

Research RES LEGAL – Promotion system

Country: Germany

1. Overview of promotion system

Overview of promotion system	In Germany, electricity from renewable sources is supported through a feed-in tariff. The criteria for eligibility and the amount of tariff are set out in the Act on Granting Priority to Renewable Energy Sources (EEG). According to this Act, operators of renewable energy systems are statutorily entitled against the grid operator to payments for electricity exported to the grid.
Means of promotion	The promotion system is based on a feed-in tariff, which the grid operator pays to the system operator. The amount of tariff is set by law and is usually paid over a period of 20 years. The criteria for eligibility, the amount of tariff and the grid operator's obligation period vary according to the source of energy.
Promoted technologies	In general, the EEG promotes all technologies used to generate electricity from renewable energy. However, capacity, location or materials used may give reason for excluding certain types of plants from promotion (§§ 23-33 EEG).
Statutory provisions	EEG (Renewable Energy Sources Act – general provisions on renewable energy) BiomasseV (Biomass Ordinance – ordinance defining the concept of biomass) StromNZV (Stromnetzzugangsverordnung – regulation on electricity exports to and electricity imports from supply grids)

2. Basic information on legal sources

Name of legal source (original language)	Gesetz für den Vorrang Erneuerbarer Energien (Erneuerbare-Energien-Gesetz)	Verordnung über die Erzeugung von Strom aus Biomasse (Biomasseverordnung)	
Name of legal source (full name)			
Name of legal source (English)	Act on Granting Priority to Renewable Energy Sources (Renewable Energy Sources Act)	Ordinance on Generation of Electricity from Biomass	
Abbreviated form	EEG	BiomasseV	
Entry into force	01/01/2009	28/06/2001	
Last amended on	11/08/2010	09/08/2005	
Future amendments			
Purpose	To protect the climate, the Act aims to increase the proportion of renewable energy sources in total energy supply to at least 30% by 2020 and to continuously increase this proportion thereafter (§ 1 EEG).	The Ordinance defines the substances to be regarded as biomass, stipulates which technical procedures used in the generation of electricity from biomass come under the scope of the EEG, and sets out the environmental standards to be met in the generation of electricity from biomass.	
Relation to renewable energy	This Act promotes renewable energy only.	The Ordinance specifies the conditions for the promotion of electricity from biomass.	
	http://bundesrecht.juris.de/eeg_2009/	http://bundesrecht.juris.de/biomassev/BJNR123400001.html	
Link to full text of legal source (English)	http://www.bmu.de/files/pdfs/allgemein/application/pdf/eeg_2009_en.pdf	http://www.erneuerbare-energien.de/files/erneuerbare_energien/downloads/application/pdf/electricity_biomass.pdf	

Name of legal source (original language)	Ausgleichsmechanismusverordnung	Systemdienstleistungsverordnung	Biomassestrom-Nachhaltigkeitsverordnung
Name of legal source (full name)	Verordnung zur Weiterentwicklung des bundesweiten Ausgleichsmechanismus	Verordnung zu Systemdienstleistungen durch Windenergieanlagen	Verordnung über Anforderung an eine nachhaltige Herstellung von flüssiger Biomasse zur Stromerzeugung
Name of legal source (English)	Ordinance on the Further Development of the Nationwide Equalisation Scheme	ordinance on System Services by Wind Energy Plants	ordinance on Requirements Pertaining to Sustainable Production of Bioliquids for Electricity Production
Abbreviated form	AusglMechV	SDLWindV	BioSt-NachV
Entry into force	17/07/2009	03/07/2009	23/07/2009
Last amended on		25/06/2010	31/07/2010
Future amendments			
Purpose	Furthering the development of the nationwide equalisation scheme.	Regulating the requirements for wind energy plants set out in § 6 no. 2 EEG, § 29 par. 2 sentence 4 EEG and § 66 par. 1 no. 6 EEG to improve grid integration and firing.	Regulating the requirements for the sustainable generation of bioliquids.
Relation to renewable energy	This ordinance amends the equalisation scheme with regard to the costs arising for the grid operators from the payment of the feed-in tariff as set out in the EEG.	This ordinance specifies the FIT eligibility requirements for wind energy and the eligibility requirements for the System Service Bonus.	This Ordinance specifies the FIT eligibility requirements for electricity from biomass.
Link to full text of legal source (original language) Link to full text of legal source (German)	http://www.gesetze-im-internet.de/ausglmechv/index.html	http://www.gesetze-im-internet.de/sdlwindv/index.html	http://www.gesetze-im-internet.de/biost-nachv/index.html
Link to full text of legal source (English)	http://erneuerbare-energien.de/inhalt/45112/4596/	http://erneuerbare-energien.de/inhalt/44629/43342/	http://erneuerbare-energien.de/inhalt/44655/40712/

3. Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)	http://www.bmu.de/		+49 301 830 50	service@bmu.bund.de
Federal Network Agency	http://www.bundesnetzagentur.de/		+49 228 140	
Federal Antitrust Agency (Bundeskartellamt)	http://www.bundeskartellamt.de/		+49 228 949 90	
German Energy Agency (dena)	http://www.dena.de/en/		+49 307 261 656 00	
Bundesverband Erneuerbare Energie e.V. (Renewable Energy Federation)	http://www.bee-ev.de/		+49 327 581 700	
KfW Förderbank	http://www.kfw-mittelstandsbank.de/		+49 697 431 30 30	infocenter@kfw.de
Clearingstelle EEG	http://www.clearingstelle-eeeg.de/		+ 49 30 206 1416 79	
Geiser & von Oppen – PartG	http://www.gvo-anwaelte.de/	Margarete von Oppen	+49 30 31 01 92 00	office@gvo-anwaelte.de

Means of promotion

4.1. Subsidy (name of means of promotion)

Abbreviated form of legal source(s)		
Country-specific promotion system	Kumulierbarkeit ansprechen: Kann ein Projekt von mehr als diesem Förderinstrument profitieren? Mit welchen Instrumenten ist diese Förderung kumulierbar?	
Promoted technologies	General information	
	Wind energy	
	Solar energy	Differenzierung nach CSP und PV
	Geothermal energy	
	Biogas	
	Biomass	
	Hydro-electricity	
Amount		
Addressees	Adressaten als Text	
Procedure	Procedure	
	Competent authority	Welche Behörde verwaltet die Maßnahme? (Durchführungsstelle, Aufsichtsbehörde)
Flexibility mechanism	Ist es vorgesehen, dass diese Förderung im Rahmen des Flexibility Mechanisms (insb. Gemeinsame Projekte in Mitgliedstaaten Art. 7 EEG RiLi) Anwendung findet?	
Funding	State	
	Consumers	
	System operator	
	Grid operator	
	Distribution mechanism	

4.2. Loan (Name of means of promotion)

Abbreviated form of legal source(s)		
Country-specific promotion system	Kumulierbarkeit ansprechen: Kann ein Projekt von mehr als diesem Förderinstrument profitieren? Mit welchen Instrumenten ist diese Förderung kumulierbar?	
Promoted technologies	General information	
	Wind energy	
	Solar energy	Differenzierung nach CSP und PV
	Geothermal energy	
	Biogas	
	Biomass	
	Hydro-electricity	
Amount		
Addressees	Adressaten als Text	
Procedure	Procedure	
	Competent authority	Welche Behörde verwaltet die Maßnahme? (Durchführungsstelle, Aufsichtsbehörde)
Flexibility mechanism	Ist es vorgesehen, dass diese Förderung im Rahmen des Flexibility Mechanisms (insb. Gemeinsame Projekte in Mitgliedstaaten Art. 7 EEG RiLi) Anwendung findet?	
Funding	State	
	Consumers	
	Grid operator	
	System operator	
	Distribution mechanism	

