



Renewable energy policy database and support – RES-LEGAL EUROPE

National profile: Germany

Client: DG Energy

Contact author: Silvia-Lucretia Nicola, policy@eclareon.com

Berlin, 31. December 2015



eclareon GmbH

Albrechtstr. 22
10117 Berlin
Germany
Phone: +49 30 88 66 7400
Fax: +49 30 88 66 74010
www.eclareon.com

Öko-Institut

P.O. Box 1771
79017 Freiburg
Germany
Phone : +49 761 45295-30
Fax: +49 761 45295-88
www.oeko.de

ECN

P.O. Box 1
1755 ZG Petten
The Netherlands
Phone : +31-224-564450
Fax: +31-224-568486
www.ecn.nl



TABLE OF CONTENTS

| | |
|---|------------|
| RES-E SUPPORT SCHEMES | 5 |
| <i>Summary of support schemes</i> | <i>5</i> |
| <i>Basic information on legal sources</i> | <i>8</i> |
| <i>Further information</i> | <i>16</i> |
| <i>Support schemes</i> | <i>18</i> |
| RES-E GRID ISSUES..... | 79 |
| <i>Overview.....</i> | <i>79</i> |
| <i>Basic information on legal sources.....</i> | <i>81</i> |
| <i>Further information.....</i> | <i>83</i> |
| <i>Grid issues.....</i> | <i>84</i> |
| RES-H&C SUPPORT SCHEMES | 97 |
| <i>Summary of support schemes</i> | <i>97</i> |
| <i>Basic information on legal sources.....</i> | <i>98</i> |
| <i>Further information.....</i> | <i>100</i> |
| <i>Support schemes</i> | <i>101</i> |
| RES-T SUPPORT SCHEMES | 121 |
| <i>Summary of support schemes</i> | <i>121</i> |
| <i>Basic information on legal sources.....</i> | <i>123</i> |
| <i>Further information.....</i> | <i>127</i> |
| <i>Support schemes</i> | <i>128</i> |
| POLICIES | 137 |
| <i>Summary of policies</i> | <i>137</i> |
| <i>Basic information on legal sources.....</i> | <i>139</i> |
| <i>Further information.....</i> | <i>145</i> |
| <i>Policy categories.....</i> | <i>146</i> |



Germany Summary Text:

In Germany, electricity from renewable sources is mainly supported through a market premium scheme. However, small power plants up to 500 kW put into operation before 01 January 2016 and installations up to 100 kW put into operation after 31 December 2015 are still supported by a feed-in tariff. The criteria for eligibility and the tariff levels are set out in the Act on Granting Priority to Renewable Energy Sources (EEG 2014). Moreover, low interest loans for investments in new plants are provided for by different KfW-Programmes and there is an additional subsidy to promote the installation of flexible biogas capacities. After a pilot-tender scheme has been in place in 2015 for ground-mounted PV installations, this is planned also for the other technologies. A new EEG amendment containing the conditions therefor is expected by October 2016.

In Germany, the Guidelines for the support of RES-H set out the Market Incentive Programme (MAP), stipulating support schemes for the promotion of heat produced from renewable energy. BAFA is providing investment support and KfW offers low-interest loans.

There is no support scheme addressing particularly the use of renewable energy sources for the transport sector. A greenhouse gas reduction quota is in place, which can be fulfilled through the use of biofuels or electricity. A KfW loan provides – among other – support for the commercial purchase of biogas or biomethane powered vehicles.

Plants for the generation of electricity from renewable sources shall be given priority connection to the grid. Furthermore, grid operators are obliged to give priority to electricity from renewable sources when purchasing and transmitting electricity. Moreover, those interested in feeding in electricity may demand that the grid operator expands his grid.

Germany provides policies for the promotion of renewable energy sources covering training, certification and research programmes, a self-commitment of public authorities, the support of district heating networks and the introduction of building obligations regarding the use of heat produced from renewable energy.



RES-E support schemes

Summary of support schemes

| | |
|---|--|
| <p>Overview</p> | <p>In Germany, electricity from renewable sources is supported through a market premium scheme. Plants with a capacity of up to 500 kW put into operation before 01 January 2016 and installations up to 100 kW put into operation after 31 December 2015 and other plants in exceptional cases can benefit from a feed-in tariff. The criteria for eligibility and the tariff levels are set out in the Act on Granting Priority to Renewable Energy Sources (EEG 2014). The EEG also introduced support schemes to promote flexible biogas plants. Moreover, low interest loans for investments in new plants are provided for by different KfW-Programmes (Renewable Energy Programme –Standard, Programme offshore wind energy, Programme geothermal exploration risk, Financing Initiative Energiewende, Renewable Energy Programme Premium).</p> |
| <p>Summary of support system</p> | <p>The KfW Renewable Energy Programme–Standard provides low-interest loans with a fixed interest period of 10 years including a repayment-free start-up period for investments in installations for electricity production.</p> <p>The KfW Programme offshore wind energy provides loans and financing packages to support companies wanting to invest in offshore wind farms in the German Exclusive Economic Zone or in 12 nautical-mile zone of the North and Baltic Sea.</p> <p>The KfW Programme Geothermal Exploration Risk covers investment costs connected to drilling activities including the required stimulation measures prescribed by KfW as part of project study.</p> <p>The KfW Financing Initiative Energiewende provides low interest loans for investments in installations for electricity production from renewable energy sources in accordance with the EEG.</p> <p>The KfW Renewable Energy Programme Premium provides amongst others low interest loans and grant repayment support (<i>Tilgungszuschuss</i>) for electricity generation in deep geothermal installations.</p> |



RES-LEGAL EUROPE – National Profile Germany



| | |
|-----------------------------|---|
| | <p>The KfW Renewable Energy Programme “Storage” supports the usage of stationary battery storage systems, related to a PV installation, which is connected to the electricity grid.</p> <p>Market premium. Plant operators of RES plants exceeding an installed capacity of 500 kW are supported by a market premium for electricity they sell directly. The amount of the market premium shall be calculated each month.</p> <p>Feed-in tariff. For power plants up 100 kW the support system is based on a feed-in tariff, which the grid operator pays to the plant operators. The amount of tariff is set by law and is usually paid over a period of 20 years. The plant operators can also opt for the market premium. Plants with a capacity higher than 500 kW can be supported through the feed-in tariff in exceptional cases.</p> <p>Tendering. For photovoltaic ground-mounted installations with an installed capacity between 100 kW and 10 MW the financial support is being determined through auctioning.</p> <p>Flexibility surcharge. The operators of biogas plants that have been commissioned after 1.8.2014 may claim additional support for providing capacity for on-demand use.</p> <p>Flexibility premium. The operators of biogas plants that have been commissioned before 1.8.2014 may claim additional support for providing additionally installed capacity for on-demand use.</p> |
| Technologies | <p>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 the support system.</p> |
| Statutory provisions | <ul style="list-style-type: none"> • EEG 2014 (Erneuerbare-Energien-Gesetz - Renewable Energy Sources) • BiomasseV (Biomasseverordnung- Biomass Ordinance) • AusglMechV (Ausgleichsmechanismusverordnung – Ordinance on the Further Development of the Nationwide Equalisation Scheme) |



RES-LEGAL EUROPE – National Profile Germany



| | |
|--|--|
| | <ul style="list-style-type: none"> • SDLWindV (Systemdienstleistungsverordnung – Ordinance on System Services by Wind Energy Plants) • KfW Rules for investment loans (Allgemeine Bestimmungen für Investitionskredite – Vertragsverhältnis Hausbank – Endkreditnehmer – General rules for investment loans – contractual relationship between the bank and borrower) • KfW Renewable Energy Programme Standard (Merkblatt KfW-Programm Erneuerbare Energien - KfW Renewable Energy Programme Standard) • KfW Programme Offshore wind energy (Merkblatt Offshore - Windenergie- KfW Programme Offshore wind energy) • KfW Programme Geothermal Exploration Risk (Merkblatt KfW Programm Fündigkeitsrisiko Tiefengeothermie - KfW Programme Geothermal Exploration Risk) • KfW Renewable Energy Programme Premium (Merkblatt KfW-Programm Erneuerbare Energien Premium – KfW Renewable Energy Programme Premium) • The KfW Programme Renewable Energies Storage (Merkblatt KfW Programm Erneuerbare Energien Speicher) • KfW Financing Initiative Energiewende (Merkblatt KfW-Finanzierungsinitiative Energiewende – Leaflet on KfW Financing Initiative on the Energiewende) • AnlRegV (Anlagenregisterverordnung - Ordinance on a register for renewable energy plants) • FFAV (Freiflächenausschreibungsverordnung – Ordinance for the auctioning of the support for ground-mounted installations) |
|--|--|



Basic information on legal sources

| | | | |
|---|--|---|--|
| Name of legal source (original language) | Gesetz für den Ausbau Erneuerbarer Energien (Erneuerbare-Energien-Gesetz – EEG 2014) | Verordnung über die Erzeugung von Strom aus Biomasse (Biomasseverordnung) | Verordnung zur Weiterentwicklung des bundesweiten Ausgleichsmechanismus |
| Full name | | | |
| Name (English) | Act on Developing Renewable Energy Sources (Renewable Energy Sources Act) | Ordinance on the Generation of Electricity from Biomass | Ordinance on the Further Development of the Nationwide Equalisation Scheme |
| Abbreviated form | EEG 2014 | BiomasseV | AusglMechV |
| Entry into force | 01.01.2009 | 21.06.2001 | 17.02.2015 |
| Last amended on | 21.07.2014 | 21.07.2014 | |
| Future amendments | <i>Expected October 2016</i> | | |
| Purpose | In order to protect the climate, the act aims to increase the proportion of electricity from renewable energy sources in total energy supply to at least 18% by 2020, to 40-45% by 2025, to 55-60% by 2035 to 80% by 2050 and to | The ordinance specifies the conditions for the promotion of electricity from biomass. | Furthering the development of the nationwide equalisation scheme. |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|--|---|---|---|
| | integrate these quantities of electricity in the electricity supply system (§ 1 EEG). | | |
| Relevance for renewable energy | This act promotes renewable energy only. | This ordinance applies to biomass only. | 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. |
| Link to full text of legal source (original language) | http://www.gesetze-im-internet.de/bundesrecht/eeq_2014/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/biomassev/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/ausglmechv/gesamt.pdf |
| Link to full text of legal source (English) | http://www.bmwi.de/English/Redaktion/Pdf/renewable-energy-sources-act-eeq-2014,property=pdf,bereich=bmwi2012,sprache=en,rwb=true.pdf Unofficial translation of the RES Act | | |



RES-LEGAL EUROPE – National Profile Germany



| Name of legal source (original language) | Verordnung zu Systemdienstleistungen durch Windenergieanlagen | Freiflächenausschreibungsverordnung | Allgemeine Bestimmungen für Investitionskredite | Merkblatt KfW-Programm Erneuerbare Energien Speicher |
|---|--|---|---|---|
| Full name | | Verordnung zur Ausschreibung der finanziellen Förderung für Freiflächenanlagen | Allgemeine Bestimmungen für Investitionskredite – Vertragsverhältnis Hausbank – Endkreditnehmer | Merkblatt KfW-Programm Erneuerbare Energien „Speicher“. Finanzierung von stationären Batteriespeichersystemen in Verbindung mit einer Photovoltaikanlage. |
| Name (English) | Ordinance on System Services by Wind Energy Plants | Ordinance for the auctioning of the support for ground-mounted installations | General rules for investment loans – contractual relationship between the bank and borrower | KfW Renewable Energy Programme Storage |
| Abbreviated form | SDLWindV | FFAV | KfW Rules for investment loans | KfW Renewable Energy Programme Storage |
| Entry into force | 03.07.2009 | 06.02.2015 | March 2009 | 01.05.2013 |
| Last amended on | 06.02.2014 | | October 2015 | January 2015 |
| Future amendments | | | | March 2016 |
| Purpose | Regulating the requirements for wind energy plants as set out in § 6 par. 5 EEG, § 29 par. 2 | Regulates the requirements for the participation of PV ground-mounted installation in the | Regulates the contractual relationship between the bank | The purpose is to lay out the KfW Renewable Energy Programme promoting the investment in |



RES-LEGAL EUROPE – National Profile Germany



| | | | | |
|--|---|---|---|---|
| | sentence 4 EEG and § 66 par. 1 no. 8 EEG to improve grid integration and firing. | tendering process for the determination of the financial support (§ 55 EEG) | and borrower for taking up investment loans. | renewable energy installations through low-interest loans. |
| Relevance for renewable energy | This ordinance specifies the FIT eligibility requirements for wind energy and the eligibility requirements for the System Service Bonus. | This ordinance specifies the eligibility requirements for auctioning the support for ground-mounted installations | These rules apply to the KfW Renewable Energy Programme – Standard promoting the investment in renewable energy installations through low-interest loans. | The programme promotes the usage of stationary battery storage systems, related to a PV installation, which is connected to the electricity grid. |
| Link to full text of legal source (original language) | http://www.gesetze-im-internet.de/bundesrecht/sdlwin/dv/gesamt.pdf | http://www.gesetze-im-internet.de/ffav/BJNR010810015.html | https://www.kfw.de/Download-Center/F%C3%B6rderprogramm-e-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/6000002388-AGB-f%C3%BCr-IK-EKN.pdf | https://www.kfw.de/Download-Center/F%C3%B6rderprogramm-e-(Inlandsf%C3%B6rderung)/PDF-Dokumente/6000002700_M_275_Speicher.pdf |
| Link to full text of legal source (English) | | | | |



RES-LEGAL EUROPE – National Profile Germany



| Name of legal source (original language) | Merkblatt KfW-Programm Erneuerbare Energien Standard | Merkblatt KfW Programm Offshore – Windenergie | Merkblatt KfW Programm Fündigkeitsrisiko Tiefengeothermie | Merkblatt KfW-Programm Erneuerbare Energien Premium |
|---|---|---|--|--|
| Full name | Merkblatt KfW-Programm Erneuerbare Energien (Programmnummern 270, 274) Investitionskredite für Maßnahmen zur Nutzung Erneuerbarer Energien | Merkblatt Offshore - Windenergie(Programmnummer 273) | Merkblatt KfW Programm Fündigkeitsrisiko Tiefengeothermie (Programmnummer 228) | Merkblatt KfW-Programm Erneuerbare Energien Premium (Programmnummern 271, 281, 272, 282) Investitionskredite für Maßnahmen zur Nutzung Erneuerbarer Energien |
| Name (English) | KfW Renewable Energy Programme Standard | KfW Programme Offshore wind energy | KfW Programme Geothermal Exploration Risk | KfW Renewable Energy Programme Premium |
| Abbreviated form | KfW Renewable Energy Programme Standard | KfW Programme Offshore wind energy | KfW Programme Geothermal Exploration Risk | KfW Renewable Energy Programme Premium |
| Entry into force | 01.01.2009 | 08.06.2011 | 01.02.2009 | 01.01.2009 |
| Last amended on | March 2014 | April 2015 | | December 2015 |
| Future amendments | January 2016 | | | |
| Purpose | The purpose is to lay out the KfW Renewable Energy Programme promoting the investment in renewable energy installations through low-interest loans. | The programme supports the investment in offshore wind energy in Germany in form of direct loans or financing packages. | Partial coverage of exploration risks during geothermal drilling. | The purpose is to lay out the KfW Renewable Energy Programme promoting the investment in renewable energy installations through low-interest loans. |



RES-LEGAL EUROPE – National Profile Germany



| Relevance for renewable energy | The programme promotes the investment into renewable energy installations. | The programme promotes the investment in offshore wind energy. | The programme promotes the investment in geothermal energy. | The programme offers a partial coverage of exploration risks during geothermal drilling. |
|---|---|---|---|---|
| Link to full text of legal source (original language) | https://www.kfw.de/Download-Center/F%C3%B6rderprogramm-e-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/6000000178-Merkblatt-270-274.pdf | https://www.kfw.de/Download-Center/F%C3%B6rderprogramm-e-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/6000001940-Merkblatt-273.pdf | https://www.kfw.de/Download-Center/F%C3%B6rderprogramm-e-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/140761-Merkblatt-F%C3%BCndigkeitsrisiko-Tiefengeothermie-228.pdf | https://www.kfw.de/Download-Center/F%C3%B6rderprogramm-e-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/6000002410-Merkblatt-271-281-272-282.pdf |
| Link to full text of legal source (English) | | https://www.kfw.de/Download-Center/F%C3%B6rderprogramm-e-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/6000002171-M-Offshore-Windenergie-englisch.pdf | | |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|---|--|--|--|
| Name of legal source (original language) | Merkblatt KfW-Finanzierungsinitiative Energiewende | | Anlagenregisterverordnung |
| Full name | Merkblatt KfW-Finanzierungsinitiative Energiewende (Programmnummer 291) Investitionskredite für größere Vorhaben gewerblicher Unternehmen im Rahmen der Energiewende | | Verordnung über ein Register für Anlagen zur Erzeugung von Strom aus erneuerbaren Energien und Grubengas |
| Name (English) | Leaflet on KfW Financing Initiative on the Energiewende (programme number 291) Investment loans for larger projects of industrial enterprises in the Energiewende | | Ordinance on a register for renewable energy plants |
| Abbreviated form | KfW Financing Initiative Energiewende | | AnlRegV |
| Entry into force | 01.09.2012 | | 01.08.2014 |
| Last amended on | September 2014 | | 17.02.2015 |
| Future amendments | | | |
| Purpose | The purpose is to lay out the KfW Financing Initiative Energiewende promoting the investment in energy efficiency and renewable energy measures through low- interest loans. | | The ordinance regulates the registration of renewable energy plants at Federal Network Agency. |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|--|---|--|---|
| Relevance for renewable energy | The programme also promotes the investment into renewable energy installations. | | The register refers to renewable energy plants. |
| Link to full text of legal source (original language) | https://www.kfw.de/Download-Center/F%C3%B6rderprogramme-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/6000002284-Merkblatt-KfW-Finanzierungsinitiative-Energiewende.pdf | | http://www.gesetze-im-internet.de/anlreqv/BJNR132000014.html |
| Link to full text of legal source (English) | | | |



RES-LEGAL EUROPE – National Profile Germany



Further information

| Institution (name) | Website | Name of contact person (optional) | Telephone number (head office) | E-mail (optional) |
|--|---|-----------------------------------|--------------------------------|--|
| Bundesministerium für Wirtschaft und Energie (BMWi) - Federal Ministry for Economic Affairs and Energy | http://www.bmwi.de | | +49 (0)30- 18 615 0 | kontakt@bmwi.bund.de |
| Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB) - Federal Ministry for the Environment, Nature Conservation, Construction and Nuclear Safety | http://www.bmub.bund.de | | +49 301 830 50 | service@bmub.bund.de |
| Bundesnetzagentur - Federal Network Agency | http://www.bundesnetzagentur.de | | +49 228 140 | info@bnetza.de |
| Federal Antitrust Agency (Bundeskartellamt) | http://www.bundeskartellamt.de | | +49 228 949 90 | info@bundeskartellamt.bund.de |
| German Energy Agency (dena) | http://www.dena.de | | +49 307 261 656 00 | info@dena.de |



RES-LEGAL EUROPE – National Profile Germany



| | | | | |
|---|---|---------------------|--------------------|--|
| Bundesverband Erneuerbare Energie e.V. (BEE) –Renewable Energy Federation | http://www.bee-ev.de/ | | +49 3027581700 | info@bee-ev.de |
| KfW Förderbank | https://www.kfw.de | | +49 697 431 0 | info@kfw.de |
| Clearingstelle EEG (clearing house) | http://clearingstelle-eeg.de | | + 49 302 061 416 0 | post@clearingstelle-eeg.de |
| Geiser& von Oppen – PartG (law firm) | http://www.gvo-anwaelte.de | Margarete von Oppen | +49 30 31 01 92 0 | office@gvo-anwaelte.de |



Support schemes

Loan (KfW Renewable Energy Programme – Standard)

| | | |
|-------------------------------------|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none">• KfW Rules for investment loans• KfW Renewable Energy Programme Standard | |
| Contact Authority | <ul style="list-style-type: none">• KfW | |
| Summary | The KfW Renewable Energy Programme –Standard gives low interest loans for investments in installations for electricity production in accordance with the EEG. Plants erected abroad are eligible for the loan if they are constructed close to the German border and thus, indirectly have an impact on the improvement of the environment in Germany, or if the investment is done abroad by a German company. It is a long-term and low-interest loan with a fixed interest period of 5 or 10 years including a repayment-free start-up period. Effective interest rates per year vary between 1.31% and 7.56% depending on the credit period, the repayment-free start-up period and the duration of fixed interest rate (KfW Renewable Energy Programme Standard). The plant operator or investor signs a contract with the bank (Hausbank) specifying the terms of contract. If not agreed differently between the contracting parties, the KfW Rules for investment loans apply. | |
| Eligible technologies | General information | In general, all technologies are promoted in accordance with the EEG. |
| | Wind energy | On-shore plants, repowering |
| | Solar energy | Eligible |
| | Geothermal energy | Eligible |
| | Biogas | Eligible |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|--|
| | Hydro-power | Eligible |
| | Biomass | Eligible |
| Amount | Up to 100% of the investment costs eligible for financing (without VAT), however, not more than EUR 25 million per project. It is a long-term and low-interest loan with a fixed interest period of 5 or 10 years including a repayment-free start-up period. A fixed interest period of up to 20 years is granted if technical and economic duration of co-financed investment is longer than 10 years. Moreover, a commitment fee of 0.25% per month is charged. | |
| Addressees | Private individuals and not-for-profit organisations which feed the generated electricity/heat into the network, self-employed professionals, domestic and foreign enterprises majority-owned by private individuals, enterprises in which local authorities, churches or charities hold an interest, investment funds. | |
| Procedure | Process flow | Applications have to be submitted to a bank before starting the project. Planning services prior to the application are allowed. Relevant application forms can be downloaded from http://www.kfw.de/kfw/de/Inlandsfoerderung/Programmuebersicht/Erneuerbare_Energien_-_Standard/Antrag_und_Dokumente.jsp |
| | Competent authority | KfW loans are administered and disbursed by regular banks. |
| Flexibility mechanism | | |
| Distribution of costs | State | KfW Bankengruppe bears the costs of offering low-interest loans. |
| | Consumers | |
| | Plant operator | The installation operator has to pay back the loan. |
| | Grid operator | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|------------------------|--|
| | European Union | |
| | Distribution mechanism | |



Loan (KfW programme offshore wind energy)

| | | |
|--|---|--|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> KfW Programme offshore wind energy | |
| Contact Authority | <ul style="list-style-type: none"> KfW | |
| Summary | <p>The KfW-Programme offshore wind energy provides loans and financing packages to support companies wanting to invest in offshore wind farms in the German Exclusive Economic Zone or in 12 nautical-mile zone of the North and Baltic Sea. Project financing is granted in different forms:</p> <p>a) direct loans under financing by bank syndicates</p> <p>b) financing package combining a KfW on-lent through a bank loan and a direct loan from KfW</p> <p>c) in addition to a) and b), a direct loan under bank syndicates is granted covering unforeseen costs during construction phase</p> | |
| Eligible technologies | General information | Under the KfW-Programme only offshore wind power is eligible. Financial support is granted for the construction of up to 10 offshore wind farms. |
| | Wind energy | Offshore wind energy |
| | Solar energy | |
| | Geothermal energy | |
| | Biogas | |
| | Hydro-power | |
| | Biomass | |
| Amount | <p>The proportion of co-financing the investment is the following for the different forms of finance:</p> <p>a) up to 50 percent of overall external capital requirements, max. EUR 400 million per project</p> | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|--|
| | <p>b) up to 70 percent of overall external capital requirements, max. EUR 700 million per project</p> <p>c) up to 50 percent of overall external capital requirements for unforeseen cost increases, max. EUR 100 million per project.</p> <p>It is a long-term and low-interest loan during a period of 20 years including a 3 year repayment-free start-up period. The fixed interest rate is renegotiated after 10 years. Moreover, a commitment fee of 0.25% per month is charged.</p> | |
| Addressees | <p>Project companies wanting to invest in offshore wind farms in the German Exclusive Economic Zone or in 12 nautical-mile zone of the North and Baltic Sea. Companies under restructuring or in difficult situation in the meaning of European Community Guidelines for State Aid for Rescue and Restructuring of Companies in Difficulty are excluded.</p> | |
| Procedure | Process flow | <p>Applications for projects to be implemented under financing package (b) are to be filed with a credit institution of borrower's choice. Applications for a direct loan are filed with KfW via any credit institution.</p> <p>Relevant application forms can be downloaded from http://www.kfw.de/kfw/de/Inlandsfoerderung/Programmuebersicht/KfW-Programm_Offshore-Windenergie/Antrag,_Formulare,_Merkblaetter.jsp</p> |
| | Competent authority | KfW loans are administered and disbursed by regular banks. |
| Flexibility mechanism | | |
| Distribution of costs | State | The KfW Bankengruppe bears the costs of offering low-interest loans. |
| | Consumers | |
| | Plant operator | The plant operator has to pay back the loan. |
| | Grid operator | |
| | European Union | |



| | | |
|--|------------------------|--|
| | Distribution mechanism | |
|--|------------------------|--|



