Act revising the legislation on renewable energy sources in the electricity sector

Of 21 July 2004

The Bundestag has adopted the following act:

Section 1
Act on granting priority to renewable energy sources
(Renewable Energy Sources Act)

Article 1
Purpose

(1) The purpose of this act is to facilitate a sustainable development of energy supply, particularly for the sake of protecting our climate, nature and the environment, to reduce the costs of energy supply to the national economy, also by incorporating long-term external effects, to protect nature and the environment, to contribute to avoiding conflicts over fossil fuels and to promote the further development of technologies for the generation of electricity from renewable energy sources.

---

(2) This act is further intended to contribute to the increase in the percentage of renewable energy sources in power supply to at least 12.5 per cent by 2010 and to at least 20 per cent by 2020.

Article 2
Scope of application

(1) This act regulates
1. priority connections to the grid systems for general electricity supply of plants generating electricity from renewable energy sources and from mine gas within the territory of the Federal Republic of Germany including its exclusive economic zone (territorial application of this act),
2. the priority purchase and transmission of, and payment for, such electricity by the grid system operators and
3. the nation-wide equalisation scheme for the quantity of electricity purchased and paid for.

(2) This act shall not apply to plants of which over 25 per cent are owned by the Federal Republic of Germany or one of its Länder and which were commissioned prior to the 1 August 2004.

Article 3
Definitions

(1) Renewable energy sources shall mean hydropower including wave power, tidal power, salt gradient and flow energy, wind energy, solar radiation, geothermal energy, energy from biomass including biogas, landfill gas and sewage treatment plant gas as well as the biodegradable fraction of municipal and industrial waste.

(2) Plant shall mean any independent technical facility generating electricity from renewable energy sources or from mine gas. Several plants generating electricity from equivalent renewable energy sources or from mine gas, if constructed within the territorial application of this act and directly attached to building structures and commonly used installations technically required for operation shall be considered as one plant if Articles 6 to 12 do not provide for otherwise; inverters, access ways, grid connections as well as measuring, administrative and control facilities in particular are not technically required for such operation.

(3) Plant operator shall mean anyone who, notwithstanding the issue of ownership, uses the plant for the purpose of generating electricity from renewable energy sources or from mine gas.
(4) Commissioning shall mean the first time a plant is put into operation, following establishment of operational readiness or its modernisation, if modernisation costs amount to at least 50 per cent of the investment costs required to build a completely new plant including all building structures and installations technically required for its operation.

(5) Capacity of a plant shall mean the effective electrical capacity which the plant may technically produce without time restrictions during regular operation irrespective of short-term deviations. When the relevant capacity is determined to calculate the fees, the standby capacity shall not be considered.

(6) Grid system shall mean all the interconnected facilities used for the transmission and distribution of electricity for general supply.

(7) Grid system operators shall mean the operators of all types of voltage systems for general electricity supply. The transmission system operators shall be the responsible grid system operators of high-voltage and extra-high-voltage systems which are used for the supra-regional transmission of electricity to downstream systems.

Article 4
Obligation to purchase and transmit electricity

(1) Grid system operators shall immediately and as a priority connect plants generating electricity from renewable energy sources or from mine gas to their systems and guarantee priority purchase and transmission of all electricity from renewable energy sources or from mine gas supplied by such plants. After establishment of a register of installations pursuant to Article 15(3), such obligation for the purchase pursuant to the first sentence above shall apply only if the plant operator has submitted an application for entry into the register. Notwithstanding Article 12(1), plant operators and grid system operators may agree by contract to digress from the priority of purchase, if the plant can thus be better integrated into the grid system. When determining the charges for use of the grid, grid system operators may add any costs incurred in accordance with a contractual agreement pursuant to the third sentence above, provided that such costs are substantiated.

(2) The obligation under paragraph (1) first sentence above shall apply to the grid system operator that is most closely located to the plant site and is in possession of a grid technically suitable to receive electricity if there is no other grid with a technically and economically more suitable grid connection point. A grid shall be deemed to be technically suitable even if – notwithstanding the priority established under paragraph (1) first sentence above – feeding in the electricity requires the grid system operator to upgrade its grid at a reasonable eco-
onomic expense; in this case, the grid system operator shall upgrade its grid without undue delay, if so requested by a party interested in feeding in electricity. If the plant must be licensed in accordance with any other legal provisions, the obligation to upgrade the grid in accordance with the second sentence above shall only apply if the plant operator submits either a license, a partial license or a preliminary decision. The obligation to upgrade the grid shall apply to all technical facilities required for operating the grid and to all connecting installations which are owned by or passed into the ownership of the grid system operator.

