received 58 project applications. Currently 7 project applications have been accepted and with 6 of them the contracts have been signed. The second call for the applications under these Regulations is planned to announce in summer 2010.
Changes and proposals under discussion	Several amendments of Regulations have been made, but they do not affect substantially the basis of the Regulations. The most important changes are made on collaboration partner. Due to different governmental institution liquidation, the role of collaboration partner overtakes the Investment and Development Agency of Latvia instead of Construction, Energy and Housing State Agency of Latvia.
Further legal acts or standards referred	Regulations developed under European Union Structural and Cohesion Funds Management Law.
Internet address	http://www.likumi.lv/doc.php?id=188934&from=off#saist_2

6. Other: Transport (biofuel quota obligation)

LATVIA

Number of act, decree or guideline	Regulation of Cabinet of Ministers No. 280
Ministry responsible for legislation	Ministry of Economics
Name of legislation in local language	Noteikumi par finansiāli atbalstāmajām kvotām biodegvielai
Name of legislation in English	Regulations on financially eligible quotas for biofuels
Date of launched	24.04.2008
Date of expire	-
Geographical coverage:	National
Scope	Producers of biofuels from rapeseed grains, rapeseed oil and grains are eligible for the support. The quota is shown in the following table.

Biofuels	Unit	2008	2009	2010
Bioethanol	kt	22	27	32
Biodiesel	kt	28	35	43
Total biofuels	kt	50	62	75
Share of biofuels	%	4.25	5.00	5.75

Every unit of biofuels under the quota obligation receives a direct support. The compensation for biofuel producers was 0.38 LVL per liter (0.53 € per liter) and for biodiesel producers was 0.41 LVL per liter (0.58 € per liter) in the second half of 2008.

Biodiesel produced from rapeseed oil has a reduced excise tax, which is regulated in the Law on Excise tax. Thereby, the reduced excise tax has a range from 164 LVL (229 €) to 223 LVL (314 €) depending on the quantity of additives. If biodiesel is exclusively derived from rapeseed oil, there is no tax to be paid.

Changes and proposals under discussion	Several amendments of Regulations have been made mainly on changing the structure or expression of the sentences.
Further legal acts or standards referred	The Regulation has been made under Biofuel Law.
Internet address	http://www.likumi.lv/doc.php?id=174321&version_date=24.04.2008&from=off

2.10 Lithuania

Development of renewable energy source in Lithuania is regulated by the various national laws and by the set of secondary legislation.

The updated *Law on Energy* was approved by decision No. IX-884 of the Seimas on May 2002 (Law on Energy, 2002). Since 2002 the Law on Energy has been amended for several times. In general, the Law of Energy regulates common energy activities, framework of energy development and management and efficient use of energy resources.

First of all, it is necessary to implement strategic objectives defined by the Law on Energy. Even three strategic objectives are directly or indirectly related with renewable energy sources development:

- security of energy supply;
- energy efficiency;
- reduction of negative environmental impact;
- promotion of fair competition;
- promotion of consumption of indigenous and renewable energy resources.

According to the Law on Energy, the main tasks of the State and municipal institutions, managing the energy sector, regulating and controlling the energy sector activities, are as follows: ensuring optimum structure of the energy sector; creating preconditions for efficient activities in the energy sector; ensuring uninterrupted energy supply and stability of the established quality parameters; promoting energy efficiency; promoting consumption of indigenous and renewable energy resources; encouraging enterprises to carry out energy audits. This Law establishes the relevant institutions managing energy sector: the Government or its authorised institution; the Ministry of Energy; the Ministry of the Environment; the Ministry of Transport and Communications; municipalities. It defines also their main tasks and objectives.

Other laws determine activities of separate energy systems and relations between energy companies and consumers.

The amendment of the *Law on Electricity* was approved by decision No. IX-2307 on July 2004 (Law on Electricity, 2004). This Law establishes basic principles regulating the generation, transmission, distribution and supply of electricity; it establishes the relations between suppliers of electricity and customers as well as conditions for the development of competition in the electricity market.

The electricity sector is regulated by the Government or its authorised institution and the National Control Commission for Prices and Energy.

The *Law on Heat* adopted on May 2003 by decision No. IX-1565 regulates the state control of the district heating sector, activities of heat units, their relations with heat consumers and responsibilities (Law on Heat, 2003). One of the main purposes of this Law is to promote the use of indigenous resources, biofuel and renewable energy sources for heat production. Article 4 of this Law promotes combined heat and electricity production and heat production from biomass and other renewable energy sources. This article states that combined heat and electricity production is a public service obligation and government or its authorized institution determines amount and method of electricity purchase from CHP producers. Moreover, State (municipalities) encourages purchase of heat produced from biomass and other renewable energy sources, such as biogas, municipal waste, geothermal energy, etc.

The updated *Law on Biofuels* was approved by decision No. IX-1999 of the Seimas on February 2004 (Law on Biofuels, 2004). This law regulates legal conditions of the production and use of biofuel, biofuels for transport and bio-oils.

Together with a set of secondary legislation, Law on Electricity, Law on Heat and Law on Biofuel comprise an important framework encouraging utilisation of renewable energy sources in Lithuania.

1. Support for research, development and demonstrations	
LITHUANIA	
Number of act, decree or guideline	2003-12-22, No. 1646
Ministry responsible for legislation	Ministry of Education and Science
Name of legislation in local language	Ilgalaikė mokslinių tyrimų ir eksperimentinės plėtros strategija iki 2015 metų
Name of legislation in English	Long-term strategy of research and experimental development until year 2015
Date of launched	2003
Date of expire	2015
Geographical coverage:	Republic of Lithuania
Scope	The main goal formulated in the strategy is to strengthen the scientific technological potential of Lithuania and to direct it towards promoting country's progress and competitiveness, taking into account limited resources. The strategy defines priority to scientific research related to branches of the economy, where country's economical progress and social welfare can be observed already now, first of all to scientific research for developing production of higher technologies, and also to the research considered of high priority by the EU. The necessity to support research, development and demonstration is also defined in the National Energy Strategy adopted in 2007. According to the National Energy Strategy the Government, taking into consideration the new need and the sources of financing, has to set the state supported measures of assistance and commitments in the several priority areas of scientific research in the energy sector. One of priority areas is related with technologies for use of indigenous and RES. The Government of Republic of Lithuania by decision No. 731 (in 16 July, 2008) approved Guidelines for National Scientific Programs. With reference to these Guidelines the following activities will be financed: scientific research, development and amplification of equipment and infrastructure of scientific research and other. Later on, in 1 October 2008, Lithuanian Government by decision No. 980 approved the list of National Scientific Programs. "Future energy" is one of the programs approved in this list. In 23 January 2008, the project of "Sustainable energy" program for the period 2008-2012 was delivered. According to the tasks formed in the project of this Program, all topics of scientific research would be split into 4 directions. An increase of indigenous, renewable and waste energy recourses in the country's energy balance is indicated as on of the directions. Every year for the implementation of the "Future energy" program would be allocated from 3 million Litas (0.87 million EUR) in the first year till 15 million Litas (4.34 million EUR) in the fifth year. Till 20% of this amount it is foreseen to receive additionally from EU FP7, other international programs and agreements.

Further legal acts or standards referred	Law on Research and Higher Education (2009-04-30, No. XI-242). Official Gazette 2009, No. 54-2140.
Internet address	http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=343430&p_query= Auk%F0tojo%20mokslo%20%E1statymas&p_tr2=2
Other information	Taking into account priorities for research in 2006 the Programme of Industrial Biotechnology Development in Lithuania for 2006-2010 was adopted (Programme of Industrial Biotechnology Development in Lithuania for 2006-2010, 2006). The main goal of this programme is reduction of Lithuania's dependence on imported non renewable energy sources by effective utilization of available agricultural and forestry sources and reduction of air pollution and greenhouse effect by development of modern technologies. The tasks of this programme are the following: – the evaluation of existing biomass resources and their suitability for industrial biotechnology; – the development of plants and other biomass resources needed for biotechnology industry development; – the development of scientific researchers in industrial biotechnology area; – the creation of the industrial biotechnology products that are important for the Lithuanian economy; – the development of the technologies of production and utilization of these products in order to attract local private investments and foreign capital in this area. The Lithuanian State Science and Studies Foundation organizes the implementation of this programme. The coordinator of the programme is the Ministry of Education and Science. The programme is financed from the Lithuanian national budget and co-financed by structural Funds and by the private sector. Overall budget of this programme is 30 millions LTL (8.7 millions EUR).

2. Energy taxation	
LITHUANIA	
Number of act, decree or guideline	2005-03-31, No. X-152
Ministry responsible for legislation	Ministry of Environment
Name of legislation in local language	Law on Pollution taxes
Name of legislation in English	Mokesčio už aplinkos teršimą įstatymas
Date of launched	2002
Date of expire	-
Geographical coverage:	Republic of Lithuania
Scope	Natural and legal persons who submit evidence on biomass fuel consumption are exempted from taxes on pollution from stationary sources for the part of pollutants emitted while using biomass fuel. Tax is collected for SO_2, NO_X, Vanadium pentoxide and solid particles emitted from stationary pollution objects to the atmosphere.
Changes and proposals under discussion	Taxes for CO_2 emissions could be introduced.

3. Investment support (note demonstrations under 1)	
LITHUANIA	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Environment
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	2004
Date of expire	-
Geographical coverage:	Republic of Lithuania
Scope	Lithuanian Environmental Investment Fund (LEIF) supports investment projects in the form of interest subsidies and loans on soft terms. The main goal of this Fund is to support public and private legal persons in realization of environmental projects. The amount of the subsidy to one beneficiary may not exceed 690 000 Litas over three years or 70% of the total amount of environmental investment project. 60% of subsidy is paid to the beneficiary after purchase and installation is complete and energy production has begun and all required documents have been submitted, the remaining 40% is paid to the beneficiary after specific environmental targets are reached. There are periodical calls two times per year via media or on website (http://www.laaif.lt). However, currently acceptance of investment project is suspended with reference to the amendment of the Law on the financial indicators of the state budget and municipal budgets for 2009. This amendment states that 7 million Litas (2 million EUR) from LEIF will be used for the State budget purposes (Law on the financial indicators of the State budget and municipal budgets for 2009). Due to this reason LEIF in II-IV quarters of 2009 does not accept new applications for investment projects.

4. Feed-in-tariffs and other support for heat and power production by biomass

LITHUANIA

Number of act, decree or guideline	2006-09-18, No. 897
Ministry responsible for legislation	Ministry of Finances
Name of legislation in local language	Elektros energijos, kuriai gaminti naudojami atsinaujinantys energijos ištekliai, gamybos ir pirkimo skatinimo tvarkos aprašas
Name of legislation in English	The Procedure for the Promotion of Sales of Electricity Produced from Renewable and Waste Energy
Date of launched	2001
Date of expire	-
Geographical coverage:	Republic of Lithuania
Scope	In Lithuania, the key support instrument for RES-E (electricity) production is a feed-in tariff system with purchase obligation. The National Control Commission for Prices and Energy is controlling that network connection conditions and tariffs for new electricity producers would be objective, transparent and non-discriminatory taking into account all costs and benefit derived from RES. The feed-in tariff is applied since 2002. The level of feed-in tariffs is revised but not periodically. The implementation of feed-in tariffs system was revised in 2007 and 2009 taking into account the inflation rate changes and other factors. Energy suppliers are obligated to purchase RES-E from its producers at these guaranteed feed-in tariffs. Feed-in tariff level in Lithuania:

RES technology	Support level					
	2002-2007		2008-2009		Since 2009-01-01	
	LTL/MWh	€/MWh	LTL/MWh	€/MWh	LTL/MWh	€/MWh
Biomass	220	63,7	240	69,5	300	86,9

Lithuania has introduced an annual maximum quota of RES-E to be purchased at the guaranteed feed-in tariffs for period 2004-2010 differentiated according RES technologies based on RES-E target of 7% in the overall electricity production by 2010

A maximum quota of RES-E to be purchased at the feed-in tariffs for 2010:

	Installed capacity, MW	A maximum quota, GWh
Biomass	32,8	127,1

Lithuania is also promoting the use of RES for district heat production by few financial measures, but there is no direct support for RES-H (heat). These measures are the exemption from pollution taxes described above and the possibility to get support for RES-H investment projects in the form of interest subsidies and loans on soft terms from LEIF (described

	above). The *Law on Heat* adopted on May 2003 by decision No. IX-1565 regulates the state control of the district heating sector, activities of heat units, their relations with heat consumers and responsibilities (Law on Heat, 2003). One of the main purposes of this Law is to promote the use of indigenous resources, biofuel and renewable energy sources for heat production. Article 4 of this Law promotes combined heat and electricity production and heat production from biomass and other renewable energy sources. This article states that combined heat and electricity production is a public service obligation and government or its authorized institution determines amount and method of electricity purchase from CHP producers. Moreover, State (municipalities) encourages purchase of heat produced from biomass and other renewable energy sources, such as biogas, municipal waste, geothermal energy, etc. The updated *Law on Biofuels* was approved by decision No. IX-1999 of the Seimas on February 2004 (Law on Biofuels, 2004). This law regulates legal conditions of the production and use of biofuel, biofuels for transport and bio-oils. The main objectives of this Law are as follows: – to promote the production and use of biofuel, biofuels for transport and bio-oils; – to reduce the dependence of the national energy sector on imported fossil fuels; – to increase the efficient use of indigenous and renewable energy sources; – to reduce level of greenhouse gas emissions. According to the Law on Biofuels promotion of the production and use of biofuel, biofuels for transport and bio-oils are enforceable by four measures: – production of biofuel, biofuels for transport and bio-oils from the raw material originating in the Republic of Lithuania should be promoted through programmes approved by the Government and financed from the state budget; – tax exemption established by laws should be applied to producers and users of biofuel, biofuels for transport and bio-oils; – production and processing of agricultural products as the raw material for the production of biofuel, biofuels for transport and bio-oils should be promoted; Production of biofuel is equated to the development of new, environmentally friendly technologies using renewable energy sources. The status of a pilot project can be accorded to such activities by a resolution of the Government.
Further legal acts or standards referred	Order on approval of legal acts necessary for implementation of the Law on Electricity and its amendments, 2001.
Internet address	http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=342973
Other information	According to the Order on Heat Purchase from Independent Producer (approved by decision No. 982 on July 2003) in the cases when independent heat producers are offering the same heat price, the heat supplier should purchase heat in the following order (Order on Heat Purchase from Independent Producer, 2003): – heat produced from CHP which utilizes renewable energy sources; – heat produced from renewable energy sources and geothermal energy sources; – waste energy from industrial enterprises; – heat from effective cogeneration; – heat produced from boiler houses which utilizes fossil fuel. According to the Law on Biofuels (2004-02-05, No. IX-1999) promotion of the production and use of biofuel, biofuels for transport and bio-oils are enforceable by four measures:

	– production of biofuel, biofuels for transport and bio-oils from the raw material originating in the Republic of Lithuania should be promoted through programmes approved by the Government and financed from the state budget; – tax exemption established by laws should be applied to producers and users of biofuel, biofuels for transport and bio-oils; – production and processing of agricultural products as the raw material for the production of biofuel, biofuels for transport and bio-oils should be promoted; – production of biofuel is equated to the development of new, environmentally friendly technologies using renewable energy sources. The status of a pilot project can be accorded to such activities by a resolution of the Government. Together with a set of secondary legislation, Law on Electricity, Law on Heat and Law on Biofuel comprise an important framework encouraging utilisation of renewable energy sources in Lithuania. The Law on Renewable Energy Sources is being prepared by a special working group. Based on experiences of other EU countries this working group has prepared a draft of the Law on RES and provided proposals for amendments of various related legal acts. As it was foreseen a draft of the Law on RES was prepared in December 2009. In order to ensure that share of renewable energy in total final energy consumption would reach 23% by 2020, the Law on RES will establish a general renewable energy promotion system. This general system will guarantee sustainable development of energy systems and will promote further installation of RES-E, RES-H and RES-T technologies and use of renewable energy sources in regard to climate change, security of energy supply and energy dependency. Level of feed-in tariffs will be guaranteed for 12 years and will be periodically (every 2 years) revised.

2.11 The Netherlands

The Netherlands is a significant producer (and exporter) of natural gas and depends on energy imports for oil and hard coal. Electricity is generated mainly from gas and hard coal. The use of renewable energy sources for power generation has been increasing [1].

IN 2007, nearly 100 PJ has been produced from renewable energy sources (RES) in the Netherlands. The contribution from RES to the total primary energy consumption is still relatively small, given the total primary energy consumption of 3300 PJ in that year. From all sustainable energy resources, biomass is the dominant supplier in the Netherlands [2].

In September 2007, Dutch environment minister Cramer presented the working program 'New energy for the climate'. Energy efficiency should increase to a yearly improvement of 2 to 2.3 % after 2011, while the share of renewable energy in 2020 should grow to 20% in 2020 [1].

Following this working program, the Dutch government published a new regulation in October 2007 for a feed-in premium for renewable energy. This new support mechanism is called SDE (*Stimuleringsregeling Duurzame Energie*) [1].

With a view to improving the basic economic conditions for the production of electricity and heat from biomass, resources are deployed within the general body of instruments for sustainable (renewable) energy. These instruments consist of [1]:

- A tax bonus on investment in renewable energy and energy saving (EIA);
- Incentive programs for research and development and the application of renewable energy and energy saving.

As from 2007 suppliers of petrol and diesel for road transport purposes are required to ensure that biofuels account for a certain percentage of their sales in the Netherlands. For 2007 the proportion is 2%, calculated on the basis of energy content [1]. In 2006, a total of 1,979 TTJ of biofuels were used by the Dutch transport sector, which amounts to 0.4% of the total market for biofuels. This was only 0.02% in 2005 [2]. In 2008 and 2009, the percentage was to be gradually increased. Based on the recent debate about sustainability of biofuels, obligations for 2009 and 2010 were set to 3.75% and 4.0%, respectively [1].

In 2006 a start was made on biofuel policy by providing tax incentives, in the form of a reduction in excise duty, to encourage the blending of a 2% biofuel component (bio-ethanol, bio-ETBE or biodiesel). At the end of 2006, the Dutch cabinet allocated a total of 60 million euro of subsidies for projects relating to innovative biofuels which can bring about a significant reduction in CO2 emissions. This scheme will run until the end of 2010 [1].