Loan (KfW Programme Geothermal Exploration Risk)

| | | |
|--|---|--|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> KfW Programme Geothermal Exploration Risk | |
| Contact Authority | <ul style="list-style-type: none"> KfW | |
| Summary | <p>The KfW Programme Geothermal Exploration Risk covers investment costs connected to drilling activities including the required stimulation measures prescribed by KfW as part of project study. The loan amounts to max. 80% of eligible investment costs with different interest rates accounting for the different exploration risks. Only geothermal projects with at least two deep drillings are eligible for support.</p> | |
| Eligible technologies | General information | Under the KfWprogramme only exploration risks of geothermal drilling are eligible. |
| | Wind energy | |
| | Solar energy | |
| | Geothermal energy | Covers exploration risks of geothermal drilling |
| | Biogas | |
| | Hydro-power | |
| | Biomass | |
| Amount | <p>The co-financing amounts to max. 80% of eligible investment costs including the planned investment costs for stimulation measures. In general, maximum support per drilling is EUR 16 mln. Two different models for financial support exist:</p> <p>a) 100% liability free loan covering up to 80% of eligible investment costs if non-exploration, as defined in the terms of contract of the loan, is proven.</p> | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|--|
| | <p>b) Guarantee for partial debt release on executed stimulation measures in exchange for higher interest rate (risk)</p> <p>The duration of the loan is fixed to 10 years including a 2 year repayment-free start-up period. Moreover, a commitment fee of 0.25% per month is charged. The interest rate is set on the date of approval accounting for exploration risk.</p> | |
| Addressees | <p>Small and medium size private enterprises in line with EU Commission definition, big companies not qualifying as small and medium size enterprises, companies under private law and municipalities are eligible if the investment is undertaken in Germany. Moreover, these eligible entities need to produce heat, electricity or both for a period of at least 7 years.</p> | |
| Procedure | Process flow | <p>Applications for projects are to be filed with a credit institution of borrower's choice before project start. Relevant application forms can be downloaded from https://www.kfw.de/Download-Center/F%C3%B6rderprogramme-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/140741-Kredit Antrag-F%C3%BCndigungsrisiko-Tiefengeothermie.pdf</p> <p>When filing an application, the applicant has to pay an examination fee of EUR 65,000 per drilling project in order to cover the costs of evaluating the application. In case an application is denied, the applicant can file an edited application form within 6 months without paying the fee a second time. In case an application is approved, an approval fee of EUR 45,000 (gross) has to be paid accounting for the examination and monitoring costs.</p> |
| | Competent authority | KfW loans are administered and disbursed by regular banks. |
| Flexibility mechanism | | |
| Distribution of costs | State | KfW Bankengruppe bears the costs of offering low-interest loans. |
| | Consumers | |
| | Plant operator | The plant operator has to pay back the loan. |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|------------------------|--|
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |



Loan (KfW Financing Initiative Energiewende)

| | | |
|--|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • KfW Rules for investment loans • KfW Financing Initiative Energiewende | |
| Contact Authority | <ul style="list-style-type: none"> • KfW | |
| Summary | <p>The KfW Financing Initiative Energiewende gives low interest loans for investments in installations for electricity production from renewable energy sources in accordance with the EEG. It is a long-term loan with an interest period of up to 20 years including a repayment-free start-up period of maximum 3 years. The plant operator or investor signs a contract with a regularbank (Hausbank) specifying the terms of contract. If not agreed differently between the contracting parties, the KfW Rules for investment loans apply.</p> | |
| Eligible technologies | General information | In general, all technologies are promoted in accordance with the EEG. |
| | Wind energy | On-shore plants, repowering |
| | Solar energy | eligible |
| | Geothermal energy | eligible |
| | Biogas | eligible |
| | Hydro-power | eligible |
| | Biomass | eligible |
| Amount | <p>The credit amount may vary between minimum EUR 25 million and maximum EUR 100 million for the investment project covering up to 50% of the investment costs in case of direct credits granted by a consortium of banks which the KfW is part of. In case of a</p> | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|---|--|
| | financing package encompassing sub-loans in combination with a direct loan granted by a consortium of banks, the loan granted may amount to the sum granted by the sub-loans. It is a long-term loan with an interest period of up to 20 years including a repayment-free start-up period of maximum 3 years. The terms and conditions of the loan including interest rates for direct credits granted by a consortium of banks depend on the terms agreed upon within the consortium. In case of a financing package, interest rates depend on the developments at the capital market, but are, however, fixed over 10 years. For loans exceeding 10 years, the interest rate will be redefined after 10 years. Commitment fees amount to 0.25% per month. | |
| Addressees | Eligible parties are domestic and foreign companies mainly privately owned and having an annual turnover between EUR 500 million and EUR 4 billion. Energy supply companies are not eligible for loans under this programme. | |
| Procedure | Process flow | Applications have to be submitted to a regular bank before starting the project. Relevant application forms can be downloaded from https://www.kfw.de/inlandsfoerderung/Unternehmen/Energie-Umwelt/Finanzierungsangebote/Finanzierungsinitiative-Energiewende-%28291%29/#4 |
| | Competent authority | KfW loans are administered and disbursed by regular banks. |
| Flexibility mechanism | | |
| Distribution of costs | State | KfW Bankengruppe bears the costs of offering low-interest loans. |
| | Consumers | |
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |



RES-LEGAL EUROPE – National Profile Germany





Loan (KfW Renewable Energy Programme Premium)

| | | |
|--|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • KfW Rules for investment loans • KfW Renewable Energy Programme – Premium • Guidelines for the support of RES-H | |
| Contact Authority | <ul style="list-style-type: none"> • KfW • BMUB | |
| Summary | <p>The KfW provides low-interest loans and grant repayment support (<i>Tilgungszuschuss</i>) for electricity generation in deep geothermal installations. This programme does not address the geothermal exploration activities. However, in general the programme's focus is supporting renewable energy sources for heat generation.</p> | |
| Eligible technologies | General information | <p>In the framework of the KfW Programme Renewable Energy – Premium, only geothermal energy is eligible for electricity production. The installations need to be erected in Germany and have to be operating for at least 7 years (Guidelines for the support of RES-H Art. 6.4). A combination with the “KfW Geothermal Exploration Risk Programme”, the “KfW Renewable Energy Programme – Standard” and other non-KfW subsidies is possible as long as the overall subsidies do not exceed 80% of the investment costs (KfW Renewable Energy Programme – Premium p. 5).</p> |
| | Wind energy | |
| | Solar energy | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|---------------|---|--|
| | Geothermal energy | Plants with a drilling depth > 400 m are supported (Guidelines for the support of RES-H Art. 3.2 c). |
| | Biogas | |
| | Hydro-power | |
| | Biomass | |
| Amount | <p>Loans for deep geothermal installations are granted up to 80% of the eligible investment costs. The loan has an interest period of 5, 10 or 20 years including a repayment-free start-up period of maximum 1, 2 or 3 years respectively (KfW Renewable Energy Programme – Premium p. 6). Interest rates depend on the developments at the capital market, but are, however, fixed over 10 years. For loans exceeding 10 years, the interest rate will be redefined after 10 years. Commitment fees amount to 0.25% per month.</p> <p>For geothermal installation with an electricity-heat-ratio of maximum 0.15kW_{el}/kW_{th}, grant repayment supports are granted as follows (Guidelines for the support of RES-H Art. 14.1.2):</p> <ul style="list-style-type: none"> • Geothermal plants <ul style="list-style-type: none"> ○ Grant repayment: € 200 per kW per installed nominal heat output, maximum € 2,000,000 per plant • Deep hole drilling <ul style="list-style-type: none"> ○ Grant repayment: € 375 per meter vertical depth (400-1000m drilling depth), € 500 per meter vertical depth (1000 – 2500 m drilling depth), € 750 per meter vertical depth (>2500 drilling depth). Maximum support is € 2,500,000 per drilling and € 5,000,000 per project • Additional expenses due to drilling ≥ 400 m <ul style="list-style-type: none"> ○ Grant repayment is based on a proof of additional expenses and can cover up to 50 % of additional expenses and 50% of originally planned costs. The maximum support is € 1,250,000. | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|-------------------|--|--|
| | <ul style="list-style-type: none"> The support schemes can be cumulated up to a maximum of 80% of eligible costs. The remaining 20 % may not be covered by public money. <p>For geothermal installation with an electricity-heat-ratio of more than 0.15kWel/kWth, grant repayment supports are granted as follows:</p> <ul style="list-style-type: none"> Deep hole drilling <ul style="list-style-type: none"> Grant repayment: €EUR 375 per meter vertical depth (400-1000m drilling depth), EUR 500 per meter vertical depth (1000 – 2500 m drilling depth). Maximum support is EUR 975,000 per Additional expenses due to drilling ≥ 400 m <ul style="list-style-type: none"> Grant repayment is based on a proof of additional expenses and can cover up to 50 % of additional expenses and 50% of originally planned costs. The maximum support is €EUR 1,250,000. | |
| Addressees | Private persons, freelancer, small and medium size companies, municipalities/local authorities, non-profit organisations, companies of which the public authority has a share of > 25 % with a turnover less than SME threshold (Guidelines for the support of RES-H Art. 4.1). | |
| Procedure | Process flow | <p>In case of low-interest loans, applications have to be submitted to a bank before starting the project (Guidelines for the support of RES-H Art. 15.2). Relevant application forms can be downloaded from: https://www.kfw.de/inlandsfoerderung/Unternehmen/Energie-Umwelt/F%C3%B6rderprodukte/Erneuerbare-Energien-Tiefengeothermie-%28272-282%29/</p> <p>For grant repayment support, the following procedure applies:</p> <ul style="list-style-type: none"> Repayment: Precondition for the complete grant repayment support is the proof of the proper-use of subsidy after investment is done and has to be submitted to a local bank which is transferring the file to KfW (Guidelines for the support of RES-H Art. 15.1). |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|-----------------------|------------------------|--|
| | | <ul style="list-style-type: none"> • Additional approval: For grant repayment support higher than EUR 250,000, an approval by BMUB (Ministry of the Environment) is required prior to granting the support (Guidelines for the support of RES-H Art.). • Application: The application has to be filed before the project is started. The project begin is defined as the signing of a contract on the delivery of the installation or measure (Guidelines for the support of RES-H Art. 5.2). |
| | Competent authority | KfW, BMUB |
| Flexibility mechanism | | |
| Distribution of costs | State | KfW Bankengruppe bears the costs of offering low-interest loans and grant repayment support. |
| | Consumers | |
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |



Loan (KfW Renewable Energy Programme Storage)

| | | |
|--|---|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • KfW Rules for investment loans • KfW Renewable Energy Programme Storage | |
| Contact Authority | <ul style="list-style-type: none"> • KfW | |
| Summary | <p>The KfW Renewable Energy Programme –Storage provides until the 31 December 2015 low interest loans for stationary battery storage systems related to a PV installation. The investment addresses either the erection of a new PV installation in conjunction with a battery storage system up to the regular support of EUR 600/kWp or only the financing of a battery storage system, which is related to a PV installation, that has been put into operation after 31 December 2012. The upgrading of a PV installation with a battery storage systems within the first 6 months since its commissioning is eligible for the regular support of EUR 600/kWp, otherwise the maximale support of EUR 660/kWp. Additionally, the PV installation in conjunction with the battery storage system is allowed to have an installed capacity of maximum 30 kWp. Only one storage system for each PV installation is eligible for support. The battery storage systems have to be located on the territory of Germany and are to be used according to their purpose for at least 5 years. This low-interest loan cannot be combined with other KfW Programmes.</p> | |
| Eligible technologies | General information | The programme promotes the usage of stationary battery storage systems, related to a PV installation, which is connected to the electricity grid. |
| | Wind energy | |
| | Solar energy | Eligible |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|---|
| | Geothermal energy | |
| | Biogas | |
| | Hydro-power | |
| | Biomass | |
| Amount | <p>Up to 100% of the net investment value is eligible for financing.</p> <p>Different kind of maturities are possible: 5, 10, or 20 years with a maximum repayment free period of one year, two or respectively three years. For credits up to 10 years, the interest rate is fix. For credits over more than 10 years the interest rate can be fixed either for the first 10 years or for the whole period of time.</p> | |
| Addressees | <p>Foreign and domestic commercial companies, companies hold partially by churches, municipalities or charitable organizations, self-employed professionals, natural persons or non-profit applicants, which use at least partially the produced electricity for their own consumption as also farmers.</p> | |
| Procedure | Process flow | <p>Applications have to be submitted to a bank before starting the project. Planning services prior to the application are allowed. Relevant application forms can be downloaded from http://www.kfw.de/kfw/de/Inlandsfoerderung/Programmuebersicht/Erneuerbare_Energien_-_Standard/Antrag_und_Dokumente.jsp</p> |
| | Competent authority | KfW loans are administered and disbursed by regular banks. |
| Flexibility mechanism | | |
| | State | KfWBankengruppe bears the costs of offering low-interest loans. |



| | | |
|-----------------------|------------------------|---|
| Distribution of costs | Consumers | |
| | Plant operator | The installation operator has to pay back the loan. |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |

Feed-in tariff (EEG feed-in tariff)

| | |
|-------------------------------------|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EEG 2014 • AusglMechV • SDLWindV • BiomasseV • |
| Contact Authority | <ul style="list-style-type: none"> • BMWi |
| Summary | <p>In Germany, small RES-E installations up to 500 kW put into operation before 01 January 2016 and installations up to 100 kW put into operation after 31 December 2015 are promoted by feed-in tariff as set out in the EEG 2014 (§ 37 par. 1, 2 no. 2. EEG 2014). Plant operators may switch on a monthly basis between feed-in tariffs and a market premium or may benefit proportionately from the feed-in tariffs or the market premium (§20 par. 1, 2 EEG 2014).</p> <p>Moreover, independently from the size of the RES-E plant, each plant can be eligible under the feed-in tariff in exceptional cases (§ 38 par. 1 EEG 2014). Then, however, the feed-in tariff is reduced by 20% (§ 38 par. 2 EEG 2014).</p> |



| | | |
|-----------------------|---------------------|---|
| Eligible technologies | General information | <p>In general, all technologies used to generate electricity from renewable sources are eligible for feed-in tariffs (§ 19 par. 1 no. 2 EEG 2014). Eligibility also applies to electricity that was temporarily stored prior to being exported to the grid (§ 19 par. 4 EEG 2014). Plant operators shall meet the following requirements in order to receive the feed-in tariff:</p> <ul style="list-style-type: none"> • Installed capacity of maximum 500 kW for plants put into operation before 01 January 2016 (§ 37 par. 2 no. 1. EEG 2014). As of 01 January 2016, feed-in tariffs will only be granted for power plants with an installed capacity of up to 100 kW (§ 37 par. 2 no. 2. EEG 2014). • Feed-in tariffs are granted only for electricity actually taken over by the grid operator (§ 39 par. 1 EEG 2014). The electricity may not be consumed in the direct surrounding of the power plant and needs to be transmitted through the grid (§ 39 par. 2 EEG 2014). <p>plant</p> <p>The EEG 2014 does not specify further requirements for the eligibility of the feed-in tariff in exceptional cases (§ 38 par. 1 EEG 2014).</p> |
| | Wind energy | <p>Both onshore and offshore generation are eligible with the following requirements and restrictions (§§ 49, 50 EEG 2014):</p> <ul style="list-style-type: none"> • Maximum capacity of 500 kW for installations commissioned before 01 January 2016 and 100 kW for those commissioned after 31 December 2015 (§ 37 par. 2 EEG 2014) • Fulfilment of technical requirements. Plant operators of wind power plants which are put into operation before 01 January 2017 shall make sure that the requirements stipulated in the Ordinance on System Services by Wind Energy Plants are met (§ 9 par. 6 EEG 2014; SDLWindV). |



| | | |
|--|-------------------|--|
| | | <ul style="list-style-type: none"> • Offshore generation in protected areas. Electricity is not eligible if generated by plants located in an area of environmental importance, such as plants constructed in a protected area or at a site of Community importance (§ 50 par. 5 EEG 2014). |
| | Solar energy | <p>In general, PV installations are eligible for support under the following restrictions:</p> <ul style="list-style-type: none"> • Maximum capacity of 500 kW for installations commissioned before 01 January 2016 and 100 kW for those commissioned after 31 December 2015 • Building-mounted systems (roofs, facades, noise barriers): Installations in, attached to or on top of buildings or noise barriers are eligible (§ 51 par. 2 EEG 2014 in conjunction with § 5 no. 17 EEG 2014). Buildings without residential purpose can qualify for feed-in tariffs in the sense of § 51 par. 2 EEG 2014 if the installation is built on a livestock building or is in connection with an agricultural farm (§ 51 par. 3 No. 2, 3 EEG 2014). Those installations that do not qualify as building-mounted systems are treated similar to ground-mounted systems (§ 51 par. 3, 1 EEG 2014). • Ground-mounted systems: The installation has to be erected within the territorial application of a formal development plan (e.g. a local development plan) (§ 51 par. 1 no. 3 EEG 2014). Installations erected within the territorial application of a local development plan drawn up after 1.9.2003 must be located on certain plots of land such as areas next to speedways, railroad tracks as well as on sealed and conversion areas (§ 51 par. 1 no. 3 c EEG 2014). The development plan shall have been formally adopted, i.e. adopted by the local council. This means that it is not necessary for the development plan to have come into force. • Tendering: Ground mounted systems that will be commissioned six months after the first tender for solar power has been announced, cannot benefit from the feed-in tariff anymore (§ 55 par. 3 EEG 2014). |
| | Geothermal energy | Eligible (§ 48 EEG 2014). Maximum capacity of 500 kW for installations commissioned before 01 January 2016 and 100 kW for those commissioned after 31 December 2015 |
| | Biogas | Electricity from both biogas and biomethane is eligible. There are special provisions for biogas generated from the anaerobic fermentation of biowaste and from the fermentation of manure (§§ 44, 45, 46, 47 EEG 2014). The following restrictions apply: |



| | | |
|--|--|--|
| | | <ul style="list-style-type: none"> • Maximum capacity of 100 kW • Definition of biomass. The substances regarded as biomass are specified in a separate ordinance (BiomasseV). • Capacity limits. Electricity generated by a plant using biogas from the fermentation of manure is eligible only if the installed capacity does not exceed 75 kW (§ 46 EEG 2014). For other types of biogas the general restriction of 100 kW applies (§ 37 par. 2 EEG 2014). <p>Moreover, only 50 % of the amount of electricity that the plant can produce per year is eligible in case of plants with a capacity of more than 100 kW (§ 47 par. 1 EEG 2014).</p> <ul style="list-style-type: none"> • Obligation to employ CHP technology. Electricity from plants using biomethane is eligible only if the electricity is generated through CHP (§ 47 par. 2 no. 1 EEG 2014). The operator of the plant has to prove that the plant met this requirement (§ 47 par. 3 no. 1 EEG 2014). Where a generator fails to meet these requirements, his tariff level will be reduced to the market price (§47 par. 4 EEG 2014). • Obligation to use minimum percentage of manure. Electricity from plants using biogas is eligible only if the amount of manure used to produce the biogas is at least 80 mass percent (§ 46 no. 3 EEG 2014). • Obligation to keep a record of substances. Electricity will be eligible for the full tariff as specified in the EEG only if the plant operator can prove which type of biomass is used by presenting a copy of a record of the substances used and provides evidence that no other substances are used (§ 47 par. 1 no. 1 EEG 2014). • Technical requirements. The plant operator shall make sure that devices are used to avoid any escape of biogas (§ 9 par. 5 EEG 2014). |
|--|--|--|



| | | |
|--|-------------|---|
| | | <ul style="list-style-type: none"> • Electricity generation sites. Where electricity is generated from biogas that was generated from anaerobic fermentation of manure, the electricity shall be produced at the site of the biogas generation plant (§46 no. 1 EEG 2014). |
| | Hydro-power | <p>Both new plants and modernised existing plants are eligible (§ 40 par. 1, par. 2 EEG 2014). The following conditions apply (§ 40 EEG 2014):</p> <ul style="list-style-type: none"> • Maximum capacity of 500 kW for installations commissioned before 01 January 2016 and 100 kW for those commissioned after 31 December 2015 • Requirements of the Federal Water Act. Existing plants are eligible only if the modernisation complies with the requirements of the Federal Water Act (§ 40 par. 2 EEG 2014). • Building requirements. Electricity from newly constructed hydro-electric power plants is eligible only if the plant 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 (§ 40 par. 4 EEG 2014). |
| | Biomass | <p>Eligible under the following conditions (§ 44 EEG 2014):</p> <ul style="list-style-type: none"> • Maximum capacity of 500 kW for installations commissioned before 01 January 2016 and 100 kW for those commissioned after 31 December 2015 • Definition of biomass. The substances regarded as biomass are specified in a separate ordinance (BiomasseV). • Capacity limits. Only 50 % of the amount of electricity that the plant can produce per year is eligible in case of plants with a capacity of more than 100 kW (§ 47 par. 1 EEG 2014). • Obligation to keep a record of substances. Electricity will be eligible for the full tariff as specified in the EEG only if the plant operator can prove which type of |



| | | |
|--------|---------------------|---|
| | | <p>biomass is used by presenting a copy of a record of the substances used and provides evidence that no other substances are used (§ 47 par 2 no. 1 EEG 2014).</p> <ul style="list-style-type: none"> • Liquid biomass is ineligible for the tariff. In general, electricity is ineligible for the feed-in tariff if generated by new plants using liquid biomass. Where generated by new plants, this type of electricity is eligible only if the biomass is required as start-up, priming and supporting fuel (e.g. in dual-fuel CHP units) (§ 47 par. 2 no. 3 EEG 2014). |
| Amount | General information | <p>The amount of tariff for a given plant is the tariff level as defined by law. It differs for every source of energy (§§ 40 – 51 EEG 2014). For some technologies there are several tariffs depending on the plant capacity, the plant location and the technology and raw materials used.</p> <p>The EEG 2014 describes several reasons for the reduction of the tariff levels:</p> <ul style="list-style-type: none"> • The tariff level will be reduced to zero in case that <ul style="list-style-type: none"> ○ as of 1.1.2016, the electricity prices at the electricity stock exchange EPEX are negative for six consecutive hours (§ 23 par. 4 no. 1 EEG 2014 in conjunction with § 24 par. 1 no. 2 EEG 2014); ○ a plant operator has not registered his plant as required by law (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 1 no. 1, 2 EEG 2014; AnlRegV). A plant operator has to register his plant at the Federal Network Agency (§ 6 par. 1 EEG 2014). This information to be submitted is defined by law and includes, for example, the name and contact details of the plant operator, the location of the power plant, the type of power plant, and its installed capacity (§ 6 par. 2 EEG 2014); ○ the plant operator who has decided to sell some of the electricity directly and some of the electricity through the feed-in-tariff does not keep the ratio between feed-in tariff and direct marketing that he had originally |



| | | |
|--|--|---|
| | | <p>specified (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 1 no. 1, 2 EEG 2014 in conjunction with § 20 par. 2 EEG 2014).</p> <ul style="list-style-type: none"> • The tariff level will be reduced to the actual market value in the case that <ul style="list-style-type: none"> ○ technical requirements are not met (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 1 EEG 2014 in conjunction with § 9 par. 1, 2, 5 or 6 EEG 2014): Plants whose installed capacity exceeds 100 kW shall be equipped with technical devices with which the grid operator can, at any time, reduce output by remote means (§ 9 par. 1 no. 1 EEG 2014). This also refers to operators of solar installations with an installed capacity between 30 kW and 100 kW (§ 9 par. 2 no. 1 EEG 2014). The operators of solar energy installation with an installed capacity of up to 30 kW shall either meet the above-mentioned requirement or limit the effective power exported to the grid to 70% of the installed capacity (§ 9 par. 2 no. 2 EEG 2014). In addition, plants of which installed capacity exceeds 100 kW shall be equipped with technical devices with which the grid operator can retrieve information about the amount of electricity currently fed in by each system (§ 9 par. 1 no. 2 EEG 2014); ○ the plant operator has switched between direct marketing of the electricity and the feed-in tariff without informing the grid operator (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 2 EEG 2014 in conjunction with § 21 EEG 2014); ○ the electricity from the plant is measured through a measuring device that is also measuring the electricity from another plant and that second plant and hence the overall measured electricity does not fall under the same support scheme (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 3 EEG 2014); ○ a plant operator fails to meet the obligation to export all electricity generated by his plant or sold his electricity as balancing energy (§ 23 par. |
|--|--|---|