(3) The obligation for priority connection to the grid system pursuant to paragraph (1) first sentence above shall apply even if the capacity of the grid system or the area serviced by the grid system operator is temporarily entirely taken up by electricity produced from renewable energy sources or mine gas, unless the plant does not have a technical facility for reducing the feed-in in the event of grid overload. The obligation pursuant to paragraph (1) first sentence above for priority purchase of the electricity produced in these plants shall apply only if the capacity of the grid system or the area serviced by the grid system operator is not already used up by electricity produced in other plants generating electricity from renewable energy sources or mine gas which were connected prior to these plants; the obligation to upgrade the grid system without undue delay pursuant to paragraph (2) second sentence above shall remain unaffected. In the event of non-purchase of such electricity, the grid system operator shall, if so requested by the plant operator, provide proof of fulfilment of the conditions set out in the second sentence above in writing within four weeks and produce verifiable calculations.

(4) The relevant data on the grid system and on the electricity generation plants, which are required to test and verify the grid compatibility, shall be presented upon request within eight weeks where this is necessary for the grid system operator or the party interested in feeding in electricity to do their planning and to determine the technical suitability of the grid.

(5) The obligation for priority purchase and transmission of electricity in accordance with paragraph (1) first sentence above shall also be applied, if the plant is connected to the grid of a plant operator or a third party who is not a grid system operator within the meaning of Article 3(7) and if the electricity is offered to a grid system in accordance with Article 3(6) via a merely budgeted transit through this grid system.

(6) The upstream transmission system operator shall guarantee priority purchase and transmission of the quantity of energy purchased by the grid system operator in accordance with paragraph (1) or (5) above. If there is no domestic transmission system in the area serviced by the grid system operator entitled to sell electricity, the most closely located domestic
transmission system operator shall purchase and transmit electricity in accordance with the first sentence above. The first sentence above shall apply *mutatis mutandis* to other grid system operators.

**Article 5**

**Obligation to pay fees**

(1) Pursuant to Articles 6 to 12, the grid system operators shall pay fees for electricity generated in plants exclusively using renewable energy sources or mine gas and purchased in accordance with Article 4(1) or (5). The obligation in accordance with the first sentence above shall only apply to plants with a capacity of over 500 kilowatts where the capacity is measured and recorded.

(2) Pursuant to Articles 6 to 12, the upstream transmission system operator shall pay for the quantity of energy which the grid system operator has purchased in accordance with Article 4(6) and paid for in accordance with paragraph (1) above. Any avoided charges for use of the grid system, calculated in accordance with good professional practice, shall be deducted from the fees. Article 4(6) second sentence shall apply *mutatis mutandis*.

**Article 6**

**Fees paid for electricity produced from hydropower**

(1) The fees paid for electricity generated in hydroelectric power plants with a capacity up to and including 5 megawatts shall be

1. at least 9.67 cents per kilowatt-hour for plants with a capacity up to and including 500 kilowatts and
2. at least 6.65 cents per kilowatt-hour for plants with a capacity up to and including 5 megawatts.

The first sentence above shall apply to run-of-river power plants with a capacity of up to 500 kilowatts licensed after 31 December 2007 only if they

1. were constructed in the spatial context of an existing barrage weir or dam which wholly or partly existed before or was newly built primarily for purposes other than the generation of electricity from hydropower or
2. without complete weir coverage,
and if this has demonstrably brought about a good ecological status or a substantial improvement in relation to the previous status.

(2) Fees for electricity generated in hydroelectric power plants with a capacity ranging from 5 megawatts up to and including 150 megawatts shall only be paid for in accordance with the provisions of this act if

1. the plant was modernised between 1 August 2004 and 31 December 2012,

2. the modernisation has resulted in an increase in the electrical energy of at least 15 per cent and if

3. such modernisation has demonstrably brought about a good ecological status or a substantial improvement in relation to the previous status.

Notwithstanding Article 3(4), hydroelectric power plants with a capacity of over 5 megawatts which meet the requirements of the first sentence above shall be deemed to have been newly commissioned. The first commissioning of a plant in the spatial context of an existing barrage weir or a dam shall also be deemed to represent modernisation within the meaning of the first sentence above. Fees shall only be paid for the additional electricity generated due to modernisation.

Such fees shall be

1. at least 7.67 cents per kilowatt-hour up to and including an increase in capacity of 500 kilowatts,

2. at least 6.65 cents per kilowatt-hour up to and including an increase in capacity of 10 megawatts,

3. at least 6.10 cents per kilowatt-hour up to and including an increase in capacity of 20 megawatts,

4. at least 4.56 cents per kilowatt-hour up to and including an increase in capacity of 50 megawatts and

5. at least 3.70 cents per kilowatt-hour if the increase in capacity exceeds 50 megawatts.