The Netherlands does not have specific policies targeted at the promotion of the use of roundwood for bioenergy production. The SDE guidelines define that wood – beside various other solid biomass feedstock - can be used as feedstock for bioenergy production [1].

Source:

1. Renewable Energy Policy Review, the Netherlands, http://www.erec.org/fileadmin/erec_docs/Projcet_Documents/RES2020/NETHERLANDS_RES_Policy_Review__09_Final.pdf
2. Biomass in the Netherlands (2009), available at: http://www.senternovem.nl/mmfiles/Biomass%20in%20the%20NL_tcm24-303169.pdf

1. Support for research, development and demonstrations: EOS	
NETHERLANDS	
Number of act, decree or guideline	Subsidieregeling energie en innovatie, artikel 2.3.2
Ministry responsible for legislation	Ministry of Economic Affairs
Name of legislation in local language	Energie Onderzoek Subsidie (EOS)
Name of legislation in English	Energy Research Subsidy government Programme
Date of launched	-
Date of expire	-
Geographical coverage:	The applicant has to be based in the Netherlands
Scope	The EOS programme includes four schemes, covering the whole path from idea to market introduction: - ERS: New Energy Research. Subsidy for private researchers, researchers at institutes, universities and companies, intended for the 1st stage of the innovation claim developing new ideas. - ERS: Long term. Subsidy for research into a future sustainable energy technology. Scheme is intended for knowledge institutions and industrial companies - ERS: Short term energy research. Subsidy for research and development projects and feasibility studies. Intended for companies that collaborate with other companies or knowledge institutions; - ERS: Demonstration. Subsidy for testing new energy technologies in the environment in which they actually will be applied.
Further legal acts or standards referred	Regeling openstelling en subsidieplafonds EZ 2010
Internet address	http://www.senternovem.nl/eos/

2a. Energy taxation: Regulating Energy Tax

NETHERLANDS

Number of act, decree or guideline	Bwb-id: BWBR0007723 'Wet van 13 december 1995 tot wijziging van de Wet belastingen op milieugrondslag in verband met de invoering van een regulerende energiebelasting'
Ministry responsible for legislation	Ministry of Finances Charged by the tax authorities
Name of legislation in local language	Regulerende Energie Belasting (REB)
Name of legislation in English	Regulating Energy Tax
Date of launched	Introduced in 1996
Date of expire	Ongoing, tariffs determined per year
Geographical coverage:	The Netherlands
Scope	The REB is introduced in 1996 with the objective to stimulate the efficient use of energy. The REB is charged per kWh Electricity or per m3 gas. The height of the tax is determined by the amount that is used. The energy taxes are determined for each year. Tariffs energy taxation for natural gas and electricity are shown in the table below. Since January 2010, the energy tax for gas oil, LPG and medium fuel oil is covered under the Law on Excise Duty taxes.
Internet address	http://www.deenergiegids.nl/Regulerende-Energie-Belasting.aspx www.lexius.nl

Tariffs	2010 excl BTW (in €)	2009 excl BTW (in €)
Natural gas per m^3 to 5000	0.1629	0.158
• 5000-170.000	0.□411	0.1385
• 170.000- 1 million	0.0391	0.0384
• 1 million – 10 million	0.0124	0.0122
• > 10 million (business)	0.0082	0.008
• > 10 million (non-business)	0.0116	0.0114
Electrici□y per kWh to 10.000	0.114	0.1085
• 10.000-50.000	0.0406	0.0398
• 50.000-10 million	0.0108	0.0106
• > 10 million (business)	0.0005	0.0005
• > 10 million (non-business)	0.001	0.001

2b. Energy taxation: Excise duties mineral oils

NETHERLANDS

Number of act, decree or guideline	Wet of de Accijns Law on the excise duty
Ministry responsible for legislation	Ministry of Finances Charged by the tax authorities
Name of legislation in local language	Veranderingen tarieven accijns en energiebelasting voor minerale oliën
Name of legislation in English	Changes tariffs on excise duty and energy taxes for mineral oils
Date of launched	2010
Date of expire	-
Geographical coverage:	The Netherlands
Scope	Since January 2010, the energy tax for gas oil, LPG and medium fuel oil is covered under the Law on Excise Duty taxes. The tariffs for 2010 are shown in the table below (based on information from Nieuwsbrief Doane, December 2009):
Further legal acts or standards referred	Fiscale vereenvoudiginswet 2010 Wet op de Accijns
Internet address	http://overheidsloket.overheid.nl/index.php?p=product&product_id=12150 http://lexius.nl/fiscale-vereenvoudigingswet-2010/artikeli

Type of mineral oil	Excise duty 2009	Energy tax 2009	Only excise duty in 2010
Low-charged gas oil	77.86 € per 1000 litre	€ 170,43 per 1000 litre (at 15 degrees)	€ 253,01 per 1000 litre (at 15 degrees)
Low-charged medium fuel oil	77.86 € per 1000 litre	€ 169,03 per 1000 litre (at 15 degrees)	€ 253,01 per 1000 litre (at 15 degrees)
LPG for road traffi□ and aviation industry	€ 126,07 per 1000 kg	-	
LPG for other uses	-	€ 201,78 per 1000 kg	
LPG – independent of use			€ 154,12 per 1000 kg

2c. Energy taxation - reimbursement	
NETHERLANDS	
Number of act, decree or guideline	Published in the Staatscourant 2007, nr. 232 Uitvoeringsbesluit belastingen op milieugrondslag
Ministry responsible for legislation	Ministry of Finance Tax authorities (implementation)
Name of legislation in local language	Energiebelasting, teruggaaf instellingen
Name of legislation in English	Energy taxes, reimbursement institutions
Date of launched	2007
Date of expire	-
Geographical coverage:	The Netherlands
Scope	Some organizations can apply for a reimbursement of part of the energy taxes. This reimbursement is 50% of the amount that is charged by the energy company, minus the discount from the energy tax charge. Organizations that can apply for the reimbursement are: i) charitable institutions, ii) religious institutions, iii) cultural and research institutions, iv) institutions for the common well being or with a social interest, v) multifunctional centers as community centers. Requirements to get a reimbursement of the energy tax are to fullfill at least one of the following criteria: • The user has paid more taxes because it involves the gas or electricity derived from several suppliers; • The gas, electricity or mineral oil are used in a building that is used by two or more institutions; • The objective of the institution (as laid down by the notary); • If notary statutes are not available: a written explanation is provided to the tenant of the building that shows the objective of the institution.
Further legal acts or standards referred	Wet belastingen op milieugrondslag, artikel 36
Internet address	http://overheidsloket.overheid.nl/index.php?p=product&product_id=12168

3a. Investment support: EIA	
NETHERLANDS	
Number of act, decree or guideline	Law income tax 2001, article 3.42 (Wet inkomstenbelasting) Implementation regulation energy investment deduction 2001 (Uitvoeringsregeling energie-investeringsaftrek)
Ministry responsible for legislation	Ministry of Economic Affairs, Ministry of Finance Agentschap NL Tax authorities
Name of legislation in local language	Energie Investerings Aftrek (EIA)
Name of legislation in English	Energy Investment Deduction
Date of launched	01-01-2010
Date of expire	31-03-2011
Geographical coverage:	The Netherlands
Scope	EIA is a fiscal regulation to promote energy efficiency and the use of sustainable energy in the Dutch business community. Via EIA, 44% from the investment costs can be deducted from the fiscal profit of an enterprise. The direct financial advantage is dependent from the tax percentage; it is usually around 11% from the approved investment costs.
Internet address	http://overheidsloket.overheid.nl/index.php?p=product&product_id=10008 http://www.senternovem.nl/eia/over_eia/index.asp

3b. Investment support for innovations in greenhouse farming sector	
NETHERLANDS	
Number of act, decree or guideline	Openstellingsbesluit LNV-subsidies 2009 Openstellingsbesluit LNV-subsidies 2010
Ministry responsible for legislation	Ministry of Agriculture, Nature and Fishery (LNV)
Name of legislation in local language	Regeling LNV subsidies, artikel 2.37
Name of legislation in English	Regulation LNV subsidies, article 2.37 (LNV refers to the Ministry of agriculture, nature and fisheries)
Date of launched	2009
Date of expire	-
Geographical coverage:	The Netherlands
Scope	Market introduction energy innovation for the agricultural sector The subsidy is intended for enterprises in greenhouse farming and cooperation initiatives. It is aiming at investments in energy systems from not semi-closed glasshouses and semi-closes glasshouses. These investments have to result into energy savings and a reduction of the CO2 emissions. Applicants can receive a maximum of 40% subsidy on their investment costs. Requirements to receive the subsidy are: • The energy system is in the starting phase of market introduction. This means that less than 6% of the greenhouse farming entrepreneurs (based on surface area) is using this energy system, at the moment of opening of the subsidy); • The CO2 reduction is realized from the glasshouses that do receive a subsidy; • The enterprise is based in the Netherlands.
Internet address	http://overheidsloket.overheid.nl/index.php?p=product&product_id=900567 http://wetten.overheid.nl/BWBR0026543/geldigheidsdatum_03-05-2010

3c. Investment support CO_2 reduction biofuels	
NETHERLANDS	
Number of act, decree or guideline	Regulation from: 12 December 2006/Nr. HDJZ/S&W/2006-1814 Published in *Staatscourant* – 19 December 2006
Ministry responsible for legislation	Ministry of Transport, Public Works and Water Management (VWS)
Name of legislation in local language	Subsidieprogramma CO2-reductie Innovatieve Biobrandstoffen voor transport
Name of legislation in English	Subsidy programme CO2 reduction innovative biofuels for transport
Date of launched	2006
Date of expire	2014
Geographical coverage:	The Netherlands
Scope	Companies and branch organizations in the transportation sector can apply for a subsidy for projects that contribute to a CO2 reduction. Subsidies are available for two types of projects that stimulate the transition to a sustainable energy system: • Investment projects • Adaptation projects These projects contribute to the reduction of the CO2 emissions by the development of innovative (second generation) biofuels). Requirements to receive the subsidy for an investment project are: • The project demonstrates new management and processes to develop innovative biofuels or to stimulate the distribution and use of it; • The project has to be innovative for the Netherlands; • The project has to score in its CO2 emission reduction at least 10% better than fossil fuels; • Realized before 1 July 2013
Changes and proposals under discussion	-
Further legal acts or standards referred	Articles 2 and 8 from the Subsidy regulation CO2 reduction for traffic and transport.
Internet address	http://www.senternovem.nl/Biobrandstoffen/Subsidieprogramma/Index.asp http://www.senternovem.nl/mmfiles/Vaststelling%20programma%20IBB_tcm24-206522.pdf

4. Feed-in-tariffs and other support for heat and power production by biomass

NETHERLANDS

Number of act, decree or guideline	Resolution of 16 October 2007, nr. WJZ 7085218.
Ministry responsible for legislation	Ministry of Economic Affairs Agentschap NL (part of Ministry Economic Affairs)
Name of legislation in local language	Stimuleringsregeling Duurzame Energieproductie (SDE Regeling)
Name of legislation in English	Regulation to stimulate sustainable energy production
Date of launched	2007
Date of expire	-
Geographical coverage:	The Netherlands
Scope	The regulation stimulates the production of renewable power and the production of renewable gas by a compensation for the uneconomic top. Subcategories included for biomass (year 2010) are: • Sustainable electricity: waste treatment, (co-)digestion of animal fat, digestion of vegetable, fruit and garden waste, other digestion, thermic conversion of solid and fluid streams to 50 MW, waste water treatment installations, sewage water treatment installations, 'stortgas' • Renewable gas: (co-digestion) of animal fat, digestion of vegetable, fruit and garden waste, other digestion, thermic conversion of solid and fluid streams to 50 MW, waste water treatment installations, sewage water treatment installations, 'stortgas' The SDE Subsidy is dependent on the energy price and is calculated by reducing the basic amount from the SDE regulation from the corrective amount. An overview of basic amounts, correction amounts and SDE contributions (not all are shown) is shown in the table below:

Subcategories (for biomass only)	Basic amount SDE (€/kWh)	(temporarily) correction amount 2010 (€/kWh)	(temporarily) SDE contribution (€/kWh)
Thermic conversion (≤ 10 MW)	0.151-0.176	0.047	0.104-0.129
Thermic conversion (10-50 MW)	0.114-0.153	0.047	0.067-0.106
GFT-Digestion	0.129-0.149	0.047	0.082-0.102
(Co-)digestion of animal fertilizer and thermic conversion (≤ 10 MW)	0.165-0.193	0.047	0.118-0.146
Other digestion	0.158	0.047	-

	* Not all categories are shown in the table Producers of sustainable electricity have to be registered at CertiQ. Renewable energy producers from biomass are obliged to report about the sustainability performance from their biomass feedstock within 3 months after the end of the calendar year.
Changes and proposals under discussion	The subsidy is not applicable for installations using primary oils and fats, fatty acids and glycerine; this, in anticipation on the further elaboration of the sustainability criteria. Vegetable oils and fats coming from waste streams are not in all cases excluded. Also, animal fats and oils are allowed.
Further legal acts or standards referred	Article 3 from the 'Kaderwet EZ-subsidies'
Internet address	http://www.senternovem.nl/sde/over_sde/index.asp
Other information	Feedstock to be used is not only wood, but also other solid biomass streams as coffee husks, chicken fertilizer, etc. In 2011, (at the latest in July 2011), a new regulation will succeed the SDE. This regulation will be called SDE+. Main changes which have been announced so far (January 2011) are: • There will be a phased tender, in which projects with low subsidy requirements can apply first, and technologies with high subsidy requirements only at a later stage. • Introduction of a free category (open for all approved technologies). • CHP plants solely fuelled by fossil fuels will not be subsidized. • Large-scale co-firing of biomass with coal or other fossil fuels will not be subsidized. • Production of renewable heat will be subsidized from 2012 onwards.

6a. Other: support for small-scale renewable energy projects in developing countries	
NETHERLANDS	
Number of act, decree or guideline	Daey Ouwens fonds: Decision of the Minister for Development cooperation from 14 October 2008, nr. DJZ/BR-0934/08 (published in the Staatscourant)
Ministry responsible for legislation	Ministry of Foreign Affairs
Name of legislation in local language	Daey Ouwens Fonds voor kleinschalige hernieuwbare-energieprojecten
Name of legislation in English	Daey Ouwens Foundation for small scale renewable energy projects
Date of launched	2006
Date of expire	A third tender is expected in 2010
Geographical coverage:	Target countries: Least Developed Countries (as determined in the list from the United Nations)
Scope	The fund is intended to provide people from the least developed countries access to energy by promoting small scale projects in the area of renewable and employment generating forms of energy supply. Applicants are: enterprises, NGOs, knowledge institutions of local / regional governments. At least one relevant partner from a Least Developed Country has to be involved in the project (proposal).
Further legal acts or standards referred	Subsidieregeling Ministerie van Buitenlandse Zaken 2006: Besluit vaststelling beleidsregels en subsidieplafond subsidiëring Subsidieregeling Ministerie van Buitenlandse Zaken 2006 (Daey Ouwens Fonds)
Internet address	http://www.senternovem.nl/DaeyOuwensfonds/

6b. Other: Subsidy to promote sustainable biomass production	
NETHERLANDS	
Number of act, decree or guideline	For 2nd tender: Regulation from 8 October 2009, nr. DJZ/BR-0766/09 As published in the *Staatscourant* from 15 October 2009
Ministry responsible for legislation	Ministry of Foreign Affairs
Name of legislation in local language	Fund for 'Duurzame Biomassa Mondiaal'
Name of legislation in English	Fund for Sustainable Biomass Worldwide
Date of launched	The first tender is finished in 2009, approving 10 projects. The second tender is finished in the beginning of 2010, approving 16 projects. Total amount that has been made available for the projects is 12, 5 million €.
Date of expire	Last tender round was finished in 2010
Geographical coverage:	Developing countries with a focus on the following countries: Indonesia, Vietnam, Colombia, Nicaragua, Mali, Ethiopia, Tanzania, Mozambique and South Africa.
Scope	The Funds supports developing countries in the sustainable production of biomass for energy purposes. This, with the objective to improve access to the local or international energy market.
Internet address	http://www.senternovem.nl/duurzamebiomassamondiaal/index.asp http://www.senternovem.nl/mmfiles/Staatscourant%20publicatie%20Duurzame%20Biomassa%20Mondiaal%20-%2015%20oktober%202009_tcm24-315128.pdf

6c. Other: Subsidy to promote import from sustainable biomass	
NETHERLANDS	
Number of act, decree or guideline	Regulation of the Ministry of Economic Affairs from 10 July 2009, nr. WJZ/9106048 Published in *Staatcourant* on 24 July 2009
Ministry responsible for legislation	Ministry of Economic Affairs
Name of legislation in local language	Programma Duurzame Biomassa Import
Name of legislation in English	Program Sustainable Biomass Import
Date of launched	Tender has been published in 2009, projects have been approved in 2010
Date of expire	Project activities have to be finalized in 2013
Geographical coverage:	The Netherlands and biomass producing countries
Scope	The program is developed to stimulate, support and facilitate the sustainable production, processing, use and import from biomass that is produced outside the Netherlands. This had to result in an increased use of biomass for energy, transport or chemical purposes in the Netherlands. The program has to contribute to: i) enhancing sustainable production of biomass (based on the testing framework of sustainability criteria); ii) development and adaptation of certification systems for imported biomass, iii) counteracting undesired negative impacts of biomass production. Eight projects have been approved under this program, see also: http://www.senternovem.nl/duurzamebiomassa-import/projecten/index.asp
Internet address	http://www.senternovem.nl/duurzamebiomassa-import/index.asp

2.12 Norway

The strategy

The Government has proposed a national target of 14 TWh/50 PJ increased use of bioenergy by year 2020. A strategy plan from the Ministry of Petroleum and Energy was published in April 2008. The plan outlines and coordinates necessary measures in order to reach the bioenergy target. Measures in the field of bioenergy are divided among different policy areas, where environment, energy, agriculture, forestry and rural development are the most important.