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|--------------|---|
| | | <p>4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 4 EEG 2014 in conjunction with § 39 par. 2 EEG 2014).</p> <ul style="list-style-type: none"> ○ a plant operator breaches the prohibition of multiple sale electricity from renewable energy sources and mine gas (§ 25 par. 2 no. 5 EEG 2014 in conjunction with § 80 EEG 2014). ○ A plant was installed to fulfil the function of a model public building pursuant to regional legislation, and the installation is not a CHP plant (§ 25 par. 2 no. 6 EEG 2014). <p>If the electricity of the RES-E plant (of a capacity also higher than 100 kWp) is sold under the feed-in tariff as an exceptional case, the tariff has to be reduced by 20% (§ 38 par. 2 EEG 2014).</p> |
| | Wind energy | <ul style="list-style-type: none"> • Onshore: EURct 4.95 – 8.90 per kWh (according to duration of payment) (§ 49 par. 1 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014); • Offshore: EURct 3.9 – 19.4 per kWh (according to duration of payment and scheme chosen by plant operator) (§ 50 par. 1-3 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014). |
| | Solar energy | <p>The amount of tariff depends on the site of production and the installed capacity.</p> <ul style="list-style-type: none"> • specific building-mounted systems (roofs, facades, noise barriers) EURct 13.15 – 11.49 per kWh (§ 51 par. 2 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014); • other systems EURct 9.23 (§ 51 par. 1 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014). • The current tariff levels can be retrieved from the site of the Federal Network Agency (Bundesnetzagentur) |



| | | |
|--|--------------------------|--|
| | | <p>under http://www.bundesnetzagentur.de/cln_1931/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/ErneuerbareEnergien/Photovoltaik/DatenMeldg_n_EEG-VergSaetze/DatenMeldgn_EEG-VergSaetze_node.html#doc405794bodyText4:</p> <p>FiT from 1 December 2014</p> <p>≤ 10 kW: 12,59 EURct/kWh</p> <p>≤ 40 kW: 12,25 EURct/kWh</p> <p>≤ 500 kWp: 10,95 EURct/kWh</p> <p>Other systems ≤ 10 MW: 8,72 EURct/kWh</p> |
| | Geothermal energy | EURct 25.2 per kWh (§ 48 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014) |
| | Biogas | <p>Applicable to power plants put into operation after 01.01.2014:</p> <ul style="list-style-type: none"> • Biogas from biomass: EURct 5.85 – 27.73 per kWh (according to plant size and fuel) (§§ 44-46 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014); • Landfill gas: EURct 5.83 – 8.42 per kWh (§ 41 EEG) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014); • Sewage gas: EURct 5.83 – 6.69 per kWh (§ 42 EEG) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014). |
| | Hydro-power | EURct 3.50 – 12.52 per kWh (depending on plant size and date of commissioning) (§ 40 par. 1 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014). |
| | Biomass | <ul style="list-style-type: none"> • EURct 5.85 – 23.73 per kWh (according to plant size and fuel) (§§ 44-46 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014). |



| | | |
|------------|---------------------|--|
| Digression | General information | For most technologies, the tariff levels will decrease in regular periods of time to provide an incentive to reduce costs through technological innovation (§ 24 par. 4 no. 3 EEG 2014). New plants will receive the tariff level applicable on the day they are put into operation. This tariff level will apply for the entire payment period, i.e. for 20 years (§§ 22 EEG). For some technologies the percentages by which the tariff levels will decrease are set by law and are not subject to change. For other technologies the percentage by which the tariff levels will decrease depend on the amount of newly installed capacity. |
| | Wind energy | <ul style="list-style-type: none"> • Onshore: the digression contains a basis digression rate of 0.4% every 3 months (1. January, 1. April, 1. July and 1. October) (§ 29 par. 2 EEG 2014). The EEG 2014 has defined a target-corridor for the development of on-shore wind power of 2,400 MW-2,600 MW per annum (§ 29 par. 1 EEG 2014). If the real development surpasses the corridor the digression rate will be increased from 0.4% to up to 1.2% (§ 29 par. 3 EEG 2014). If the development of wind power goes below the targets of the corridor, the digression rate is reduced and in extreme cases, the tariff rate will be even increased by 0.4% (§ 29 par. 4, 5 EEG 2014). • Offshore: until 1.1.2018 there is no digression for offshore wind power plants. In the following years, the digression will be between 0.5% and 1.0%, depending on the year and the tariff (§ 30 par. 1 EEG 2014). |
| | Solar energy | The digression contains a basis digression rate of 0.5% every month (§ 31 par. 2 EEG 2014). The EEG 2014 has defined a target-corridor for the development of solar power of 2,400 MW-2,600 MW per annum (§ 31 par. 1 EEG 2014). If the real development surpasses the corridor the digression rate will be increased from 0.5% to up to 2.8% (§ 31 par. 3 EEG 2014). If the development of solar power goes below the targets of the corridor, the digression rate is reduced and in extreme cases, the tariff rate will be even increased by up to 1.5% (§ 31 par. |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|--------------------------|--|
| | | <p>4 EEG 2014). The adjustment of the digression rate shall take place every three months (1. January, 1. April, 1. July and 1. October) (§ 31 par. 3 EEG 2014).</p> <p>The current digression rates can be retrieved from http://www.bundesnetzagentur.de/cln_1931/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/ErneuerbareEnergien/Photovoltaik/DatenMeldgn_EEG-VergSaetze/DatenMeldgn_EEG-VergSaetze_node.html#doc405794bodyText4 (only in German).</p> |
| | Geothermal energy | The digression rate will be 5% every year from 2018 (§ 27 par. 2 EEG 2014). |
| | Biogas | <p>The digression rate for landfill gas and sewage gas is 1.5% (§ 27 par. 1 no. 1, 3 EEG 2014)</p> <p>The digression of biogas from other forms of biomass has a basis digression rate of 0.5% every 3 months (1. January, 1. April, 1. July and 1. October) (§ 28 par. 2 EEG 2014). The EEG 2014 has defined a target- for the development of biomass of 100 MW (§ 28 par. 1 EEG 2014). If the real development surpasses that target the digression rate will be increased to 1.27% (§ 28 par. 3 EEG 2014).</p> |
| | Hydro-power | The digression rate is 0.5% every year (§ 27 par. 1 no. 1 EEG 2014). |
| | Biomass | <p>The digression of biogas from other forms of biomass has a basis digression rate of 0.5% every 3 months (1. January, 1. April, 1. July and 1. October) (§ 28 par. 2 EEG 2014). The EEG 2014 has defined a target- for the development of biomass of 100 MW (§ 28 par. 1 EEG 2014). If the real development surpasses that target the digression rate will be increased to 1.27% (§ 28 par. 3 EEG 2014).</p> |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|---|---|
| | | |
| Cap | For solar energy, an overall legal cap of 52,000 MW is introduced. When the cap is reached, the support rates will be decreased to zero on the first day of the consecutive month (§ 31 par. 6 EEG 2014). | |
| Eligibility period | The tariff payment period is usually 20 years plus the year in which the system or plant was put into operation (§ 22 EEG 2014). | |
| Addressees | A plant operator is entitled against the grid operator to the payment of a tariff (§ 19 par. 1 no. 2 EEG 2014). A plant operator is one who, irrespective of the issue of ownership, uses a plant to generate electricity from renewable energy sources or from mine gas (§ 5 no. 2 EEG 2014). Grid operators are the operators of grid systems of all voltages for general electricity supply (§ 5 no. 27 EEG 2014). | |
| Procedure | Process flow | Statutory law does not set out a formal application process. According to the EEG, the conclusion of a contract between the grid operator and the plant operator must not be made a condition for the payment of tariffs (§ 7 par. 1 EEG 2014). |
| | Competent authority | The implementation of the EEG is monitored by the Federal Network Agency § 85 EEG 2014. The Act is evaluated by the Federal Government (§ 97 EEG 2014). |
| Flexibility Mechanism | | |
| Distribution of costs | State | |
| | Consumers | The costs of the feed-in tariff scheme are borne by the final consumers. |
| | Plant operator | |
| | Grid operator | |



| | | |
|--|------------------------|--|
| | European Union | |
| | Distribution mechanism | <ul style="list-style-type: none"> • Plant operator – grid operator. The grid operator is obliged to purchase all electricity generated by a plant operator and pay the tariff set out by law (§ 11 par. 1, § 19 par. 1 no. 2 EEG 2014). • Grid operator – transmission system operator. The grid operator is obliged to transfer the electricity received to the transmission system operator without undue delay (§ 56 EEG 2014). The grid operator is entitled to the purchase of and payment for the quantity of electricity he has paid tariff for (§ 57 par. 1 EEG 2014). • Transmission system operator – transmission system operator. The transmission system operators divide the costs resulting from the EEG equally among themselves (§ 58 par. 1-3 EEG 2014). A transmission system operator is eligible for compensation from other transmission system operator in case he incurred higher costs due to feed-in tariff and premium payments than the average compensation costs of all transmission system operators (§ 58 par. 3 EEG 2014). • Transmission system operator – spot market. The transmission system operators sell electricity from renewable sources on the day-ahead or intraday spot market at the stock exchange price (§ 59 EEG 2014 in conjunction with § 2 AusglMechV). • Transmission system operator – utility companies. The utility companies are obliged to reimburse the transmission system operators for their costs (§ 60 par. 1 EEG 2014 in conjunction with § 3 AusglMechV). • Utility companies – final consumers. The costs incurred are included in the electricity price and thus, passed on to the final consumers via their electricity bills (§ 60 par. 1 EEG 2014). Final consumers that are manufacturing companies or rail operators are exempted from this regulation. Their costs arising from the compensation payments as specified by the EEG may be reduced upon request (“special equalisation scheme”, §§ 63 ff. EEG 2014). |



RES-LEGAL EUROPE – National Profile Germany





Premium tariff I (Market Premium)

| | | | |
|--|--|----------------------------|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EEG • AusglMechV • SDLWindV • BiomasseV • | | |
| Contact Authority | <ul style="list-style-type: none"> • BMWI | | |
| Summary | <p>With the reform of the EEG 2014 Market Premium has become the main support scheme for electricity from renewable energy sources. The plant operator has to sell his electricity directly, i.e. to a third party by a supply agreement or at the stock market, and claim the so-called market premium from the grid operator. Nevertheless, the grid operator is still obliged to physically take the produced electricity (§ 11 EEG 2014).</p> | | |
| Eligible technologies | <table border="1"> <tr> <td data-bbox="293 783 427 1287">General information</td><td data-bbox="427 783 2040 1287"> <p>In general, all technologies used to generate electricity from renewable sources are eligible for the market premium (§§ 34 par. 1 EEG 2014).</p> <p>The following conditions apply:</p> <ul style="list-style-type: none"> • Actual sale of electricity. The market premium will be paid only for electricity that has actually been exported to the grid and purchased by a third party (§ 34 par. 1 EEG 2014); • Avoided grid use charges. Plant operators who have avoided grid use charges in accordance with § 18 par. 1 sentence 1 of the Ordinance on Electricity Grid Access Charges are ineligible (§ 35 no. 1 EEG 2014); • Technical requirements. Energy plants shall be equipped with technical devices that enable the grid operator to reduce output by remote means at any time and to measure the amount of electricity fed in by each system (§§ 35 no. 2, 36 EEG 2014); • Accounting. Electricity shall be accounted for in a balancing group or a sub-balancing group which only accounts for electricity that is directly sold and for which the market premium is received. If electricity in the balancing group does not fulfil these requirements, it must not be fed in by the plant operator (§ 35 no. 3 EEG 2014). </td></tr> </table> | General information | <p>In general, all technologies used to generate electricity from renewable sources are eligible for the market premium (§§ 34 par. 1 EEG 2014).</p> <p>The following conditions apply:</p> <ul style="list-style-type: none"> • Actual sale of electricity. The market premium will be paid only for electricity that has actually been exported to the grid and purchased by a third party (§ 34 par. 1 EEG 2014); • Avoided grid use charges. Plant operators who have avoided grid use charges in accordance with § 18 par. 1 sentence 1 of the Ordinance on Electricity Grid Access Charges are ineligible (§ 35 no. 1 EEG 2014); • Technical requirements. Energy plants shall be equipped with technical devices that enable the grid operator to reduce output by remote means at any time and to measure the amount of electricity fed in by each system (§§ 35 no. 2, 36 EEG 2014); • Accounting. Electricity shall be accounted for in a balancing group or a sub-balancing group which only accounts for electricity that is directly sold and for which the market premium is received. If electricity in the balancing group does not fulfil these requirements, it must not be fed in by the plant operator (§ 35 no. 3 EEG 2014). |
| General information | <p>In general, all technologies used to generate electricity from renewable sources are eligible for the market premium (§§ 34 par. 1 EEG 2014).</p> <p>The following conditions apply:</p> <ul style="list-style-type: none"> • Actual sale of electricity. The market premium will be paid only for electricity that has actually been exported to the grid and purchased by a third party (§ 34 par. 1 EEG 2014); • Avoided grid use charges. Plant operators who have avoided grid use charges in accordance with § 18 par. 1 sentence 1 of the Ordinance on Electricity Grid Access Charges are ineligible (§ 35 no. 1 EEG 2014); • Technical requirements. Energy plants shall be equipped with technical devices that enable the grid operator to reduce output by remote means at any time and to measure the amount of electricity fed in by each system (§§ 35 no. 2, 36 EEG 2014); • Accounting. Electricity shall be accounted for in a balancing group or a sub-balancing group which only accounts for electricity that is directly sold and for which the market premium is received. If electricity in the balancing group does not fulfil these requirements, it must not be fed in by the plant operator (§ 35 no. 3 EEG 2014). | | |



| | | |
|--|-------------------|---|
| | | • |
| | Wind energy | <p>Both onshore and offshore generation are eligible with the following requirements and restrictions (§§ 49, 50 EEG 2014):</p> <ul style="list-style-type: none"> • Fulfilment of technical requirements. Plant operators of wind power plants which are put into operation before 01 January 2017 shall make sure that the requirements stipulated in the Ordinance on System Services by Wind Energy Plants are met (§ 9 par. 6 EEG 2014; SDLWindV). • Offshore generation in protected areas. Electricity is not eligible if generated by plants located in an area of environmental importance, such as plants constructed in a protected area or at a site of Community importance (§ 50 par. 5 EEG 2014). |
| | Solar energy | <p>In general, PV installations ≤ 10 MW are eligible for support under the following restrictions:</p> <ul style="list-style-type: none"> • Building-mounted systems (roofs, facades, noise barriers): Installations in, attached to or on top of buildings or noise barriers are eligible (§ 51 par. 2 EEG 2014 in conjunction with § 5 No. 17 EEG 2014). Buildings without residential purpose can qualify for the Market Premium in the sense of § 51 par. 2 EEG 2014 if the installation is built on a livestock building or is in connection with an agricultural farm (§ 51 par. 3 No. 2, 3 EEG 2014). Those installations that do not qualify as building-mounted systems are treated similar to ground-mounted systems (§ 51 par. 3, 1 EEG 2014). • Ground-mounted systems: The installation has to be erected within the territorial application of a formal development plan (e.g. a local development plan) (§ 51 par. 1 no. 3 EEG 2014). Installations erected within the territorial application of a local development plan drawn up after 1.9.2003 must be located on certain plots of land such as areas next to speedways, railroad tracks as well as on sealed and conversion areas (§ 51 par. 1 no. 3 c EEG 2014). The development plan shall have been formally adopted, i.e. adopted by the local council. This means that it is not necessary for the development plan to have come into force. • Tendering: Ground mounted systems that will be commissioned six months after the first tender for solar power has been announced cannot benefit from the Market Premium anymore (§ 55 par. 3 EEG 2014). |
| | Geothermal energy | Eligible (§ 48 EEG 2014). |



| | | |
|--|-------------|---|
| | Biogas | <p>Electricity from both biogas and biomethane is eligible. There are special provisions for biogas generated from the anaerobic fermentation of biowaste and from the fermentation of manure (§§ 44, 45, 46, 47 EEG 2014). The following restrictions apply:</p> <ul style="list-style-type: none"> • Definition of biomass. The substances regarded as biomass are specified in a separate ordinance (BiomasseV). • Capacity limits. Electricity generated by a plant is eligible only if the installed capacity does not exceed <ul style="list-style-type: none"> ○ 20 MW in case of a biomass plant (§ 44 EEG 2014); ○ 20 MW in case of plants using biogas generated from the anaerobic fermentation of biowaste and ○ 75 kW in case of plants using biogas from the fermentation of manure (§ 46 EEG 2014). <p>Moreover, only 50 % of the amount of electricity that the plant can produce per year is eligible in case of plants with a capacity of more than 100 kW (§ 47 par. 1 EEG 2014).</p> <ul style="list-style-type: none"> • Obligation to employ CHP technology. Electricity from plants using biomethane is eligible only if the electricity is generated through CHP (§ 47 par. 2 no. 1 EEG 2014). The operator of the plant has to prove that the plant met this requirement (§ 47 par. 3 no. 1 EEG 2014). Where a generator fails to meet these requirements, his tariff level will be reduced to the market price (§47 par. 4 EEG 2014). • Obligation to use minimum percentage of manure. Electricity from plants using biogas is eligible only if the amount of manure used to produce the biogas is at least 80 mass percent (§ 46 no. 3 EEG 2014). • Obligation to keep a record of substances. Electricity will be eligible for the full tariff as specified in the EEG only if the plant operator can prove which type of biomass is used by presenting a copy of a record of the substances used and provides evidence that no other substances are used (§ 47 par 1 no. 1 EEG 2014). • Technical requirements. The plant operator shall make sure that devices are used to avoid any escape of biogas (§ 9 par. 5 EEG 2014). • Electricity generation sites. Where electricity is generated from biogas that was generated from anaerobic fermentation of manure, the electricity shall be produced at the site of the biogas generation plant (§46 no. 1 EEG 2014). |
| | Hydro-power | <p>Both new plants and modernised existing plants are eligible (§ 40 par. 1, par. 2 EEG 2014). The following conditions apply (§ 40 EEG 2014):</p> |



| | | |
|--|---------|---|
| | | <ul style="list-style-type: none"> • Requirements of the Federal Water Act. Existing plants are eligible only if the modernisation complies with the requirements of the Federal Water Act (§ 40 par. 2 EEG 2014). • Building requirements. Electricity from newly constructed hydro-electric power plants is eligible only if the plant 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 (§ 40 par. 4 EEG 2014). |
| | Biomass | <p>Eligible under the following conditions (§ 44 EEG 2014):</p> <ul style="list-style-type: none"> • Definition of biomass. The substances regarded as biomass are specified in a separate ordinance (BiomasseV). • Capacity limits. Electricity generated by a plant is eligible only if the installed capacity does not exceed 5 MW (§ 44 EEG 2014). Moreover, only 50 % of the amount of electricity that the plant can produce per year is eligible in case of plants with a capacity of more than 100 kW (§ 47 par. 1 EEG 2014). • Obligation to keep a record of substances. Electricity will be eligible for the full tariff as specified in the EEG only if the plant operator can prove which type of biomass is used by presenting a copy of a record of the substances used and provides evidence that no other substances are used (§ 47 par 1 no. 1 EEG 2014). • Liquid biomass is ineligible for the tariff. In general, electricity is ineligible for the Market Premium if generated by new plants using liquid biomass. Where generated by new plants, this type of electricity is eligible only if the biomass is required as start-up, priming and supporting fuel (e.g. in dual-fuel CHP units) (§ 47 par. 2 no. 3 EEG 2014). • |



| | | |
|----------------------|-----------------------------------|--|
| <p>Amount</p> | <p>General information</p> | <p>The amount of the market premium is calculated every calendar month (§ 20 par. 2 EEG 2014) and includes the following elements:</p> <p>The reference tariff according which is legally defined for each technology (§§ 40-51 EEG 2014) less the monthly electricity value in EURct/kWh (§ 34 par. 2 EEG 2014 in conjunction with No. 1 Annex 1 EEG 2014). In case of onshore wind energy, offshore wind energy and solar energy the monthly electricity value has to be calculated in a particular way (No. 2.2 Annex 1 EEG 2014).</p> <p>The EEG 2014 describes several reasons for the reduction of the reference tariff levels:</p> <ul style="list-style-type: none"> • The reference tariff level will be reduced to zero in case that <ul style="list-style-type: none"> ○ as of 1.1.2016, the electricity prices at the electricity stock exchange EPEX are negative for six consecutive hours (§ 23 par. 4 no. 1 EEG 2014 in conjunction with § 24 par. 1 no. 2 EEG 2014); ○ a plant operator has not registered his plant as required by law (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 1 no. 1, 2 EEG 2014; AnlRegV). A plant operator has to register his plant at the Federal Network Agency (§ 6 par. 1 EEG 2014). This information to be submitted is defined by law and includes, for example, the name and contact details of the plant operator, the location of the power plant, the type of power plant, and its installed capacity (§ 6 par. 2 EEG 2014); ○ the plant operator who has decided to sell some of the electricity directly and some of the electricity through the feed-in-tariff does not keep the ratio between feed-in tariff and direct marketing that he had originally specified (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 1 no. 1, 2 EEG 2014 in conjunction with § 20 par. 2 EEG 2014). • The reference tariff level will be reduced to the actual market value in the case that <ul style="list-style-type: none"> ○ technical requirements are not met (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 1 EEG 2014 in conjunction with § 9 par. 1, 2, 5 or 6 EEG 2014): Plants of which installed capacity exceeds 100 kW shall be equipped with technical devices with which the grid operator can, at any time, reduce output by remote means (§ 9 par. 1 no. 1 EEG 2014). This also refers to operators of solar installations with an installed capacity between 30 kW and 100 kW (§ 9, par. 2 no. 1 EEG 2014). The operators of solar energy installation with an installed capacity of up to 30 kW shall either meet the above-mentioned requirement or limit the effective power exported to the grid to 70% of the installed capacity (§ 9 par. 2 no. 2 EEG 2014). In addition, plants of which installed capacity exceeds 100 kW shall be equipped with technical devices with which the grid operator can retrieve information about the amount of electricity currently fed in by each system (§ 9 par. 1 no. 2 EEG 2014); ○ the plant operator has switched between direct marketing of the electricity and the feed-in tariff without informing the grid operator (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 2 EEG 2014 in conjunction with § 21 EEG 2014); |
|----------------------|-----------------------------------|--|