If the plant had a capacity of up to and including 5 megawatts prior to 1 August 2004, the quantity of electricity corresponding to this share of capacity shall in addition be paid for in accordance with paragraph (1) above.

(3) Presentation of an official authorisation under water law shall be deemed to be proof of achievement of a good ecological status or of a substantial improvement of the ecological
status compared to the previous status in accordance with paragraph (1) second sentence and paragraph (2) first sentence No. 3 above.

(4) As of 1 January 2005, the minimum fees specified in paragraph (2) above shall be reduced for new plants commissioned after that date by one per cent annually of the relevant value for new plants commissioned in the previous year; the amounts payable shall be rounded to two decimals.

(5) Paragraphs (1) to (4) shall not apply to electricity produced from storage power stations.

**Article 7**

**Fees paid for electricity produced from landfill gas, sewage treatment plant gas and mine gas**

The fees paid for electricity from landfill gas, sewage treatment plant gas and mine gas shall be

1. at least 7.67 cents per kilowatt-hour up to and including a capacity of 500 kilowatts and
2. at least 6.65 cents per kilowatt-hour up to and including a capacity of 5 megawatts.

The fees paid for electricity from mine gas plants with a capacity of over 5 megawatts shall be 6.65 cents per kilowatt-hour.

Gas withdrawn from a gas network shall be deemed to be landfill gas, sewage treatment plant gas or mine gas if the thermal equivalent of the withdrawn quantity of such gas corresponds to the quantity of landfill gas, sewage treatment plant gas or mine gas fed into the gas network elsewhere within the territorial application of this act.

(2) The minimum fees in accordance with paragraph (1) above shall be increased by 2 cents per kilowatt-hour if the gas fed in pursuant to paragraph (1) third sentence above has been processed to reach the quality of natural gas or if the electricity is produced by fuel cells, gas turbines, steam engines, organic Rankine cycles, multi-fuel plants, especially Kalina cycles, or Stirling engines. For the purpose of adapting this provision to the state of the art, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is authorised to issue, in agreement with the Federal Ministry of Consumer Protection, Food and Agriculture and the Federal Ministry of Economics and Labour, an ordinance detailing further processes or techniques referred to in the first sentence above or exempting some of these processes or techniques from the scope of the first sentence above.

(3) As of 1 January 2005, the minimum fees specified in paragraph (1) above shall be reduced for new plants commissioned after that date by 1.5 per cent annually of the relevant value for
new plants commissioned in the previous year; the amounts payable shall be rounded to two
decimals.

**Article 8**

**Fees paid for electricity produced from biomass**

(1) The fees paid for electricity produced in plants with a capacity of up to and including
20 megawatts using exclusively biomass as defined in an ordinance adopted pursuant to
paragraph (7) below shall be

1. at least 11.5 cents per kilowatt-hour up to and including a capacity of 150 kilowatts,
2. at least 9.9 cents per kilowatt-hour up to and including a capacity of 500 kilowatts,
3. at least 8.9 cents per kilowatt-hour up to and including a capacity of 5 megawatts and
4. at least 8.4 cents per kilowatt-hour for a capacity of over 5 megawatts.

Notwithstanding the first sentence above, the fee shall be 3.9 cents per kilowatt-hour if the
plant also uses waste wood classified in categories A III and A IV set out in the Waste Wood
Ordinance of 15 August 2002 (BGBl. I p. 3302). Gas withdrawn from the gas network shall be
deemed to be biomass if the thermal equivalent of the withdrawn quantity of such gas corre-
sponds to the quantity of biogas from biomass fed into the gas network elsewhere within the
territorial application of this act.

(2) The minimum fees in accordance with paragraph (1) first sentence Nos. 1 and 2 above
shall be increased by 6 cents per kilowatt-hour , and the minimum fees in accordance with
paragraph (1) first sentence No. 3 above, by 4 cents per kilowatt-hour, if

1. all electricity was produced

a) from plants or parts of plants which have originated from agricultural, silvicultural or hort-
ticultural operations or during landscaping activities and which have not been treated or
modified in any way other than for harvesting, conservation or use in the biomass plant,

b) from manure within the meaning of Regulation (EC) No 1774/2002 of the European Par-
liament and of the Council of 3 October 2002 laying down health rules concerning animal by-
products not intended for human consumption (OJ L 273 p. 1), as amended by Commission
Regulation (EC) No 808/2003 of 12 May 2003 (OJ L 117 p.1), or from vinasse generated at an
agricultural distillery pursuant to Article 25 of the Spirits Monopoly Act as promulgated in
the Federal Law Gazette Part III No. 612-7, last amended by Article 2 of the Act of 23 Decem-
ber 2003 (BGBl. I p. 2924), if that vinasse is not subject to any other recovery requirements
pursuant to Article 25(2) No. 3 or paragraph (3) No. 3 of that Article of the Spirits Monopoly
Act or
c) from both substance categories;

2. the biomass plant has been licensed exclusively for operation with substances pursuant to No. 1, or, where such a licence is not available, the plant operator provides proof, by keeping a record of the substances used with details and documentation of the type, quantity and origin of the substances used, that no other substances are used and if

3. there are no other biomass plants on the same site which produce electricity from other substances.