The main strategy for fulfilling the bioenergy target is to increase the use of bioenergy for heating followed by a balanced increase in the supply of wood and forest based fuels. The strategy will be support by the following range of measures:

- Establishment of a bioenergy forum led by the Minister for Petroleum and Energy. The main aim is to insure a proper exchange of information between the stakeholders and the authorities.
- Mandatory energy and climate planning by all municipalities (Jan. 1, 2010)
- Compulsory waterborne heating distribution in public buildings above 500 m^2
- Removal of compulsory reduction in transmission tariffs for spot electricity used for central heating (removed Jul. 2009)
- Investment support for district heating and heating based on renewable energy and conversion of fossil fuel based heat production in industry
- Increased investment support for pellet stoves in private households
- Prohibition against installment and replacement of oil-burners in new and existing buildings
- Increase budgets for R&D in the field of renewable energy
- Development of efficient logistics and supply chains for forest and wood waste based fuel
- Various information and advisory measures

In April 2009 the Ministry of Agriculture and Food presented a whitepaper building on the strategy plan.

Support - the main actors

The major tool for fulfilling the target is Enova SF - which is owned by Ministry of Petroleum and Energy. Enova was established in 2002, and was established solely for the purpose of managing support schemes. The company operates under a contract with the Ministry of Petroleum and Energy. The contract specifies quantitative targets for how much renewable energy and energy saving that should result from Enova's effort. Enova has the freedom to choose its policy measures and the responsibility to establish incentives and financial funding schemes that will result in cost effective and environmentally sound investments – according to their own website.

According to the current contract (2008-2011), Enova should contribute to at least 4 TWh/14,4 PJ increased production of central heating based on renewable sources of energy, including heat pumps and waste heat, and 3 TWh/10,8 PJ increased production of wind power.

The funding for Enova comes from the Energy fund, where the money comes from a (extra) fee on the electricity transfer tariff and directly from the state budget. For 2010 this is NOK 760 and 956 mill., respectively. For 2010 Enova has about NOK 2 bill. for new projects.

Enova has support programs in the following areas:

- Industry
- The built environment
- Municipalities
- Heating
- Renewable energy (wind)
- New technology

In addition, another state owned company – Innovation Norway – gives support to district heating and other bio-based energy systems. Innovation Norway mainly targets SMEs and farmers/forest owners. Innovation Norway has two major support programs:

- The bioenergy program
- Chip production

Both programs cover development, competence building and investments.

There is currently only one support schemes aimed at increasing the supply of forest biomass for energy purposes. This scheme is managed by the Norwegian Agricultural Authority, which manages virtually all agricultural support schemes.

Besides investment support, grants for R&D by the Norwegian Research council will be an important instrument for fulfilling the bioenergy strategy. Research and development activities within the field of bioenergy have been relatively low up to recently. The governmental funding for research and development in renewable energy was NOK 250 mill in 2006, of which NOK 44 mill. was allocated to renewable energy including solar, wind, bio, ocean and water energy. Funding for research and development activities within bioenergy are currently increasing as a result of new national targets for renewable energy and reduced GHG-emissions. According to the OECD the total publicly funded energy R&D was about € 100 mill. in 2007. Of this, only 1.8% was spent on bioenergy and 61.3% on fossil fuels.

Taxes and quotas

The Government has signed an agreement with Sweden to establish a common market for green certificates. This market will be in place by 2012, and will include all renewable electricity types including hydro power. In the meantime electricity production from bioenergy will be given investment support on the same terms as heat production.

The Norwegian greenhouse gas emission allowance trading scheme was enlarged in 2008. The system now covers about 40% of the total CO_2 emissions in Norway and is directed toward stationary combustion of fossil fuels – including off-shore petroleum industry. 53% of the Norwegian quotas will be awarded for free. Another part of the enlargement was that Norway joined the EU trading system (EU ETS).

For most CO_2 sources that are not covered by the quota system, taxes are levied on the use of fossil fuels. Carbon, e.g. coal, used as reducing agent in the metallurgy industry is neither taxed nor part of the quota system. In addition there are additional taxes on most types of fuels.

Summary - the main actors

While taxes and other direct regulations (e.g. emission quotas) are decided by the parliament the support schemes are to a large degree designed by the different agencies responsible for the management of the funds. This means that much of the incentives are not in the form of formal legislation, e.g. laws and regulations. The table below summarizes the role of the different main agencies.

Agency	Main target	Funding
The Resource Council of Norway	R&D	State budget
Enova SF	Industry and housholds	The Energy fund and state budget
Norwegian Agricultural Authority	Farmers	State budget
Innovation Norway	Farmers and SMBs	State budget

1. Support for research, development and demonstrations	
NORWAY	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Education and Research (Funding is provided by other ministries)
Name of legislation in local language	Norges forskningsråd
Name of legislation in English	The Research Council of Norway
Date of launched	-
Date of expire	-
Geographical coverage:	National plus international cooperation
Scope	The Research Council has one program covering bioenergy (RENERGI, see below). Some aspects of energy production and use belong also to some extent under other programs, e.g. Climate change and impacts in Norway (NORKLIMA). The total funding for energy and climate from the Research Council was about NOK 1.5 bill. in 2009. **Clean Energy for the Future (RENERGI)** This is the main program for renewable energy research – including biomass. Central research themes under this program are: • Energy policies and international agreements • Energy markets • Energy systems, infrastructure, planning and security of energy supply • Energy use • Production of renewable energy • Hydrogen • Natural gas • Environmentally friendly transport technology (hydrogen, biofuels) The budget for 2009 was about NOK 325 mill. **Centres for Environment-friendly Energy Research (CEER)** This program is a sub-program under RENERGI. There are eight centers under this program. The research in these centers covers various aspects of energy production, e.g. solar, off-shore wind, CCS. One center is dedicated to bioenergy, The Bioenergy Innovation Centre (CenBio). This is a joint venture between the major Norwegian research institutions in the field – including The Norwegian University of Life Sciences – universities in other countries and companies in the energy sector. The centers were launched in 2009.

1. Support for research, development and demonstrations	
NORWAY	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Trade and Industry (Funding from various ministries.)
Name of legislation in local language	Innovasjon Norge
Name of legislation in English	Innovation Norway
Date of launched	-
Date of expire	-
Geographical coverage:	National
Scope	**The bioenergy program** Innovation Norway has a support program aimed at stimulating farmers and forest owner to produce, use and deliver bioenergy in the form of biofuels or heat: the Bioenergy program. Development, competence building and information related activities are supported (up to 50% of the costs) under the program. Investments are also supported under the program. **Chip production – development and investm** In addition, Innovation Norway has a special support program for chip production from woody biomass (forests and cultural landscapes). Support is given both to development/competence building (up to 50% of the costs). Investments are also supported (up to 25% of the costs).

1. Support for research, development and demonstrations	
NORWAY	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Petroleum and Energy
Name of legislation in local language	Enova
Name of legislation in English	Enova
Date of launched	-
Date of expire	-
Geographical coverage:	National
Scope	**Innovative energy solutions and Introduction of new technology** Enova provide support for demonstration of new energy technologies in Norway under realistic operating conditions. The program is technology-neutral and will consider applications for projects with new renewable energy generation or reduced energy consumption Enova has two programs that support maturation of new technology: "Innovative energy solutions" and "Introduction of new technology", the former targets mainly developers/suppliers of technology, while the latter targets end users. The programs complement each other. In an early demonstration phase of the project, such as the demonstration of a prototype, applicants can apply for support through the "Innovate energy solutions" project. In a later phase after the first demonstration (typical first application) applicants can seek support for pilot projects involving an end user through the program "Introduction of new technology".
Internet address	http://enova.no/sitepageview.aspx?sitePageID=1355

2. Energy taxation

NORWAY

Number of act, decree or guideline	LOV 1933-05-19 nr 11
Ministry responsible for legislation	Ministry of Finances
Name of legislation in local language	Lov om særavgifter
Name of legislation in English	Law on special taxes
Date of launched	May 19, 1933
Date of expire	-
Geographical coverage:	Domestic
Scope	This is a general law opening up for "special taxes". These "special taxes" are set by the parliament – normally as part of the budget negotiations each year. Currently, the following energy taxes are levied • Gasoline (NOK 4.54/liter) • Diesel (NOK 3.56/liter) • Biodiesel (NOK 1.78/liter) • Electricity (NOK 0.1101/kWh) • Heating/mineral oil (NOK 0.886/liter) • Heating/mineral oil in the pulp and paper industry (NOK 0.126/liter) • Natural gas (NOK 0.1/Sm^3) • LPG (NOK 0.37/kg) There are some exemptions to the taxes and/or tax levels mentioned above. For example, the electricity tax in most industries is only about 4% of that of household. In addition to the energy taxes, there is also a CO_2 tax levied on most fuels:

Fuel type	NOK	unit
Gasoline	0.86	liter
Mineral oil	0.58	liter
Mineral oil used in pulp and paper industry	0.30	liter
Oil used in domestic air traffic	0.68	liter
Natural gas	0.51	Sm^3
LPG	0.65	kg

Companies that participate in the quota scheme (i.e. large stationary emission sources) do not pay the CO_2 tax.

Further legal acts or standards referred	FOR 2009-11-26 nr 1499: Stortingsvedtak om særavgifter til statskassen for budsjetterminen 2010
Internet address	http://www.lovdata.no/cgi-wift/ldles?doc=/all/nl-19330519-011.html

3. Investment support (note demonstrations under 1)	
NORWAY	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Trade and Industry (Funding from various ministries.)
Name of legislation in local language	Innovasjon Norge
Name of legislation in English	Innovation Norway
Date of launched	-
Date of expire	-
Geographical coverage:	National
Scope	**The bioenergy program** Innovation has a support program aimed at stimulate farmers and forest owner to produce, use and deliver to others bioenergy in the form of biofuels or heat: the Bioenergy program. Investment supported is given for, among other things, heat production (up to 35%). **Chip production – development and investment** In addition, Innovation Norway has a special support program for chip production from woody biomass (forests and cultural landscapes). Support is given for investments (up to 25% of the costs).

NORWAY	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Petroleum and Energy
Name of legislation in local language	Enova SF
Name of legislation in English	Enova
Date of launched	-
Date of expire	-
Geographical coverage:	-
Scope	Enova has a rather large range of investment support programs. As with most other Enova support program, they are technology neutral. However, it is evident that the support programs aimed at district heating is mainly targeting the use of bioenergy. **Energy Consumption - Industry** The program is aimed at measures to reduce energy consumption and/or conversion to renewable energy carriers in the Norwegian mainland industry. **Support program for the built environment** The program aims to contribute to lasting changes within the built environment market sector. The projects covered under the program include both existing and new commercial and residential buildings, as well as construction projects such as water supply and sewage systems, road lighting and sports facilities. **Program for district heating infrastructure** This program provides support to players who want to develop the district heating infrastructure. Infrastructure for district cooling in connection with district heating can also receive support under the program. The program does not provide support for energy generation. **Program for new district heating** Enova's program for new district heating provides support to players who want to establish new infrastructure for district heating and associated generation of renewable energy. District cooling in connection with district heating can also receive support under this program. Stakeholders from both the energy and waste sectors are eligible to receive support. The program also supports conversion of existing heating plants to renewable base load production in facilities established prior to 1 January 2008. **Program for small heating plants** Through the program for small heating plants, Enova provides support to stakeholders who want to establish new heat generation based on renewable energy sources. Stakeholders from the energy, forestry and construction sector are relevant applicants. **Support for households** This support program yields investment support for more efficient energy use and transition to renewable energy sources in households. Support is given to, among other things, heat pumps, solar panels, pellets stoves and pellets boilers.
Internet address	http://enova.no/sitepageview.aspx?sitePageID=1348

5. Support for wood fuel and round wood supply	
NORWAY	
Number of act, decree or guideline	FOR 2004-02-04 nr 447
Ministry responsible for legislation	Ministry of Agriculture and Food
Name of legislation in local language	Forskrift om tilskudd til nærings- og miljøtiltak i skogbruket.
Name of legislation in English	Regulations relating to subsidies in forestry
Date of launched	February 4, 2004
Date of expire	-
Geographical coverage:	-
Scope	The general rules for the subsidy is outlined in section 8 (subsidy for forest biomass for energy purposes). The subsidy scheme is managed by the Norwegian Agricultural Authority. Subsidy is given for the following types of harvest/forest activities: • Pre-commercial thinning • Harvest of broadleaves • Tending of young stands • Harvest residues • Tending of the cultural landscape • Clearance along roads The subsidy levels in 2010 are NOK 20/m^3 roundwood from pre-commercial thinnings, NOK 35/lm^3 chips from harvest residues, and NOK 70/lm^3 chips for the others (whole trees). The scheme is financed over the state budget.

6. Other (The Energy fund)	
NORWAY	
Number of act, decree or guideline	LOV 1990-06-29 nr 50
Ministry responsible for legislation	Ministry of Petroleum and Energy
Name of legislation in local language	Lov om produksjon, omforming, overføring, omsetning, fordeling og bruk av energi m.m. (energiloven)
Name of legislation in English	Act relating to the generation, conversion, transmission, trading, distribution and use of energy etc. [Energy Act]
Date of launched	June 29, 1990
Date of expire	-
Geographical coverage:	-
Scope	This law applies to the production, conversion, transfer, sale, distribution and use of energy. The law also institutes the Energy fund. Section 4-4 (Restructuring energy use and energy generation): "The ministry may decide that a trading licensee that charges for grid services shall add a mark-up to the consumption tariff for electricity for end use in the grid, which shall be paid a contribution to an energy fund. The fund's asset shall be used for measures aimed at the restructuring of energy use and energy generation in accordance with rules that are specified by the Ministry" In the regulations to the act (see reference below) the current extra fee is NOK 0.01/kWh.
Further legal acts or standards referred	FOR 2001-12-10 nr 1377: Forskrift om innbetaling av påslag på nettariffen til Energifondet (forskrift om Energifondet).
Internet address	http://www.lovdata.no/all/hl-19900629-050.html

6. Other (Energy and climate planning)	
NORWAY	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Petroleum and Energy
Name of legislation in local language	Enova SF
Name of legislation in English	Enova
Date of launched	-
Date of expire	-
Geographical coverage:	National
Scope	**Municipal energy and climate planning** This program is designed to provide support for the preparation of municipal energy and climate plans, for the study of potential projects for local heating (mini-grids), district heating and heat generation, as well as for the study of potential projects to promote energy efficiency and conversion in municipal buildings and facilities. Target groups are municipalities, county municipalities, inter-municipal companies and other municipal/regional joint ventures, and advisors and consultancy firms.

2.13 Portugal

In Portugal, the latest National Energy Strategy (ENE 2020), Cabinet Resolution No. 29/2010, of 15 April, continues to attribute a key role to renewable energy in the energy strategy and the targets that have been delineated for this sector, with a very significant impact on the Portuguese economy.

The ENE 2020 has been structured around 5 main axes, one of which is completely dedicated to RES, establishing targets and strategies to develop and promote the various technologies that are part of the mix of renewable energies by 2020.

Regarding specific measures in order to promote bioenergy, the ENE 2020 includes:

- The implementation of capacity already allocated of 250 MWe is coupled with the availability of biomass in the market, and accelerate, whenever needed, the concentration of power required to obtain large scale economies.
- Measures to promote the production of forest biomass will be approved, thus meeting the consumption needs already in place or about to be, more specifically by quick access to public funding, the promotion and certification of sustainable forest management, and the evaluation of the use and the promotion of energy cultures, along with residual biomass from agricultural and agro-industrial activities for energy production.
- The impact of biomass in the development of the territory is to be considered and looked at to lay down the conditions for the implementation of projects, with regard to nature conservation and biodiversity.
- A joint work will be done with the municipalities wanting to set up intermediate biomass collection and break-up sites for volume reduction to make its transport more economical. Intermediate biomass storage platforms that allow the creation of biomass derivative industries with higher economic value will also be installed.
- The Centre for Biomass Energy will be built with the objective of erecting a research, certification and global biomass sector coordination centre, in close partnership with the Ministry of Economy, Innovation and Development (MEID), the Ministry of Agriculture, Rural Development and Fisheries (MADRP), the Ministry of the Environment and Land Use Planning (MAOT), with a bearing on already installed scientific and technologic capability in research centres in relevant areas.
- The use of biomass for residential use will be encouraged with the use of more efficient equipments and with lower particle emissions.
- Particular attention will be given to exploring the potential associated with biogas, specifically biogas from landfills and that from anaerobic digestion of residues and effluents. Its viability should be linked to the internationalisation of the country's environmental benefits.
- Attention is also to be given to the value of the energy potential of residues and effluents.
- Biofuel will remain a huge contributor in helping Portugal reach its renewable energytargets in final consumption of the transport sector. The government will therefore follow European directives on biofuel, specifically in defining sustainability criteria levels, and assuring the upkeep of the best quality standards of the national vehicle fleet.
- The use of endogenous resources for biofuel production will be promoted to tighten the link between national agriculture and the solutions connected with second-generation biofuels.

The following tables provide an overview of the most important policies and measures to promote the use of energy from biomass in Portugal.