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|--------------|---|
| | | <ul style="list-style-type: none"> the electricity from the plant is measured through a measuring device that is also measuring the electricity from another plant and that second plant and hence the overall measured electricity does not fall under the same support scheme (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 3 EEG 2014); a plant operator fails to meet the obligation to export all electricity generated by his plant or sold his electricity as balancing energy (§ 23 par. 4 no. 2 EEG 2014 in conjunction with § 25 par. 2 no. 4 EEG 2014 in conjunction with § 39 par. 2 EEG 2014). a plant operator breaches the prohibition of multiple sale electricity from renewable energy sources and mine gas (§ 25 par. 2 no. 5 EEG 2014 in conjunction with § 80 EEG 2014). a plant was installed to fulfil the function of a model public building pursuant to regional legislation, and the installation is not a CHP plant (§ 25 par. 2 no. 6 EEG 2014). |
| | Wind energy | <ul style="list-style-type: none"> Onshore: EURct 4.95 – 8.90 per kWh (according to duration of payment) (§ 49 par. 1 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014). Offshore: EURct 3.9 – 19.4 per kWh (according to duration of payment and scheme chosen by plant operator) (§ 50 par. 1-3 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014). |
| | Solar energy | <p>The amount of tariff depends on the site of production and the installed capacity.</p> <ul style="list-style-type: none"> specific building-mounted systems (roofs, facades, noise barriers) EURct 13.15 – 11.49 per kWh (§ 51 par. 2 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014); other systems EURct 9.23 (§ 51 par. 1 EEG 2014) minus EURct 0.4 per kWh (§ 37 par. 3 no. 2 EEG 2014). The current tariff levels can be retrieved from the site of the Federal Network Agency (Bundesnetzagentur) under http://www.bundesnetzagentur.de/cln_1931/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/ErneuerbareEnergie/Photovoltaik/DatenMeldgn_EEG-VergSaetze/DatenMeldgn_EEG-VergSaetze_node.html#doc405794bodyText4: |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|--------------------------|---|
| | | <p>FiT from 1 December 2014</p> <p>≤ 10 kW: 12.59EURct/kWh</p> <p>≤ 40 kW: 12.25EURct/kWh</p> <p>≤ 500 kWp: 10.95EURct/kWh</p> <p>Other systems ≤ 10 MW: 8.72EURct/kWh</p> |
| | Geothermal energy | EURct 25.2 per kWh (§ 48 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014) |
| | Biogas | <p>Applicable to power plants put into operation after 01.01.2014:</p> <ul style="list-style-type: none"> • Biogas from biomass: EURct 5.85 – 27.73 per kWh (according to plant size and fuel) (§§ 44-46 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014); • Landfill gas: EURct 5.83 – 8.42 per kWh (§ 41 EEG) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014); • Sewage gas: EURct 5.83 – 6.69 per kWh (§ 42 EEG) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014) |
| | Hydro-power | EURct 3.50 – 12.52 per kWh (depending on plant size and date of commissioning) (§ 40 par. 1 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014). |
| | Biomass | EURct 5.85 – 27.73 per kWh (according to plant size and fuel) (§§ 44-46 EEG 2014) minus EURct 0.2 per kWh (§ 37 par. 3 no. 1 EEG 2014) |



| | | |
|------------|---------------------|---|
| Digression | General information | The tariff is reduced by the digression rate, which depends on the year in which the plant was put into operation (§ 23 par. 4 no. 3 EEG 2014). The current version of the EEG sets out the tariffs for 2014. For several technologies the tariff levels are determined by a flexible digression rate, which depends on the newly installed capacity to provide an incentive to reduce costs through technological innovation (§ 24 par. 4 no. 3 EEG 2014). New plants will receive the tariff level applicable on the day they are put into operation. This tariff level will apply for the entire payment period, i.e. for 20 years (§§ 22 EEG 2014). For some technologies the percentages by which the tariff levels will decrease are set by law and are not subject to change. For other technologies the percentage by which the tariff levels will decrease depend on the amount newly installed capacity. |
| | Wind energy | <ul style="list-style-type: none"> • Onshore: the digression contains a basis digression rate of 0.4% every 3 months (1. January, 1. April, 1. July and 1. October) (§ 29 par. 2 EEG 2014). The EEG 2014 has defined a target-corridor for the development of on-shore wind power of 2,400 MW-2,600 MW per annum (§ 29 par. 1 EEG 2014). If the real development surpasses the corridor the digression rate will be increased from 0.4% to up to 1.2% (§ 29 par. 3 EEG 2014). If the development of wind power goes below the targets of the corridor, the digression rate is reduced and in extreme cases, the tariff rate will be even increased by 0.4% (§ 29 par. 4, 5 EEG 2014). • Offshore: until 1.1.2018 there is no digression for offshore wind power plants. In the following years, the digression will be between 0.5% and 1.0%, depending on the year and the tariff (§ 30 par. 1 EEG 2014). |
| | Solar energy | <p>The digression contains a basis digression rate of 0.5% every month (§ 31 par. 2 EEG 2014). The EEG 2014 has defined a target-corridor for the development of solar power of 2,400 MW-2,600 MW per annum (§ 31 par. 1 EEG 2014). If the real development surpasses the corridor the digression rate will be increased from 0.5% to up to 2.8% (§ 31 par. 3 EEG 2014). If the development of solar power goes below the targets of the corridor, the digression rate is reduced and in extreme cases, the tariff rate will be even increased by up to 1.5% (§ 31 par. 4 EEG 2014). The adjustment of the digression rate shall take place every three months (1. January, 1. April, 1. July and 1. October) (§ 31 par. 3 EEG 2014).</p> <p>The current digression rates can be retrieved from http://www.bundesnetzagentur.de/cln_1931/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/ErneuerbareEnergien/Photovoltaik/DatenMeldgn_EEG-VergSaetze/DatenMeldgn_EEG-VergSaetze_node.html#doc405794bodyText4 (only in German).</p> |



| | | |
|---------------------------|---|--|
| | | |
| | Geothermal energy | The digression rate will be 5% per year from 2018 (§ 27 par. 2 EEG 2014). |
| | Biogas | The digression rate for landfill gas and sewage gas is 1.5% per year (§ 27 par. 1 no. 1, 3 EEG 2014). The digression of biogas from other forms of biomass has a basis digression rate of 0.5% every 3 months (1. January, 1. April, 1. July and 1. October) (§ 28 par. 2 EEG 2014). The EEG 2014 has defined a target- for the development of biomass of 100 MW (§ 28 par. 1 EEG 2014). If the real development surpasses that target the digression rate will be increased to 1.27% (§ 28 par. 3 EEG 2014). |
| | Hydro-power | The digression rate is 0.5% per year (§ 27 par. 1 no. 1 EEG 2014). |
| | Biomass | The digression of biogas from other forms of biomass has a basis digression rate of 0.5% every 3 months (1. January, 1. April, 1. July and 1. October) (§ 28 par. 2 EEG 2014). The EEG 2014 has defined a target- for the development of biomass of 100 MW (§ 28 par. 1 EEG 2014). If the real development surpasses that target the digression rate will be increased to 1.27% (§ 28 par. 3 EEG 2014). |
| Cap | For solar energy, an overall legal cap of 52,000 MW is introduced. When the cap is reached, the support rates will be decreased to zero on the first day of the consecutive month (§ 31 par. 6 EEG 2014). | |
| Eligibility period | The tariff payment period is usually 20 years plus the year in which the system or plant was put into operation (§ 22 EEG 2014). | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|---|---|
| Addressees | A plant operator is entitled against the grid operator to the payment of a tariff (§ 19 par. 1 no. 2 EEG 2014). A plant operator is one who, irrespective of the issue of ownership, uses a plant to generate electricity from renewable energy sources or from mine gas (§ 5 no. 2 EEG 2014). Grid operators are the operators of grid systems of all voltages for general electricity supply (§ 5 no. 27 EEG 2014). | |
| Procedure | Process flow | Statutory law does not set out a formal application process. According to the EEG, the conclusion of a contract between the grid operator and the plant operator must not be made a condition for the payment of tariffs (§ 7 par. 1 EEG 2014). |
| | Competent authority | The implementation of the EEG is monitored by the Federal Network Agency § 85 EEG 2014. The Act is evaluated by the Federal Government (§ 97 EEG 2014). |
| Flexibility Mechanism | | |
| Distribution of costs | State | |
| | Consumers | The costs of the premium tariff scheme are borne by the final consumers. |
| | Plant operator | |
| | Grid operator | |



| | | |
|--|------------------------|--|
| | European Union | |
| | Distribution mechanism | <ul style="list-style-type: none"> • Plant operator – grid operator. The grid operator is obliged to accept all electricity generated by a plant operator and pay the market premium set out by law less the electricity price (§ 19 par. 1 no. 1 EEG 2014). • Grid operator – transmission system operator. The grid operator is obliged to transfer the electricity received to the transmission system operator without undue delay (§ 56 EEG 2014). The grid operator is entitled to the purchase of and payment for the quantity of electricity he has paid tariff for (§ 57 par. 1 EEG 2014). • Transmission system operator – transmission system operator. The transmission system operators divide the costs resulting from the EEG equally among themselves (§ 58 par. 1-3 EEG 2014). A transmission system operator is eligible for compensation from other transmission system operator in case he incurred higher costs due to feed-in tariff and premium payments than the average compensation costs of all transmission system operators (§ 58 par. 3 EEG 2014). • Transmission system operator – spot market. The transmission system operators sell electricity from renewable sources on the day-ahead or intraday spot market at the stock exchange price (§ 59 EEG 2014 in conjunction with § 2 AusglMechV). • Transmission system operator – utility companies. The utility companies are obliged to reimburse the transmission system operators for their costs (§ 60 par. 1 EEG 2014 in conjunction with § 3 AusglMechV). • Utility companies – final consumers. The costs incurred are included in the electricity price and thus, passed on to the final consumers via their electricity bills (§ 60 par. 1 EEG 2014). Final consumers that are manufacturing companies or rail operators are exempted from this regulation. Their costs arising from the compensation payments as specified by the EEG may be reduced upon request (“special equalisation scheme”, §§ 63 ff. EEG 2014). • |



Tenders (Auctioning the feed-in support for ground-mounted installations)

| | | |
|-------------------------------------|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none">• EEG 2014• AusglMechV• FFAV | |
| Summary | The latest amendment of the EEG introduces tenders as pilot project with the aim of testing this support scheme before opening it to all technologies beginning with 2017. | |
| Eligible technologies | General information | The tendering pilot project is open exclusively for ground-mounted installations. |
| | Wind energy | |
| | Solar energy | <p>PV ground-mounted installations (§ 5 No. 16 EEG) with an installed capacity between 100 kW and 10 MW (§ 6 (2) FFVA).</p> <p>The financial support for ground-mounted installations can be granted according to § 19 EEG only as long as:</p> <ul style="list-style-type: none">• The installation has been granted an additional authorization by the Federal Network Agency stating the entitlement of receiving financial support (§ 28 No. 1. FFAV). The authorization marks the point in time the financial support becomes due. This can be received over a period of 20 years. However, for an installation to be eligible for such an |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|-------------------|---|
| | | <p>authorization, it has to have been commissioned before (§ 22 No. (1) 1.</p> <ul style="list-style-type: none"> For the year 2015, the installation has to be erected within the territorial application of a formal development plan (e.g. a local development plan) (§ 51 par. 1 no. 3 EEG 2014). Installations erected within the territorial application of a local development plan drawn up after 1.9.2003 must be located on certain plots of land such as areas next to speedways, railroad tracks as well as on sealed and conversion areas (§ 51 par. 1 no. 3 c EEG 2014). The development plan shall have been formally adopted, i.e. adopted by the local council. This means that it is not necessary for the development plan to have come into force. <p>Beginning with 2016 further areas come into question for the erection of ground-mounted PV installations, such as surfaces in federal property or in the property of the Institute for Federal Real Estate, as also surfaces, whose parcels were used as arable land in less-favourite areas at the point of deciding about the development plan (§ 22 (1) 2 b) dd) ee); § 22 (3) b FFVA).</p> |
| | Geothermal energy | |
| | Biogas | |
| | Hydro-power | |



| | | |
|---------------|----------------------------|---|
| | Biomass | |
| Amount | General information | <p>While the EEG used to stipulate fixed financial supports for each RES technology, the latest amendment of 2014 foresees, together with the FFAV from 2015, the introduction of bidding rounds for new ground-mounted PV installations. Thus, the amount of the financial support would result directly from the economic competitiveness and should orient itself more closely to the real costs of the energy production.</p> <p>A maximum value will be fixed before each bidding round (§ 8 (1) FFVA), according to the provisions of the law (§ 51 (2)3; § 26 (3); §31(1) to (5) EEG).</p> <p>While the April 2015 bidding round has been organized according to the “pay-as-bid” principle, the August and December rounds were carried out according to “uniform-pricing”.</p> |
| | Wind energy | |
| | Solar energy | <p>The tariff level is being determined by auctioning for specific volumes of installed electric capacity. Several different bid-rounds will take place three times a year (in April, August and December) until the end of 2017. The volume it is being auctioned for, varies as following (§ 3 FFAV)</p> |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|-------------------|---|
| | | <p>2015: 150 MW / 150 MW / 200 MW</p> <p>2016: 125 MW / 125 MW/ 150 MW</p> <p>2017: 100 MW / 100 MW / 100 MW</p> <p>Should the initial volume not be reached within an auctioning-round, this will increase accordingly for the following round (§ 4 FFAV).</p> <p>The volumes beyond 2018 will be determined by the Federal Government at a later point in time, as soon as also the other technologies will be able to take part in bidding rounds, once the new EEG amendment will be adopted in 2016.</p> <p>If the site of the ground-mounted PV installation should not - at least partially – correspond to the site mentioned in the bid, then the financial support will be reduced by EUR 0,3 ct./kWh (§26 (3) FFVA).</p> <p>Additionally, a further reduction of EUR 0,3 ct./kWh is to be applied if the entitlement for receiving financial support for the bid volume is being applied for only after the 18th calendar month since the bid has been won (§ 26 (4) FFVA).</p> |
| | Geothermal energy | |
| | Biogas | |



| | | |
|--------------------|--|--|
| | Hydro-power | |
| | Biomass | |
| Digression | General information | |
| | Wind energy | |
| | Solar energy | |
| | Geothermal energy | |
| | Biogas | |
| | Hydro-power | |
| | Biomass | |
| Cap | | |
| Eligibility period | The entitlement for the financial support is foreseen for 20 years, as long as the supported installation does not use the produced electricity for own consumption (§ 28 (5) FFVA). | |
| Addressees | Natural persons, partnerships with legal capacity and juridical persons are allowed to participate in the bidding rounds (§ 6 (1) FFVA). | |
| Procedure | Process flow | Announcement of the Tender Session. The Federal Network Agency announces the tender session on their page weeks before the actual |



| | | |
|--|--|---|
| | | <p>bidding term. They must specify the exact bidding term, the volume to be bidden for, the highest price allowed, as also formal considerations regarding the entire procedure (§ 5 FFVA).</p> <p>Participation at a Tender Session. Natural persons, partnerships with legal capacity and juridical persons are allowed to participate in the bidding rounds (§ 6 (1) FFVA). The installations the bids are made for are allowed to have an installed capacity between 100 kW and 10 MW (§ 6 (2) FFVA).</p> <p>Bids. The bids must contain additionally to the <u>bidding volume</u> and <u>value</u> also information about</p> <ul style="list-style-type: none"> • the bidder, • the framework of the current bidding round, • the location of the surface, the installation is to be erected on, • proof about the admissibility of the surface to be used, • proof about the realisations probability of the project, • an extract from real estate cadastre, • a declaration about the correctness of the information (§ 6 FFVA). <p>Each bidder is entitled to submit several bids. In this case, these must be numbered.</p> |
|--|--|---|



| | | |
|--|--|--|
| | | <p>First Guaranty. Additional to the already mentioned criteria a bid must fulfil, the bidders must also deposit a first guaranty. This is to be calculated by multiplying the volume one bids for with EUR 4/kW. The multiplying variable halve itself, if the bid contains solid proof about the realisation probability and admissibility of the surface such as for example an adopted development plan (§ 7 FFVA). An additional procedural fee of EUR 715 has to be paid.</p> <p>Award procedure. All bids are to be opened. After the examination of the compliance with the formal requirements and the eventual exclusion of bids to in conformity with the legal stipulations, all bids are to be sorted after their bid value and bid volume. The result of the bidding procedure is to be publicly announced on the web page of the Federal Network Agency (§9 to § 14 FFVA).</p> <p>Second Guaranty. The winning bidders have to deposit a second guaranty amounting to the won volume multiplied by EUR 50/kWh. Similar halving criteria apply as also in the case of the first guaranty (§ 15 FFVA).</p> <p>Authorization for the entitlement to financial support. As soon as a winning bidder has commissioned its installation he can submit a request with the Federal Network Agency for issuing an authorization, which states its entitlement to financial support. The day of this request marks also the start for the financial support (§ 21 FFVA). However, the bidder has only 24 months at its disposal for the erection of its project and requesting this authorization. Failing to</p> |
|--|--|--|



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|-------------------------------|--|
| | | meet this deadline would extinguish its entitlement for financial support (§ 20 FFVA). |
| | Competent authority | Federal Network Agency |
| Flexibility Mechanism | | |
| Distribution of costs | State | |
| | Consumers | The costs of the tendering scheme are borne by the final consumers. |
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | <ul style="list-style-type: none"> • Installation operator – grid operator. The installation operator is obliged to purchase all electricity generated by a plant operator and pay the tariff set out by law (§ 11 par. 1, § 19 par. 1 no. 2 EEG 2014). • Grid operator – transmission system operator. The grid operator is obliged to transfer the electricity received to the transmission system operator without undue delay (§ 56 EEG 2014). The grid operator is entitled to the purchase of and payment for the quantity of electricity he has paid tariff for (§ 57 par. 1 EEG 2014). |



| | | |
|--|--|---|
| | | <ul style="list-style-type: none"> • Transmission system operator – transmission system operator. The transmission system operators divide the costs resulting from the EEG equally among themselves (§ 58 par. 1-3 EEG 2014). A transmission system operator is eligible for compensation from other transmission system operator in case he incurred higher costs due to feed-in tariff and premium payments than the average compensation costs of all transmission system operators (§ 58 par. 3 EEG 2014). • Transmission system operator – spot market. The transmission system operators sell electricity from renewable sources on the day-ahead or intraday spot market at the stock exchange price (§ 59 EEG 2014 in conjunction with § 2 AusglMechV). • Transmission system operator – utility companies. The utility companies are obliged to reimburse the transmission system operators for their costs (§ 60 par. 1 EEG 2014 in conjunction with § 3 AusglMechV). <p>Utility companies – final consumers. The costs incurred are included in the electricity price and thus, passed on to the final consumers via their electricity bills (§ 60 par. 1 EEG 2014). Final consumers that are manufacturing companies or rail operators are exempted from this regulation. Their costs arising from the compensation payments as specified by the EEG may be reduced upon request (“special equalisation scheme”, §§ 63 ff. EEG 2014).</p> |
|--|--|---|



Subsidy (Flexibility surcharge)

| | | |
|-------------------------------------|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none">• EEG• AusglMechV• BiomasseV | |
| Summary | The operators of biogas plants that have been commissioned after 1.8.2014 may claim an additional support for providing capacity for on-demand use. The additional support may be received on top of and separately from the market premium or the feed-in tariff. | |
| Eligible technologies | General information | The flexibility surcharge only applies to electricity generation from biogas (§ 53 par. 1 EEG 2014). |
| | Wind energy | |
| | Solar energy | |
| | Geothermal energy | |
| | Biogas | Eligible. The following requirements must be fulfilled: <ul style="list-style-type: none">• Definition of biomass. The substances regarded as biomass are specified in a separate ordinance (BiomasseV).• Obligation to keep a record of substances. Electricity will be eligible for the flexibility surcharge only if the plant operator can prove which type of biomass is used by presenting a copy of a record of the substances used and provides evidence that no other substances are used (§ 52 |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|-------------------|--|---|
| | | <p>par. 2 EEG 2014 in conjunction with §§ 19 par. 3, § 71 no. 2, 47 par 1 no. 1 EEG 2014).</p> <ul style="list-style-type: none"> • Minimum capacity. The plant has to have an installed capacity of more than 100 kW (§ 53 par. 1 no. 1 EEG 2014); • Exercise Market premium or feed-in tariff. The plant operator has to benefit from either the market premium or the feed-in tariff within the capacity limitations defined by § 47 par. 1 EEG 2014 (§ 53 par. 2 EEG 2014). Thus, the electricity must be eligible for either the market premium or the feed-in tariff. |
| | Hydro-power | |
| | Biomass | |
| Amount | The amount of the flexibility surcharge is 40 EUR per installed kilowatt per year for as long as the biogas plant is eligible for the market premium or the feed-in tariff (§ 53 par. 2, 3 EEG 2014) | |
| Addressees | A plant operator is entitled against the grid operator to the payment of the flexibility surcharge (§ 53 par. 2 EEG 2014). A plant operator is one who, irrespective of the issue of ownership, uses a plant to generate electricity from renewable energy sources or from mine gas (§ 5 no. 2 EEG 2014). Grid operators are the operators of grid systems of all voltages for general electricity supply (§ 5 no. 27 EEG 2014). | |
| Procedure | Process flow | A process is not defined by the law. |



| | | |
|------------------------------|-------------------------------|---|
| | Competent authority | The competent authority is the BMWi |
| Flexibility mechanism | | |
| Distribution of costs | State | |
| | Consumers | The costs of the flexibility surcharge are borne by the final consumers. |
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | <ul style="list-style-type: none"> • Grid operator – transmission system operator. The grid operator is entitled to be reimbursed for the flexibility payments based on § 52 EEG 2014. (§ 57 par. 1 EEG 2014). • Transmission system operator – transmission system operator. The transmission system operators divide the costs resulting from the EEG equally among themselves (§ 58 par. 1-3 EEG 2014). A transmission system operator is eligible for compensation from other transmission system operator in case he incurred higher costs due to feed-in tariff and premium payments than the average compensation costs of all transmission system operators (§ 58 par. 3 EEG 2014). • Transmission system operator – spot market. The transmission system operators sell electricity from renewable sources on the day-ahead or intraday spot |



| | | |
|--|--|--|
| | | <p>market at the stock exchange price (§ 59 EEG 2014 in conjunction with § 2 AusglMechV).</p> <ul style="list-style-type: none">• Transmission system operator – utility companies. The utility companies are obliged to reimburse the transmission system operators for their costs (§ 60 par. 1 EEG 2014 in conjunction with § 3 AusglMechV).• Utility companies – final consumers. The costs incurred are included in the electricity price and thus, passed on to the final consumers via their electricity bills (§ 60 par. 1 EEG 2014). Final consumers that are manufacturing companies or rail operators are exempted from this regulation. Their costs arising from the compensation payments as specified by the EEG may be reduced upon request (“special equalisation scheme”, §§ 63 ff. EEG 2014). |
|--|--|--|