Notwithstanding the first sentence above, the minimum fees pursuant to paragraph (1) first sentence No. 3 shall be increased by 2.5 cents per kilowatt-hour if the electricity is produced by burning wood. The obligation to pay increased minimum fees in accordance with the first sentence above shall apply as of the date on which the requirements of the first sentence above are fulfilled. The right to payment of increased fees shall finally expire when the requirements of the first sentence above are no longer fulfilled.

(3) The minimum fees in accordance with paragraph (1) first sentence above shall be increased by 2 cents per kilowatt-hour in the case of electricity within the meaning of Article 3(4) of the Combined Heat and Power Generation Act and where proof can be furnished to the grid system operator in accordance with the Arbeitsblatt FW 308 - Zertifizierung von KWK-Anlagen – Ermittlung des KWK-Stromes of November 2002 (Bundesanzeiger No. 218a of 22 November 2002) published by the Arbeitsgemeinschaft für Wärme und Heizkraftwirtschaft – AGFW e.V.. For series-produced combined heat and power stations with a capacity of up to and including 2 megawatts, suitable documentation available from the manufacturer, stating the thermal and electrical capacities and the electricity coefficient, may be furnished instead of proof in accordance with the first sentence above.

(4) The minimum fees in accordance with paragraph (1) first sentence Nos. 1 to 3 above shall be increased by another 2 cents per kilowatt-hour if the electricity was produced in plants using combined heat and power generation and if the biomass was converted by thermochemical gasification or dry fermentation and if the gas used for power generation was processed to reach the quality of natural gas or if the electricity is produced by fuel cells, gas turbines, steam engines, organic Rankine cycles, multi-fuel plants, especially Kalina cycles, or Stirling engines. For the purpose of adapting this provision to the state of the art, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is authorised to issue, in agreement with the Federal Ministry of Consumer Protection, Food and Agriculture and the Federal Ministry of Economics and Labour, an ordinance detailing further processes
or techniques referred to in the first sentence above or exempting some of these processes or techniques from the scope of the first sentence above.

(5) As of 1 January 2005, the minimum fees specified in paragraph (1) above for new plants commissioned after that date shall be reduced by 1.5 per cent annually of the relevant value for new plants commissioned in the previous year; the amounts payable shall be rounded to two decimals.

(6) The obligation to pay fees shall not apply to electricity produced from plants commissioned after 31 December 2006 where, for the purposes of priming or supporting fuels, biomass within the meaning of the ordinance pursuant to paragraph (7) below or vegetable oil methyl ester is not used exclusively. For plants commissioned prior to 1 January 2007, the share to be attributed to the necessary priming and supporting fuels from fossil fuels shall continue to be deemed to be electricity from biomass after 31 December 2006.

(7) The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is authorised to issue, in agreement with the Federal Ministry of Consumer Protection, Food and Agriculture and the Federal Ministry of Economics and Labour and with the consent of the Bundestag, an ordinance with provisions as to which substances shall be deemed to be biomass within the meaning of this provision, which technical processes may be used to produce electricity and which environmental standards must be complied with.

Article 9

Fees paid for electricity produced from geothermal energy

(1) The fees paid for electricity generated in geothermal energy plants shall amount to

1. at least 15 cents per kilowatt-hour up to and including a capacity of 5 megawatts,
2. at least 14 cents per kilowatt-hour up to and including a capacity of 10 megawatts,
3. at least 8.95 cents per kilowatt-hour up to and including a capacity of 20 megawatts and
4. at least 7.16 cents per kilowatt-hour for a capacity of 20 megawatts and over.

(2) As of 1 January 2010, the minimum fees specified in paragraph (1) above for new plants commissioned after that date shall be reduced by one per cent annually of the relevant value for new plants commissioned in the previous year; the amounts payable shall be rounded to two decimals.
Article 10

Fees paid for electricity produced from wind energy

(1) The fees paid for electricity generated by wind-powered plants shall amount to at least 5.5 cents per kilowatt-hour except as provided in paragraph (3) below. For a period of five years starting from the date of commissioning, the fees shall be increased in accordance with the first sentence above by 3.2 cents per kilowatt-hour for electricity generated in plants which during this period of time achieve 150 per cent of the reference yield calculated for the reference plant as defined in the annex to this act. For any other plants, this period shall be extended by two months for each 0.75 per cent of the reference yield which their yield stays below 150 per cent of the reference yield.