4.3. Feed-in tariff (EEG feed-in tariff)

Abbreviated form of legal source(s)	EEG EnWG StromNZV AusglMechV SDLWindV BioSt-NachV	
Country-specific promotion system	The most important means to promote electricity from renewable sources in Germany is the feed-in tariff as set out in the EEG.	
Promoted technologies	General information	<p>In general, all technologies used in the generation of electricity from renewable sources are eligible for feed-in tariffs (§ 16 par. 1 EEG). The following conditions shall be met:</p> <ul style="list-style-type: none">• System registration. In pursuance of the EEG, electricity generated by a renewable energy system is eligible for the feed-in tariff only if the system operator has applied for the system to be registered in the "Register of Installations" (§ 16 par. 2 EEG). The Register of Installations has not yet been introduced. The date of its introduction is yet to be decided on. Systems that generate electricity from solar radiation or from bioliquids must be registered in separate registers.• Systems with a capacity of over 100 kW. Systems with a capacity of over 100 kW are eligible for tariffs only if they are equipped with a technical or operational facility to reduce output by remote means in the event of grid overload and to call up the current electricity exports (§§ 16 par. 6; 6 EEG). Operators of solar installations with a capacity of over 100 kW are also recommended to install a technical facility to reduce output.• Direct selling. System operators that sell their electricity directly are not entitled to the tariff (§ 17 par. 1 sentence 2 EEG). System operators may sell their electricity directly if they report this to the grid operator before the start of the previous calendar month (§ 17 EEG).
	Wind energy	<p>Both onshore and offshore generation are eligible with the following exceptions (§§ 29; 31 EEG):</p> <ul style="list-style-type: none">• Inefficient onshore generation. Electricity from wind energy is not eligible if generated by systems whose output exceeds 50 KW and for which the system operator provided no proof prior to commissioning that they are able to achieve at least 60 per cent of the reference yield at the planned location (§ 29 par. 3; 4 EEG). This proof shall be furnished by presenting a technical

		<p>expert opinion (§ 29 par. 4 sentence 1; Annex 5 EEG).</p> <ul style="list-style-type: none"> • Offshore generation in protected areas. Electricity is not eligible if generated by systems located in an area of environmental importance, such as systems constructed in a protected area or at a site of Community importance (§ 31 par. 3 EEG).
	Solar energy	<p>Eligible unless one of the following circumstances is present (§§ 32; 33 EEG):</p> <ul style="list-style-type: none"> • Future production sites. Electricity from a ground-mounted system is eligible only if the system was erected within the territorial application of a formal development plan (e.g. a local development plan). Systems erected within the territorial application of a local development plan drawn up after 01/01/2009 must be located on certain plots of land. Where a solar installation is attached to a building, this building must meet certain statutory requirements (§§ 33, 32 par. 2 EEG). • Reporting of installations to the Federal Network Agency. Electricity from a ground-mounted system or a solar installation attached to a building structure used for the generation of electricity is eligible only if the system operator has reported the location and capacity of the system to the Federal Network Agency (§ 16 par. 2 EEG).
	Geothermal energy	Eligible (§ 28 EEG).
	Biogas	<p>Eligible under the following conditions (§§ 24, 25, 27 EEG):</p> <ul style="list-style-type: none"> • CHP obligation for biogas installations. Electricity generated from biogas withdrawn from a gas network is eligible only if it is from combined heat and power generation (§ 27 par. 3 no. 3 EEG).
	Biomass	<p>Eligible under the following conditions (§ 27 EEG):</p> <ul style="list-style-type: none"> • CHP obligation for large systems. Electricity generated by systems whose output exceeds 5 MW is eligible only if it is from combined heat and power generation (§ 27 par. 3 no. 1 EEG). • Record of substances. Electricity from systems using biomass that does not come under the BiomasseV is eligible only if the system operator provides proof of which type of biomass is being used by keeping a record of the substances used (§ 27 par. 3 no. 2 EEG). • Further requirements for the use of bioliquids. Electricity from bioliquids is eligible for the feed-in tariff only if requirements with regard to the protection of natural habitats and sustainable agricultural management are