Subsidy (Flexibility premium)

| | | |
|-------------------------------------|---|--|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EEG • AusglMechV • BiomasseV | |
| Summary | The operators of biogas plants that have been commissioned before 1.8.2014 may claim an additional support for providing additionally installed capacity for on-demand use. | |
| Eligible technologies | General information | The flexibility premium only applies to electricity generation from biogas (§ 54 par. 1 EEG 2014). |
| | Wind energy | |
| | Solar energy | |
| | Geothermal energy | |
| | Biogas | <p>Eligible. The following requirements must be fulfilled:</p> <ul style="list-style-type: none"> • Definition of biomass. The substances regarded as biomass are specified in a separate ordinance (BiomasseV). • Obligation to keep a record of substances. Electricity will be eligible for the flexibility premium as specified in the EEG only if the plant operator can prove which type of biomass is used by presenting a copy of a record of the substances used and provides evidence that no other substances are |



| | | |
|--|--|---|
| | | <p>used (§ 52 par. 2 EEG 2014 in conjunction with §§ 19 par. 3, § 71 no. 2, 47 par 1 no. 1 EEG 2014).</p> <ul style="list-style-type: none"> • Additionally installed capacities. The flexibility premium applies only to additionally installed capacities (§ 54 EEG 2014); • Direct selling. All electricity generated by a plant shall be sold directly for the purpose of claiming the market premium or for other purposes (§ 54 EEG 2014); • Eligibility for market premium. The produced electricity must be eligible for the market premium and the amount of the reference tariff level may not be reduced for any reason (§ 54 EEG 2014 in conjunction with No I.1. a Annex 3 EEG 2014); • Ratio between rated power and nominal power. The rated annual capacity of a plant shall amount to at least 0.2 times the installed capacity of the plant (§ 54 EEG 2014 in conjunction with No I.1 b Annex 3 EEG 2014); • Formal data requirements. The plant operator must submit all information as defined in the AnlRegV (§ 54 EEG 2014 in conjunction with No I.1 c Annex 3 EEG 2014); • Certification by an environmental verifier. An environmental verifier who is accredited in the field of renewable energy generation shall certify that a given plant is technically suitable to be operated on a demand basis as required for the flexibility premium (§ 54 EEG 2014 in conjunction with No I.1 d Annex 3 EEG 2014). |
|--|--|---|



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|---|
| | Hydro-power | |
| | Biomass | |
| Amount | The amount of the flexibility premium is 130 EUR per additionally installed kilowatt per year for 10 years (§ 53 par. 2, 3 EEG 2014; No I.4 Annex 3 EEG 2014). The support for additional capacities will end when 1.350 MW of additional capacities have been installed (No I.5 Annex 3 EEG 2014) | |
| Addressees | A plant operator is entitled against the grid operator to the payment of the flexibility premium (§ 53 par. 2 EEG 2014). A plant operator is one who, irrespective of the issue of ownership, uses a plant to generate electricity from renewable energy sources or from mine gas (§ 5 no. 2 EEG 2014). Grid operators are the operators of grid systems of all voltages for general electricity supply (§ 5 no. 27 EEG 2014). | |
| Procedure | Process flow | Statutory law does not set out a formal application process. However, plant operators shall inform the grid operator in advance of their first claim for the flexibility premium (No I.3 Annex 3 EEG 2014). |
| | Competent authority | The competent authority is the BMWi |
| Flexibility mechanism | | |
| Distribution of costs | State | |
| | Consumers | The costs of the flexibility premium scheme are borne by the final consumers. |
| | Plant operator | |



| | | |
|--|------------------------|--|
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | <ul style="list-style-type: none"> • Grid operator – transmission system operator. The grid operator is entitled to be reimbursed for the flexibility payments based on § 52 EEG 2014. (§ 57 par. 1 EEG 2014). • Transmission system operator – transmission system operator. The transmission system operators divide the costs resulting from the EEG equally among themselves (§ 58 par. 1-3 EEG 2014). A transmission system operator is eligible for compensation from other transmission system operator in case he incurred higher costs due to feed-in tariff and premium payments than the average compensation costs of all transmission system operators (§ 58 par. 3 EEG 2014). • Transmission system operator – spot market. The transmission system operators sell electricity from renewable sources on the day-ahead or intraday spot market at the stock exchange price (§ 59 EEG 2014 in conjunction with § 2 AusglMechV). • Transmission system operator – utility companies. The utility companies are obliged to reimburse the transmission system operators for their costs (§ 60 par. 1 EEG 2014 in conjunction with § 3 AusglMechV). • Utility companies – final consumers. The costs incurred are included in the electricity price and thus, passed on to the final consumers via their electricity bills (§ 60 par. 1 EEG |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|--|---|
| | | <p>2014). Final consumers that are manufacturing companies or rail operators are exempted from this regulation. Their costs arising from the compensation payments as specified by the EEG may be reduced upon request (“special equalisation scheme”, §§ 63 ff. EEG 2014).</p> |
|--|--|---|



RES-E grid issues

Overview

| | |
|--------------------------------|--|
| Overview of grid issues | In Germany, plants for the generation of electricity from renewable sources shall be given priority connection to the grid. Furthermore, grid operators are obliged to give priority to electricity from renewable sources when purchasing and transmitting electricity. Moreover, those interested in feeding in electricity may demand that the grid operator expands his grid. These special provisions are set out in the Act on Granting Priority to Renewable Energy Sources (EEG). Further general provisions on energy are stipulated in the Energy Industry Act (EnWG). |
| Connection to the grid | Plant operators are statutorily entitled to immediate priority connection of renewable energy plants by the grid operators. |
| Use of the grid | Plant operators are statutorily entitled against the grid operators to the purchase and transmission of all electricity from renewable energy sources supplied. Grid operators shall not charge the plant operators for the transmission of such electricity. |
| Grid development | Upon the request of those interested in feeding in electricity, the grid operator is obliged to immediately optimise, boost and expand his grid in accordance with the best available technology in order to guarantee the purchase, transmission and distribution of electricity from renewable sources (§ 9 par. 1 EEG). The grid operator is not obliged to optimise, boost or expand his grid if this is economically unreasonable. |
| Statutory provisions | <ul style="list-style-type: none"> • EEG 2014 (Renewable Energy Sources Act – general provisions on renewable energy) • EnWG (Energy Industry Act – general provisions on the energy industry) • KraftNAV (Ordinance on the Connection of Power Plants to the Grid) |



RES-LEGAL EUROPE – National Profile Germany





Basic information on legal sources

| | | | |
|---|--|---|---|
| Name of legal source (original language) | Gesetz für den Ausbau Erneuerbarer Energien (Erneuerbare-Energien-Gesetz – EEG 2014) | Energiewirtschaftsgesetz – EnWG | Verordnung zur Regelung des Netzanschlusses von Anlagen zur Erzeugung von elektrischer Energie |
| Full name | | Gesetz über die Elektrizitäts- und Gasversorgung | |
| Name (English) | Act on Developing Renewable Energy Sources (Renewable Energy Sources Act) | Energy Industry Act (EnWG) | Ordinance on the Connection of Power Plants to the Grid |
| Abbreviated form | EEG 2014 | EnWG | KraftNAV |
| Entry into force | 01.01.2009 | 13.07.2005 | 26.06.2007 |
| Last amended on | 21.07.2014 | 21.12.2015 | |
| Future amendments | Expected October 2016 | | |
| Purpose | In order to protect the climate, the act aims to increase the proportion of electricity from renewable energy sources in total energy supply to at least 18% by 2020, to 40-45% by 2025, to 55-60% by 2035 to 80% by 2050 and to | Ensuring the safe, cost-efficient and consumer-friendly supply of the population with electricity and gas (§ 1 EnWG). | Regulating the procedure for the connection of power plants with a capacity of at least 100 MW to high-voltage grids with a voltage of at least 110 kV. |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|--|---|---|---|
| | integrate these quantities of electricity in the electricity supply system (§ 1 EEG). | | |
| Relevance for renewable energy | This act promotes renewable energy only. | This act stipulates supplementary provisions for the access of electricity from renewable sources to the grid. | This ordinance regulates the connection of renewable energy plants to the grid as laid down in the EEG. |
| Link to full text of legal source (original language) | http://www.gesetze-im-internet.de/bundesrecht/eeq_2014/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/enwg_2005/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/kraftnav/gesamt.pdf |
| Link to full text of legal source (English) | http://www.bmwi.de/English/Redaktion/Pdf/renewable-energy-sources-act-eeq-2014,property=pdf,bereich=bmwi2012,sprache=en,rwb=true.pdf Unofficial translation of the RES Act | | |



RES-LEGAL EUROPE – National Profile Germany



Further information

| Institution (name) | Website | Name of contact person (optional) | Telephone number (head office) | E-mail (optional) |
|---|---|-----------------------------------|--------------------------------|--|
| Federal Ministry for Economic Affairs and Energy (BMWi) | http://www.bmwi.de/EN/root.html | | +49 (0)30- 18 615 0 | kontakt@bmwi.bund.de |
| Federal Network Agency | http://www.bundesnetzagentur.de/cln_1931/sid_929F6771952BA373F464674E3D24B4B8/EN/Home/home_node.html | | +49 228 140 | info@bnetza.de |
| Federal Antitrust Agency (Bundeskartellamt) | http://www.bundeskartellamt.de/EN/Home/home_node.html | | +49 228 949 90 | info@bundeskartellamt.bund.de |
| Geiser& von Oppen – PartG (law firm) | http://www.gvo-anwaelte.de/en.html | Margarete von Oppen | +49 30 31 01 92 00 | office@gvo-anwaelte.de |



Grid issues

Connection to the grid

| | | |
|--|---|--|
| Abbreviated form of legal sources | <ul style="list-style-type: none"> • EEG • KraftNAV | |
| Contact Authority | <ul style="list-style-type: none"> • Federal Network Agency, BMWi | |
| Overview | <p>Plant operators are statutorily entitled against the grid operator to the connection of renewable energy plants to the grid (§ 8 par. 1 EEG). The grid operator shall not make the conclusion of a contract a condition for the fulfilment of his obligation to connect plants to the grid (§ z par. 1 EEG).</p> <p>A plant operator is one who uses a plant or installation for the purpose of power generation from renewable energy sources. Whether or not he owns the plant is irrelevant (§ 5 no. 2 EEG). The person obligated is the grid operator who is most closely located to the plant site and whose grid is technically suitable to receive electricity (§ 8 par. 1 EEG). Where connecting the plant to a grid other than the most closely located one is technically and economically more favourable, another grid operator may be obliged to connect the plant (§ 8 par. 1 EEG). Grid operators are entitled to assign a plant a different grid connection point. Likewise, a plant operator may choose another grid connection point. In cases where plants with a capacity of up to 30 kW are located on a plot of land which already has a connection to the grid, the grid connection point of this plot will be deemed to be the most suitable connection point (§ 8 par. 1 EEG). A grid is deemed to be technically suitable even if the grid operator has to expand his grid at an economically reasonable expense to import electricity (§ 8 par. 4 EEG).</p> | |
| Procedure | Process flow | <p>Low-voltage and medium-voltage grids:</p> <p>Only certain elements of the process of connecting plants to low-voltage and high-voltage grids are set out by law. Each grid operator may determine an individual connection process. The procedure and the required application forms are usually</p> |



| | | |
|--|--|---|
| | | <p>published on the grid operator's website. For technical reasons, the grid connection process involves the following steps:</p> <ul style="list-style-type: none"> • Those interested in feeding in electricity apply for connection to the grid ("grid system connection request") (§ 8 par. 5 EEG). • The grid operator shall, without delay, provide those interested in feeding in electricity with a precise timetable including the procedural steps for processing their connection requests and a list describing all information required by the grid operator to determine the grid connection points or to plan the expansion of the grid (§ 8 par. 5 EEG). • Everyone interested in feeding in electricity shall submit the required information to the grid operator. • The grid operator shall, without delay and within eight weeks after receipt of the information, submit to those interested in feeding in electricity a timetable for establishing grid connection, all information required by those interested in feeding in electricity to test the grid connection point, a comprehensible and detailed estimate of the costs the plant operators will incur for the establishment of grid connection and the grid system data required to test grid compatibility and the necessary information on the technical requirements which the plant has to fulfil (§ 8 par. 6 EEG). • The grid operator assigns a connection point. • The grid operator makes a connection offer. • The grid operator and the plant operator conclude a connection agreement (optional). • The plant is connected and electricity is exported to the grid. <p>High-voltage grids: Plants with a capacity of at least 100 MW that are connected to an electricity supply</p> |
|--|--|---|



| | | |
|--|------------------|---|
| | | <p>grid with a voltage of at least 110 kV are subject to the following procedure (§ 1 no. 1 KraftNAV) unless it violates the provisions of the EEG (§ 1 par. 2 KraftNAV):</p> <ul style="list-style-type: none"> • The operator to be connected applies for connection (§ 3 par. 2 KraftNAV). • The grid operator shall inform the plant operator on the required audits and the expected costs after a period of two weeks and request additional information within one week (§ 3 par. 2 KraftNAV). • The operator to be connected shall pay 25% of the expected costs (§ 3 par. 3 KraftNAV). • The grid operator shall announce the results of the grid stability test and grant connection within three months after the plant operator has made the advance payment (§§ 3 par. 3; 4 par. 1 KraftNAV). • The grid operator and the plant operator conclude a connection agreement (optional) (§ 4 par. 2 and 4 KraftNAV in conjunction with § 4 par. 1 EEG). • The grid operator and the plant operator agree on an implementation roadmap (§ 4 par. 5 KraftNAV). • The plant is connected and put into operation. |
| | Deadlines | <p>General information:</p> <p>Plants shall be connected to the grid immediately, i.e. without undue delay (§ 5 par. 1 EEG in conjunction with § 121 par. 1 BGB). Furthermore, after receipt of a connection request, the grid operator is obliged to submit, without delay, a detailed timetable for processing the grid connection request to the applicant (§ 5 par. 5 EEG). Moreover, the grid operator shall, after receipt of the necessary information and without delay, submit to the plant operator a timetable for the immediate establishment of grid connection, the information required to test the grid connection point and, upon request, the grid system data required to test grid compatibility and a cost estimate within eight weeks. The EEG does not specify any deadlines by which the grid operator</p> |



| | | |
|--|----------------------|---|
| | | <p>shall carry out the grid stability test. This test may take three weeks to three months, depending on the number of the grid operator's staff.</p> <p>High-voltage grids: Plants with a capacity of at least 100 MW are subject to the deadlines stipulated by KraftNAV (see procedure) unless they violate the provisions of the EEG (§§ 1 par. 2; 3; 4 KraftNAV).</p> |
| | Obligation to inform | <p>General information: The grid operator shall provide the following information to the plant operator:</p> <ul style="list-style-type: none"> • After receipt of the connection request: a precise timetable including the procedural steps for processing connection requests and a list describing all information required by the grid operator to determine the grid connection point or plan the expansion of the grid (§ 5 par. 5 EEG). • After the grid operator's receipt of the required information: <ul style="list-style-type: none"> ○ a timetable for establishing grid connection, ○ all information the applicant needs to test the connection point and, upon request, the grid system data required to test grid compatibility, ○ a comprehensible and detailed estimate of the costs the plant operator will incur for the establishment of grid connection (§ 5 par. 6 EEG). <p>A plant operator shall submit to the grid operator all information required to determine the grid connection point or to plan the expansion of the grid (§ 5 par. 5 EEG).</p> <p>High-voltage grids:</p> <ul style="list-style-type: none"> • Prior to the connection procedure, the grid operator is obliged to publish the following information on his website (§ 3 par. 1 KraftNAV): |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|---|--|--|
| | | <ul style="list-style-type: none"> ○ information required to assess the application for connection and to estimate the available grid capacity; ○ standardised requirements for the conclusion of a connection agreement; ○ a diagram of the grid network and a load diagram for the entire network; • After receiving a plant operator's connection request, the grid operator is obliged to inform the plant operator about the required tests and the expected costs (§ 3 par. 2 KraftNAV). • During the tests, the grid operator is obliged to provide, upon request, the plant operator with the grid system data necessary to independently assess the future grid load (§ 5 par. 1 KraftNAV). • After the tests have been carried out, the grid operator is obliged to inform the plant operator about the test procedure and the test results (§ 3 par. 3 KraftNAV). |
| Priority to renewable energy (qualitative criteria) | (x) Priority to renewable energy () Non-discrimination | Plants for the generation of electricity from renewable sources shall be connected to the grid as a priority, i.e. prior to plants that generate electricity from traditional sources ("principle of priority", § 8 par. 1 EEG). |
| Capacity limits (quantitative criteria) | The grid operator is obliged to connect plants even where the purchase of electricity is only possible by optimising, boosting or expanding the grid (§ 8 par. 4 EEG). However, this obligation does not apply when optimising, boosting or expanding the grid is economically unreasonable (§ 12 par. 3 EEG). Whether the expansion of the grid is economically reasonable in a given case will be determined by weighing the plant operator's interests against the grid operator's interests. | |
| Distribution of costs | State | |
| | Consumers | Since 01.01.2013 consumers have to bear part of the costs incurred by delayed grid access for offshore wind farms caused by transmission grid operators via electricity |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|-------------------------------|--|
| | | <p>prices. According to § 17 f par. 5 EnWG, the cost equalisation scheme foresees the following surcharges for final consumers:</p> <ul style="list-style-type: none"> • Consumption $\leq 1,000,000$ kWh per delivery point: 0.250 ct/kWh • Consumption $> 1,000,000$ kWh per delivery point: additional 0.050 ct/kWh • Consumption $> 1,000,000$ kWh per delivery point: 0.025 ct/kWh if the annual electricity bill of a company exceeds 4% of the profit generated during the preceding calendar year. |
| | Grid operator | <p>If the grid operator assigns to a plant a grid connection point other than the most closely located or technically and economically most suitable one, he shall bear the resulting incremental costs (§ 16 par. 2 EEG).</p> <p>Since 01.01.2013, transmission grid operators can be held liable for the cost incurred from delayed grid access for offshore wind plants caused by gross negligence (§ 17 f par. 2 EnWG). The transmission grid operator has to make up for a certain share of overall costs incurred:</p> <ul style="list-style-type: none"> • 20 % for incurred costs \leq EUR 200 mln per calendar year • 15 % for incurred costs between EUR 200 and EUR 400 mln per calendar year • 10 % for incurred costs between EUR 400 and EUR 600 mln per calendar year • 5 % for incurred costs between EUR 600 and EUR 1,000 mln per calendar year <p>In case of least negligence, the maximum damage compensation is max. EUR 17.5 mln.</p> |
| | Plant operator | <p>The plant operator bears the costs of connecting the plant to the most closely located or technically and economically most suitable grid connection point as well as the costs of the measuring devices necessary to record the electricity transmitted and received (§ 16 par. 1 EEG).</p> |
| | European Union | |
| | Distribution mechanism | |



RES-LEGAL EUROPE – National Profile Germany





Use of the grid

| | | |
|--|---|--|
| Abbreviated form of legal sources | <ul style="list-style-type: none"> • EEG • EnWG | |
| Contact Authority | <ul style="list-style-type: none"> • Federal Network Agency, BMWi | |
| Overview | <p>Plant operators are statutorily entitled against the grid operator to the physical acceptance and transmission of all electricity from renewable sources offered (§ 11 par. 1 EEG). The grid operator shall not make the conclusion of a contract a condition for fulfilling his obligation to purchase and transmit electricity (§ 7 par. 1 EEG).</p> | |
| Procedure | Process flow | <ul style="list-style-type: none"> • Grid connection • The claim for physical acceptance and transmission arises when the plant is connected to the grid. • The grid operator then purchases and transmits the electricity. |
| | Deadlines | <p>In general, the priority acceptance obligation is unconditional and has to be fulfilled without undue delay (§ 11 par. 1 EEG).</p> |
| | Obligation to inform | |
| Priority to renewable energy (qualitative criteria) | <p>(x) Priority to renewable energy</p> <p>() Non-discrimination</p> | <p>When physically accepting and transmitting electricity, the grid operator shall give electricity generated from renewable sources priority over electricity from energy sources other than renewable ones (“principle of priority”, § 11 par. 1 EEG). Electricity generated by CHP shall have the same priority (§ 11 par. 1 sentence 3 EEG).</p> |



| | |
|--------------------|---|
| Curtailment | <p>The grid operator may deny the purchase and transmission of electricity generated from renewable energy sources in the following cases:</p> <ul style="list-style-type: none">• Feed-in management. Grid operators shall be entitled to take technical control over renewable energy plants that are equipped with a remote control device to avoid grid capacity shortage in the respective grid area including the upstream grid. The procedure is the following:<ul style="list-style-type: none">○ The grid operator shall make sure that priority is given to electricity generated from renewable sources or by CHP unless other installations for the generation of electricity must remain connected to the grid in order to guarantee the safety and reliability of the electricity supply system. Moreover, solar energy plants with a capacity of up to 100 kW shall be curtailed only after the other installations have been curtailed (§ 14 par. 1 sentence 2 EEG). He shall also ensure that he has called up the data on the current feed-in situation in the relevant region of the grid (§ 14 par. 1 EEG). Furthermore, grid operators shall make sure that the largest possible quantity of electricity from renewable sources and by CHP is purchased (§ 14 par. 1 EEG).○ Prior to taking control over a plant whose capacity exceeds 100 kW, the grid operator shall notify the operator no later than the day before, but otherwise without delay, of the expected date, the extent and the duration of the assumption of technical control, provided that it is predictable that the measure will be taken (§ 14 par. 2 EEG).○ After the control measures, the grid operator shall inform the plant operator about the actual dates, the respective extent, the duration and the reasons for the assumption of technical control and, upon request, provide evidence that the measure was necessary (§ 14 par. 3 sentence 1 EEG). The grid operator may inform the operators of solar energy plants with a capacity of no more than 100 kW only once a year about all control measures as long as the total duration of these measures did not exceed 15 hours per plant (§ 14 par. 3 sentence 3 EEG). Plant operators that were not able to feed in electricity to the extent agreed upon are entitled to compensation from the grid operator (§ 15 par. 1 EEG). They may demand 95% of the lost tariffs and revenues less the expenses saved (e.g. fuel costs) (§ 15 par. 1 sentence 1 EEG). If, in one year, a plant operator's lost income exceeds 1% of his income for that year, he shall receive compensation for 100% of his lost income from that date. In the event that the grid operator violates his obligations regarding feed-in management, plant operators may demand compensation for the damage incurred (§ 15 par. 3 EEG). |
|--------------------|---|



| | | |
|-----------------------|---|--|
| | <ul style="list-style-type: none"> • Agreement. The obligation to purchase and transmit renewable energy as a priority may be limited by a voluntary contractual agreement. Such an agreement may only be concluded if a plant can thus be better integrated into the grid network (§ 11 par. 3 EEG). This would, for example, apply if the plant operator and the grid operator agreed to reduce the plant operator's electricity exports on a few days per year and could thus avoid a grid expansion. • Grid safety. After all, the principle of priority shall not apply if the safety and functionality of the grid can no longer be guaranteed, e.g. if the grid is on the brink of collapse (§§ 13 par. 2, par. 2a, 14 par. 1 EnWG). | |
| Distribution of costs | State | |
| | Consumers | |
| | Grid operator | The costs arising from the purchase and transmission of electricity generated from renewable energy sources are borne by the grid operator. |
| | Plant operator | |
| | European Union | |
| | Distribution mechanism | The grid operator shall not claim grid use charges for the purchase and transmission of electricity from the operators of renewable energy plants. According to the EEG, the grid operator is the buyer of electricity, as he does not only import electricity from the operators of renewable energy plants but also pays for it. For this reason, the grid operator has sole responsibility for the effects of this electricity on his grid as soon as he agrees to import it. |