(2) In derogation of paragraph (1) third sentence above, the period stated in paragraph (1) second sentence above shall be extended for electricity generated by plants which

1. replace or modernise existing plants in the same rural district (Landkreis), which were commissioned no later than 31 December 1995 and which

2. at least triple the installed capacity (repowering plants)

by two months for each 0.6 per cent of the reference yield which their yield stays below 150 per cent of the reference yield.

(3) The fees paid for electricity generated in offshore wind-power plants which are located at least three nautical miles seawards from the shoreline shall be at least 6.19 cents per kilowatt-hour. This shoreline shall be the shoreline as represented on map No. 2920 “Deutsche Nordseeküste und angrenzende Gewässer”, 1994 edition, XII, and map No. 2921 “Deutsche Ostseeküste und angrenzende Gewässer”, 1994 edition, XII, issued by the Federal Maritime and Hydrographic Agency on a scale of 1:375,000. For electricity generated by plants commissioned no later than 31 December 2010, the fees to be paid in accordance with the first sentence shall be increased by 2.91 cents per kilowatt-hour for a period of twelve years starting from the date of commissioning. For electricity generated by plants located at least twelve nautical miles seawards and in a water depth of at least 20 metres, such period shall be extended by 0.5 months for each full nautical mile beyond 12 nautical miles and by 1.7 months for each additional full metre of water depth.

(4) In derogation of Article 5(1) the grid system operators shall not be obliged to pay for electricity generated by plants that have not proved prior to commissioning that they are able to

---

2 Official information: This publication can be ordered from Bundesamt für Seeschifffahrt und Hydrographie, D-20359 Hamburg.
achieve at least 60 per cent of the reference yield at the intended site. The plant operator shall furnish relevant proof of this to the grid system operator by submitting a technical expertise as defined in the annex to this act and commissioned to a technical expert in agreement with the grid system operator. If the grid system operator fails to give his consent within four weeks following the plant operator’s request, the Federal Environmental Agency shall name the technical expert after consulting the Fördergesellschaft Windenergie e.V. (FGW). The plant operator and the grid system operator shall bear 50 per cent of the costs each.

(5) As of 1 January 2005, the minimum fees specified in paragraph (1) above, and as of 1 January 2008, the minimum fees specified in paragraph (3) above, for new plants commissioned after these dates shall be reduced by 2 per cent annually of the relevant value for new plants commissioned in the previous year; the amounts payable shall be rounded to two decimals.

(6) For the purpose of implementing paragraphs (1) to (4) above, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is authorised to issue an ordinance regulating the calculation and application of the reference yield.

(7) Paragraphs (1) to (6) above shall not apply to electricity generated by wind-powered plants whose construction was licensed after 1 January 2005 in an area of Germany’s exclusive economic zone or coastal waters which has been declared a protected area of nature and landscape in accordance with Article 38 in conjunction with Article 33(2) of the Federal Nature Conservation Act or in accordance with Land legislation. The first sentence above shall also apply to such areas which the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety has notified to the Commission of the European Communities as sites of Community importance or as European bird sanctuaries, until they have been declared protected areas.

**Article 11**

**Fees paid for electricity produced from solar radiation**

(1) The fees paid for electricity generated by plants using solar radiation shall amount to at least 45.7 cents per kilowatt-hour.

(2) If the plant is attached to or integrated on top of a building or noise protection wall, the fees shall be

1. at least 57.4 cents per kilowatt-hour up to and including a capacity of 30 kilowatts,
2. at least 54.6 cents per kilowatt-hour for a capacity 30 kilowatts and over, and
3. at least 54.0 cents per kilowatt-hour for a capacity of 100 kilowatts and over. The minimum fees in accordance with the first sentence above shall each be increased by 5.0 cents per kilowatt-hour if the plant is not integrated into the roof or designed to be the roof of the building and if it forms a substantial part of the building. Buildings shall be understood as meaning roofed building structures that can be independently used and entered by humans and are suitable for or designed for the purpose of protecting humans, animals or objects.

(3) In cases where the installation is not attached to or integrated on top of a building structure used primarily for purposes other than the generation of electricity from solar radiation, the grid system operator shall only be obliged to pay fees if the installation was commissioned prior to 1 January 2015 if

1. within the scope of application of a local development plan within the meaning of Article 30 of the Federal Building Code or
2. on a site for which a procedure in accordance with Article 38 first sentence of the Federal Building Code was carried out.