		fulfilled, the bioliquids used exhibit potential for reducing greenhouse-gas emissions, and the bioliquids installation has been registered in a special register of installations with the Federal Agency for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung) (§ 3 BioSt-NachV).
	Hydro-electricity	<p>Eligible under the following conditions (§ 23 EEG):</p> <ul style="list-style-type: none"> • Storage power stations. Electricity from storage power stations is ineligible (§ 23 par. 5 no. 1 EEG). • Ecological status. Electricity from hydro-electric power stations is eligible only if after commissioning or modernisation of the installation a good ecological status or a substantial improvement of the previous status has been brought about (§ 23 par. 5 no. 2 EEG). • Building requirements. Electricity from newly constructed and modernised existing hydro-electric power systems whose output does not exceed 5 MW and electricity from newly constructed hydro-electric power systems whose capacity does exceed 5 MW is eligible only if the system was erected in the spatial context of a barrage weir or dam which had already existed before or was newly built primarily for purposes other than the generation of electricity from hydropower, or without complete weir coverage (§ 23 par. 6 EEG).
Amount	General information	<p>Calculation. The amount of tariff for a given system is the statutorily fixed tariff minus the degression percentage, which depends on the year in which the system was put into operation. The current version of the EEG sets out the tariffs for 2009.</p> <p>Differentiation according to technology. The amount of tariff differs for every source of energy (§§ 23 – 33 EEG). For some technologies there are several tariffs depending on the system capacity, the system location and the technology and raw materials used. The more efficient the respective technology is, the more closely the tariff will reflect the market price.</p> <p>Special system classification if tariff is output-based. In cases where the tariff is based on system output (e.g. photovoltaic energy, biomass), several systems shall be classified as one installation, notwithstanding ownership, and solely for the purpose of determining the tariff to be paid. For this rule to apply, the systems must be located on the same plot of land or in direct spatial proximity, generate electricity from the same kind of renewable energy source and have been commissioned within a period of twelve consecutive calendar months (§ 19 EEG). This regulation aims to prevent system operators from splitting their systems in order to avoid higher output categories. Whether several systems shall be regarded as one will be</p>

		<p>established on a case-by-case basis.</p> <p>Criteria for amount of tariff. The amount of tariff depends on the costs of constructing and operating a certain type of plant, i.e. investment costs, operational costs, the costs of measurement and the cost of capital. Cost and efficiency audits are carried out in exceptional cases only. The calculation of the tariff is based on the expected costs. This aims to guarantee the cost-effective operation of most systems.</p>
	Wind energy	<ul style="list-style-type: none"> • Onshore: 5.02 – 9.2 €/kWh (according to duration of payment) + 0.5 €/kWh each for a system service bonus and/or a repowering bonus (§ 29 par. 1-2; § 30 EEG). • Offshore: 3.5 – 13 €/kWh (according to duration of payment) + bonus of 2 €/kWh for systems commissioned prior to 1st January 2016 (§ 31 par. 1-2 EEG).
	Solar energy	<ul style="list-style-type: none"> • 31.94 – 43.01 €/kWh (depending on energy source and system size) (§ 32 par. 1 EEG; § 33 par. 1 EEG). • Payment of 25.01 €/kWh for electricity the operator uses himself (§ 33 par. 2 EEG).
	Geothermal energy	<ul style="list-style-type: none"> • 10.5 – 16 €/kWh (according to system size) plus • bonus of 4 €/kWh for systems commissioned prior to 1st January 2016 plus • heat use bonus of 3 €/kWh plus • bonus for use of petrothermal technology of 4 €/kWh (§ 28 par. 1, 3 EEG in connection with Annex 4 EEG)
	Biogas	<ul style="list-style-type: none"> • Biogas from biomass: 7.79 – 11.67 €/kWh (according to system size) plus <ul style="list-style-type: none"> ◦ air quality bonus of 1 €/kWh plus ◦ technology bonus of 1-2 €/kWh plus ◦ bonus for electricity from energy crops of 7 – 11 €/kWh plus ◦ CHP bonus of 3 €/kWh (§ 27 par. 1ff. EEG in connection with Annex 1-3 EEG). • Landfill gas: 6.16 – 9 €/kWh + <ul style="list-style-type: none"> ◦ technology bonus of 1 – 2 €/kWh (§ 24 par. 1, 3 EEG in connection with Annex 1 EEG) • Sewage gas: 6.16 – 7.11 €/kWh + <ul style="list-style-type: none"> ◦ technology bonus of 1 – 2 €/kWh (§ 25 par. 1, 3 EEG in connection with Annex 1 EEG)
	Biomass	<ul style="list-style-type: none"> • 7.79 – 11.67 €/kWh (according to system size) plus • technology bonus of 2 €/kWh plus • bonus for electricity from energy crops of 2.5 – 6 €/kWh plus