1. Support for research, development and demonstrations	
PORTUGAL	
Number of act, decree or guideline	Orders Nos. 353-B/2009 and 353-C/2009.
Ministry responsible for legislation	Ministry of Economy, Innovation and Development (MEID) and Ministry of the Environment and Land Use Planning (MAOT)
Name of legislation in local language	Regulamento do Sistema de Incentivos à Investigação e Desenvolvimento Tecnológico (SI I&DT); QREN - Quadro de Referência Estratégico Nacional
Name of legislation in English	System of incentives to encourage innovation for technology projects and the system for incentives for research and technological development; NSRF - National Strategic Reference Framework
Date of launched	2007
Date of expire	2013
Geographical coverage:	Portugal
Scope	In terms of attributing subsidies, some types of projects for producing electricity from renewable sources are eligible for the QREN, more specifically for the system of incentives to encourage innovation for technology projects and the system for incentives for research and technological development. These systems for incentives attribute subsidies that range from 35% to 55% of the eligible expenditure, under the terms of the respective regulations published in Orders Nos. 353-B/2009 and 353-C/2009, both of 3 April.
Internet address	http://www.qren.pt/index.php?lang=1 http://www.incentivos.qren.pt/document/Portaria_353_B_2009.pdf http://www.incentivos.qren.pt/document/Portaria_353_C_2009.pdf

PORTUGAL	
Number of act, decree or guideline	Order 32276-A/2008 Amendment: Order 13415/2010
Ministry responsible for legislation	Ministry of Economy, Innovation and Development (MEID)
Name of legislation in local language	Fundo de Apoio à Inovação (FAI)
Name of legislation in English	Fund to Support Innovation (FAI) -
Date of launched	17/12/2008, amendment made in 19/08/2010
Date of expire	-
Geographical coverage:	Portugal
Scope	Promote research and development in the area of renewable energy
Internet address	Available in internet, in Portuguese: http://fai.pt/ http://www.min-economia.pt/document/Despacho_FAI.pdf http://dre.pt/pdf2sdip/2010/08/161000000/4429944299.pdf

4. Feed-in-tariffs and other support for heat and power production by biomass	
PORTUGAL	
Number of act, decree or guideline	Decree Law No. 189/88, while the latest updates have been introduced by means of Decree Law No. 225/2007
Ministry responsible for legislation	Ministry of Economy, Innovation and Development (MEID)
Name of legislation in local language	Regras aplicáveis à produção de energia eléctrica a partir de recursos renováveis
Name of legislation in English	Rules for renewable electricity generation
Date of launched	28.05.1988
Date of expire	-
Geographical coverage:	Portugal
Scope	DL 189/88 promotes the generation of renewable electricity only. DL 225/2007, DL 33A-2005 and DR 71/2007 renew the provisions on the feed-in tariff for electricity from renewable sources. The producers of electricity based on renewable energy sources are remunerated on the basis of the following formula: VRDm = {KMHOm x [PF(VRD)m + PV(VRD)m] + PA(VRD)m x Z} x (IPCm- 1/IPCref) x [1/(1-LEV)] The elements of the formula represent different factors that influence the value of the remuneration for the supply of electricity produced in renewable energy plants delivered to the network. ▪ KMHOm: This is the modelling coefficient according to the times when the electricity has been supplied ▪ PF(VRD)m: This is the fixed component of the remuneration applicable to renewable energy plants, in month m, which represents the costs of investment avoided in building new conventional electricity producing plants ▪ PV(VRD)m: This is the variable component of the remuneration applicable to ▪ renewable energy plants, in month m, which represents the operating costs avoided in conventional electricity producing plants ▪ PA(VRD)m: This is the environmental component of the remuneration applicable to renewable energy plants, in the month m, which represents the environmental costs avoided in terms of the reduction of CO2 emissions ▪ IPC m-1/IPCref: This is the factor that adjusts the formula in accordance with inflation (IPC m-1: This is the consumer price index, without housing, in mainland Portugal, referring to month m-1 and the IPCref: is the consumer price index, without housing, in mainland Portugal, referring to the month before the month in which the renewable energy plant began to supply electricity to the network) ▪ 1/(1-LEV): This is the factor that represents the transmission and distribution network losses avoided by the renewable energy

<table>
<tr><td></td><td>plant
The environmental component is multiplied by the coefficient Z, which varies according to the technology associated with the source of renewable energy. Due to the introduction of this coefficient in 2001 (Decree Law No. 339-C/2001), the remuneration system for RES, which was only based on costs avoided, evolved towards a concept that considered differentiated costs according to the diverse technologies. This thus established a differentiated remuneration based on the technology being used.</td></tr>
<tr><td>Changes and proposals under discussion</td><td>Within the scope of the NES 2020, keeping in mind the contribution of new technologies for the production of renewable electricity, as well as the costs associated with developing these technologies, this support mechanism will be reviewed in 2010 so as to create a framework for economic sustainability that supports the long term growth of the use of renewable energy.</td></tr>
<tr><td>Internet address</td><td>http://www.iapmei.pt/iapmei-leg-03.php?lei=5499</td></tr>
<tr><td>Other information</td><td>Average indicative tariffs for bioenergy
<table>
<tr><th>Technology</th><th>Technology Average indicative Tariffs (€/MWh)</th><th>Coefficient Z</th><th>Validity of the tariff and other observations</th></tr>
<tr><td>Forest biomass
Animal biomass</td><td>107 – 109
102 - 104</td><td>8.2
7.5</td><td>25 years</td></tr>
<tr><td>Anaerobic digestion biogas, Solid Urban Waste, WWTP and effluents and wastes from the agro-livestock and agro-food sectors

Landfill gas</td><td>115 – 117

102 - 104</td><td>9.2

7.5</td><td>15 years. When the limits for capacity installed on a national level are exceeded, Z becomes 3.8</td></tr>
<tr><td>Solid Urban Waste (burning)
FdW (burning)</td><td>53 – 54

74 - 76</td><td>1

3.8</td><td>15 years</td></tr>
</table></td></tr>
</table>

PORTUGAL	
Number of act, decree or guideline	Decree Law No. 23/2010
Ministry responsible for legislation	Ministry of Economy, Innovation and Development (MEID)
Name of legislation in local language	Co-geração renovável
Name of legislation in English	Renewable cogeneration
Date of launched	March 2010
Date of expire	-
Geographical coverage:	Portugal
Scope	Decree-law no. 23/2010, of 25 March, introduces the legal framework for cogeneration activities and a new remunerative framework for cogeneration operators. Under this Decree Law there are two kinds of remuneration regimes: the general regime and the special regime. In order to be able to access the special regime, the cogenerator must comply with the following conditions: ▪ Have an installed capacity that is equal to or less than 100 MW; ▪ Access a licence for the plant after first obtaining a connection to the public service electricity network, under the terms stipulated in Decree Law No. 312/2001, whose text was amended by Decree Law No. 33-A/2005. Energy is remunerated under the special remuneration regime in the following manner: ▪ for supplies of thermal energy the remuneration is defined by means of contracts freely signed between the cogenerator and its clients; ▪ for supplies of electricity to the last resort vendor the remuneration is calculated by applying a reference tariff; ▪ efficiency premiums, calculated according to primary energy savings; ▪ renewable energy premium, calculated according to the proportion of renewable fuels consumed. Energy is remunerated under the general remuneration regime in the following manner: ▪ for supplies of thermal and electric energy the remuneration is defined bymeans of contracts freely signed between the cogenerator and its clients; ▪ premium for participation in the market, calculated as a percentage of the reference tariff; it is only attributed to cogeneration units that have an installed capacity which is equal to or less than 100 MW. The form, modalities and amounts of these premiums are currently in the phase of being regulated and hence it is not yet possible to define them herein. For cogeneration plants using renewable sources the reference tariff and the renewable energy, efficiency and market participation premiums are in effect from the commencement of operations and as long as the high-efficiency cogeneration or efficient cogeneration classification is maintained. Only the value of the market participation

	premium must be reviewed 120 months after the plant goes onstream and for the plant to be deemed to be renewable cogeneration, at least 50% of the primary energy consumed in the plant must be from renewable sources.
Internet address	http://dre.pt/pdf1sdip/2010/03/05900/0093400946.pdf

5. Support for wood fuel and round wood supply	
PORTUGAL	
Number of act, decree or guideline	Decree Law No. 63/2004, of 22 March, new management and support regulations approved by Order No. 1338/2008, of 20 November
Ministry responsible for legislation	Ministry of Agriculture, Rural Development and Fisheries (MADRP)
Name of legislation in local language	Fundo Florestal Permanente (FFP)
Name of legislation in English	Permanent Forest Fund (FFP)
Date of launched	2004 March
Date of expire	2012
Geographical coverage:	Portugal
Scope	This fund seeks to support projects aimed at forest planning, management and intervention, forest sustainability and research and technical assistance. One of the items supported by this found is the creation of Forest Intervention Zones (ZIF),i. e. continuous and delimited territorial areas, essentially constituted by forest spaces, which are subject to forest management plans and specific forest intervention plans, with a single entity responsible for managing each of these zones, which must encompass a minimum of 750 hectares and include 50 forest owners or producers. This way, the State promote the constitution of forest enterprises that are of a suitable scale so as to ensure efficiency gains for such management, by means of incentives for grouping initiatives together and the consolidation of properties so as to discourage their fragmentation into fractions..
Changes and proposals under discussion	The recent Cabinet Resolution 81/2010 indicates the FFP as a financing mechanism to increase the production of forest biomass for energy production.
Internet address	http://www.afn.min-agricultura.pt/portal/apoios-invest/ffp

PORTUGAL	
Number of act, decree or guideline	European Commission in Decision C(2007)6159 of 4 December.
Ministry responsible for legislation	Ministry of Agriculture, Rural Development and Fisheries (MADRP)
Name of legislation in local language	PRODER – Programa de Desenvolvimento Rural
Name of legislation in English	PRODER (Rural Development Programme)
Date of launched	2007
Date of expire	2013
Geographical coverage:	Portugal
Scope	The PRODER is a strategic and financial instrument for supporting the rural development of mainland Portugal. The national strategy for rural development derives from the National Strategic Plan (PEN) which established the guiding principles for national application of the EARFD; this strategy has been defined in accordance with Community strategic guidelines and has the following objectives: ▪ To improve the competitiveness of the agricultural and forestry sectors; ▪ To promote the sustainability of rural areas and natural resources; ▪ To promote the social and economic revitalisation of rural areas.
Changes and proposals under discussion	The recent Cabinet Resolution 81/2010 indicates the PRODER as a financing mechanism to increase the production of forest biomass for energy production.
Internet address	http://www.afn.min-agricultura.pt/portal/apoios-invest/proder http://www.proder.pt/PresentationLayer/conteudo.aspx?menuid=1317&exmenuid=1316

2.14 Slovakia

Increasing the share of biofuels for electricity and heat production to cover domestic demand is one of the priorities of **Energy Policy of the Slovak Republic**[6], which was approved in 2006.

Support of electricity production from renewables is legally based in **Act No. 309/2009 on the promotion of renewable energy sources and high-efficiency cogeneration**[7] approved in 2009. The Act brought long-term guarantee of feed-in tariffs for 15 years and created supporting conditions for a refined biogas – biomethane. Biomethan with exact technical conditions has and priority access to distribution network of gas in Slovakia. Moreover, producer of electricity from a biomethan in CHP plant is eligible to get financial support in form of feed-in price.

In the heat production sector significant increase in biomass use is evident during recent years. And it is expected that biomass will stay the most used RES also in the upcoming years.

SR strategic direction for the use of renewable energy is expressed in **the Energy Security Strategy of the Slovak Republic** approved in 2008, indicating that the greatest prospects until 2020 are renewable energy for heat and cold production. Emphasis is placed on reducing natural gas consumption through the use of biomass.

Theoretical energy potential of biomass in Slovakia could be quantified to 29,449 GWh or 106,054 TJ of heat what is 13.2% of total energy consumption (800 PJ). Reported data are in line with the **Biomass Action Plan** (2008).

Since 2009 a program approved by government – **The higher biomass and solar energy in households program** is administered by the Slovak Innovation and Energy Agency (SIEA). SIEA provides information about the conditions of support for target groups and the general public, primarily through its web pages, through press releases and media statements.

The legislation of the SR declares an obligation of blending biofuels for transport.

Government Regulation No. 246/2006[8] on the minimum amount of fuels produced from renewable sources in motor gasoline and diesel fuels marketed SR (in force from 1/5/2006)

Financial support of biomass should stimulate not only producers, but even its processing. Ministry of Agriculture started to encourage the cultivation of energy crops in 2007. Also the Operational Program **"Rural Development Program SR 2007 – 2013"** has been developed and approved by the EC.

Review all policies and measures to promote the use of renewable energy sources (including bioenergy) in Slovak Republic

Title and reference measures	Type of measure	Expected result	Focus group and /or activity	Existing or planned	Support mechanism*	Date of start and end of measure
Support of electricity production throught feed-in tariff	regulative, financial	Increased production of electricity	investors	E	1	September 2009 – end not defined
Mandatory addition of biocomponents to fossil fuels	regulative	Increasing the use of RES in the transport	Manufacturers of motor fuels	E	2	May 2006
access of biomethane into the gas network	regulative	Production of biomethane	Use of agricultural biomass	E	1	September
Promotion of use of RES in households	financial	Installation of biomass boilers	households	E	3	April 2009
Promotion of use of RES in business sector	financial	Electricity and heat production	investors	E		
Promotion of use of RES in public sector	financial	Electricity and heat production	public sector	E		
Mandatory use of renewable energy in new and renovated buildings	reglative	Heat produciton	planners	P		2012
Promotion of RES heating and cooling in public buildings	financial	heating and cooling in publilc buildings	gouvernment	P		2016
The minimum amount of heat supply from RES	regulative, financial	heat production in households	heat suppliers	P		2016
Reducing VAT on heat from RES	financial	heat production	investors	P		2012
Update of building Code	legislative	heat production	investors	P		2011

**Suport Mechanism*
1. Act No. 309/2009 on the promotion of renewable energy sources and high-efficiency cogeneration
2. Government Regulation No. 246/2006 on the minimum amount of fuels produced from renewable sources in motor gasoline and diesel fuels marketed SR
3. The higher biomass and solar energy in households program

1. Support for research, development and demonstrations	
SLOVAKIA	
Number of act, decree or guideline	In Slovakia there aren't any direct programmes for research projects of bioenergy. There are general Programmes for research and development whose including some projects for bioenergy.
Ministry responsible for legislation	Ministry of Education of the Slovak Republic (Agency of the Ministry of Education of the Slovak Republic for the Structural Funds of the EU)
Name of legislation in local language	Operačný program Výskum a vývoj
Name of legislation in English	1. Operational Programme Research and Development 2. The Norway Financial Mechanisms
Date of launched	-
Date of expire	-
Geographical coverage:	-
Scope	1. **Operational Programme Research and Development (OP R&D)** is a programme document of the Slovak Republic, based on which the assistance will be provided for the development of the knowledge economy in 2007-2013. The global goal of the OP Research and Development is to modernize and make more effective the system of research and development, support and to improve the infrastructure of higher schools which will enable them to contribute to increasing the competitiveness of the economy, decreasing regional disparities, establishing new innovative (high-tech) small and medium-sized enterprises, creating new employment opportunities and improving the conditions of the educational process at higher schools. For the 2007 – 2013 programme period a total of 883,000,000 euros have been allocated for the Research and Development Operational Programme Goal Convergence, and 326,415,373 euros have been allocated for the Goal Regional Competitiveness and Employment. The following **priority axes** were established for the purpose of meeting The global goal of the OP Research and Development: 1 Infrastructure of research and development **2 Support to research and development*** 3 Infrastructure of research and development in the Bratislava region **4 Support to research and development in the Bratislava region*** 5 Infrastructure of higher schools 6 Technical assistance for the Convergence objective 7 Technical assistance for the Regional competitiveness and employment objective The priority axes will be met through the following **measures**: 1.1 Modernisation and building of technical infrastructure for research and development; 2.1 Support of networks of excellence in research and development as the pillars of regional development and support to international cooperation;

	2.2 Transfer of knowledge and technology from research and development into practice; * 3.1 Modernisation and building of technical infrastructure for research and development in the Bratislava region; 4.1 Support of networks of excellence in research and development as the pillars of regional development and support to international cooperation in the Bratislava region; **4.2 Transfer of knowledge and technology from research and development into practice in the Bratislava region;*** 5.1 Building of infrastructure of higher schools and modernisation of their interior equipment with a view to improve the conditions of the education process. * Axes including approved the projects on bioenergy – links to the list of approved applications in 2009 are below: http://www.asfeu.sk/aktuality/zoznam-schvalenych-projektov/operacny-program-vyskum-a-vyvoj/ Zoznam schválených žiadostí o NFP (OPVaV-2009/2.2/02-SORO) Zoznam schválených žiadostí o NFP (OPVaV-2009/4.2/02-SORO) **2. The Norway Financial Mechanisms** Support of science and research in selected research directions important for the Slovak Republic and the EU Name of applicant: Slovak Academy of Sciences Type of project support: block grant Total Grant: 971.765 Euro _____ NFC rate of FM EHP and NFM: 85%, i.e. 826,000 Euro NFC rate from the state budget: 15%, i.e. 145,765 Euro Approval Date: 21/02/2007 The contract for non-repayable financial contribution was signed on 29 January 2008 The planned project duration: 48 months Summary The project aims to provide small grants to improve research capabilities in the areas of nanotechnology, sustainable development, renewable energy, biotechnology and food in Slovakia. The cumulative objective is to contribute to economic and social development of Slovakia through the research results. Project implementation should include the following activities - Regranting final beneficiaries engaged in research in four areas: nanotechnology, biotechnology and food, sustainable development and renewable energy sources and - Management of the block grant.
Internet address	http://www.asfeu.sk/english/ http://www.eeagrants.sk/4663/the-eea-grants.php http://www.eeagrants.sk/18647/podpora-vedy-a-vyskumu-vo-vybranych-vyskumnych-smeroch-vyznamnych-pre-slovensku-republiku-a-eu.php

2. Energy taxation	
SLOVAKIA	
Number of act, decree or guideline	Government Regulation No. 246/2006
Ministry responsible for legislation	Ministry of Economy of the Slovak Republic
Name of legislation in local language	Nariadenie vlády SR č. 246/2006 Z. z. o minimálnom množstve pohonných látok vyrobených z obnoviteľných zdrojov v motorových benzínoch a motorovej nafte uvádzaných na trh SR
Name of legislation in English	Government Regulation No. 246/2006 on the minimum amount of fuels produced from renewable sources in motor gasoline and diesel fuels marketed SR
Date of launched	1.5.2006
Date of expire	-
Geographical coverage:	-
Scope	The manufacturer and vendor are required to offer in motor gasoline and diesel for transport purposes, the minimum amount of biofuels (or other renewable fuels), which is expressed - until 31st December 2006, the reference value of 2%, calculated from the total energy content of motor gasoline and diesel placed on the market, - from 1st January 2007 to 31st December 2008 the reference value of 2%, calculated from the total energy content of motor gasoline and diesel on the market, - from 1st January 2009 to 31st December 2009 the reference value of 3.4%, calculated from the total energy content of motor gasoline and diesel on the market, - from 1st January 2010 to 31st December 2010 the reference value of 5.75%, calculated from the total energy content of motor gasoline and diesel on the market. <u>Financial support</u> Support on biofuels is in a form of a reduction of excise duty. Based on key measures of an approved scheme: • the tax exemption applies to the fuel mixture of gasoline with MTBE and diesel esters, reduction in excise duty on the blended fuel is up to 7.05%, respectively to 5% in volume; • reduction of excise duty for biofuels is only awarded to companies that act as a tax warehouses; • this action will be applied for six years (from the effective date of the action of excise duty on mineral oil) under specified conditions, reduction in excise duty shall be provided from public funds and it serves to support companies that produce and offers biofuels on the Slovak market. <u>Notification of state aid for the implementation of biofuels</u> European Commission under its notification procedure gave procedural decision (written notification dated 19th July 2007) approving the "State Aid No. 360/2006 - Slovakia. Preferential tax system for the use of renewable fuels on the basis of Directive 2003/96/EC (biofuels). <u>Implementation of responsibilities</u> Implementation of the reference value is based on the practical implementation of the so-called "Mandatory bid" in the application of

	biofuels in accordance with Directive 98/70/EC on the quality of petrol and diesel, as well as with the amendment (Directive 2003/17/EC). Implementation of biofuels is measured in terms of performance benchmark for biofuels and operates as: • addition of esters to part of diesel produced in Slovakia in quality of STN EN 590, respectively to diesel fuel with an admixture of esters in the quality EN 590 if imported; • addition of ETBE (ethyl tertiary butyl ether) in motor gasoline in quality of STN EN 228 followed by placing the product on the domestic market. Actually achieved performance of benchmark for the year 2009 is 3.4% of total petrol and diesel energy content.