Grid development

| | | |
|---|---|--|
| Abbreviated form of legal source | <ul style="list-style-type: none"> • EEG | |
| Contact Authority | <ul style="list-style-type: none"> • Federal Network Agency, BMWi | |
| Overview | <p>Upon request of those interested in feeding in electricity, the grid operator is obliged to immediately optimise, boost and expand his grid in accordance with the best available technology in order to guarantee the purchase, transmission and distribution of electricity from renewable sources (§ 12 par. 1 sentence 1 EEG). This obligation shall not only exist for grid operators whose grid the plants are immediately connected to, but also for upstream grids with a maximum voltage of 110 kV, provided that the expansion measures are necessary to guarantee the purchase, transmission and distribution of electricity (§ 12 par. 1 sentence 2 EEG). Plant operators are entitled to the expansion of the grid only if it is economically reasonable (§ 12 par. 3 EEG). Whether the expansion of the grid is economically reasonable in a given case will be determined by weighing the plant operator's interests against the grid operator's interests. The grid operator shall not make the conclusion of a contract a condition for the fulfilment of his obligation to expand the grid (§ 7 par. 1 EEG).</p> | |
| Procedure | Procedure | There is no formal procedure for expanding the grid in order to connect plants. |
| | Enforcement of claims | <p>Claim for expansion: A given plant operator may take legal action against the grid operator to claim the expansion of the grid if the connection of a plant or the export of electricity would otherwise be at risk.</p> <p>Damages: If the grid operator does not boost and expand his grid even though he is obliged to do so, those interested in feeding in electricity may demand compensation for the damage incurred. The grid operator is not liable to pay compensation if he can prove that the violation of his obligation was neither deliberate nor negligent (§ 13 par. 1 EEG).</p> |



| | | |
|--|-------------------------------|---|
| | Deadlines | The grid operator has to fulfil his obligation to expand the grid immediately, i.e. without undue delay. He may require additional time for licensing procedures. In certain cases, time-consuming administrative procedures may be necessary (e.g. for ground-mounted plants). The late delivery of parts required for the grid expansion and public protests may also cause considerable delay. |
| | Obligation to inform | The grid operator is obliged to inform the plant operators whether and to what extent he met his obligation to optimise, boost and expand the grid. However, he only has to do so if there is evidence to substantiate the assumption that he did not fulfil his obligation and if this information is necessary to establish whether a plant operator is entitled to compensation against him (§ 13 par. 2 EEG). |
| Regulatory incentives for grid expansion and innovation | | |
| Distribution of costs | State | |
| | Consumers | The costs for optimising, boosting and expanding the grid are borne by the consumers. |
| | Grid operator | |
| | Plant operator | |
| | European Union | |
| | Distribution mechanism | <ul style="list-style-type: none"> • Grid operator – utility companies. The costs for optimising, boosting and expanding the grid are first borne by the grid operator (§ 17 EEG). He may include the costs of grid expansion works in the grid use charges. Thus, he may pass on these costs to the utility companies. |
| | | |



| | | |
|--------------|---|---|
| | | <ul style="list-style-type: none"> • Utility companies – final consumers. Utility companies can pass on the costs of the expansion of the grid, which they pay through the grid use charges, to the consumers by adjusting the electricity price accordingly. |
| Grid studies | <p>dena Grid Study:</p> <ul style="list-style-type: none"> • German version: http://www.dena.de/fileadmin/user_upload/Projekte/Erneuerbare/Dokumente/dena-Netzstudie_I.pdf • English Summary: http://www.dena.de/fileadmin/user_upload/Publikationen/Energiedienstleistungen/Dokumente/dena-grid_study_summary.pdf <p>dena Grid Study II:</p> <ul style="list-style-type: none"> • German version: http://www.dena.de/fileadmin/user_upload/Publikationen/Erneuerbare/Dokumente/Endbericht_dena-Netzstudie_II.PDF • English version: http://www.dena.de/fileadmin/user_upload/Projekte/Erneuerbare/Dokumente/dena_Grid_Study_II_-_final_report.pdf <p>dena Grid Study final report:</p> <ul style="list-style-type: none"> • German version only: http://www.dena.de/fileadmin/user_upload/Presse/Meldungen/2012/Endbericht_Integration_EE.pdf | |



RES-H&C support schemes

Summary of support schemes

| | |
|-----------------------------------|---|
| Overview | In Germany, the Guidelines for the support of RES-H set out the Market Incentive Programme (MAP), stipulating support schemes for the promotion of heat produced from renewable energy. BAFA is providing investment support and KfW offers low-interest loans (Renewable Energy Programme –Premium, Programme Geothermal Exploration Risk). |
| Summary of support schemes | <p>Subsidy: BAFA investment support is given for heat produced in existing buildings. Installations in new buildings are only eligible if process heat is used.</p> <p>Loan: KfW provides low-interest loans with grant payback support for the development and expansion of heat installations/plants.</p> |
| Technologies | Biogas, biomass, geothermal energy, solar thermal |
| Statutory provisions | <ul style="list-style-type: none"> Guidelines for the support of RES-H (Richtlinien zur Förderung von Maßnahmen zur Nutzung erneuerbarer Energien im Wärmemarkt - Guidelines for the support of measures to use renewable energies in the heating market) KfW Renewable Energy Programme Premium (Merkblatt KfW-Programm Erneuerbare Energien Premium –KfW Renewable Energy Programme Premium) KfW Programme Geothermal Exploration Risk (Merkblatt KfW Programm Fündigkeitsrisiko Tiefengeothermie - KfW Programme Geothermal Exploration Risk) |



Basic information on legal sources

| | | | |
|---|---|--|--|
| Name of legal source (original language) | Richtlinien zur Förderung von Maßnahmen zur Nutzung erneuerbarer Energien im Wärmemarkt Vom 11.03.2015 | Merkblatt KfW-Programm Erneuerbare Energien Premium | Merkblatt KfW Programm Fündigkeitsrisiko Tiefengeothermie |
| Full name | | Merkblatt KfW-Programm Erneuerbare Energien (Programmnummern 271, 281, 272, 282) Investitionskredite für Maßnahmen zur Nutzung Erneuerbarer Energien | Merkblatt KfW Programm Fündigkeitsrisiko Tiefengeothermie (Programmnummer 228) |
| Name (English) | Guidelines for the support of measures to use renewable energies in the heating market | KfW Renewable Energy Programme Premium | KfW Programme Geothermal Exploration Risk |
| Abbreviated form | Guidelines for the support of RES-H | KfW Renewable Energy Programme Premium | KfW Programme Geothermal Exploration Risk |
| Entry into force | 01.04.2015 | 01.01.2009 | 01.02.2009 |
| Last amended on | | December 2015 | |
| Future amendments | | January 2016 | |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|--|---|---|---|
| Purpose | These guidelines aim to contribute to the realisation of 14% share of renewable energy sources in the heating market. | The purpose is to lay out the KfW Renewable Energy Programme promoting the investment in renewable energy installations for heat production through low-interest loans. | Partial coverage of exploration risks during geothermal drilling. |
| Relevance for renewable energy | These guidelines aim to stimulate the usage of heat from renewable energy by stipulating support schemes. | The programme promotes the investment into renewable energy installations for heat production. The programme offers a partial coverage of exploration risks during geothermal drilling. | The programme promotes the investment into geothermal energy. |
| Link to full text of legal source (original language) | https://www.erneuerbare-energien.de/EE/Redaktion/DE/Downloads/Foerderbekanntmachungen/marktanreizprogramm-erneuerbare-energien.pdf?__blob=publicationFile&v=10 | https://www.kfw.de/Download-Center/F%C3%B6rderprogramme-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/6000002410-Merkblatt-271-281-272-282.pdf | https://www.kfw.de/Download-Center/F%C3%B6rderprogramme-%28Inlandsf%C3%B6rderung%29/PDF-Dokumente/140761-Merkblatt-F%C3%BCndigungsrisiko-Tiefengeothermie-228.pdf |
| Link to full text of legal source (English) | | | |



RES-LEGAL EUROPE – National Profile Germany



Further information

| Institution (name) | Website | Name of contact person (optional) | Telephone number (head office) | E-mail (optional) |
|---|---|-----------------------------------|--------------------------------|--|
| Federal Office of Economics and Export Control (BAFA) | http://www.bafa.de | | +49 619 690 80 | solar@bafa.bund.de |
| KfWFörderbank | https://www.kfw.de/kfw.de-2.html | | +49 697 431 0 | info@kfw.de |
| Federal Ministry for the Environment, Nature Conservation, Construction and Nuclear Safety (BMUB) | http://www.bmub.bund.de/en/ | | +49 301 830 50 | service@bmub.bund.de |
| Federal Ministry for Economic Affairs and Energy (BMWi) | http://www.bmwi.de/EN/root.html | | +49 (0)30- 18 615 0 | kontakt@bmwi.bund.de |



Support schemes

Subsidy (Investment Support)

| | | |
|--|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> Guidelines for the support of RES-H | |
| Contact Authority | <ul style="list-style-type: none"> BAFA | |
| Summary | <p>In the framework of the <i>Market Incentive Programme</i> (MAP) BAFA provides investment support for heat produced in existing buildings from solar, biomass and geothermal energy.</p> | |
| Eligible technologies | General information | <p>Investment support (BAFA) is given for heat produced in existing buildings. Installations in new buildings are only eligible if process heat is used. The investment support is divided into basic support, bonus support and innovation support. Installations need to be erected in Germany and have to be operating for at least 7 years (Guidelines for the support of RES-H Art. II. A combination with other support schemes is possible if not otherwise stated (Guidelines for the support of RES-H Art. VII).</p> |
| | Aerothermal | <p>Efficient aerothermal heat pumps up to and including 100 kW/nominal heat output. Air and air-heating pumps, which directly transfer the produced heat into the air are not supported. (Guidelines for the support of RES-H, Art. IV.3.2.1.1.)</p> <p>More detailed technical requirements and standards are laid down in Art. IV.3.1 and Art. IV.3.4. (Guidelines for the support of RES-H).</p> |



| | | |
|--|---------------------|--|
| | Hydrothermal | <p>Efficient hydrothermal heat pumps up to and including 100 kW/nominal heat output. (Guidelines for the support of RES-H, Art. IV.3.2.1.2.)</p> <p>More detailed technical requirements and standards are laid down in Art. IV.3.1 and Art. IV.3.4. (Guidelines for the support of RES-H).</p> |
| | Biogas | |
| | Biomass | <ul style="list-style-type: none"> • The construction or further extension of biomass-installations for thermal usage is being supported for: Installations with automatic feeding for the burning of solid biomass for thermal usage with a nominal heat output between 5 and 100 kW (Guidelines for the support of RES-H, Art. IV.2.1.) • Low emission logwood boilers with a nominal heat output between 5 and 100 kW (<i>Scheitholzvergaserkessel</i>) (Guidelines for the support of RES-H, Art. IV.2.1.) • Boiler for the combustion of biomass pellets and wood chips (Guidelines for the support of RES-H, Art. IV.2.1.) • Pellet stoves with water chamber (Guidelines for the support of RES-H, Art. IV.2.1.) • Combination boilers for the combustion of biomass pellets, wood chips, firewood (Guidelines for the support of RES-H, Art. IV.2.1.) • Low emission logwood boilers (Guidelines for the support of RES-H, Art. IV.2.1.) |



| | | |
|--|--------------------------|---|
| | | More detailed technical requirements and standards are laid down in Art. IV.2.4. (Guidelines for the support of RES-H). |
| | Geothermal energy | Efficient heat pumps up to and including 100 kW/nominal heat output. More detailed technical requirements and standards are laid down in Art. IV.3.1 and Art. IV.3.4. (Guidelines for the support of RES-H). |
| | Solar Thermal | Eligible technologies are those supporting the construction or further extension of solar collectors for thermal usage having one of the following purposes: <ul style="list-style-type: none"> • Water heating • Space heating • Combined water and space heating • Solar cooling • Feeding heating/cooling energy into the respective grid • Supply of process heat under the condition of fulfilling the technical requirements and standards laid down under Art. IV.1.4. and Art. IV.1.5. for Innovation technologies (Guidelines for the support of RES-H) |



| | |
|----------------------|--|
| <p>Amount</p> | <p>Solar thermal:</p> <ul style="list-style-type: none"> • Basic support (Guidelines for the support of RES-H Art. IV.1.2.1): <ul style="list-style-type: none"> ○ solar collectors exclusively for water heating: <ul style="list-style-type: none"> ▪ new installations with a gross collector area between 3 and 40m² EUR 50/m² (minimum support EUR 500) ▪ expansion of already commissioned installations of at least 4 to 40 m² gross collector area 50/m² (minimum support EUR 500) ○ all other solar collectors: <ul style="list-style-type: none"> ▪ new installations with a gross collector area up to 40m² EUR 140/m² (minimum support EUR 2,000) ▪ expansion of already commissioned installations of at least 4 to 40 m² gross collector area EUR 50/m² • Bonus support (Guidelines for the support of RES-H Art. IV.1.2.2.): • Innovation support (Guidelines for the support of RES-H Art. IV.1.3.) <ul style="list-style-type: none"> ○ solar collectors exclusively for water heating: <ul style="list-style-type: none"> ▪ new installations with a gross collector area between 20 and 100m² EUR 100/m² (EUR 75 for new buildings) ○ all other solar collectors: <ul style="list-style-type: none"> ▪ new installations with a gross collector area between 20 and 200m² EUR 100/m² (EUR 150 for new buildings) ○ Big collectors can be alternatively financed depending on their output (Guidelines for the support of RES-H Art. IV.1.3.1.2.) ○ Some types of big collectors can be also granted a repayment grant through the KfW Premium Programme (Guidelines for the support of RES-H Art. V.5.) |
|----------------------|--|



Biomass:

- Basic support (Guidelines for the support of RES-H Art. IV.2.2.1):
 - Pellet installations
 - EUR 80/kW nominal heat output for the construction of an installation with automatic feeding , power and combustion control, and automatic ignition for the combustion of biomass pellets (or combination boilers)
 - However:
 - Min. EUR 2000 for pellets stoves with water chamber
 - Min. EUR 3000 for pellet boilers
 - Min. EUR 3500 for pellet boilers with newly erected buffer tank with a volume of at least 30 l / kW nominal heat output
 - Wood chips installation
 - A lump sum of EUR 3500 pro unit for the construction of an installation with automatic feeding, power and combustion control, and automatic ignition
 - Log wood installation
 - A lump sum of EUR 2000 per unit for the construction of emission-poor log wood installations
- Bonus support (Guidelines for the support of RES-H Art. IV.2.2.2.):
 - A combination bonus of EUR 500 can be granted:
 - in the case of simultaneously erecting also an eligible solar collector or an efficient heat pump
 - when connecting the biomass installation to a heating network
 - Further single optimization measures are available (Guidelines for the support of RES-H Art. IV.2.2.2.)
 -
- Innovation support (Guidelines for the support of RES-H Art. IV.2.3.)
 - Installations with condensing technologies



| | |
|--|--|
| | <ul style="list-style-type: none"> ▪ In existing buildings <ul style="list-style-type: none"> • EUR 4,500 for boilers • EUR 5,250 for boilers with a new erected buffer tank with a volume of at least 30 l/kW nominal heat output ▪ In new buildings <ul style="list-style-type: none"> • EUR 3,000 for boilers • EUR 3,500 for boilers with a new erected buffer tank with a volume of at least 30 l/kW nominal heat output ○ Installations with secondary particle separation <ul style="list-style-type: none"> ▪ In existing buildings <ul style="list-style-type: none"> • EUR 3,000 for pellet stoves with water chamber • EUR 4,500 for pellet boilers • EUR 5,250 for pellet boilers with a new erected buffer tank with a volume of at least 30 l/kW nominal heat output • EUR 5,250 for wood chips • EUR 3,000 for log wood ▪ In new buildings <ul style="list-style-type: none"> • EUR 2,000 for pellet stoves with water chamber • EUR 3,000 for pellet boilers • EUR 3,500 for pellet boilers with a new erected buffer tank with a volume of at least 30 l/kW nominal heat output • EUR 3,500 for wood chips • EUR 2,000 for log wood ▪ For retrofitting a biomass installation with secondary particle separation technology a lump sum of EUR 750 may be granted ○ Supply of process heat |
|--|--|



- The erection of a new biomass installation mainly for the supply of process heat can be granted support up to 30% of the net investment costs until a maximum of EUR 40,000.

All the mentioned support grants are available under the condition of fulfilling the technical requirements laid down in Art. IV.2.4. and Art. IV.2.5. (Guidelines for the support of RES-H)

Heat pumps:

- Basic support (Guidelines for the support of RES-H Art. IV:3.2.1.):
 - Electrical heat pumps (heat source: air)
 - EUR 40/ kW of nominal heat output up to
 - At least EUR 1,500 for performance-controlled installations and/or monovalent heat pumps
 - At least of EUR 1,300 for all others installations
 - Electrical heat pumps (heat source: geothermal energy, water), sorption and gas-motoric heat pumps
 - EUR 100/ kW of nominal heat output up to
 - At least EUR 4,500 for the erection of electrical heat pumps based on geothermal energy, as long as an associated earth probe drilling is also being executed
 - At least EUR 4,500 for each sorption and gas-motoric heat pump installation
 - At least EUR 4,000 for all other electrical pumps with geothermal or water heat sources
- Bonus support (Guidelines for the support of RES-H Art. IV:3.2.2.):
 - Load management capacity:
 - EUR 500 as long as these further requirements are fulfilled: concomitant erection of a buffer tank and complying with the “Smart Grid Ready” certificate requirements



RES-LEGAL EUROPE – National Profile Germany



| | | |
|-------------------|--|---|
| | <ul style="list-style-type: none"> ○ A combination bonus <ul style="list-style-type: none"> ▪ of EUR 500 can be granted: <ul style="list-style-type: none"> • in the case of simultaneously erecting also an eligible solar collector or biomass installation • when connecting the heat pump installation to a heating network • in the case of simultaneously erecting an eligible solar collector with a gross collector area of at least 7m², as long as this is contributing as a heat source for the heat pump ○ Further single optimization measures are available (Guidelines for the support of RES-H Art. IV.3.2.2.23.) • Innovation support (Guidelines for the support of RES-H Art. IV:3.3.): <ul style="list-style-type: none"> ○ Granted to heat pumps in new and existing buildings with a nominal heat output of at least 100 kW ○ For heat pumps with high annual COP or improved system efficiency in existing buildings can be increased up to 50% over the amount set in Art. IV.3.2.1. ○ Supply of process heat <ul style="list-style-type: none"> ▪ The erection of a new heat pump installation mainly for the supply of process heat can be granted support up to 30% of the net investment costs until a maximum of EUR 60,000. ○ | |
| Addressees | Private persons, freelancers, small and medium size companies, municipalities/local authorities, non-profit organisations, (Guidelines for the support of RES-H Art. III). The applicants can be owners, tenants, leaseholders or contractors of properties. Tenants, leaseholder or contractors need however a written authorization from the owner in order to apply for a financial support (Guidelines for the support of RES-H Art. III.2.) | |
| Procedure | Process flow | All application should include the information if for the same eligible costs other grant application have been submitted (for ex. In a |



| | | |
|--|--|--|
| | | <p>programme of the states; if the installation is also entitled to payments according to EEG 2014 or KWKG 2012) (Guidelines for the support of RES-H Art.VIII.1.)</p> <p>a) One-step procedures (Guidelines for the support of RES-H Art. VIII.1.1.1.)</p> <ul style="list-style-type: none"> • Applications from private persons and • Applications from companies and free—lancers regarding optimizations of installations already supported through these scheme • Applications shall be sent at the latest 9 months after the installation started operating or has been optimized • Applications shall include the proof of operation of the installation or plant (day/month/year), the detailed and complete invoices, the proof of installed collector area or installed rated thermal input and other specific proofs depending on the technology (specified in the guidelines cf. Section on supported technologies) • Application forms can be retrieved from BAFA and need to be signed <p>b) Two-step procedures (Guidelines for the support of RES-H Art. VIII.1.1.2.)</p> <ul style="list-style-type: none"> • Application from companies and free-lancers (excepted optimization proceedings) • Application for the support of proceedings for the visualisation of the output from renewables • Applications for innovation support |
|--|--|--|



RES-LEGAL EUROPE – National Profile Germany



| | | |
|-----------------------|---------------------|--|
| | | <p>c) Basic and bonus support (Guidelines for the support of RES-H Art. 13.1 a))</p> <ul style="list-style-type: none"> Applications shall be sent at the latest 6 months after the plant started operating (the date of receipt at BAFA matters) Application forms can be retrieved from BAFA and need to be signed The support is paid after the examination of the documents and can be postponed to the next budgetary year <p>d) Innovation support (Guidelines for the support of RES-H Art. 13.1 b))</p> <ul style="list-style-type: none"> Applications need be filed before starting the project. The project begin is defined as the signing of a contract on the delivery of the plant or measure (Guidelines for the support of RES-H Art. 5.1.1 & 5.1.3). As a proof of operation, documents required for basic support need to be sent to BAFA at the latest before the expiration of official note of approval. |
| | Competent authority | BAFA, BMU |
| Flexibility mechanism | | |
| Distribution of costs | State | The state via BAFA bears the costs. |
| | Consumers | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|------------------------|--|
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |



Loan (KfW Renewable Energy Programme Premium)

| | | |
|--|--|--|
| Abbreviated form of legal source(s) | <p>Guidelines for the support of RES-H</p> <p>KfW Renewable Energy Programme Premium</p> | |
| Contact Authority | KfW | |
| Summary | <p>In the framework of the <i>Market Incentive Programme</i> (MAP), KfW provides low-interest loans and grant repayment support (<i>Tilgungszuschuss</i>).</p> | |
| Eligible technologies | General information | <p>In the framework of the KfW Programme Renewable Energy – Premium, KfW provides low-interest loans with grant payback support for the development and expansion of heat installations. The installations need to be erected in Germany and have to be operating for at least 7 years (Guidelines for the support of RES-H Art. 6.4 Leaflet KfW Programme Premium, p. 5). A combination with other support schemes is possible, if not otherwise stated (Guidelines for the support of RES-H Art. VI.).</p> |
| | Aerothermal | <p>Efficient heat pumps up to 100 kW/ nominal heat output (Leaflet KfW Programme Premium, p. 4)</p> |
| | Hydrothermal | <p>Efficient heat pumps up to 100kW/ nominal heat output (Leaflet KfW Programme Premium, p. 4)</p> |
| | Biogas | <ul style="list-style-type: none"> Installations for the erection and/or further development of biogas pipes of at least 300 m for not to biomethan purified |



| | | |
|--|--------------------------|--|
| | | <p>biogas, as long as the biogas for the purification to natural gas quality, fuel or CHPs serves (Guidelines for the support of RES-H Art. V.7.)</p> |
| | Biomass | <p>The following technologies are supported:</p> <ul style="list-style-type: none"> • Installations with automatic feeding for the burning of solid biomass (such as logwood, wood chips, pellets, etc.) for thermal use >100 kW nominal heat output including (Guidelines for the support of RES-H Art. V.1.) • CHP with a nominal heat output between 100kW and 2 MW, as long as the prescribed emissions values are met (Guidelines for the support of RES-H Art. V.1.3.) <p>More detailed technical requirements and standards are laid down in Art. V.1.4. (Guidelines for the support of RES-H).</p> |
| | Geothermal energy | <p>The following technologies are supported both for heat production and for the combined heat and power production</p> <ul style="list-style-type: none"> • Installations with a drilling depth > 400 m, a temperature of the thermal fluid of at least 20°C and a thermal heat output of at least 0.3 MW_{th} (Guidelines for the support of RES-H Art. V.2.) • Efficient heat pumps > 100 kW nominal heat output (Leaflet KfW Programme Premium, p. 4) |



| | |
|--------|--|
| | <p>Solar Thermal</p> <ul style="list-style-type: none"> solar collectors with a gross collector area > 40 m² (Guidelines for the support of RES-H Art. V.5.1.) <p>More detailed technical requirements and standards are laid down in Art. V.5.2. (Guidelines for the support of RES-H).</p> |
| Amount | <p>Solar thermal (PV ≥ 40 m²):</p> <ul style="list-style-type: none"> size-related support (Guidelines for the support of RES-H Art. V.5.1.) <ul style="list-style-type: none"> grant repayment of up to 30% of the eligible net investment cost for: water heating, room heating, solar cooling production, injection into a heating grid grant repayment of up to 40% of the eligible net investment cost for: the injection into a heating grid with at least 4 costumers grant repayment of up to 50% of the eligible net investment cost for: solar process heating output-related support (Guidelines for the support of RES-H Art. V.5.1.4.) <p>Biomass:</p> <ul style="list-style-type: none"> Grant repayment for solid biomass installation exclusively for thermal usage up to EUR 20/kW nominal heat output up to a maximum of EUR 50,000 Additional bonuses: <ul style="list-style-type: none"> For low emissions (EUR 20/kW nominal heat output, for emissions up to 15mg/m³) For the erection of a buffer tank (additional EUR 10/kW nominal heat output, for tanks with a volume bigger than 30l/kW) Basis and additional support can be combined up to EUR 100,000. (Leaflet KfW Programme Premium, p. 8) |