		<ul style="list-style-type: none"> CHP bonus of 3 €/kWh (§ 27 par. 1, 4 EEG in connection with Annex 1-3 EEG)
	Hydro-electricity	3.5 – 12.67 €/kWh (depending on system size and date of commissioning) (§ 23 par. 1-4 EEG).
Degression	General information	The tariffs will be gradually reduced. The degression principle is meant to provide an incentive to reduce costs through technological progress. The tariffs for new systems will be reduced by a legally fixed percentage depending on the year of commissioning and the energy source used (§ 20 EEG). The degression percentage is fixed for all technologies except for electricity from solar radiation. The reference tariff applicable in the year a given system is put into operation is applicable during the entire period in which the tariff is paid. A progress report shall be filed on a regular basis to evaluate the tariffs and recommend adjustments (§ 65 EEG).
	Wind energy	The degression rate is 5% for electricity from offshore systems from 2015 onwards (§ 20 no. 7 a EEG) and 1 % for other systems (§ 20 no. 7 b EEG).
	Solar energy	<p>The degression rate is statutorily fixed and applies to a statutorily defined capacity of new installations ("regular degression"). When the total capacity of new installations exceeds or falls below a certain amount, the degression percentage increases or decreases by a statutorily fixed number of percentage points ("flexible cap"). The amount of degression differs for roof-top and ground-mounted systems. For example: From 2011 onwards the regular degression for ground-mounted systems will be 9 % (§ 20 par. 2 EEG). According to market developments</p> <ul style="list-style-type: none"> in 2011, this percentage will increase by up to 4 percentage points or decrease by up to 3 percentage points. in 2012, this percentage will increase by up to 12 percentage points or decrease by up to 7.5 percentage points (§ 20 par. 3 EEG). <p>Every autumn, the Federal Network Agency will publish the tariffs applicable in the following year on its website www.bundesnetzagentur.de.</p>
	Geothermal energy	The degression rate is 1.0 % (§ 20 no. 6 EEG).
	Biogas	The degression rate is 1.0 % (§ 20 no. 5 EEG).
	Biomass	The degression rate is 1.0 % (§ 20 no. 5 EEG).
	Hydro-electricity	The degression rate for electricity from systems with a capacity of more than 5 MW is 1.0% (§ 20 no. 1 EEG).
Cap	The EEG does not limit the total annual electricity production or the total installed capacity to be covered by the feed-in tariff.	
Eligibility period	<ul style="list-style-type: none"> Duration of payment. Entitlement to the payment of tariffs as guaranteed by the EEG is limited in time and is usually 20 years plus the year of commissioning of the installation. Hydro-electric power stations are subject to a different eligibility period. The tariffs for hydro-electricity from large installations is 15 years plus the year of commissioning of the installation (§ 21 par. 2 EEG). Credit for direct selling. The period in which electricity is sold directly is credited against the duration of the 	