3. Investment support (note demonstrations under 1)	
SLOVAKIA	
Number of act, decree or guideline	Operational Programmes: OP Environment OP Competitiveness and economy growth OP Bratislava
Ministry responsible for legislation	Ministry of Environment Ministry of Economy or Ministry of Finance
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	2007
Date of expire	2013
Geographical coverage:	
Scope	**INVESTMENT SUPPORT – EU FUNDS 2007 - 2013** **Operational Programmes 2007 – 2013** ✓ **OP Environment (Ministry of Environment)** (**cca 209 mil. EUR**) — electricity generating facilities high-efficiency cogeneration only in combination with changing the fuel base for heat ✓ **OP Competitiveness and economy growth** (Ministry of Economy or Ministry of Finance) (**cca 144 mil. EUR**), — new construction, renovation and modernization of electricity generating facilities high-efficiency cogeneration — new construction, renovation and modernization of electricity generating facilities for renewable energy **Beneficiaries:** private companies **Intensity of support:** Private sector 40% up to 50% of eligible costs **Amount of support:** min. 60 000 EUR, max. 6 mil. EUR (State support scheme) **Provider:** Ministry of Economy of the SR **Administrator:** Slovak Energy and Inovation Agency **Information and application forms:** www.siea.gov.sk ✓ **OP Bratislava** **(cca 23,6 mil. EUR)** — new construction, renovation and modernization of electricity generating facilities high-efficiency cogeneration — new construction, renovation and modernization of electricity generating facilities for renewable energy
Internet address	http://www.sea.gov.sk/strukturalne_fondy/index.htm http://www.opzp.sk

SLOVAKIA	
Number of act, decree or guideline	-
Ministry responsible for legislation	Ministry of Economy
Name of legislation in local language	Program vyššieho využitia biomasy a slnečnej energie v domácnostiach
Name of legislation in English	The higher biomass and solar energy in households program
Date of launched	2009
Date of expire	-
Geographical coverage:	-
Scope	Amount of supporting: 8.000.000,- € The amount of subsidy for the use of biomass for purchasing and installing one boiler of biomass at the family house is 30% of the purchase price of the biomass boiler, the maximum grant is € 1,000. **Beneficiaries:** households **Intensity of support:** 30% of the purchase price **Amount of support:** max. 1.000 € for one boiler **Provider:** Ministry of Economy of the SR **Administrator:** Slovak Energy and Inovation Agency
Internet address	http://www.sea.gov.sk/energeticke_aktivity/index.htm

4. Feed-in-tariffs and other support for heat and power production by biomass	
SLOVAKIA	
Number of act, decree or guideline	act no. 309/2009
Ministry responsible for legislation	Ministry of Economy of the Slovak Republic
Name of legislation in local language	zákon č. 309/2009 Z. z. o podpore obnoviteľných zdrojov energie a vysoko účinnej kombinovanej výroby
Name of legislation in English	Act No. 309/2009 in the Collection of Laws of the Slovak Republic on promotion of RES and high efficiency cogeneration
Date of launched	2009
Date of expire	-
Geographical coverage:	-

<table>
<tr><td>Scope</td><td>
The support of electricity production from RES and high-efficiency cogeneration is mean (§ 3 act no. 309/2009 coll.) the priority:

Connection of an electricity generating facility to the regional distribution system,
Access to the system,
Transmission of electricity, distribution of electricity and supply of electricity,

The support of electricity production from RES and high-efficiency cogeneration is ensured by (§ 3 act no. 309/2009 coll.):

✓ the electricity offtake by the operator of the regional distribution system, to which the facility of the electricity producer is connected directly or through the local distribution system for the price of electricity covering the losses,
✓ the additional payment,
✓ taking over the responsibility for deviations) by the regional distribution system operator.

Prices regulation of RES-E production in Slovakia <u>for 2010</u> (Decree of the Regulatory Office for the Network Industries No. 7/2009). Guarantee of prices: 15 years.
www.urso.gov.sk/doc/legislativa/vynos_07-2009_sk.pdf
<table>
<tr><td>Technology</td><td>Specification</td><td>Fixed price (€/MWh)</td></tr>
<tr><td rowspan="2">Biomass firing</td><td>Cultivated biomass</td><td>113,10</td></tr>
<tr><td>Waste biomass</td><td>125,98</td></tr>
<tr><td>Co-firing</td><td>Biomass or waste co-firing with fossil fuels</td><td>126,14</td></tr>
<tr><td rowspan="4">Firing</td><td>Waste water treatment biogas firing</td><td>96,36</td></tr>
<tr><td>Biogas – anaerobic fermenting technology with capacity up to 1.0 MW</td><td>148,72</td></tr>
<tr><td>Biogas – anaerobic fermenting technology with capacity over 1.0 MW</td><td>131,45</td></tr>
<tr><td>Termochemical gasification</td><td>159,85</td></tr>
</table>
Fixed FEED-IN PRICES for RES-E
In case of (EU or state) investment support will be applied, purchase price will be reduced by:

by 4% in case of investment support up to 30% of total investment costs;
by 8% in case of investment support up to 40% of total investment costs;
by 12% in case of investment support up to 50% of total investment costs;
by 16% in case of investment support more than 50% of total investment costs.

</td></tr>
<tr><td>Internet address</td><td>http://www.economy.gov.sk/national-legislation/131029s
http://www.urso.gov.sk/en/legislation/acts</td></tr>
</table>

2.15 Slovenia

In order to meet the objectives of the National Energy Program the Government is carrying out many different activities: provision of information, awareness raising and training as regards energy consumers, investors and other target groups, implementation of the program of energy consulting for the citizens, promotion of consulting service provision, support for investments in efficient use of energy and renewable energy sources.

The main financial instruments are the following: granting of aid from the national budget or soft loans with a subsidized interest rate for investments, providing favourable prices for the electricity produced either from renewable energy sources or by cogeneration from fossil fuels with high utilization rate, exemption of CO_2 tax if certain measures are implemented, exemption from excise duties for biofuels, etc.

Already for some years now the Ministry for Environment, Spatial Planning and Energy trough its Agency for Efficient Use and Renewable Energy (AURE) supports the investments in RES and cogeneration with subsidies for investment projects. The subsidies are/were foreseen in the each year budget; the available amount of money for supports was limited. The public tender is issued by AURE once a year or for a two or three year period, depending on the source of finance. In the past this was mainly state budget, in the recent years the program is co-financed through structural funds and Eco fund. For the RES investments producing heat the subsidy is normally up to 30 % of the investment.

Main supporting policies In Slovenia, the RES-E policy includes the following measures:

- RES-E producers can choose to receive either fixed feed-in tariffs or premium feed-in tariffs from the network operators. A Purchase Agreement is concluded, valid for 15 years. According to the Law on Energy, the uniform annual prices and premiums are set at least once a year.
- Subsidies or loans with interest-rate subsidies are available. Most of the subsidies cover up to 40% of the so-called justified investment cost. Investments in rural areas with no possibility of connection to the electricity network are eligible to apply for an additional 20% subsidy.

RES energy producers

Power plants should fulfil following strict criteria to become a RES energy producer from and eligible for fixed price:

- non-depreciated units only,
- new units, not older than 10 years,
- reconstructed units (more than 50% of new investment) 10 years after reconstruction,
- high overall efficiency for CHP on biomass, biogas and sewage gas (use of waste heat is a precondition).

Support of biomass energy producers

Support of the biomass electricity producers is designed as classical feed-in system with elements:

- Fixed purchase price (feed-in tariff) for all electricity send to the public network.
- At least 60% overall efficiency of produced energy needs to be achieved. Heat is used for heating (district heating, households, services, etc.) or for technological process.
- The level of support (aid) is set as difference between fixed purchase prices and set average electricity market price.
- Prices in table 5 are for biomass energy producers that use pure biomass. In case of wood waste (bark, sawdust) the price is reduced by 10% and in case of wood waste (like particle board waste) by 35%.
- Premium for plants above 5 MW is calculated as a difference between the basis (fixed price) and expected annual price. Premium should be calculated based on the foreseen yearly market prices of electricity and modify according to the market conditions.

Presumptions for calculation of reference cost prices:

- 15 years period,
- full load operating hours according to local natural conditions,
- specific investment for each specific source,
- consideration of realistic fuel and M&O costs,
- amortization for the equipment 15 years,
- discount rate of 12%,
- preliminary market price of electricity 65 €/MWh.

a) Power plants up to 5 MWe will have the possibility to decide between two options: to sell all produced electricity to the new support centre and getting for electricity uniform purchase prices or to sell electricity on the market and receive support-premium.

b) Power producers above 5 MWe have to sell the produced electricity directly on the market or to consume it at the site. They will be entitled only for operational support – "premium".

Reference cost prices in 2009

Type of RES	Size classes	Max. purchase price	Type of support
		(€/MWh)	FI/P
Hydro	up to 50 kW	105.47	FI/P
	up to 1 MW	92.61	FI/P
	up to 10 MW	82.34	P
	up to 125 MW	76.57	P
Biomass	up to 50 kW	-	FI/P
	up to 1 MW	224.35	FI/P
	up to 10 MW	167.43	P
	up to 125 MW	-	P
Wind	up to 10 MW	95.38	P
	up to 125 MW	86.74	P
Geothermal	up to 50 kW	-	FI/P
	up to 1 MW	152.47	FI/P
	up to 10 MW	152.47	P
	up to 125 MW	-	P
Photovoltaic	up to 50 kW	415.46	FI/P
	up to 1 MW	380.02	FI/P
	up to 10 MW	315.36	P
	up to 125 MW	280.71	P

Biogas	up to 50 kW	160.05	FI/P
	up to 1 MW	155.76	FI/P
	up to 10 MW	140.77	P
Landfill and sevage gas	up to 50 kW	99.33	FI/P
	up to 1 MW	67.47	FI/P
	up to 10 MW	61.67	P

FI – Guaranteed purchase at uniform purchase price
P – Premium (the difference between reference cost prices and predetermined market price)

Source:

Domjan, S.: Country Study on Political Framework and Availability of Biomass, 4Biomass Project, WP4.2.2 Country Report, November 2009, Ljubljana.

1. Support for research, development and demonstrations	
SLOVENIA	
Number of act, decree or guideline	EVA: 2006-1647-0011
Ministry responsible for legislation	Ministry of Higher Education, Science and Technology
Name of legislation in local language	Pravilnik o (so)financiranju temeljnih, aplikativnih in podoktorskih raziskovalnih projektov
Name of legislation in English	Rules on (co-)financing basic, applicative and postdoctoral research projects
Date of launched	14.7.2006
Date of expire	-
Geographical coverage:	Slovenia
Scope	These Rules shall define the conditions, criteria, indicators and procedure for evaluating and selecting applications for basic, applied and postdoctoral research projects for (co)financing, the monitoring and supervision of project realization, and the method for informing the public of the research results.
Internet address	http://zakonodaja.gov.si/rpsi/r02/predpis_PRAV7772.html (in Slovenian) http://www.arrs.gov.si/en/progproj/rproj/akti/prav-tapl-proj-maj05.asp (previous version - in English)
Other information	Public tender for (co-)funding of research projects for 2010 was published in 2009. One of the priority area was: technology for a sustainable economy (energy and environmental technologies, technologies for the rational use of energy, the use of new and renewable sources of energy, a safe and healthy environment, sustainable construction, to ensure quality control and the environment (land, forest, water, air), food, health products, etc.). Call closed (7.8.2009 – 2.10.2009)

2 Energy taxation	
SLOVENIA	
Number of act, decree or guideline	EVA: 2008-2111-0017
Ministry responsible for legislation	Ministry of the Economy
Name of legislation in local language	Uredba o načinu določanja in obračunavanja prispevka za zagotavljanje podpor proizvodnji električne energije v soproizvodnji z visokim izkoristkom in iz obnovljivih virov energije
Name of legislation in English	Regulation on the way of defining and accounting of fee to assure support to production of electricity from cogeneration with high efficiency and from renewable sources
Date of launched	13.1.2009
Date of expire	-
Geographical coverage:	Slovenia
Scope	Consumer prices charged to end customers consists of the price for electricity, the use-of-network price (including the network charge and the supplements to the network charge), two contributions (the contribution supporting the reliability of supply of electricity from domestic sources of primary energy, and the contribution supporting electricity from high-efficiency cogeneration and from renewable sources), the excise duty and the value-added tax. The Government shall specify the method for determining and accounting for the contribution made by each final customers of electricity to pay for each position for accepting the transferring support the provision of electricity production in cogeneration and high efficiency of renewable sources. Operational contractor of support scheme is the Centre for support, which operates as a part of Borzen, organizer of the electricity market.
Further legal acts or standards referred	Decision laying down fee to assure support to production of electricity from cogeneration with high efficiency and from renewable sources
Internet address	http://zakonodaja.gov.si/rpsi/r01/predpis_URED4721.html (in Slovenian)
Other information	The average monthly contribution to support the implementation of electricity production from cogeneration with high efficiency and from renewable sources in year 2010 to the kW of calculated power is 0.65584 euro/kW. Feed-in-tariffs are financed from this source (see 4.1 and 4.2).

3 Investment support	
SLOVENIA	
Number of act, decree or guideline	EVA: 2008-2511-0165
Ministry responsible for legislation	Ministry of Environment and Spatial Planning
Name of legislation in local language	Pravilnik o spodbujanju učinkovite rabe energije in rabe obnovljivih virov energije
Name of legislation in English	Regulation on the promotion of efficient energy use and use of renewable energy sources
Date of launched	20.9.2008
Date of expire	-
Geographical coverage:	Slovenia
Scope	This regulation specifies the types of incentives for energy efficiency and renewable energy granted by the Ministry of Environment and Spatial Planning, the conditions and criteria for their allocation and the beneficiaries of the incentives. It provides incentives that are granted as state aid, incentives granted under the rule "de minimis" and other incentives (subsidies).
Internet address	http://zakonodaja.gov.si/rpsi/r07/predpis_PRAV9247.html (in Slovenian)
Other information	Two public tenders for co-funding of investments in usage of biomass should be published in May (for years 2010, 2011 and 2012): Public tender for co-financing of district heating using biomass: 1. CHP systems with capacity up to 20 MW; 2. Extension of existing CHP systems' network, with or without additional boilers; 3. Micro CHP systems. Public tender for co-financing of individual biomass heating systems: Subject of co-financing are biomass heating plants for central heating of buildings (commercial, public, religious and industrial), or group of buildings. Calls not yet open (till there will be sources left or at the latest till 3.3.2011)

SLOVENIA	
Number of act, decree or guideline	EVA: 2007-2311-0023
Ministry responsible for legislation	Ministry of Agriculture, Forestry and Food
Name of legislation in local language	Uredba o ukrepih 1., 3. in 4. osi Programa razvoja podeželja RS 2007-2013
Name of legislation in English	Decree about the measures of rural development program of RS 2007-2013 for axis 1, 3 and 4
Date of launched	17.10.2007
Date of expire	19.7.2008 (apply to complete the procedures, which began on that basis)
Geographical coverage:	Slovenia
Scope	Within the framework of its priority tasks the National Strategy Plan for Rural Development (NSPRD) is aimed at strengthening the multifunctional role of agriculture in Slovenia. Particularly emphasized are the needs for restructuring the agriculture and food processing industry as well as for enhancing the competitiveness of the entire agricultural sector and agrifood chain. The NSPRD is founded on the principles for a sustainable management of renewable natural resources and pays special attention to the maintenance of cultural landscape and environmental protection as well as the maintenance of the settlement and rural identity in the countryside. The NSPRD represents a reference framework for the drawing up of the Rural Development Program 2007-2013.
Further legal acts or standards referred	Decision on the value of the criteria for determining the budgetary commitments to the operating and registered local action groups for 2008
Internet address	http://zakonodaja.gov.si/rpsi/r05/predpis_URED4355.html (in Slovenian)
Other information	Measure 121 - Modernization of farms Investments in renewable energy sources for the purposes of farms Call closed (4.12.2009 – 29.12.2009) Measure 122 - Improving the economic value of forests Investments in the purchase of new machinery and new equipment for the logging and timber harvesting Call closed (4.12.2009 – 31.1.2010) Measure 123 - Adding value to agricultural and forestry products Investments that are highly geared to reducing the environmental impacts of production (among others also usage of renewable energy sources) Call closed (4.9.2009 – 5.3.2010) Measure 311 - Diversification into non-agricultural activities Investments in power generation from renewable energy sources for sale on the farm Call open (27.3.2009 -) Measure 312 - Support for the creation and development of micro enterprises Investments in power generation from renewable energy sources for sale and investments in energy production from renewable energy sources for the implementation of productive activities in micro-enterprises Call closed (27.3.2009 – 18.1.2010)

SLOVENIA	
Number of act, decree or guideline	EVA: 2010-2111-0024
Ministry responsible for legislation	Ministry of Environment and Spatial Planning
Name of legislation in local language	Uredba o zagotavljanju prihrankov energije pri končnih odjemalcih
Name of legislation in English	Regulation on energy savings ensured to final customers
Date of launched	1.1.2010
Date of expire	-
Geographical coverage:	Slovenia
Scope	Regulation introduces a collection of resources to increase the efficiency of energy use through its contribution to improving the efficiency of electricity and heat additions to the price and the price of fuels to increase energy efficiency. Eco Fund of Republic of Slovenia will prepare program for improving energy efficiency, the measures will be determined and the amount of incentives to achieve the required savings. The program is currently being prepared. After approving the program will be announced by the Government and public calls for the allocation of grants of financial incentives will be prepared. Liable are also suppliers of electricity, heat from a distribution network, gas and liquid fuels to end-customers. They have to prepare programs for the next calendar year no later than October 1st and submit them for approval by the Slovenian Public Agency for Energy.
Internet address	http://zakonodaja.gov.si/rpsi/r06/predpis_URED5406.html (in Slovenian)
Other information	Public tender for non-repayable financial incentives for usage of renewable energy sources and investments in energy-efficient residential buildings for residents should be published in May.