(4) For electricity generated in an installation in accordance with paragraph (3) above erected within the scope of application of a local development plan drawn up or amended at least also for this purpose after 1 September 2003, the grid system operator shall only be obliged to pay fees if the installation is located on

1. plots of land which were already sealed when the decision on drawing up or amending the local development plan was adopted,
2. land converted from economic or military use or
3. on green areas designated for the construction of this installation in the local development plan and used as cropland at the point in time when the decision on drawing up or amending the local development plan was adopted.

(5) As of 1 January 2005, the minimum fees pursuant to paragraph (1) and paragraph (2) first sentence above paid for new plants commissioned after that date shall be reduced by five cent annually of the relevant value for new plants commissioned in the previous year; the amounts payable shall be rounded to two decimals. As of 1 January 2006, the relevant percentage pursuant to the first sentence above for plants specified in paragraph (1) above shall be increased to 6.5 per cent.

(6) For the purposes of calculating the amount of the fees in accordance with paragraph (2) above for the installation which was commissioned most recently, and in derogation of Arti-
cle 3(2) second sentence, several photovoltaic installations attached to or on top of the same building and commissioned within six consecutive calendar months shall be deemed to be one installation even if they are not directly attached to building structures and installations that are commonly used and are technically necessary for operation.

**Article 12**

*Common provisions for purchase, transmission and payment of fees*

(1) Grid system operators shall not make the fulfilment of their obligations under Articles 4 and 5 conditional upon the conclusion of a contract.

(2) Where Articles 6 to 11 provide for different minimum fees depending on the plant’s capacity, the amount of the fees shall be determined according to the share of the plant’s capacity in relation to the threshold value to be applied. For the purpose of attribution to the threshold values referred to in Articles 6 to 9 and notwithstanding Article 3(5), capacity within the meaning of the first sentence above shall be understood as meaning the ratio of the total kilowatt-hours to be purchased in the calendar year in question pursuant to Article 4(1) or (5) to the total number of full hours for that calendar year less the number of full hours prior to commissioning and after final decommissioning of the plant.

(3) The minimum fees shall be paid from the date of commissioning for a period of 20 calendar years as well as for the year of commissioning. Notwithstanding the first sentence above, the minimum fees for electricity generated in plants in accordance with Article 6(1) shall be paid for a period of 30 years and for electricity generated in plants in accordance with Article 6(2) shall be paid for a period of 15 years, as well as for the year of commissioning, respectively.

(4) The set-off of payment claims by the plant operator in accordance with Article 5 against a claim by the grid system operator shall only be permissible where the claim is undisputed or has been legally established. The ban on setting off such claims, laid down in Article 31 of the Ordinance on general conditions for the supply of electricity to tariff customers of 21 June 1979 (BGBl. I p. 684), as last amended by Article 1(1) No. 11 of the Ordinance of 5 April 2002 (BGBl. I p. 1250), shall not be applicable where a set-off against claims arising from this Act takes place.

(5) Upon request of the plant operator, the court responsible for the principal case may, at its own discretion and in consideration of the merits of the individual case, order the debtor of the claims referred to in Articles 4 and 5 by way of a preliminary injunction to connect the plant temporarily and purchase the electricity generated by it and make an advance payment
of an equitable and fair amount of money. The preliminary injunction may be issued even if the preconditions set out in Articles 935 and 940 of the Code of Civil Procedure are not applicable.

(6) Electricity fed in from several plants may be billed via a shared metering device. In this case, the capacity of each individual plant shall be deemed relevant for calculating the amount of differentiated minimum fees. If electricity generated by several wind-powered plants to which different rates of minimum fees are applicable is billed via a common metering device, the quantities of electricity are attributed to the wind-powered plants in proportion to their reference yields.

(7) The minimum fees in accordance with Articles 6 to 11 shall not be deemed to include value-added tax.

**Article 13**

**Grid costs**

(1) The costs associated with connecting plants generating electricity from renewable energy sources or from mine gas to the technically and economically most suitable grid connection point and with installing the necessary measuring devices for recording the quantity of electrical energy transmitted and received shall be borne by the plant operator. In the case of one or several plants with a total capacity of up to 30 kilowatts located on a plot of land which already has a connection to the grid, this plot’s grid connection point shall be deemed to be its most suitable connection point; if the grid system operator establishes a new connection point for the plants, he shall bear the resulting incremental cost. Implementation of this connection and the other installations required for the safety of the grid shall meet the plant operator’s technical requirements in a given case as well as the provisions of Article 16 of the Energy Industry Act. The plant operator may have the connection and the installation and operation of measuring devices implemented either by the grid system operator or by a qualified third party.