Geothermal:

- Projects exclusively for heating purposes
 - Installation grant repayment
 - EUR 200/ kW nominal heat output up to EUR 2 million
 - Deep drilling grant repayment
 - EUR 375 / m vertical depth for a drilling depth between 400 m and 1000 m under the top ground surface
 - EUR 500 / m vertical depth for a drilling depth between 1000 m and 2500 m under the top ground surface
 - EUR 750 / m vertical depth for a drilling depth > 2000 m under the top ground surface
- A deep drilling can be supported with max. EUR 2,500,000 million; maximum 4 drilling/project. Exploration drillings are not eligible.
 - Additional expenses
 - Grant repayments up to max. 50% of the documented additional net expenses/ drilling, however only up to 50% of the primary planned costs totalling max. EUR 1,25 million/drilling and EUR 5 million/ project
- Projects for combined heat and power
 - Installation grant repayment
 - Grants are available beginning with a nominal heat output of at least 4000 kW_{th} and a gross electrical output P_{el} in kW_{el} smaller than the demand-sided heat installed power Q_{th} in kW_{th}
 - Grant repayments: $(1-(P_{el}/Q_{th})) \times 200\text{€}$ for each kW of nominal heat output. Maximum of EUR 1,000,000 per project
 - Drilling grant repayment
 - Additional expenses
- Deep hole drilling



RES-LEGAL EUROPE – National Profile Germany



| | | |
|-------------------|---|--|
| | <ul style="list-style-type: none"> ○ Grant repayment: EUR 375 per meter vertical depth (400-1000m drilling depth), EUR 500 per meter vertical depth (1000 – 2500 m drilling depth). Maximum support is EUR 975,000 per drilling with a maximum support of four drillings per project amounting maximum of EUR 3,900,000 per project • Additional expenses due to drilling \geq 400 m <ul style="list-style-type: none"> ○ Grant repayments are based on a proof of additional expenses and can cover up to 50 % of additional expenses and 50% of originally planned costs. The maximum support is EUR 1,250,000 for an eligible drilling and a maximum of EUR 5,000,000 for a project <p>Biogas pipes:</p> <ul style="list-style-type: none"> • up to 30% of the net investment costs. (Leaflet KfW Programme Premium, p. 9) <p>Heat pumps:</p> <p>Grant repayment EUR 80 per kW heat output, at least EUR 10,000 and max. EUR 50,000 (Leaflet KfW Programme Premium, p.9)</p> | |
| Addressees | <p>Private persons, freelancer, small and medium size companies, municipalities/local authorities, non-profit organisations. For an applicant to be eligible he must be owner, tenant or leaseholder of the property the installation is to be erected. Tenants, leaseholder, contractors need an additional written authorization from the owners. (Guidelines for the support of RES-H Art. III.)</p> | |
| Procedure | Process flow | <ul style="list-style-type: none"> • Application: The application has to be filed before the project is started. The project begin is defined as the signing of a contract on the delivery of the installation or measure (Guidelines for the support of RES-H VIII 1.2.). |



| | | |
|-----------------------|------------------------|---|
| | | <ul style="list-style-type: none"> • Additional approval: For grant repayment support higher than EUR 250,000, an approval by BMUB (Ministry of the Environment) is required prior to granting the support (Guidelines for the support of RES-H Art. VIII.1.2.). • |
| | Competent authority | KfW, BMUB |
| Flexibility mechanism | | |
| Distribution of costs | State | KfW Bankengruppe bears the costs of offering low-interest loans and grant repayment support. |
| | Consumers | |
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |



Loan (KfW Programme Geothermal Exploration Risk)

| | | |
|--|--|---|
| Abbreviated form of legal source(s) | KfW Programme Geothermal Exploration Risk | |
| Contact Authority | KfW | |
| Summary | The KfW Programme Geothermal Exploration Risk covers investment costs connected to drilling activities including the required stimulation measures prescribed by KfW as part of project study. The loan amounts to max. 80% of eligible investment costs with different interest rates accounting for the different exploration risks. Only geothermal projects with at least two deep drillings are eligible for support. | |
| Eligible technologies | General information | Under the KfW programme only exploration risks of geothermal drilling are eligible. |
| | Aerothermal | |
| | Hydrothermal | |
| | Biogas | |
| | Biomass | |
| | Geothermal energy | Eligible |
| | Solar Thermal | |



RES-LEGAL EUROPE – National Profile Germany



| | |
|--------------------------|--|
| <p>Amount</p> | <p>The co-financing amounts to max. 80% of eligible investment costs including the planned investment costs for stimulation measures. In general, maximum support per drilling is EUR16 million. Two different models for financial support exist:</p> <ul style="list-style-type: none"> • 100% liability free loan covering up to 80% of eligible investment costs if non-exploration, as defined in the terms of contract of the loan, is proven. • Guarantee for partial debt release on executed stimulation measures in exchange for higher interest rate (risk) • The duration of the loan is fixed to 10 years including a 2 year repayment-free start-up period. Moreover, a commitment fee of 0.25% per month is charged. The interest rate is set on the date of approval accounting for exploration risk. |
| <p>Addressees</p> | <p>Small and medium size private enterprises in line with EU Commission definition, big companies not qualifying as small and medium size enterprises, companies under private law and municipalities are eligible if the investment is undertaken in Germany. Moreover, these eligible entities need to produce heat, electricity or both for a period of at least 7 years.</p> |
| <p>Procedure</p> | <p>Process flow</p> <p>Applications for projects are to be filed with a credit institution of borrower's choice before project start. Relevant application forms can be downloaded from https://www.kfw.de/KfW-Konzern/Service/Download-Center/F%C3%B6rderprogramme-(Inlandsf.)-(D-EN)/Barrierefreie-Dokumente/F%C3%BCndigkeitsrisiko-Tiefengeothermie-(228)-Merkblatt/index-2.html</p> <ul style="list-style-type: none"> • When filing an application, the applicant has to pay an examination fee of EUR 65,000 per drilling project in order to cover the costs of evaluating the application. In case an application is denied, the applicant can file an edited application form within 6 months without paying the fee a second time. In case an application is approved, an approval fee of EUR 45,000 (gross) has to be paid accounting for the examination and monitoring costs. |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|-------------------------------|---|
| | | <ul style="list-style-type: none"> • Additional approval: For grant repayment support higher than EUR 250,000 an approval by BMUB (Ministry of the Environment) is required prior to granting the support (Guidelines for the support of RES-H Art. 15.3). • Application: The application has to be filed before the project is started. The project begin is defined as the signing of a contract on the delivery of the installation or measure (Guidelines for the support of RES-H Art. 5.2). |
| | Competent authority | KfW loans are administered and disbursed by regular banks. |
| Flexibility mechanism | | |
| Distribution of costs | State | KfW Bankengruppe bears the costs of offering low-interest loans and grant repayment support. |
| | Consumers | |
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |



RES-T support schemes

Summary of support schemes

| | |
|--|--|
| <p>Overview</p> | <p>There are very few incentives promoting the use of renewable energy in the transport sector. The biofuel quota has been replaced with a greenhouse gas reductions quota since 01.01.2015. The tax reliefs for biofuels including biomethane will cease at the end of 2015. However, the energy tax declaration for 2015 can be still filled out (form 1103) and handed in to the Main Customs Authority until the end of 2016.</p> |
| <p>Summary of support schemes</p> | <p>Tax regulation mechanism. The Energy Tax Act on mineral oil products obliges companies producing, processing, holding, receiving or dispatching energy products to pay a defined amount of tax. The tax relief for biofuels varies depending on the type of biofuel. The tax relief is only granted if the produced amount of biofuel is pure and not used to fulfil the biofuels quota.</p> <p>Greenhouse gas reduction quota. The biofuel quota has been replaced as of January 2015 by a greenhouse reduction quota. Beginning with 2015, emissions have to be reduced by 3.5%, from 2017 by 4% and beyond 2020 by 6%.</p> <p>Loan. The KfW Environment-Programme foresees financial support for the purchase of low-emission (incl. biomethane) vehicles for commercial use.</p> |



RES-LEGAL EUROPE – National Profile Germany



| | |
|-----------------------------|--|
| Technologies | The greenhouse reduction quota applies to biofuels only. |
| Statutory provisions | <ul style="list-style-type: none"> • EnergieStG • BiomasseV • Biokraft-NachV • BimSchG • KfW-Environment Programme (Merkblatt KfW – Umweltschutz in Unternehmen – KfW Umweltprogramm) |



Basic information on legal sources

| | | | |
|--|--|--|---|
| Name of legal source (original language) | Energiesteuergesetz | | Merkblatt KfW-Umweltprogramme |
| Full name | | | Merkblatt Umweltschutz in Unternehmen KfW-Umweltprogramm (Programmnummer 240, 241). Finanzierung von Umweltschutzmaßnahmen gewerblicher Unternehmen |
| Name (English) | Energy Tax Act | | KfW Environmental Programme |
| Abbreviated form | EnergieStG | | KfW Environmental Programme |
| Entry into force | 20.07.2006 | | |
| Last amended on | 5.12.2014 | | November 2015 |
| Future amendments | | | |
| Purpose | The Energy Tax Act regulates the amount of taxes on energy consumption (Verbrauchersteuer) on German territory | | The programme supports environment protective measures in the commercial business sector. |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|--|---|--|---|
| | excluding the area of Büsingen and Helgoland (§ 1 EnergieStG). | | |
| Relevance for renewable energy | The Energy Tax Act includes also tax incentives for the production of biofuels. | | The programme offers low-interest loans for the commercial purchase of new vehicles powered by biomethane and biogas. |
| Link to full text of legal source (original language) | http://www.gesetze-im-internet.de/bundesrecht/energiestg/gesamt.pdf | | https://www.kfw.de/Download-Center/F%C3%B6rderprogramme-(Inlandsf%C3%B6rderung)/PDF-Dokumente/6000002220-Merkblatt-240-241.pdf |
| Link to full text of legal source (English) | | | |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|---|--|---|--|
| Name of legal source (original language) | Biomasseverordnung | Biokraftstoff-Nachhaltigkeitsverordnung | Bundes-Immissionsschutzgesetz |
| Full name | Verordnung über die Erzeugung von Strom aus Biomasse | Verordnung über Anforderungen an eine nachhaltige Herstellung von Biokraftstoffen | Gesetz zur Schutz vor schädlichen Umwelteinwirkungen durch Luftverunreinigungen, Geräusche, Erschütterungen und ähnliche Vorgänge |
| Name (English) | Biomass Regulation | Biofuel-Sustainability Regulation | Immission Control Act |
| Abbreviated form | BiomasseV | Biokraft-NachV | BlmSchG |
| Entry into force | 28.06.2001 | 30.09.2009 | 15.03.1974 |
| Last amended on | 21.07.2014 | 31.08.2015 | 31.08.2015 |
| Future amendments | | | |
| Purpose | The Biomass Regulation determines which substances are considered as biomass and stipulates the respective energetic reference values. | The Biofuel-Sustainability Regulation aims to stimulate the fulfilment of the Immission Control Act, setting out a minimum share of biofuels in the transport sector. | The purpose of the Immission Control Act is to protect humans, animals and plants, soil, water and atmosphere, cultural and other goods from environmental hazards and prevent further environmental hazards (§ 1 BlmSchG) |



RES-LEGAL EUROPE – National Profile Germany



| | | | |
|--|---|---|---|
| Relevance for renewable energy | The Biomass Regulation defines which substances are considered as biomass and thus, also applies to substances used for the production of biofuel. | The Biofuel-Sustainability Regulation stipulates the sustainability requirements for biofuel. | The Immission Control Act determines a minimum share of biofuels in transport sector, requirements for biofuels and employs energetic reference values. |
| Link to full text of legal source (original language) | http://www.gesetze-im-internet.de/bundesrecht/biomassev/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/biokraft-nachv/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/bimschg/gesamt.pdf |
| Link to full text of legal source (English) | | | |



RES-LEGAL EUROPE – National Profile Germany



Further information

| Institution (name) | Website | Name of contact person (optional) | Telephone number (head office) | E-mail (optional) |
|---|---|-----------------------------------|--------------------------------|--|
| Federal Ministry for Economic Affairs and Energy (BMWi) | http://www.bmwi.de/EN/root.html | | +49 (0)30- 18 615 0 | kontakt@bmwi.bund.de |
| German Energy Agency (dena) | http://www.dena.de/en.html | | +49 307 261 656 00 | info@dena.de |
| Main Customs Authority | http://www.zoll.de/EN/Home/home_node.html | | +49 355 876 90 | poststelle@hzacb.bfinv.de |
| Federal Ministry of Finance (Referat I B3, III B 6) | http://www.bundesfinanzministerium.de/Web/EN/Home/home.html | | +49 301 868 20 | Poststelle@bmf.bund.de |
| KfW Förderbank | https://www.kfw.de | | +49 697 431 0 | info@kfw.de |



Support schemes

Tax regulation mechanism (Reduced tax rate for biofuels)

| | | |
|--|---|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EnergieStG • BImSchG | |
| Contact Authority | <ul style="list-style-type: none"> • Ministry of Finance; Main Customs Authority | |
| Summary | <p>The Energy Tax Act on mineral oil products obliges companies producing, processing, holding, receiving or dispatching energy products to pay a defined amount of tax (§ 8 EnergieStG). The tax relief for biofuels varies depending on the type of biofuel. Furthermore it has to be produced in line with §50 (4) EnergieStG and should not be used to fulfil the biofuel quota (§50 EnergieStG in connection with §37a (1); (3) and (3a) BImSchG).</p> | |
| Eligible technologies | General information | <p>The tax relief for biofuels is granted only for particularly valuable types of biofuel until the end of 2015 (§ 50 (2) EnergieStG):</p> <ul style="list-style-type: none"> • Synthetic hydrocarbons or synthetic hydrocarbon mixtures which are obtained by thermochemical conversion of biomass. • Alcohols, that have been produced through biotechnological processes to reveal cellulose • Energy products, which contain a bioethanol share of 70-90% regarding the bioethanol content • Biomethane as fuel |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|-------------------|---|--|
| | | <p>The tax exemption for pure biodiesel and pure vegetable oil fuel has been phased out by 01.01.2013.</p> <p>The tax relief requests have to be submitted to the competent authority.</p> |
| | Biofuels | Eligible |
| | Electricity | |
| | Hydrogen | |
| Amount | <p>The following types of biofuels are fully exempted from the energy tax (§ 50 (2) EnergieStG). The amount of tax relief for 2014 as compared to the amount of tax for pure biodiesel and pure vegetable oil fuel:</p> <ul style="list-style-type: none"> • Synthetic hydro carbons or synthetic hydrocarbon mixtures which are obtained by thermochemical conversion of biomass: 45.03 Ct/l • Alcohols, that have been produced through biotechnological processes to reveal cellulose: 45.03 Ct/l • Energy products, which contain a bioethanol share of 70-90% regarding the bioethanol content: 45.03 Ct/l • Biomethane as fuel: 9.74Ct/l <p>-</p> | |
| Addressees | <p>Companies producing, processing, holding, receiving or dispatching energy products are obliged to pay the tax (§ 2 and § 8 EnergieStG) and can voluntarily apply for tax relief as set out in (§ 50 (3) EnergieStG).</p> | |



| | | |
|-----------------------|------------------------|--|
| Procedure | Process flow | The tax relief request has to be submitted to the competent authority. Monthly, companies must inform the amount of energy products that have to be taxed and can claim tax relief (§ 8 Abs. 3 EnergieStG) |
| | Competent authority | Ministry of Finance; Biofuel Quota Authority at the main customs office in Frankfurt/Oder and its subordinate offices. |
| Flexibility Mechanism | | |
| Distribution of costs | State | The costs of tax relief are borne by the state. |
| | Consumers | |
| | Plant operator | |
| | Grid operator | |
| | European Union | |
| | Distribution mechanism | |

Greenhouse gas reduction quota

| | |
|-------------------------------------|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • Biokraft-NachV • BImSchG |
|-------------------------------------|---|



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|--|
| | <ul style="list-style-type: none"> • EnergieStG • BiomasseV | |
| Contact Authority | <ul style="list-style-type: none"> • Ministry of Finance; Main Custom Authority. | |
| Summary | <p>The biofuel quota has been replaced as of January 2015 by a greenhouse gas reduction quota. The greenhouse emissions have to be reduced by predefined quota (§37a (4) BImSchG), which has been already predefined until 2020. This can be achieved through the use of biofuel or electricity for road vehicles. (§37a (5) BImSchG).</p> | |
| Eligible technologies | General information | |
| | Biofuels | Biofuels exclusively produced from biomass (defined in §2 BiomasseV), energy products that pro rata have been produced from biomass, biodiesel, bioethanol, biomethane (§ 37b BImSchG). |
| | Electricity | |
| | Hydrogen | |
| Amount | Amount of quota and period of application | Beginning with 2015, emissions have to be reduced by 3.5%, from 2017 by 4% and beyond 2020 by 6%. Accordingly, the allowed share of greenhouse gases discharged from diesel and gasoline is being reduced in form of a quota, meaning that the usage of biofuel is only indirectly stimulated (§ 37a (3a) BImSchG). The obligation must be |



| | | |
|-------------------|---|---|
| | | fulfilled by the end of each calendar year (§ 37 a BImSchG in conjunction with, § 8 EnergieStG). |
| | Adjustment of quotas | The Federal Ministry of Finance and subordinate Main Customs Authority control the compliance with the quota obligation (§37d (1) BImSchG). The federal government may without the consent of the Bundesrat adjust the quota (§ 37d (2) 5. BImSchG). |
| | Fees and penalty charges | If a provider fails to fulfil the quota, the competent authority charges a penalty based on the amount of biofuel that has been missed (section 37c (2) sentence 1 BImSchG) or the emission reduction quota which has not been accordingly met. The penalties can vary between EUR 19 and EUR 43 per gigajoule. The missing amount is being charged with EUR 0.47/kg of carbon dioxide equivalent (section 37c (2) BImSchG). |
| Addressees | The quota obligation applies to companies which trade with petrol- or diesel fuels and have to be taxed according to the Energy Tax Law (§ 37a (1) sentence 1; (2) sentence 1; (3) sentence 1 BImSchG). | |
| Procedure | Process flow | <ul style="list-style-type: none"> • Submission of data on traded fuel. By 15 April of each year the obliged companies shall present to the responsible authority (regional Main Customs Authority) the amount of traded petrol- diesel- und biofuel of the previous year (section 37c (1) BImSchG). • Estimation of amount of the traded fuel. If a company fails to present data on traded fuels the responsible authority can estimate the amount (section 37c (3) BImSchG). |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|-------------------------------|--|
| | | <ul style="list-style-type: none"> Penalty charge. If a company fails to fulfil the quota, the responsible authority charges a penalty (section 37c (2) BImSchG). |
| | Competent authority | Main Customs Authority at the main customs office in Frankfurt/Oder and its subordinate offices. |
| Flexibility Mechanism | | |
| Distribution of costs | State | |
| | Consumers | The costs are borne by the consumers. |
| | European Union | |
| | Others | |
| | Distribution mechanism | According to the Main Customs Authority, it can be assumed that the obliged companies pass on the costs arising from the quota obligation to the consumers by adding a surcharge to their fuels. |



Loan (KfW Environment Programme)

| | | |
|--|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> KfW Environment Programme | |
| Summary | | |
| Eligible technologies | General information | <p>The programme offers low-interest loans for the commercial purchase of new</p> <ul style="list-style-type: none"> electrical vehicles hybrid (electric/gasoline; electric/diesel) vehicles fuel cell (with CO₂ emission lower than 50g/km and an electric driving range of at least 40km) vehicles emission-low vehicles (power also by biogas and biomethane) (under the specific conditions specified in the Leaflet KfW Environment Programme p.2) |
| | Biofuels | Eligible |
| | Electricity | Eligible |
| | Hydrogen | Hydrogen fueling-stations |
| Amount | <p>Up to 100% of the investment costs eligible for financing, normally up to EUR 10 million pro project. However, exceptions can be ruled by the Ministry for Environment, Nature Conservation, Building and Nuclear Safety. It is a long-term and low-interest loan with a fixed interest period of 5 or 10 years including a repayment-free start-up period. A fixed interest period</p> | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|--|
| | of up to 20 years is granted if technical and economic duration of co-financed investment is longer than 10 years. Moreover, a commitment fee of 0.25% per month is charged. | |
| Addressees | The programme addresses small, medium and big enterprises, freelancers, Public-Private-Partnership-models and service contractors. | |
| Procedure | Process flow | Applications have to be submitted to a bank before starting the project. Planning services prior to the application are allowed. Relevant application forms can be downloaded from https://www.kfw.de/inlandsfoerderung/Unternehmen/Energie-Umwelt/Finanzierungsangebote/Umweltprogramm-(240-241)/#4 |
| | Competent authority | <ul style="list-style-type: none"> • KfW • Ministry for Environment, Nature Conservation, Building and Nuclear Safety |
| Flexibility mechanism | | |
| Distribution of costs | State | KfW Bankengruppe bears the costs of offering low-interest loans. |
| | Consumers | The beneficiaries have to pay back the loan, |
| | Plant operator | |
| | Grid operator | |
| | European Union | |



| | | |
|--|------------------------|--|
| | Distribution mechanism | |
|--|------------------------|--|



Policies

Summary of policies

| | |
|-----------------------------------|--|
| <p>Overview</p> | <p>Germany provides policies for the promotion of renewable energy sources covering training, certification and research programmes, a self-commitment of public authorities, the support of district heating networks and the introduction of building obligations regarding the use of heat produced from renewable energy.</p> |
| <p>Summary of policies</p> | <p><u>Training programmes for Installers:</u> Installers are trained to install renewable energy technologies in the framework of the craftsman training.</p> <p><u>Certification Programmes for RES installations:</u> Plants have to comply with the technical requirements (certificates) depending on the particular technology in order to be connected to the grid.</p> <p><u>Exemplary role of public authorities:</u> Public authorities shall take an exemplary role in the promotion of renewable energy.</p> <p><u>RES-H building obligations:</u> Owners of new buildings and buildings under renovation are obliged in form of a quota to use a particular share of heat and cooling produced from renewable energy (§3 (1) EEWärmeG). Currently, no regulations exist for the mandatory use of renewable energy in existing buildings on the federal level.</p> <p><u>Support of RES-H infrastructure:</u> Under the KWKG, the development and construction of heating networks is supported in form of compensation payments. The KfW Programme – Renewable Energy (Premium) gives funding for district heating networks supplied with heat from renewable energy.</p> |



RES-LEGAL EUROPE – National Profile Germany



Statutory provisions

- EEWärmeG (Erneuerbare-Energien- Wärmegesetz – Renewable Energies Heat Act)
- HwO (Handwerksordnung - Crafts Code)
- Installateur HeizungsbauerMstrV (Installateur- und Heizungsbauer-Handwerk -Installer and Heating Fitter Craft)
- SHKAnlMechAusbV (Verordnung über die Berufsausbildung zum Anlagenmechaniker für Sanitär-, Heizungs- und Klimatechnik - Regulation on vocational training for installation mechanics for sanitation, heating and airconditioning systems)
- EnWG (Energiewirtschaftsgesetz - Energy Industry Act)
- EEG 2014 (Erneuerbare-Energien-Gesetz - Renewable Energy Sources Act)
- BImSchG (Bundes-Immissionsschutzgesetz- Immission Control Act)
- KWKG (Kraft-Wärme-Kopplungsgesetz- Combined Heat and Power Act)
- Guidelines for the support of RES-H (Richtlinie zur Förderung von Maßnahmen zur Nutzung erneuerbare Energien im Wärmemarkt - Directive to Promote Measures for the usage of renewable energy in the heat market)