SLOVENIA	
Number of act, decree or guideline	SOP: 2000-01-4918
Ministry responsible for legislation	Eco Fund of Republic of Slovenia
Name of legislation in local language	Splošni pogoji poslovanja za vzpodbujanje razvoja na področju varstva okolja
Name of legislation in English	General terms for encouraging development in the field of environmental protection
Date of launched	29.4.2010
Date of expire	-
Geographical coverage:	Slovenia
Scope	The general operating conditions for the Eco Fund, the Slovenian Environmental Public Fund, to promote sustainable development by financing investment for the prevention, elimination and reduction of environmental pollution. Eco Fund grants incentives with the following instruments: − loans with favourable interest rate, − bank guarantees or other forms of guarantees, − capital investment, − grants, including interest rate subsidies and costs associated with loans, − financial leasing, and − other financial instruments.
Internet address	http://zakonodaja.gov.si/rpsi/r08/predpis_NEZN188.html (in Slovenian)
Other information	Loans for eco-environmental investments are subject of call, separate for individuals and private entrepreneurs. Among others also for: construction or reconstruction of systems and devices for heating and cooling, using as a primary energy source biomass, solar or geothermal energy, construction or reconstruction of facilities for the production of electricity from renewable energy sources, construction or reconstruction of facilities for CHP systems with high efficiency using renewable energy sources, fossil fuels or a combination of fossil fuels and renewable sources. Call open (till 20.12.2010)

4 Feed-in-tariffs and other support for heat and power production by biomass	
SLOVENIA	
Number of act, decree or guideline	EVA: 2008-2111-0016
Ministry responsible for legislation	Ministry of the Economy
Name of legislation in local language	Uredba o podporah električni energiji, proizvedeni iz obnovljivih virov energije
Name of legislation in English	Regulation on supports for the electricity generated from renewable energy sources
Date of launched	19.5.2009
Date of expire	-
Geographical coverage:	Slovenia
Scope	Support for electricity produced in RES generating plants comprises: − guaranteed purchase of electricity. Pursuant to this support, irrespective of the price of electricity on the market, the Centre for RES/CHP Support buys all the acquired net electricity produced, for which the RES generating plant has received guarantees of origin, at guaranteed prices; − financial aid for current operations. This support is allocated for net electricity generated for which a guarantee of origin has been received and which RES electricity producers sell themselves on the market or use for their own consumption, provided that the costs of producing this energy are greater than the price that can be obtained for it on the electricity market.
Further legal acts or standards referred	Methodology for Determining Reference Costs of Electricity Generated from Renewable Resources
Internet address	http://zakonodaja.gov.si/rpsi/r08/predpis_URED4718.html (in Slovenian) http://www.mg.gov.si/fileadmin/mg.gov.si/pageuploads/Energetika/Sprejeti_predpisi /RES_EN.pdf (in English)

<table>
<tr>
<td>Other information</td>
<td>Guaranteed purchase prices and operating supports for electricity from RES generating plants using wood biomass where wood biomass represents more than 90% of the primary energy fuel input:
<table>
<tr><th>Size category of generating plant</th><th>Guaranteed purchase price 2009 (EUR/MWh)</th><th>Guaranteed purchase price 2010 (EUR/MWh)</th><th>Operating support 2009 (EUR/MWh)</th><th>Operating support 2010 (EUR/MWh)</th></tr>
<tr><td>Micro (< 50 kW)</td><td>[1]</td><td>[1]</td><td>[1]</td><td>[1]</td></tr>
<tr><td>Small (< 1 MW)</td><td>224,35</td><td>225,74</td><td>165,20</td><td>177,14</td></tr>
<tr><td>Medium (to 10 MW)</td><td>167,43</td><td>168,60</td><td>107,63</td><td>119,46</td></tr>
<tr><td>Large (to 125 MW)</td><td>[1]</td><td>[1]</td><td>[1]</td><td>[1]</td></tr>
</table>
[1] Shall be determined for each individual case separately.</td>
</tr>
</table>

SLOVENIA	
Number of act, decree or guideline	EVA: 2008-2111-0140
Ministry responsible for legislation	Ministry of the Economy
Name of legislation in local language	Uredba o podporah električni energiji, proizvedeni v soproizvodnji toplote in električne energije z visokim izkoristkom
Name of legislation in English	Regulation on supports for the electricity generated in cogeneration with high efficiency
Date of launched	19.5.2009
Date of expire	-
Geographical coverage:	Slovenia
Scope	Support for electricity from CHP generating plants shall be provided as: – the guaranteed purchase of electricity. For this support the Centre for RES/CHP Support shall, regardless of the price of electricity on the market, purchase the entire received net electricity generated in a CHP generating plant for which the plant has received guarantees of origin, at the guaranteed prices; – financial aid for current operation, which is allocated for the net electricity generated that producers in CHP generating plants sell themselves on the market or use as own consumption, on condition that the costs of generation of this electricity in the CHP generating plant are higher than the price that could be achieved for this electricity on the electricity market.
Further legal acts or standards referred	Methodology for Determining the Reference Costs for High-Efficiency Cogeneration
Internet address	http://zakonodaja.gov.si/rpsi/r02/predpis_URED5012.html (in Slovenian) http://www.mg.gov.si/fileadmin/mg.gov.si/pageuploads/Energetika/Sprejeti_predpisi /CHP_ENG.pdf (in English)

Other information

CHP generating plants using wood biomass – annual operating hours up to 4,000

Size category of CHP generating plant	Guaranteed purchase price 2009 (EUR/MWh)	Guaranteed purchase price 2010 (EUR/MWh)	Operating support 2009 (EUR/MWh)	Operating support 2010 (EUR/MWh)
Micro (< 50 kW)	[1]	[1]	[1]	[1]
Small (< 1 MW)	326,70	327,45	269,50	280,45
Medium – lower (1 MW – 5 MW)	/	/	192,28	203,76
Medium – higher (5 MW – 25 MW)	/	/	126,56	137,95
Large – lower (25 MW – 50 MW)	/	/	93,31	105,07
Large – higher (50 MW – 200 MW)	/	/	[1]	[1]

[1] Shall be determined for each individual case separately.

CHP generating plants using wood biomass – annual operating hours over 4,000

Size category of CHP generating plant	Guaranteed purchase price 2009 (EUR/MWh)	Guaranteed purchase price 2010 (EUR/MWh)	Operating support 2009 (EUR/MWh)	Operating support 2010 (EUR/MWh)
Micro (< 50 kW)	[1]	[1]	[1]	[1]
Small (< 1 MW)	220,05	220,80	160,25	171,66
Medium – lower (1 MW – 5 MW)	/	/	111,17	122,76
Medium – higher (5 MW – 25 MW)	/	/	67,99	79,50
Large – lower (25 MW – 50 MW)	/	/	46,46	58,33
Large – higher (50 MW – 200 MW)	/	/	[1]	[1]

[1] Shall be determined for each individual case separately.

2.16 Spain

1. Fuel production	
SPAIN	
Number of act, decree or guideline	UNE 164001:EX 2005
Ministry responsible for legislation	Ministry of Industry, Tourism and Trade. Spanish Association for Standardisation and Certification (AENOR)
Name of legislation in local language	"Biocombustibles sólidos. Método para la determinación del poder calorífico"
Name of legislation in English	"Solid Biofuels - Method for the determination of calorific value"
Which part of supply chain	Biomass fuel quality
Date of launched	25th MAY 2005
Date of expire	-
Geographical coverage:	National (Spain)
Scope (describe how standard is mentioned in legislation)	The Spanish Standard UNE 164001 EX "Solid biofuels. Method for the determination of calorific value" is used to determine the high calorific value HCV, expressed in kJ kg-1. This standardization can be applied to all kinds of biomass solid fuels, included dry sludge from urban wastewater treatment. This standard does not appear in legislation
National standards or other binding requirement referred in the legislation(number and name in English)	No reference to standard or other
If national standards for fuel specification is applied, please describe how it differs from EN 14961 standard	The New European Pellet Standard EN 14961 is focused on the specification and classes and quality assurance of pellets made of different raw materials, while UNE 164001:EX 2005 is focused on the standardization of a method for the determination of calorific value.
Internet link to legislation	Not available in internet.
Other information	-

2. Bioenergy production	
SPAIN	
Number of act, decree or guideline	Royal Decree 1027/2007.
Ministry responsible for legislation	Ministry of Industry, Tourism and Trade.
Name of legislation in local language	Reglamento de Instalaciones Térmicas en los Edificios – RITE
Name of legislation in English	Regulation on Indoor Heating/Air-conditioning Systems
Which part of supply chain	Design and construction of energy generation and distribution systems
Date of launched	20 July 2007
Date of expire	-
Geographical coverage:	National (Spain)
Scope (describe how standard is mentioned in legislation)	The Regulation on Indoor Heating/Air-conditioning Systems (Reglamento de Instalaciones Térmicas en los Edificios – RITE) lays down the conditions that must be met by systems intended to provide thermal comfort and hygiene by providing heating, air-conditioning, and hot water, so as to achieve a rational use of energy. The need to revise this Regulation arose from the convergence of a number of factors, in particular the partial transposition of Directive 2002/91/CE on the energy performance of buildings and the need for harmonisation with the "Basic Energy Saving Document" (Documento Básico de Ahorro de Energía) within the Technical Building Code (Código Técnico de la Edificación), the incorporation of new requirements for energy saving and efficiency in this type of installations, and the experience with the practical application of the existing regulation over the last few years. In order to facilitate compliance with the requirements of RITE, so-called recognized documents have been created. These are defined as technical documents which do not have the status of regulations but have the joint recognition of the Ministry of Industry, Tourism and Trade and the Ministry of Housing. In accordance with article 7 of RITE a General register of documents recognised for RITE has been set up, and the General Secretariat for Energy at the Ministry of Industry, Tourism and Trade has been given responsibility for managing it. This Royal Decree has the status of a basic national regulation. This means that Autonomous Regions may introduce additional requirements covering the same topics which are applicable to installations located in their territory.
Internet address	Available in internet, in Spanish http://www.boe.es/boe/dias/2007/08/29/pdfs/A35931-35984.pdf

SPAIN	
Number of act, decree or guideline	Guideline: Technical Guides on thermal biomass installations in buildings
Ministry responsible for legislation	Ministry of Industry, Tourism and Trade. Institute for Diversification and Saving of Energy, or IDAE
Name of legislation in local language	"Guía técnica de instalaciones de biomasa térmica en edificios"
Name of legislation in English	Technical Guides on thermal biomass installations in buildings
Which part of supply chain	Design and construction of energy generation and distribution systems
Date of launched	Year 2008
Date of expire	-
Geographical coverage:	National (Spain)
Scope (describe how standard is mentioned in legislation)	Technical Guides on Energy Efficiency and Saving in Heating and Air-conditioning Systems The Institute for Diversification and Saving of Energy, IDAE, in order to increase the energy efficiency of indoor heating and air-conditioning systems, has promoted the drafting of a series of Technical Guides aimed at designers, installers, maintenance engineers, inspectors and users.
Internet address	Spanish version of this document can be bought http://www.idae.es/index.php/mod.publicaciones/mem.detalle/id.323

2.17 Sweden

Much of the Swedish legal framework does not directly support bioenergy. The legislation is in many cases supporting the use of bioenergy by making the alternative energy sources, such as fossil fuels, more expensive, or for example forcing the buyers of electricity to buy a certain quota of electricity from renewable energy sources.

Energy taxes

'Energy tax' is an umbrella name for spot taxes on fuels and electricity. They can be roughly divided up into fiscal taxes and those intended to achieve environmental objectives. This latter group of taxes includes the carbon dioxide and sulphur taxes, while the general energy tax is essentially a fiscal tax. The original objective of energy taxes was to help finance the State's public spending requirements, but in later years the emphasis has increasingly been on the need to control the supply and use of energy in order to achieve various energy and environmental policy objectives. Present energy taxation policy is aimed at improving the efficiency of energy use, encouraging the use of biofuels, creating incentives for companies to reduce their environmental impact and creating favorable conditions for indigenous production of electricity.

The guidelines for Swedish energy taxation are set by the EU's common framework, as expressed mainly by the Energy Taxation Directive[9], and have a complex structure. There are different taxes on electricity and fuels, on carbon dioxide and sulphur emissions, and a levy system on nitrogen oxide emissions. The tax rates can then vary, depending on whether the fuel is being used for heating or as a motor fuel, whether it is being used by industry, domestic consumers or the energy conversion sector and, in the case of electricity, what it is being used for and whether it is being used in northern Sweden or in the rest of the country. Examples of taxation expenditure on the energy tax include energy tax relief for biofuels, peat etc., tax reductions for certain environmentally beneficial improvement installations in detached houses, and the reduction of the carbon dioxide tax for industry. Electricity production in Sweden is exempted from energy and carbon dioxide tax, although it is subject to the nitrogen oxide levy and sulphur tax in certain cases. However, the use of electricity is taxed. Heat production attracts energy tax, carbon dioxide tax and, in certain cases, sulphur tax and the nitrogen oxide levy. The use of heat, however, is not taxed. In principle, biofuels and peat are tax free for all users, although the use of peat attracts sulphur tax.

There are various tax levels for transport, depending on the type of fuel and the environmental class of the fuel. No energy tax or carbon dioxide tax is charged on ethanol, rapeseed oil methyl ester (RME) or biogas.

Green Electricity certificates

Sweden's Green Electricity certificate system is a market-based support system to assist expansion of production of electricity from renewable sources and from peat in Sweden.

Demand for certificates is created by the fact that all electricity suppliers, and certain electricity users, are required to buy certificates corresponding to a certain proportion (their quota) of their electricity sales or use. Electricity produced from the following energy sources qualifies for certificates: wind power, solar energy, wave energy geothermal energy, certain biofuels and certain hydro power.

Emission trading

The emission trading scheme (EU ETS) is the foremost climate policy instrument in the EU's European Climate Change Programme (ECCP). The objective of the programme is to achieve the EU's commitment in respect of reduced emissions in accordance with its Kyoto Protocol obligations. The purpose of the trading system is to reduce greenhouse gas emissions at the lowest possible cost by allowing companies to trade in carbon dioxide emission allowances, subject to an uppermost ceiling.

The market price of an emission allowance is determined by the balance of supply and demand. Supply consists of the total allocation of emission allowances, together with the use of credits from project based mechanisms, while demand is dependent on factors such as the demand for electricity and heat, fuel prices and general economic conditions.

Grants for conversion of heating systems

The purpose of these conversion grants is to reduce the country's dependence on oil, to encourage efficient and environmentally benign use of energy, and to reduce the use of electricity for heating purposes in residential buildings. Owners of properties having direct electric heating can receive a grant for the cost of conversion of such heating systems to district heating, to rock, earth or lake water heat pumps, or to bio fuelled boilers. The grant has been available since the beginning of 2006, and will continue until the end of 2010. It was previously also available to those replacing oil fired heating systems by one of these alternative heating systems, but this option has been withdrawn.

Energy research, development and demonstration activities and commercialization.

The Government's "Research and New Technology for Future Energy Systems" has been approved by Parliament for a long term programme of research, development, demonstration and commercialisation activities for the development of technologies and processes aimed at the establishment of a sustainable energy system.

The aim of business development and commercialization activities is to identify and encourage business ideas and companies in the energy sector. This is an area with valuable potentials, where Swedish companies get help to develop good ideas through financing, technical competence, market knowledge and active business development. Energy research covers the entire chain from fundamental research and technical development through to demonstration activities and business development. Experience shows that it can take up to ten years before the results of research materialise into a commercial breakthrough.

Information activities

Information is an important policy measure when the State wishes to raise awareness or create an understanding, to change attitudes or to influence the behaviour of persons. The Swedish Energy Agency employs many different channels and works with a large number of different parties in order to ensure that information reaches its target groups.

	Energy tax	CO_2 tax	Sulphur tax	Total tax	Tax, öre/kWh
Heating oil, SEK/m³	-	631		631	6,3
Heavy fuel Oil, SEK/m³	-	631	108	739	7,0
Coal, SEK/tonne	-	550	150	700	9,3
LPG, SEK/tonne	-	664	-	664	5,2
Natural gas, SEK/1000 m³	-	473	-	473	4,3
Crude tall oil, SEK/m³	631	-	-	631	6,4
Peat, SEK/tonne, 45 % moisture content, (0.3 % sulphur)			50	50	1,8
Domestic waste, SEK/ tonne of fossil carbon*	-	812	-	812	3,3

Energy and environmental taxes for industry, agriculture, forestry, fisheries and heat production in CHP plants, from 1st January 2009

1. Support for research, development and demonstrations	
SWEDEN	
Number of act, decree or guideline	Bill no. 2005/06:127, Research and New Technology for the Future Energy System. Propositionen Forskning och ny teknik för framtidens energisystem, Prop. 2005/06:127
Ministry responsible for legislation	The Swedish Energy Agency
Name of legislation in local language	Propositionen Forskning och ny teknik för framtidens energisystem, Prop. 2005/06:127
Name of legislation in English	Bill no. 2005/06:127, Research and New Technology for the Future Energy System.
Date of launched	2005
Date of expire	-
Geographical coverage:	Sweden
Scope	The Government's 'Research and New Technology for Future Energy Systems' has been approved by Parliament for a long term programme of research, development, demonstration and commercialisation activities for the development of technologies and processes aimed at the establishment of a sustainable energy system. In 2008, public funding for energy research amounted to almost SEK 875 million: for 2009, this has been increased to almost SEK 1 147 million, including complementary budgets. In its 2009 autumn Budget Bill, the Government proposes almost SEK 1 332 million for 2010, but falling to about SEK 1 259 and SEK 906 million respectively for 2011 and 2012 in current price level. For 2009, the Government proposed that the grant for energy research should be increased by SEK 145 million in order to facilitate demonstration and commercialization of new technology for renewable energy. Corresponding amounts for 2010 and 2011 are SEK 380 million and SEK 350 million. In accordance with what was specified in more detail in the Research and Innovation Policy Bill, which was presented in the autumn of 2009, the 2008 autumn Budget Bill proposed to increase the grant by a further SEK 110 million with effect from 2009. The programme is constructed around six theme areas: Energy System Studies, Energy Use in the Built Environment, Transport, Energy-intensive Industry, the Power System, and Fuel based Energy Systems. Each theme area is supported by development groups made up of experts from public authorities, industry and other relevant parties. Research in each area is organised into specific programmes, with the number of active programmes varying from year to year. The energy use in the built environment theme area includes the supply and distribution of heating, electricity for domestic and building services systems and the underlying design and operation of buildings and their services systems. Work in the field of building services systems is concentrated on several different technology areas, such as small scale combustion of biofuels, district heating and district cooling, heat pumps, solar heating and buildings as energy systems. Research in the transport sector is divided into two parts: alternative motor fuels and energy-efficient vehicles. This includes research and development of biobased motor fuels, combustion engines and electrical drive systems. Looking further ahead, biobased motor fuels have the potential to make a significant contribution to replacing fossil fuels in the

	transport sector. The fuel based energy systems working area includes research and development of sustainable biomass fuel supply and energy production, based mainly on biomass-fuelled systems. Research in the area is intended to help increase the quantities of fuels available, to improve the cost efficiency and resource efficiency of the chain from raw material to finished product, to improve the electrical yield from processes, and to help commercialise the technology.
Internet address	http://www.riksdagen.se/webbnav/index.aspx?nid=37&rm=2005/06&bet=127&typ=prop
Other information	Supporting the development of bioenergy systems.