(2) The costs associated with upgrading the grid in accordance with Article 4(2) that solely result from the need to accommodate new, reactivated, extended or otherwise modernised plants generating electricity from renewable energy sources or from mine gas for the purchase and transmission of electricity produced from renewable energy sources shall be borne by the grid system operator whose grid needs to be upgraded. He shall specify the required investment costs in detail. The grid system operator may add these costs when determining the charges for use of the grid.
Article 14

Nation-wide equalisation scheme

(1) The transmission system operators shall record the different volumes of and periods of generation of energy paid for in accordance with Article 5(2) as well as the fees paid, and provisionally equalise such differences amongst themselves without undue delay and settle the accounts with regard to the quantities of energy and the fees paid pursuant to paragraph (2) below.

(2) By 30 September of each year, the transmission system operators shall determine the quantity of energy purchased and paid for in the previous calendar year in accordance with Article 5 and provisionally equalised in accordance with paragraph (1) above, and the percentage share of this quantity in relation to the total quantity of energy delivered to final consumers by the utility companies in the area served by the individual transmission system operator in the previous calendar year. If transmission system operators have purchased quantities of energy that are greater than this average share, they shall be entitled to sell energy to and receive fees from the other transmission system operators in accordance with Articles 6 to 12, until the other grid system operators have purchased a quantity of energy equal to the average share.

(3) Utility companies which deliver electricity to final consumers shall purchase and pay for that share of the electricity which their regular transmission system operator purchased pursuant to the provisions of paragraphs (1) and (2) above in accordance with a profile made available in due time and approximated to the actually purchased quantity of electricity pursuant to Article 4 in conjunction with Article 5. The first sentence above shall not apply to utility companies which, of the total quantity of electricity supplied by them, supply at least 50 per cent in accordance with the provisions of Articles 6 to 11. The share of the electricity to be purchased by a utility company in accordance with the first sentence above shall be placed in relation to the quantity of electricity delivered by the utility company concerned and shall be determined in such a way that each utility company will receive a relatively equal share. The compulsory quantity to be purchased (share) shall be calculated as the ratio of the total quantity of electricity paid for in accordance with Article 5(2) to the total quantity of electricity sold to final consumers. The fees as specified in the first sentence above shall be calculated as the expected average fees per kilowatt-hour paid by all grid system operators combined two quarters earlier in accordance with Article 5, less the charges for use of the grid avoided pursuant to Article 5(2) second sentence. The transmission system operators
shall assert claims held against the utility companies in accordance with the first sentence above that arise from equalisation in accordance with paragraph (2) above by 31 October of the year following the feeding-in of electricity. Equalisation for the actual energy quantities purchased and the fees paid shall take place in monthly instalments before 30 September of the following year. Electricity purchased in accordance with the first sentence above may not be sold below the fees paid in accordance with the fifth sentence above if it is marketed as electricity produced from renewable energy sources or as comparable electricity.

(4) If a valid court decision in the principal case issued after a billing statement pursuant to paragraph (2) first sentence or paragraph (3) above leads to any changes regarding the quantities of energy to be billed or the payments of fees due, such changes shall be taken into account in the next billing statement.

(5) Monthly instalments shall be paid on the expected equalisation payments.

(6) Grid system operators that are not transmission system operators and utility companies shall without undue delay make available the data required to perform the calculations referred to in paragraphs (1) to (5) above and present their final accounts for the previous year by 30 April. Grid system operators and utility companies may request that final accounts pursuant to the first sentence above be certified by 30 June and final accounts pursuant to paragraph (2) above by 31 October by a chartered or certified accountant. Plant operators shall make the data required for the final accounts of the previous year available by 28 February of the following year.

(7) Final consumers who purchase electricity not from a utility company but from a third party are placed on an equal footing with utility companies as defined in paragraphs (2) and (3) above.

(8) The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is authorised, in agreement with the Federal Ministry of Economics and Labour, to issue an ordinance setting out the provisions on

1. the organisational and temporal framework for equalisation pursuant to paragraph (1) above, in particular with a view to determining the responsible party and ensuring optimum and equal forecasting options with regard to the quantities of energy to be equalised and burden trends;
2. determining or identifying a uniform profile in accordance with paragraph (3) above, on the question of when, including the run-up period, and how such a profile and the underlying data are made available and on
3. the specification of the data required in accordance with paragraph (6) above and how such data are to be made available.