Basic information on legal sources

| | | | | |
|---|---|--|---|---|
| Name of legal source (original language) | Erneuerbare-Energien- Wärmegezet–EEWärmeG | Richtlinien zur Förderung von Maßnahmen zur Nutzung erneuerbarer Energien im Wärmemarkt Vom 11.03.2015 | Handwerksordnung | Gesetz über die Elektrizitäts- und Gasversorgung (Energiewirtschaftsgesetz – EnWG) |
| Fullname | Gesetz zur Förderung Erneuerbarer Energien im Wärmebereich (Erneuerbare- Energien- Wärmegezet – EEWärmeG) | Richtlinien zur Förderung von Maßnahmen zur Nutzung erneuerbarer Energien im Wärmemarkt Vom 11.03.2015 | | |
| Name (English) | Act to Promote Renewable Energy for Heating Purposes (Renewable Energies Heat Act- EEWärmeG) | Directive to Promote Measures for the usage of renewable energy in the heat market from 11.03.2015 | Crafts Code | Energy Industry Act (EnWG) |
| Abbreviated form | EEWärmeG | Guidelines for the support of RES- H | HwO | EnWG |
| Entry into force | 01.01.2009 | 11.03.2015 | 17.09.1953 (redefined on 24.09.1998) | 13.07.2005 |
| Last amended on | 20.10.2015 | 11.03.2015 | 25.07.2013 | 21.07.2014 |



RES-LEGAL EUROPE – National Profile Germany



| Future amendments | | | | |
|--|---|---|---|---|
| Purpose | In the light of climate protection, conservation of fossil resources and reduction of energy import dependence, this act aims to stimulate sustainable energy supply and technology development to enhance the production of heat and cooling from renewable energy | The directive aims to stimulate the use of renewable energy in the heat market through investment incentives for better marketing, cost reduction and economic efficiency improvements. | This law defines the licensing of craftsmanship. | Ensuring the safe, cost-efficient and consumer-friendly supply of the population with electricity and gas (§ 1 EnWG). |
| Relevance for renewable energy | The act aims to enlarge the share of heat and cooling produced from renewable energy to 14% in 2020 by setting the regulatory framework (§1 (2) EEWärmeG). The act stipulates an exemplary role for public buildings (§1a EEWärmeG) | The directive sets out the investment support schemes for heat produced from renewable energy . | The Crafts Code certifies installers and ensures the quality of renewable energy installations. | This act stipulates supplementary provisions for the access of electricity from renewable sources to the grid. |
| Link to full text of legal source (original language) | http://www.gesetze-im-internet.de/bundesrecht/eew_rm/gesamt.pdf | http://www.bafa.de/bafa/de/energie/erneuerbare_energien/voerschriften/energie_ee_richtlinie_20_07_2012.pdf | http://www.gesetze-im-internet.de/bundesrecht/hwo/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/enwg_2005/gesamt.pdf |



| Link to full text of legal source (English) | | | | |
|--|--|--|--|--|
|--|--|--|--|--|



RES-LEGAL EUROPE – National Profile Germany



| Name of legal source (original language) | Verordnung über die Berufsausbildung zum Anlagenmechaniker für Sanitär-, Heizungs- und Klimatechnik | Installateur- und Heizungsbauer-Handwerk | Bundes-Immissionsschutzgesetz | Gesetz für den Ausbau Erneuerbarer Energien (Erneuerbare-Energien-Gesetz – EEG 2014) | Kraft-Wärme-Kopplungsgesetz |
|---|---|---|---|--|--|
| Full name | | Verordnung über das Meisterprüfungsberufsbild und über die Prüfungsanforderungen in den Teilen I und II der Meisterprüfung im Installateur und Heizungsbauer-Handwerk | Gesetz zum Schutz vor schädlichen Umwelteinwirkungen durch Luftverunreinigungen, Geräusche, Erschütterungen und ähnliche Vorgänge | | Gesetz für die Erhaltung, die Modernisierung und den Ausbau der Kraft-Wärme-Kopplung |
| Name (English) | Regulation on vocational training for installation mechanics for sanitation, heating and air conditioning systems | Installer and Heating Fitter Craft | Immission Control Act | Act on Developing Renewable Energy Sources (Renewable Energy Sources Act) | Combined Heat and Power Act |
| Abbreviated form | SHKAnlMechAusbV | Installateur HeizungsbauerMstrV | BImSchG | EEG 2014 | KWKG |
| Entry into force | 24.06.2003 | 01.01.2003 | 15.03.1974 | 01.01.2009 | 19.03.2012 |
| Last amended on | 29.07.2003 | 17.11.2011 | 31.08.2015 | 21.07.2014 | 12.06.2012 |



RES-LEGAL EUROPE – National Profile Germany



| | | | | | |
|---------------------------------------|---|--|--|--|--|
| Future amendments | | | | Expected October 2016 | A new KWKG law was been adopted in December 2015 and will enter into force on 1 January 2016. |
| Purpose | SHKAnlMechAusbV regulates the vocational training for installation mechanics for sanitation, heating and air conditioning systems | InstallateurHeizungsbauer MstrV sets out the requirements for obtaining a master's degree. | The purpose of the Immission Control Act is to protect humans, animals and plants, soil, water and atmosphere, cultural and other goods from environmental hazards and prevent further environmental hazards (§ 1 BImSchG) | In order to protect the climate, the act aims to increase the proportion of electricity from renewable energy sources in total energy supply to at least 18% by 2020, to 40-45% by 2025, to 55-60% by 2035 to 80% by 2050 and to integrate these quantities of electricity in the electricity supply system (§ 1 EEG). | The purpose of the act is to raise the electricity production from CHP to 25% by 2020 by supporting the modernisation and construction of CHP plants, the market introduction of fuel cells as well as the modernisation and expansion of a heating infrastructure (§ 1 KWKG). |
| Relevance for renewable energy | The training qualifications entail the installation of renewable energy installations. | The training qualifications entail the installation of renewable energy technologies. | The Immission Control Act determines a minimum share of biofuels in transport sector, requirements for biofuels and employs energetic reference values. | This act promotes renewable energy only. | KWKG does not entail exclusive obligations on the use of renewable energy in CHP. |



RES-LEGAL EUROPE – National Profile Germany



| | | | | | |
|---|---|---|---|---|---|
| Link to full text of legal source (original language) | http://www.gesetze-im-internet.de/bundesrecht/shkanlmechausbv/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/ins tallateurheizungsbauermstr v/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/bi mschg/gesamt.pdf | http://www.gesetze-im-internet.de/bundesrecht/ee g_2014/gesamt.pdf | http://www.bgb1.de/xaver/bgb1/text.xav?SID=&tf=xaver.component.Text_0&toctf=&qmf=&hlf=xaver.component.Hitlist_0&bk=bgb1&start=%2F%2F%2F%5B%40node_id%3D%27946346%27%5D&skin=pdf&tlevel=-2&nohist=1 |
| Link to full text of legal source (English) | | | | http://www.erneuerbare-energien.de/files/english/pdf/application/pdf/eeq_2012_en_bf.pdf <i>The translation does not provide information on the latest amendment of the act</i> | |



RES-LEGAL EUROPE – National Profile Germany



Further information

| Institution (name) | Website | Name of contact person (optional) | Telephone number (head office) | E-mail (optional) |
|---|---|-----------------------------------|--------------------------------|---|
| Chamber of Trades and Crafts | http://www.handwerkskammer.de/ | | +49 30 259 03 01 | info@hwk-berlin.de |
| Federal Ministry for Economic Affairs and Energy | www.bmwi.de | | +49 30 186 150 | https://www.bmwi.de/EN/Service/contact.html |
| Federal Office of Economics and Export Control (BAFA) | www.bafa.de | | +49 6196 908-0 | http://www.bafa.de/bafa/de/kontakt/showForm.do |
| KfW Förderbank | http://www.kfw.de | | +49 697 431 0 | info@kfw.de |
| Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) | http://www.bmub.bund.de/en/ | | +49 301 830 50 | service@bmub.bund.de |



Policy categories

Training programmes for installers (Training of Craftsman)

| | |
|-------------------------------------|--|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EEWärmeG • HwO • InstallateurHeizungsbauerMstrV • SHKAnlMechAusbV |
| Sector | <ul style="list-style-type: none"> • Electricity, Heating & Cooling, |
| Contact Authority | <ul style="list-style-type: none"> • Chamber of Trades and Crafts |
| Description | <p>The profession of installers of RES installations is embedded in the craft training of installation mechanics for sanitation, heating and air conditioning systems. The training is divided into different phases. The first phase is an apprenticeship as laid out in SHKAnlMechAusbV. In order to be admitted to the Master's examination, the installer has to pass the journeyman's examination in front of the board of examination from the Chamber of Trades and Crafts (§§ 31 (1); 33 (1) HwO). Finally, the Master's examination, defined in InstallateurHeizungsbauerMstrV, contains a theoretical and a practical part and is approved by the Master's examination board also at the Chamber of Trades and Crafts. The recognition of the master's degree is licensed according to §1(2) and Annex A(24) Crafts Code. In order to offer services as self-employed, the business has to be listed in the register of craftsmen and obtains a trade card (§10 (2) HwO). On a regional level, the Chamber of Trades and Crafts offer special examinations (<i>Fortbildungsprüfung</i>) for example for solar and PV installers for which a fee is charged. The particular offers and requirements are published online.</p> |
| Addressees | <p>People who are interested in becoming a craftsman and qualify for the apprenticeship. Special examinations are addressed to craftsmen.</p> |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|------------------------------|--|---|
| Competent authority | The training of installers is coordinated by the Chamber of Trades and Crafts (§ 42 a Crafts Code; § 41a (1) HwO in connection with § 16a EEWärmeG). The Federal Ministry of Economics and Technology is in charge of adopting training regulations (§42 HwO). | |
| Further information | | |
| Distribution of costs | State | The federal states provide financial support to the companies. However, there is no federal support scheme for the apprenticeship. The State provides low interest loans and premiums in case of a successful master's examination. |
| | Private Financing | The company, in which the apprenticeship is done, covers the costs. The master's degree is financed by the installer. |
| | European Union | In some cases, the EU supports the training via the European Social Fund. |
| | Others | |



Certification Programmes for RES installations (Technical Requirements/Certification)

| | | |
|--|--|--|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EnWG • EEWärmeG • BImSchG | |
| <u>Sector</u> | <ul style="list-style-type: none"> • Electricity, Heating & Cooling, | |
| <u>Contact Authority</u> | <ul style="list-style-type: none"> • BMUB, BMWi | |
| Description | <p>When connecting a plant to the grid, the grid operators are required to comply with the technical requirements for the particular technology defined in the respective guidelines (§19 (1) EnWG). All technologies have to comply with the pollution guidelines set out in the BImSchG. Moreover, the support schemes for renewable energy sources lay out detailed technical requirements. The following certificates are required for the respective technology:</p> <ul style="list-style-type: none"> • PV plants require Solar Keymark certificate (§ 14 (2) 1.; Anlage I. EEWärmeG) • Biomass plants are regulated depending on the substance (§ 14 (2) 2.; Anlage II. EEWärmeG) and must fulfill different DIN standards. • Heat pumps require one of the following labels: “Euroblume”, “Blauer Engel”, “European Quality Label for Heat Pumps” (§ 14 (2) 3. EEWärmeG) | |
| Addressees | Plant operators need to comply with the technical requirements. | |
| Competent authority | The grid operator has to ensure that the plant complies with the standards before connecting the plant to the grid (§19 (1) EnWG). | |
| Further information | | |
| Distribution of costs | State | |
| | Industry | |



RES-LEGAL EUROPE – National Profile Germany



| | | |
|--|-------------------------|--|
| | System Producers | |
| | European Union | |
| | Others | The costs are passed on to the buyer in form of higher prices. |



Exemplary role of public authorities in accordance with Art. 13 par. 5 RES Directive (KfW- Low interest loan)

| | |
|--|--|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EEWärmeG |
| Sector | <ul style="list-style-type: none"> • Electricity, Heating & Cooling, |
| Contact Authority | <ul style="list-style-type: none"> • BMUB |
| Description | <p>As stipulated by the Act to Promote Renewable Energy for Heating Purposes, public authorities shall take an exemplary role in the promotion of renewable energy (§ 1a EEWärmeG). The exemplary role is foremost taken in the field of energy efficiency. The KfW bank offers low interest loans for energy efficiency refurbishment of publicly owned buildings to local authorities and community organisations as well as municipal enterprises under the programme “Energetic Urban renewal – Energy Efficiency Refurbishment” (Energetische Stadtsanierung – Energieeffizient Sanieren). In addition, the KfW bank also offers low interest loans to local authorities for energetic refurbishment of historical buildings under the programme “Energy efficiency in historical buildings”.</p> <p>Currently, the government is setting up a refurbishment schedule for buildings owned by the federal state. It is unclear when it will be published. According to information from the former Ministry of Transport, Building and Urban Development, it is unclear in how far a new programme with a focus on the installation of renewable energy is set-up for the federal level. So far, no specific programme is run on the federal level besides the mere self-commitment (§ 1a EEWärmeG).</p> |
| Addressees | Public authorities. |
| Competent authority | <ul style="list-style-type: none"> • Ministry for the Environment, Nature Conservation, Building and Nuclear Safety |



| | |
|----------------------------|---|
| Further information | <p>https://www.kfw.de/inlandsfoerderung/%C3%96ffentliche-Einrichtungen/Energetische-Stadtsanierung/Finanzierungsangebote/Energieeffizient-Sanieren-Kommunen-%28218%29/</p> <p>https://www.kfw.de/inlandsfoerderung/%C3%96ffentliche-Einrichtungen/Energetische-Stadtsanierung/Finanzierungsangebote/Energieeffizient-Sanieren-kommunale-Unternehmen-%28219%29/</p> <p>https://www.kfw.de/inlandsfoerderung/Privatpersonen/Bestandsimmobilien/Energetische-Sanierung/KfW-Effizienzhaus-Denkmal/#1</p> <p>http://www.dena.de/projekte/gebaeude/sanierungsfahrplan-bundesliegenschaften.html</p> |
|----------------------------|---|



RES-H building obligations (Quota)

| | |
|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> • EEWärmeG |
| Sector | <ul style="list-style-type: none"> • Heating & Cooling, |
| Contact Authority | <ul style="list-style-type: none"> • BMUB |
| Description | <p>Owners of new buildings and buildings under renovation are obliged to use a particular share of heat and cooling produced from renewable energy (§3 (1) EEWärmeG). Public buildings are bound by this obligation as well and moreover, are required in terms of profound renovation (§2 (2) 3. EEWärmeG) to fulfil the quota (also buildings of the public hand constructed and run abroad) (§§ 3 (1 -3), 1a EEWärmeG). The quota applies to buildings with a floor space > 50m² that is heated or cooled (§4 EEWärmeG) with the exceptions of e.g. buildings for animal breeding, underground buildings, religious buildings etc. (§4 par. 1.-11. EEWärmeG). The quota for heat and cooling produced from renewable energy varies according to renewable energy source and whether it is a new building or a renovation of an existing building (§5 and §5a EEWärmeG). Moreover, the quota can be fulfilled if more buildings belong together by ownership meeting the obligation in sum or certain compensation measures apply (§6 (1) EEWärmeG). The obligations for new buildings and renovation (§3 (1-2) EEWärmeG) are fulfilled if the heat and cooling demand is covered by 50% from installations using waste heat (Abwärme) or CHP as well as via energy savings or district heating/cooling (§7 (1) EEWärmeG).</p> <p>Currently, no regulations exist for the mandatory use of renewable energy in existing buildings on the federal level, but federal states can adopt such regulations, e.g. Baden-Württemberg.</p> <p>Exemption from the obligation is granted on grounds of technical barriers, contradiction with other tasks and obligations, indebtedness or preservation order (§9 EEWärmeG).</p> <p>In the following an overview is given on the conditions the quota is met per renewable energy source:</p> |



Biogas:

New buildings: The quota (§3 (1) EEWärmeG) is fulfilled if the share is at least 30% (§5 (2) EEWärmeG) and produced in CHP installations (Annex II. 1. A) EEWärmeG).

Renovation: The quota (§3 (1) EEWärmeG) is fulfilled if the RES share is at least 25% (§5a (1) EEWärmeG) and produced in CHP installations or boilers of best available technique (Annex II. 1. B) EEWärmeG).

For biomethane extra regulations apply (Annex II. 1. C) EEWärmeG)

Biomass:

New buildings: The quota (§3 (1) EEWärmeG) is fulfilled if the share is at least 50% (§5 (3) EEWärmeG).

Liquid biomass:

The quota (§3 (1-2) EEWärmeG) for new buildings and renovation is fulfilled if heat or cooling is produced in boilers of best available technique (Annex II. 2. A) EEWärmeG). Moreover, extra regulations apply regarding the nature of the biomass used (Annex II. 2. B) EEWärmeG).

Solid biomass:

The quota (§3 (1-2) EEWärmeG) for new buildings and renovation is fulfilled if transformation efficiency is not below a certain threshold (86% for installations for the production of heat or hot water with a capacity ≤ 50 kW; 88% for installations with a capacity >50 kW; 70% for installations not serving the production of heat or hot water) (Annex II. 3. A) EEWärmeG). Furthermore, the quota is fulfilled if solid biomass is used in biomass boilers or automatic biomass ovens with water as heat-transfer (Annex II. 3. B) EEWärmeG).



| | |
|--|--|
| | <p>Renovation: The quota (§3 (2) EEWärmeG) is fulfilled if the RES share is at least 15% (§5a (2) EEWärmeG).</p> <p>Geothermal:</p> <p><i>New buildings:</i> The quota (§3 (1) EEWärmeG) is fulfilled if the share is at least 50% (§5 (4) EEWärmeG)</p> <p>The quota (§3 (1-2) EEWärmeG) for new buildings and renovation is fulfilled if the following requirements are met:</p> <ul style="list-style-type: none"> • heat is produced with an operating factor of at least 3.5 for air/water and air/air heat pumps (for all others the factor is at least 4.0) (Annex III. 1. B) EEWärmeG). In case the hot water production of the building is produced by heat pumps or other technologies using renewable energy sources, different operating factors apply: air/water and air/air heat pumps 3.3 (for all others the factor is at least 3.8) (Annex III. 1. B) EEWärmeG). • Heat pumps must be equipped with heat and electricity meters (Annex III. 1. C) EEWärmeG). • If the heat pump is powered by fossil fuels, the quota is only fulfilled if the operating factor is at least 1.2 (Annex III. 2. EEWärmeG). • Heat pumps must be certified either with label “Euroblume”, “Blauer Engel” or “European Quality Label for Heat Pumps” (Version1.3) or be in accordance with general European norms and regulations comparable to the aforementioned labels (Annex III. 3. EEWärmeG). <p>Renovation: The quota (§3 (2) EEWärmeG) is fulfilled if the share of renewable energy is at least 15% (§5a (2) EEWärmeG).</p> <p>Solar thermal:</p> <p><i>New buildings:</i> The quota (§3 (1) EEWärmeG) is fulfilled if the share is at least 15% (§5 (1) EEWärmeG). In case of buildings with 2 flats, PV installations should have 0.04 m² collector surface per m² floor space. For buildings with more than 2 flats the ratio is 0.03 m² collector surface per m² floor space (Annex I. 1. A) EEWärmeG).</p> <p><i>Renovation:</i> The quota (§3 (2) EEWärmeG) is fulfilled if the share of renewable energy is at least 15% (§5a (2) EEWärmeG).</p> <p><i>Compensating measures:</i> The ratio is 0.06 m² collector surface per m² floor space (Annex I. 1. B) EEWärmeG).</p> |
|--|--|



RES-LEGAL EUROPE – National Profile Germany



| | |
|-------------------------------------|---|
| Obligated entities | Owners of new buildings or buildings under renovation. Public buildings are stimulated to take an exemplary role. |
| Competent authority | Competent authority depends on the legislation of each federal state. |
| Further information | www.bmub.de |
| Obligation on regional level | EEWärmeG is a federal law. At <i>Länder</i> level, stricter rules can apply. |



Support of RES-H infrastructure (KWKG)

| | |
|--|---|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> KWKG |
| Sector | <ul style="list-style-type: none"> Heating & Cooling |
| contact Authority | <ul style="list-style-type: none"> BAFA, BMWi |
| Description | <p>The Combined Heat and Power Act (KWKG) promotes the construction and development of heating networks and storage, however, not exclusively using renewable energy sources. As laid out in § 7a (1-3) (KWKG), newly constructed or modernised plants are eligible for compensation payments if the share of heat produced is at least 60% (§ 5a (1) 2. KWKG). The compensation payment is EUR 100 per meter of a newly installed heating pipe (§ 7a (1) KWKG). This compensation is maximum 40% of identifiable investments costs, but not higher than EUR 10 million per project (§7a (1) KWKG). The sum of premium payments may not exceed € 150 million per calendar year (§7a (5) KWKG) .The heating grid operator is entitled to receive compensation payments from the electricity grid operator (§ 5a (1) KWKG). Regarding heat storage, compensation payment is EUR 250 per cubic meter water equivalent of the installed storage volume (§ 7b (1) KWKG). For storage of more than 50 cubic meters this compensation is maximum 30% of the identifiable investments costs (max. EUR 5 million) (§ 7b (1) KWKG).</p> |
| Addressees | Heating grid operators |
| Competent authority | Federal Office of Economics and Export Control (BAFA) |
| Further information | www.bmwi.de |



RES-LEGAL EUROPE – National Profile Germany



Support of RES-H infrastructure (**KfW Programme – Renewable Energy (Premium)**)

| | |
|--|--|
| Abbreviated form of legal source(s) | <ul style="list-style-type: none"> Guidelines for the support of RES-H |
| Sector | <ul style="list-style-type: none"> Electricity, Heating & Cooling, |
| Contact Authority | <ul style="list-style-type: none"> KfW |
| Description | <p>The Market Incentive Programme (MAP) via the KfW Programme – Renewable Energy (Premium) gives funding for district heating networks supplied with heat from renewable energy. The development and modernisation of heat grid are eligible for support if:</p> <ul style="list-style-type: none"> Grid is supplied at least by 20% solar radiation energy provided that otherwise heat is used almost exclusively from high efficiency CHP or heat pumps or industrial or commercial waste heat (Art. 14.1.5.1.a) Guidelines for the support of RES-H), or Grid is supplied at least by 50% heat produced by renewable energy (Art. 14.1.5.1.b) Guidelines for the support of RES-H), or Grid is supplied at least by 50% heat produced by heat pumps (Art. 14.1.5.1.c) Guidelines for the support of RES-H), or Grid is supplied at least by 50% heat produced by plants using waste heat (Art. 14.1.5.1.d) Guidelines for the support of RES-H), or Grid is supplied at least by 50% heat produced by a mix of the aforementioned. <p>Heating networks are only supported if the minimum heating value is 500 kWh per year and per pipeline meter (excluding supply pipes) (Art. 14.1.5.1.) Guidelines for the support of RES-H).</p> <p>Moreover, the construction of building transfer stations in heating networks is supported too. Under this regulation, the biogenic portion of municipal waste is considered as renewable energy. The injection of heat produced by heat pumps is</p> |



RES-LEGAL EUROPE – National Profile Germany



| | |
|----------------------------|--|
| | <p>only supported if the heat pumps fulfill the requirements set out in Art. 10 (Guidelines for the support of RES-H) (More information on the technical requirements can be retrieved from the part RES H&C)</p> <p>The amount of support:</p> <ul style="list-style-type: none"> • Redemption grant for first development: EUR 60 per newly built meter of pipeline, max. EUR 1,000,000 (the subsidy can be increased up to EUR 1,500,000, if heat is produced by geothermal plants) (Art. 14.1.5.2 Guidelines for the support of RES-H) • construction of building transfer stations: € 1,800 per station (Art. 14.1.5.3 Guidelines for the support of RES-H) |
| Addressees | Private persons, freelancer, small and medium size companies, municipalities/local authorities, non-profit organisations, companies of which the public authority has a share of > 25 % with a turnover less than SME threshold (Guidelines for the support of RES-H Art. 4.1). |
| Competent authority | KfW |
| Further information | www.kfw.de |