2. Energy taxation	
SWEDEN	
Number of act, decree or guideline	Lag (1994:1776) om allmän energiskatt
Ministry responsible for legislation	Näringsdepartementet
Name of legislation in local language	Lag om skatt på energi
Name of legislation in English	Energy tax
Date of launched	1994
Date of expire	-
Geographical coverage:	Sweden
Scope	Energy tax is an umbrella name for spot taxes on fuels and electricity. They can be roughly divided up into fiscal taxes and those intended to achieve environmental objectives. This latter group of taxes includes the carbon dioxide and sulphur taxes, while the general energy tax is essentially a fiscal tax. However, there is no hard and fast boundary between the types, as both groups have an environmental effect as well as a fiscal function. • The general energy tax, which has existed for several decades, and with varying purposes, is levied on most fuels, based on various factors such as their energy contents. • The carbon dioxide tax, which was introduced in 1991, is levied on the emitted quantities of carbon dioxide from all fuels except biofuels and peat. The general rate of carbon dioxide tax was increased by 4 öre at the beginning of 2009, reaching a level of 105 öre per kg of carbon dioxide. Energy and carbon dioxide tax rates are indexed to track price developments. • A sulphur tax was introduced in 1991, and is levied at a rate of SEK 30 per kg of sulphur emission from coal and peat, and at SEK 27 for each tenth of a percent of sulphur by weight per cubic metre of oil. Oils containing less than 0.05 % of sulphur by weight are exempted from the tax. • The environmental levy on the emission of nitrogen oxide was introduced in 1992, and since the beginning of 2008 has been applied at a rate of SEK 50/kg of nitrogen oxide, on emissions from boilers, gas turbines and stationary combustion plants supplying at least 25 GWh per annum. However, it is intended to be fiscally neutral, and is repaid to plant operators in proportion to their energy production and in inverse proportion to their nitrogen oxide emissions, so that only those with the highest emissions are net payers.

Changes and proposals under discussion	A further step by step reduction of the carbon dioxide tax on fuels used in plants covered by the EU emission trading system started on 1st July 2008. It increased the percentage tax reduction for industrial and CHP plants covered by the emission trading system by six percentage points, i.e. down to 15 %. A second stage of the reduction, on 1st January 2010, will further reduce the carbon dioxide tax rate so that industrial and CHP plants will pay a tax equivalent to 7 % of the general carbon dioxide tax level. Corresponding percentage reductions will be made for other heating plants covered by the emission trading system.
Internet address	http://www.notisum.se/rnp/sls/lag/19941776.htm
Other information	The carbon dioxide-tax makes the prices for fossil fuels more expensive and results in price advantages for biofuels which are excluded from the tax. The price advantages promote thereby biofuels.

3. Investment support (note demonstrations under 1)	
SWEDEN	
Number of act, decree or guideline	Förordningarna (2005:1255) och (2005:1256)
Ministry responsible for legislation	Boverket
Name of legislation in local language	Stöd till konvertering av uppvärmningssystem
Name of legislation in English	Grants for conversion of heating systems
Date of launched	1. Jan 2006
Date of expire	31. Dec 2010
Geographical coverage:	Sweden
Scope	The purpose of these conversion grants is to reduce the country's dependence on oil, to encourage efficient and environmentally benign use of energy, and to reduce the use of electricity for heating purposes in residential buildings. Owners of properties having direct electric heating can receive a grant for the cost of conversion of such heating systems to district heating, to rock, earth or lake water heat pumps, or to biofuelled boilers. The grant has been available since the beginning of 2006, and will continue until the end of 2010. It was previously also available to those replacing oil fired heating systems by one of these alternative heating systems, but this option has been withdrawn.
Internet address	http://www.notisum.se/Pub/Doc.aspx?url=/rnp/sls/lag/20051255.htm http://www.notisum.se/Pub/Doc.aspx?url=/rnp/sls/lag/20051256.htm

4. Feed-in-tariffs and other support for heat and power production by biomass	
SWEDEN	
Number of act, decree or guideline	Lag (2003:113) om elcertifikat
Ministry responsible for legislation	Svenska Kraftnät
Name of legislation in local language	Elcertifikat
Name of legislation in English	Sweden's Green Electricity certificate system
Date of launched	2003
Date of expire	-
Geographical coverage:	Sweden
Scope	Sweden's Green Electricity certificate system is a market-based support system to assist expansion of production of electricity from renewable sources and from peat in Sweden. Its objective is to increase, by 2016, the production of electricity from such sources on the level of 17 TWh relative to the production level in 2002. It is part of the country's overall objective of moving Sweden towards a more ecologically sustainable energy system. Electricity production that qualified for Green Certificates in 2008 amounted to 15.0 TWh. Electricity certificates are issued to operators of approved plants producing and metering electricity from renewable energy sources, or from peat, at the rate of one certificate unit per MWh. Electricity produced from the following energy sources qualifies for certificates: wind power, solar energy, wave energy geothermal energy, certain biofuels and certain hydro power. With effect from 1st April 2004, electricity produced from peat in cogeneration plants has also qualified for certificates. New plants receive certificates for 15 years, while those plants started up before 1st May 2003 will be progressively phased out of the scheme, starting from the end of 2012 or 2014. Demand for certificates is created by the fact that all electricity suppliers, and certain electricity users, are required to buy certificates corresponding to a certain proportion (their quota) of their electricity sales or use. The proportion of certificates thermal energy, certain biofuels and certain hydro power. With effect from 1st April 2004, electricity produced from peat in cogeneration plants has also qualified for certificates. New plants receive certificates for 15 years, while those plants started up before 1st May 2003 will be progressively phased out of the scheme, starting from the end of 2012 or 2014.
Internet address	http://www.notisum.se/rnp/sls/lag/20030113.htm
Other information	The green electricity certificates create a demand for renewable electricity production, such as using biofuels for power production.

SWEDEN	
Number of act, decree or guideline	Lag (2004:1199) om handel med utsläppsrätter
Ministry responsible for legislation	Miljödepartementet
Name of legislation in local language	Handel med utsläppsrätter
Name of legislation in English	Emission trading
Date of launched	1. Jan 2005
Date of expire	-
Geographical coverage:	European Union
Scope	The emission trading scheme (EU ETS) is the foremost climate policy instrument in the EU's European Climate Change Programme (ECCP). The objective of the programme is to achieve the EU's commitment in respect of reduced emissions in accordance with its Kyoto Protocol obligations. The purpose of the trading system is to reduce greenhouse gas emissions at the lowest possible cost by allowing companies to trade in carbon dioxide emission allowances, subject to an uppermost ceiling. The first EU emission trading system period ran from 2005 to 2007. From 2008 to 2012, it runs in parallel with the Kyoto Protocol's first commitment period. Each country allocates emission allowances (EUA) to emitting installations in its country in accordance with a predetermined number of allowances and in accordance with the rules set out in a national allocation plan (NAP) for each trading period. Aggregated, the member states' allocation plans form the joint ceiling for emission allowances. Each emission allowance allows its holder to emit one tonne of carbon dioxide during the specified trading period. As the allowances are transferable, carbon dioxide emissions will be preferentially reduced in those companies or countries in which the costs for reducing emissions are lowest. The EU Emission Trading Scheme covers only a limited number of sectors, in energy intensive industries and electricity and heat producers, with the result that it covers only about 40 % of EU greenhouse gas emissions. In Sweden, about 35 % of greenhouse gas emissions are covered by the trading system. The first trading period covered only carbon dioxide emissions but, with effect from 2008, nitrous oxide has also been included in some member countries. Each year, businesses having installations covered by the system are required to surrender emission allowances equivalent to their annual emissions. Those businesses that find that they need to hold more emission allowances to cover their emissions than they actually possess must either reduce their emissions, purchase emission allowances from others who have succeeded in reducing their emissions, or submit emission reduction credits from Clean Development Mechanism, CDM, or Joint Implementation, JI projects. The market price of an emission allowance is determined by the balance of supply and demand. Supply consists of the total allocation of emission allowances, together with the use of credits from project based mechanisms, while demand is dependent on factors such as the demand for electricity and heat, fuel prices and general economic conditions.

Changes and proposals under discussion	Under a proposal from the Commission, further greenhouse gases and activities would be included in the trading system when the Kyoto Protocol's first commitment period expires in 2012. A major change to the system will be the inclusion of commercial aviation with effect from 2012. In addition to the companies covered by the Trading Directive, other companies, individuals and organisations may trade emission allowances.
Internet address	http://www.notisum.se/rnp/sls/lag/20041199.htm
Other information	Biofuels are excluded from emissions trading. Power production from biofuels is thus preferable when it does not require emissions allowances.

2.18 UK

In the UK the three main pieces of legislation related to renewable energy are:

1. The Renewables Obligation
2. The Renewable Transport Fuels Obligation
3. The Renewable Energy Tariffs (i.e. the Feed-in Tariffs and the Renewable Heat Incentive

1. The Renewables Obligation.

The Renewables Obligation was introduced in 2002 (2005 in Northern Ireland) and runs until 2027. There are three similar Obligation orders: for England and Wales (the RO), Scotland (ROS) and Northern Ireland (NIRO).

According to the Renewable Energy Association (2010), the Renewables Obligation makes Licensed Electricity Suppliers source an increasing proportion of their electricity from renewables, or else pay a financial penalty called the **buy-out**.

The RO annual quotas are set annually starting at 3% in England, Wales and Scotland and rising to 15.4% in 2015-16. For every MWh that the suppliers fall short of their quota, the buy-out is £30 (increasing annually, index linked to the RPI since 2002). The buy-out money is recycled back to suppliers in proportion to how much renewable electricity they supplied REA, 2010).

The Renewable Obligation Certificates (ROCs) are the currency of the Obligation and ROCs are used as proof of compliance. Most, but not all, renewable electricity qualifies for ROCs.

The buyout price sets a floor price (unless the obligation is met in full but there is no ceiling price. There is a mathematical relationship between the size of the Obligation, the level of the shortfall and the theoretical value of a ROC.

The RO is administered by Ofgem. It is their role to accredit generating stations under the RO, and to issue ROCs to eligible generation. They also collect compliance statements and ROCs from suppliers at the end of each compliance year, and collect and distribute the buy-out fund (REA, 2010).

2. The Renewable Transport Fuels Obligation Programme (RTFO)

The RTFO came into effect in April 2008 and was amended in 2009. It requires suppliers of fossil fuels to ensure that a specified percentage of the road fuels they supply in the UK. As well as obliging fuel suppliers to meet targets for the volumes of biofuels supplied, the RTFO requires companies to submit reports on the **carbon and sustainability** of the biofuels. It is administered by the RFA (RFA, 2010).

The target for 2009/10 is 3.25% by volume. It places an obligation on fuel suppliers to ensure that a certain percentage of their total sales is made up of biofuels.

This means that, by 2010, 5% of all UK fuel sold on UK forecourts is required to come from a renewable source. European specifications currently only allow a maximum biofuel content of 5% by volume to be sold on forecourts as standard petrol or diesel (REA, 2010).

3. Renewable Energy Tariffs

Renewable electricity and heat tariffs introduced in the UK in 2010 and 2011.

The UK Energy Act 2008 became law on 26th November 2008 and includes enabling powers for:

- A 'feed-in tariff for small scale electricity' (in Sections 41 to 43 of the Act)
- A 'Renewable Heat Incentive' (section 100), which in turn included
- An incentive for biomethane fed into the gas mains

These are referred to as **renewable energy tariffs**. These measures are intended to be co-ordinated with each other and with the Renewable Obligation (REA, 2010).

The UK government has announced that the electricity tariffs will be introduced in April 2010 and the heat tariffs in April 2011. The industry has proposed that the latter be brought forward so the two measures can be implemented at the same time (REA, 2010).

Combined heat and power

The tariffs are intended to support combined heat and power installations as well as pure heat and electricity generation. According to the Renewable Energy Association (2010)[10], a combined heat and power (CHP) plant, therefore might be rewarded under both tariffs or larger plant (above the 5MW threshold for the electricity tariff) might be supported by the renewable heat tariff and the Renewables Obligation. This is one of the key reasons why all these measures need to be compatible.

The government intends to consult in the summer about its proposals for the design of the two measures (REA, 2010).

Energy Act 2010

On 8 April 2010, the Energy Bill received Royal Assent becoming Energy Act 2010. It implements some of the key measures required to deliver DECC's low carbon agenda.

It implements some of the key measures required to deliver DECC's low carbon agenda. It includes provisions on delivering a new financial incentive for carbon capture and storage, implementing mandatory social price support, and introducing a package of measures aimed at ensuring that the energy markets are working fairly for consumers and delivering secure and sustainable energy supplies (DECC, 2010).

After the 2010 Elections in the UK, the new government took power in May 2010 when the new Energy Bill was announced during the Queen's speech.

Energy Bill 2010

The purpose of the Bill is to provide a step change in the provision of energy efficiency measures to homes and businesses. It is also to put in place a framework to deliver a future with secure, low carbon energy supplies and fair competition in the energy markets.

This will imply the introduction of legislation and would deliver a national programme of energy efficiency measures to homes and businesses. It may also introduce powers to regulate the emissions from coal-fired power stations, reform energy markets to deliver security of supply and ensure fair competition, and put in place a framework to guide the development of a smart grid that will revolutionise the management of supply and demand for electricity (DECC, 2010)[11].

Key Elements

The main elements of the Bill are:

- Implementation of a "Green deal" to deliver energy efficiency to homes and business – delivering a framework including potential incentives to energy suppliers and households that will transform the provision of energy efficiency in the UK by enabling a 'pay as you save' approach (DECC, 2010).

The Bill may also contain measures to:

- regulate the carbon emissions from coal-fired power stations
- reform energy markets to deliver security of supply and ensure fair competition
- put in place a framework to guide the development of a smart grid that will revolutionise the management of supply and demand for electricity
- require energy companies to provide more information on energy bills in order to empower consumers and to ensure fair access to energy supplies
- ensure that North Sea infrastructure is available to all companies to ease the exploitation of smaller and more difficult oil and gas fields
- create a Green Investment Bank to support investment in low carbon projects to transform the economy (DECC, 2010)

Energy Act 2010

On 8 April 2010, the Energy Bill received Royal Assent becoming Energy Act 2010. It implements some of the key measures required to deliver DECC's low carbon agenda (DECC, 2010).

1. Support for research, development and demonstrations	
UK	
Number of act, decree or guideline	The UK has different research and demonstrations funding schemes which are related to bioenergy.
Ministry responsible for legislation	Department of Energy and Climate Change (DECC) Department for Business Innovation and Skills (BIS) Department for Environment
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	-
Date of expire	-
Geographical coverage:	-
Scope	The Research Councils have made an award for a second phase of UK Energy Research Centre (UKERC) running from May 2009 – April 2014. The total value of the Research Fund is £4.5m (valued at 80% of Full Economic Cost). We will issue three Calls for Proposals during UKERC Phase II. The Energy Bill creates the framework for a new Carbon Capture and Storage (CCS) Incentive mechanism that will support up to four commercial-scale CCS demonstration projects. The Incentive is comprised of two elements – a levy on electricity supplies (to be paid by electricity suppliers) and a mechanism for disbursing funds to selected CCS projects. The collection of the levy and the disbursal of funds will be administrated by Ofgem (Office for Gas and Electricity Markets), with the selection of projects carried out by Government. The Bill creates a new CCS Levy that will be charged on electricity supplies. The levy will be paid by electricity suppliers to the administrator, Ofgem, with the contribution of each supplier based on their share of the GB electricity supply market. The details of the levy will be set through regulations that will be the subject of a consultation in Summer 2010. The Bill will put in place the framework for Assistance Schemes to deliver funds to CCS demonstration projects. http://www.decc.gov.uk/en/content/cms/legislation/energy_act_10/energy_act_10.aspx **3 Carbon Trust Incubators** Support R&D and early stage commercialisation of certain renewable energy technologies **4 Engineering and Physical Sciences Research Council** The UK Government's leading funding agency for research and training in engineering and the physical sciences **5 Energie Helpline UK** Part of an EU wide National Contact Point network in collaboration with the Commission to assist in the delivery of a number of European funding programmes including Framework Programme 7 and Intelligent Energy Europe (IEE) **6 The Energy Technologies Institute**

7 ITI Energy

ITI Energy identifies technologies required to address future global market opportunities then funds and manages R&D Programmes and the subsequent commercial exploitation of new intellectual property.

Support available from the Rural Payments Agency website under Energy Aid Payment and DEFRA includes:.

- Energy Crops Scheme
- Rural Payments Agency
- Single Payment

For the crops

In England, the Energy Crops Scheme provides grants for establishing short rotation coppice and miscanthus under the new Rural Development Programme England (RDPE), (2007-2013). The operating details are subject to EU approval of the RDPE as a whole (expected later this year), and may also be reviewed during the lifetime of the scheme. It is currently planned to offer the following grants:

- £1,000 per hectare for short rotation coppice (willow and poplar on a 3-5 year rotation and ash, alder, hazel, silver birch, sycamore, sweet chestnut and lime on a 8-15 year rotation) (This figure could be lowered following ongoing discussions with the European Commission)
- £800 per hectare for miscanthus

Farmers can also receive the Single Payment for energy crops grown on set-aside. An annual energy aid payment of up to 45 euros per hectare is also available for growing energy crops under contract on non-set aside land.