	payment of the tariffs (§ 17 par. 1 EEG).	
Addressees	The system operator is entitled against the grid operator to the payment of tariffs (§ 16 par. 1 EEG). A system operator is one who, irrespective of the issue of ownership, uses a system to generate electricity from renewable energy sources or from mine gas (§ 3 no. 2 EEG). Grid operators are the operators of grid systems of all voltages for general electricity supply (§ 3 no. 8 EEG). The conclusion of a contract must not be made a condition for the entitlement to tariffs (§ 4 par. 1 EEG).	
Procedure	Procedure	Statutory law does not provide for a formal tariff procedure. According to the EEG, the conclusion of a contract between the grid operator and the system operator must not be made a condition for the payment of tariffs (§ 4 par. 1 EEG). Only systems generating electricity from solar radiation and systems generating electricity from bioliquids have to complete a registration procedure.
	Competent authority	The implementation of the EEG is not managed or monitored by a designated authority, as the EEG is a framework for private individuals – system operators and grid operators – rather than authorities. The Act is evaluated by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety on behalf of the Federal Government (§ 65 EEG).
Flexibility Mechanism	The feed-in tariffs will not be used to implement the Flexibility Mechanism.	
Funding	State	
	Consumers	The costs of the feed-in tariffs are borne by the final consumers.
	Grid operator	
	System operator	
	Distribution mechanism	<ul style="list-style-type: none"> • System operator—grid operator. On the first level, power is transferred from the system operator to the grid operator because of the obligation to purchase electricity and pay tariffs (§§ 8 par. 1, 16 par. 1 EEG). • Grid operator – transmission system operator. On the second level, the grid operator is obliged to transfer the electricity received to the transmission system operator without undue delay (§ 34 EEG). The grid operator is entitled to the purchase of and payment for the quantity of electricity he has paid tariff for (§ 35 par. 1 EEG). • Transmission system operator – transmission system operator. On the third level, the transmission system operators

		<p>divide the power as defined by the EEG among themselves according to the quantity of energy and the fees paid (§ 36 par. 1-3 EEG).</p> <ul style="list-style-type: none"> • Transmission system operator – spot market. On the fourth level, the transmission system operators sell electricity from renewable sources on the spot market at the stock exchange price (§ 2 AusglMechV). • Transmission grid operator – utility company. On the fifth level, costs are passed on to the utility companies, which are obliged to reimburse the transmission system operators for their costs (§ 3 AusglMechV). • Utility companies – final consumers. On the sixth level, which is not explicitly covered by law, the final consumers have to pay their electricity bills, which reflect the amount of power consumed. Final consumers that are manufacturing companies or rail operators are exempt from this regulation. Their costs arising from the compensation payments as specified by the EEG may be reduced upon request ("special equalisation scheme", §§ 40 ff. EEG).
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4.4. Premium tariff (*name of means of promotion*)

Abbreviated form of legal source(s)		
Country-specific promotion system		
Promoted technologies	General information	
	Wind energy	
	Solar energy	
	Geothermal energy	
	Biogas	
	Biomass	
	Hydro-electricity	
Amount	General information	
	Wind energy	
	Solar energy	
	Geothermal energy	
	Biogas	
	Biomass	
	Hydro-electricity	
Degression	General information	
	Wind energy	
	Solar energy	
	Geothermal energy	
	Biogas	
	Biomass	
	Hydro-electricity	
Cap		
Eligibility period		
Addressees		
Procedure	Procedure	
	Competent authority	

Flexibility Mechanism		
Funding	State	
	Consumers	
	Grid operator	
	System operator	
	Distribution mechanism	

4.4. Quota system (name of means of promotion)

Abbreviated form of legal source(s)		
Country-specific promotion system		
Promoted technologies	General information	
	Wind energy	
	Solar energy	
	Geothermal energy	
	Biogas	
	Biomass	
	Hydro-electricity	
Amount	Amount of quota and period of application	
	Adjustment of quotas	
	Number of certificates according to technology	
	Minimum price per certificate	
	Fees and penalty charges	
International applicability	International certificate trade	
	Flexibility Mechanism	
Addressees	Adressaten als Text	
Procedure	Procedure	
	Competent authority	
Funding	State	

	Consumers	
	Grid operator	
	System operator	
	Distribution mechanism	

4.5. Tax regulation mechanisms (name of means of promotion)

Abbreviated form of legal source(s)		
Country-specific promotion system		
Promoted technologies	General information	
	Wind energy	
	Solar energy	
	Geothermal energy	
	Biogas	
	Biomass	
	Hydro-electricity	
Amount		
Addressees	Adressaten als Text	
Procedure	Procedure	
	Competent authority	
Flexibility Mechanism		
Funding	State	
	Consumers	
	Grid operator	
	System operator	
	Distribution mechanism	