For the infrastructure

The Bio-energy Infrastructure Scheme helps develop the supply chains required to harvest, store, process and supply energy crops and woodfuel to energy end-users.

- Producer groups for short rotation coppice growers
- Bio-energy Infrastructure Scheme

For the end users

The £66 million Bio-energy Capital Grant Scheme (now closed) allocated grants to project developers and organisations investing in heat and/or electricity generating projects fuelled by energy crops and other biomass feedstocks. The scheme has created new bio-energy markets.

Since 2006 the Bio-energy Capital Grants Scheme for five years (until 2011) will be worth £10-15m in England will support the installation of biomass-fuelled heat and combined heat and power projects in the industrial, commercial and community sectors.

- Energy Review

The UK-wide Community Energy Programme (now closed for applications) has provided £50m to promote community heating through grants to install new schemes and refurbish obsolete infrastructure and equipment, primarily using combined heat and power technology.

- Community Energy Programme

The BERR's UK-wide Low Carbon Buildings Programme started on 1 April 2006 and supersedes the previous Clear Skies Initiative and Solar PV programmes.

- Low Carbon Buildings Programme

The new scheme provides grants for microgeneration technologies for householders, community organisations, schools, the public sector and businesses. Microgeneration is the stand-alone generation of low carbon heat and/or electricity. A number of renewable technologies are supported, including biomass-fuelled stoves for space heating, central heating and hot water systems, Renewable CHP and MicroCHP.

A new support scheme for biomass heat in the industrial, commercial and

	community sectors was introduced in 2007. The scheme will be worth at least £10-15m in England over the first two years and will run for a total of five years. There are other grants schemes that can be reviewed at the bionergy centre http://www.biomassenergycentre.org.uk/portal/page?_pageid=77,15133&_dad=portal&_schema=PORTAL
Internet address	http://www.r-e-a.net/info/links/biomass-links http://www.bis.gov.uk/ http://www.decc.gov.uk/ http://www.defra.gov.uk/foodfarm/growing/crops/industrial/energy/energy2.htm#support http://www.rpa.gov.uk/rpa/index.nsf/293a8949ec0ba26d80256f65003bc4f7/ef8e92da5664ed0680256fcd0054202b!OpenDocument http://www.naturalengland.org.uk/
Other information	The Energy Aid Payments Scheme enabled aid to be claimed in respect of crops which are grown to be used for the production of energy (for heat, electricity or transport fuels) on land which has not been set-aside. It closed in 2009 but may reopen. The RPA Energy Aid scheme has now closed to new contracts after 2009: remnant work continues on monitoring fulfilment of existing contractual obligations.

2. Energy taxation	
UK	
Number of act, decree or guideline	Renewables Obligation Statutory Instrument 2002 No. 914
Ministry responsible for legislation	Department of Energy and Climate Change (DECC)
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	2002 Amended 2004 The Energy review and banding the Renewables Obligation, and the Renewables Obligation Order 2007 Amended 2010
Date of expire	2015/16 to be reviewed
Geographical coverage:	UK but specific issues in England, Wales and Scotland
Scope	The Renewables Obligation (RO) is the Government's main mechanism for supporting the generation of renewable electricity. It requires licensed electricity suppliers to source a specific and annually increasing percentage of their electricity from renewable sources. The current level is 9.7 percent for 2009/10, rising to 15.4 percent by 2015/16. This is set out in the Renewables Obligation Order. It is expected that the RO, together with exemption from the Climate Change Levy for electricity from renewables, will provide support to industry of up to £1bn a year by 2010. The RO creates an Obligation on electricity suppliers to source a rising percentage of electricity from renewable sources. The level of the Obligation rises annually from 6.7% in 2006/07 to 15.4% in 2015/16, then currently remains flat until the end of the Obligation in 2027. Suppliers can meet their Obligation by presenting Renewables Obligation Certificates (ROCs) as evidence of renewable generation or by paying the "buyout" price, or a combination of the two. The buyout price, which rises with the Retail Price Index (RPI) each year, caps the costs of the system to suppliers and thus ultimately to electricity consumers. Generators can be awarded Renewable Obligation Certificates (ROCs) for co-firing energy crops with fossil fuel in existing power stations under the Renewables Obligation. As announced in the Energy Review, the Government will consult on interim changes to the rules to allow the co-firing of energy crops outside the existing limits on co-firing. As part of the '2006 Energy review', ways in which the Renewables Obligation (RO) could be changed to encourage a larger contribution from emerging renewable technologies was looked at. At the same time, we carried out a review of co-firing under the RO. The Consultation of 2006 which provided the elements for the amendment of 2007 looked at the Renewables Obligation (RO) issues that would provide differentiated support levels to different renewable technologies ("banding") and give additional certainty on long-term Renewables Obligation Certificate (ROC) prices. Since its introduction, the RO has been subject to various reforms and

	improvements. The most significant being in April 2009, with the introduction of banding, where different technologies receive different levels of support, providing a greater incentive to those that are further from the market with potential to deploy on a large scale. In April 2010, further changes included the RO being extended from its current end date of 2027 to 2037 for new projects, in order to provide greater long-term certainty for investors, and an increase in support for offshore wind projects meeting certain criteria. The RO works by placing an obligation on licensed electricity suppliers to source a specified and annually increasing proportion of their electricity sales from renewable sources, or pay a penalty. The obligation in England & Wales for 2009/10 is 0.097 ROCs per MWh of electricity supplied, i.e. approximately 10% renewable electricity and will rise to 0.111 ROCs per MWh for 2010/11, i.e. approximately 11% renewable electricity. The RO is administered by Ofgem who issue Renewables Obligation Certificates (ROCs) to renewable electricity generators. Previously, 1 ROC was issued for each megawatt hour (MWh) of eligible generation, regardless of technology. As of 1 April 2009, the reforms introduced mean that new generators joining the RO now receive different numbers of ROCs, depending on their costs and potential for large-scale deployment. For example, onshore wind continues to receive 1 ROC/MWh, offshore wind currently receives 2 ROCs/MWh, and energy crops 2 ROCs/MWh
Changes and proposals under discussion	Following the introduction of banding in April 2009, it was agreed that the bands for all technologies would be reviewed at regular intervals. The attached document sets out the process for the 2010 - 13 banding review and the principles to be followed for future early reviews.
Further legal acts or standards referred	**Renewables Obligation Banding Review Process** Following the introduction of banding in April 2009, it was agreed that the bands for all technologies would be reviewed at regular intervals. The attached document sets out the process for the 2010 - 13 banding review and the principles to be followed for future early reviews. **Calculating the Obligation** Article 12(4) of the Renewables Obligation Order 2009 requires that the Secretary of State must publish, the number of renewables obligation certificates that a designated electricity supplier is required to produce in respect of each megawatt hour of electricity that it supplies to customers in England and Wales during that period in order to discharge its renewables obligation for that period. The Department can today confirm that the Obligation level for supplies to customers in England and Wales for the period running from 1st April 2010 to 31st March 2011 has been set by using Calculation B and will be **0.111 ROCs** per MWh (megawatt hour). **Review of the removal of the requirement for 'sale and buyback' agreements: 18** **January 2010.** In April 2007 an administrative simplification was made to the Renewables Obligation (RO) legislation which removed the requirement for generators who consume their own electricity to enter into 'sale and buyback' agreements in order to claim Renewables Obligation Certificates (ROCs). Ministers agreed to conduct a review of the removal of the requirement once the legislation had been in force for 2 years All documents can be reviewed and download from the DECC website http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/policy/renew_obs/renew_obs.aspx
Internet address	http://www.opsi.gov.uk/si/si2002/20020914.htm http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/policy/renew_obs/renew_obs.aspx

Other information	See RO, ROCs and Co-firing.

3. Investment support (note demonstrations under 1)	
UK	
Number of act, decree or guideline	Climate Change Act 2008 Britain's Low Carbon Industrial Strategy published on 6 March 2009 HM Government. 2009. Investing in a Low Carbon Britain. April 2009. HM Government. Department for Business, Enterprise and Regulatory Reform; Department of Energy and Climate Change; Department for Innovation, Universities and Skills
Ministry responsible for legislation	DECC Department of Energy and Climate Change BIS UK Department for Business Innovation and Skills
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	-
Date of expire	-
Geographical coverage:	-
Scope	In addition to schemes mentioned in section 1, the UK consultation on Heat and Energy Saving Strategy (February 2009) provided new government commitments to providing financial assistance in the immediate term, by delivering: • £100 million of new funding for loans for small and medium companies to invest in energy efficiency • £65 million of new investment in schools, hospitals and other public buildings to improve their energy efficiency • £100 million of new investment in measures to reduce the fuel bills faced by vulnerable people in social housing • investing £10 million in waste processing. There are two major areas where the UK government is planning for new investment to improve the efficiency of heating systems: Combined Heat and Power and community heating. In Budget 2009 the current exemption from the climate change levy for indirect sales of CHP electricity will be extended by a further decade until 2023, subject to State aid approval. This move alone is estimated to help unlock investment in an additional £2.5 billion worth of Good Quality CHP capacity. In Budget 2009, the Chancellor announced a £25 million package of support to encourage the deployment of community heating infrastructure across the UK over the next two years. This will be used by the Homes and Communities Agency to support exemplar low carbon energy infrastructure schemes which support housing development An additional £100 million over the next two years to support around 3,500 small and medium businesses to invest in energy efficient equipment. Loans will be made available through the existing Carbon Trust scheme. An investment of £65 million over the next year to facilitate a step change in the energy efficiency of around 3,000 schools, hospitals and other public sector institutions. All public sector organisations will be eligible to apply for loans to install energy efficient technologies. A similar amount will be dedicated for homes.

Further legal acts or standards referred	The UK Low Carbon Transition Plan The UK Renewable Energy Strategy The UK Low Carbon Industrial Strategy Low Carbon Transport: A Greener Future
Internet address	http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/lc_uk.aspx
Other information	Bioenergy Capital grants scheme described in the following section

4. Feed-in-tariffs and other support for heat and power production by biomass	
UK	
Number of act, decree or guideline	Energy Act 2008 Feed in Tariff Renewable Energy Strategy 2009 (heat and electricity)
Ministry responsible for legislation	DECC Department for Energy and Climate Change
Name of legislation in local language	-
Name of legislation in English	Energy Act 2008 Feed in Tariff Renewable Energy Strategy 2009 (heat and electricity)
Date of launched	April 2010 (Feed in Tariff)
Date of expire	-
Geographical coverage:	UK
Scope	The Department of Energy and Climate Change (DECC) has used powers in the Energy Act 2008 to introduce a system of feed-in tariffs to incentivise small scale (less than 5MW), low carbon electricity generation. The FITs scheme went live on 1 April 2010. Through the use of FITs DECC hope to encourage deployment of additional low carbon electricity generation, particularly by organisations, businesses, communities and individuals who are not traditionally engaged in the electricity market. This "clean energy cashback" will allow many people to invest in small scale low carbon electricity, in return for a guaranteed payment both for the electricity they generate and export. These feed-in tariffs work alongside the Renewables Obligation (RO), which will remain the primary mechanism to incentivise deployment of large-scale renewable electricity generation, and the Renewable Heat Incentive (RHI) which will incentivise generation of heat from renewable sources at all scales. The Department launched the Renewable Heat Incentive consultation on 1 February 2010 and the deadline for responses to this was on 26 April 2010. - Domestic scale microCHP (with a capacity of 2kW or less) - Domestic scale microCHP pilot will support up to 30,000 installations with a review to start when the 12,000th installation is completed. Solid or liquid biomass technologies continue to be supported under the Renewables Obligation (RO) at all scales.
Changes and proposals under discussion	**31 March 2010 - 28 May 2010:** Consultation on the grandfathering policy of support for Dedicated Biomass, Anaerobic Digestion and Energy from Waste under the Renewables Obligation. (Grandfathering is the policy intention that, once accredited, a generator receives a set level of support over its period of eligibility for the RO. Grandfathering policy is therefore not to apply any changes to levels of support at subsequent banding reviews to existing generators). **1 February 2010 - 26 April 2010:** Renewable Heat Incentive. (The Renewable Heat Incentive (RHI) will provide financial support for those who install renewable heating, which qualifies for support under the scheme).

<table>
<tr><td>Further legal acts or standards referred</td><td>
Table of tariffs up to 2013
<table>
<tr><th rowspan="2">Technology</th><th rowspan="2">Scale</th><th colspan="3">Tariff level for new installations in period (p/kWh) [NB tariffs will be inflated annually]</th><th rowspan="2">Tariff lifetime (years)</th></tr>
<tr><th>Year 1: 1/4/10 – 31/3/11</th><th>Year 2: 1/4/11 – 31/3/12</th><th>Year 3: 1/4/12 – 31/3/13</th></tr>
<tr><td>Anaerobic digestion</td><td>≤500kW</td><td>11.5</td><td>11.5</td><td>11.5</td><td>20</td></tr>
<tr><td>Anaerobic digestion</td><td>>500kW</td><td>9.0</td><td>9.0</td><td>9.0</td><td>20</td></tr>
<tr><td>Hydro</td><td>≤15 kW</td><td>19.9</td><td>19.9</td><td>19.9</td><td>20</td></tr>
<tr><td>Hydro</td><td>>15-100 kW</td><td>17.8</td><td>17.8</td><td>17.8</td><td>20</td></tr>
<tr><td>Hydro</td><td>>100 kW-2 MW</td><td>11.0</td><td>11.0</td><td>11.0</td><td>20</td></tr>
<tr><td>Hydro</td><td>>2 MW – 5 MW</td><td>4.5</td><td>4.5</td><td>4.5</td><td>20</td></tr>
<tr><td>MicroCHP pilot*</td><td><2 kW*</td><td>10*</td><td>10*</td><td>10*</td><td>10*</td></tr>
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</td></tr>
<tr><td>Internet address</td><td>http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/feedin_tariff/feedin_tariff.aspx
http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/lc_business/lc_economy/env_trans_fund/bio_grants/bio_grants.aspx
http://www.decc.gov.uk/en/content/cms/consultations/grandfathering/grandfathering.aspx</td></tr>
<tr><td>Other information</td><td>The feed-in tariffs work alongside the Renewables Obligation (RO), which will remain the primary mechanism to incentivise deployment of large-scale renewable electricity generation, and the Renewable Heat Incentive (RHI) which will incentivise generation of heat from renewable sources at all scales. The Department launched the Renewable Heat Incentive consultation on 1 February 2010 and the deadline for responses to this was on 26 April 2010.
Other schemes include:
• Bio-energy Capital Grants Scheme
The Bio-energy Capital Grants Scheme supports biomass-fuelled heat, and combined heat and power projects in the industrial, commercial and community sectors in England.
A five-year biomass heat support scheme was announced in the 2006 ‘Climate change programme review’, and in its response to the ‘Biomass task force report’. The Bio-energy Capital Grants Scheme has supported five funding rounds to date.
Round 6 has now closed for applications. Assessments of applications are ongoing</td></tr>
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5. Support for wood fuel and round wood supply	
UK	
Number of act, decree or guideline	National Energy Policy (Renewable Energy Strategy) Woodfuel Strategy For England (Scotland and Wales have their own)
Ministry responsible for legislation	DECC Forestry Commission and local Governments (England, Wales, Scotland)
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	2007
Date of expire	-
Geographical coverage:	-
Scope	The Forestry Commission's Woodfuel Strategy for England was launched to bring an additional two million tonnes of wood into the market, annually, by 2020 saving 400,000 tonnes of carbon a year – the equivalent of 3.6 million barrels of crude oil and enough to supply 250,000 homes with energy. To achieve this target Forestry Commission will be focusing efforts on the potential wood resource available in the 60% of English woodlands that are currently under-managed. The English, Scottish and Welsh Assembly Governments all recognise and support the use of renewable forms of biomass, including woodfuel, in the mix of measures they are using to achieve the UK Government's target, and their own targets, for reducing carbon emissions. The UK targets are 20 per cent below 1990 levels by 2010, and 80 per cent below 1990 levels by 2050 The Forestry Commission and other government departments in all three countries have a range of grant schemes to help new suppliers and users with the cost of equipment, and to help woodland owners get started on woodfuel production. Some of these schemes are not specifically directed at woodfuel, but can be applied to it. The Commission supplies some woodfuel from its own forests, but we're constrained in the amount we can supply by our existing long-term contracts. However, in Wales we've 'ring-fenced' up to a maximum of 35,000 tonnes a year of small roundwood as part of a start-up mechanism to help emerging woodfuel suppliers to the local heat market. (Small roundwood is the small-diameter logs arising from forest thinning operations).
Changes and proposals under discussion	A key, UK-wide government support scheme due to come into effect in 2011 is the Renewable Heat Incentive (RHI), which will subsidise heat production from renewable sources, and on which the UK Government was due to consult in February 2010. This has the potential to transform the finances of the woodfuel industry, and make it a much more attractive business proposition Wood fuel Implementation Plan in 2010
Further legal acts or standards referred	Certification schemes from the forestry industry apply.
Internet address	http://www.forestry.gov.uk/forestry/INFD-839EC6 http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-7wmh6q and www.biomassenergycentre.org.uk

6. Other (specify the name)	
UK	
Number of act, decree or guideline	The Rural Development Programme for England (RDPE) European Agricultural Fund for Rural Development
Ministry responsible for legislation	Natural England
Name of legislation in local language	-
Name of legislation in English	-
Date of launched	2007
Date of expire	-
Geographical coverage:	UK
Scope	The Energy Crops Scheme (ECS) aims to increase the amount of energy crops grown in England in appropriate locations. It offers grants to farmers in England for the establishment of miscanthus and short rotation coppice. These crops are used as a substitute for fossil fuels, so they can contribute to a reduction in greenhouse gas emissions and help to combat climate change. The scheme, part of the Rural Development Programme for England (RDPE), is funded by the European Union, through the European Agricultural Fund for Rural Development. The RDPE was agreed by the European Commission on 6 December 2007. Natural England are pleased to announce that the European Union have now confirmed that the rate of grant offered to farmers to grow biomass crops (Miscanthus and Short Rotation Coppice) under the Energy Crop Scheme has been increased to 50% (from 40%), for all costs incurred after the 1st January 2010.
Internet address	http://www.naturalengland.org.uk/ourwork/farming/funding/ecs/default.aspx