**Article 15**

**Transparency**

(1) Grid system operators and utility companies, and any alliances formed by them, which deliver electricity to final consumers shall be entitled to give notice to any third parties of the difference between the fees paid in accordance with Article 14(3) first and fifth sentences and their own average purchase costs per kilowatt-hour or the average purchase costs per kilowatt-hour incurred by the utility companies connected to their grid system during the last closed financial year (differential cost), where they provide proof of this by presenting a certificate by a chartered or certified accountant which will be published. When giving notice of the differential cost, the number of kilowatt-hours of electricity produced from renewable energy sources and from mine gas on which the calculation pursuant to the first sentence above is based must also be stated. Costs that may be added to the charges for use of the grid shall not be shown separately.

(2) The grid system operators shall publish the data necessary to determine the energy quantities and the fee payments to be equalised in accordance with Article 14 by 30 September of the following year. Such data must show whether the grid system operators have purchased the energy quantities from a downstream grid and whether they have sold the electricity to final consumers, grid system operators or utility companies delivering electricity to final consumers or used it themselves. The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is authorised, in agreement with the Federal Ministry of Consumer Protection, Food and Agriculture and the Federal Ministry of Economics and Labour, to regulate the details of the publication requirements in an ordinance.

(3) For the purpose of increasing transparency and simplifying the nation-wide equalisation mechanism, a public register may be established through an ordinance pursuant to the third sentence below in which installations for the generation of electricity from renewable energy sources and mine gas are to be registered (register of installations). Registration may be subject to a fee as defined in an ordinance pursuant to the third sentence below. The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is authorised to issue an ordinance that entrusts a subordinate federal authority or a legal person under private law with the keeping of the register of installations and to determine any details regarding...
the register, the information to be registered, the registration procedure, data protection requirements, publication of data and the charging and level of fees.

**Article 16**

**Special equalisation scheme**

(1) The Federal Office of Economics and Export Control shall upon request limit for a delivery point the share of the quantity of electricity in accordance with Article 14(3) first sentence which is delivered by the utility companies to the final consumers which are manufacturing enterprises or rail operators, thus reducing the costs arising for such enterprises from delivering the electricity quantities, in so far as this is compatible with the purposes of the act and the limit imposed is still compatible with the interest of the electricity users as a whole.

(2) In the case of manufacturing enterprises, a limit shall be set only where they furnish proof that and to what extent, in the last closed financial year,

1. the electricity purchased from a utility company and consumed by the enterprises themselves exceeded 10 gigawatt-hours at a certain delivery point,

2. the ratio of the enterprise’s electricity costs to its gross value added as defined by the Federal Statistical Office (*Fachserie 4*, series 4.3 of June 20033), exceeded 15 per cent,

3. an individual share of the electricity in accordance with Article 14(3) first sentence has been delivered to and consumed by the company, and that

4. the enterprise has paid for that share a differential cost within the meaning of Article 15(1).

Upon request of the enterprise, the utility companies shall without undue delay furnish proof to the Federal Office of Economics and Export Control of the share of electricity delivered and the differential cost including the data used to calculate the differential cost by submitting a certificate by a chartered or certified accountant for the last closed financial year; the costs for such a certificate shall be borne by the end-consumer enterprise. Proof of the requirements pursuant to the first sentence No. 3 above and of the differential cost incurred shall be furnished by submission of the certificate; proof of the other requirements pursuant to the first sentence above shall be furnished by producing the contracts on electricity supply and the electricity bills for the last closed financial year and the audit by a chartered or certified accountant based on the financial statement of the last closed financial year. Delivery points shall be deemed to mean all spatially connected electrical installations of the

---

3 Official information: This publication can be ordered from *Statistisches Bundesamt*, D-65180 Wiesbaden.
enterprise at a given industrial site which is connected to the grid of the grid system operator by one or several withdrawal points. The first to fourth sentences above shall apply to the independent parts of the enterprise mutatis mutandis.

(3) Paragraph (2) first sentence Nos. 1, 3 and 4 above and the second to fourth sentences of that paragraph shall apply mutatis mutandis to railway operators, with the following provisions:

1. Account will be taken only of those quantities of electricity which are directly used for rail transport operations.

2. The delivery point shall be understood as meaning the total of the consumption points in the company’s rail transport operations.

(4) To limit the share of the electricity forwarded a certain percentage shall, in accordance with paragraph (2) first sentence No. 1 or paragraph (3) No. 2 above, be fixed for the delivery point in question. The percentage shall be fixed in such a way that the differential cost for the share of the quantity of electricity forwarded, if calculated on the basis of the expected fees to be paid in accordance with Article 14(3) first and fourth sentences, amounts to 0.05 cents per kilowatt-hour. In the case of enterprises for which the purchased quantity of electricity referred to in paragraph (2) first sentence No. 1 above is below 100 gigawatt-hours or for which the ratio of electricity costs to gross value added is below 20 per cent, and in the case of railway operators, this provision shall only apply to the total quantity of electricity exceeding 10 per cent of the electricity purchased and consumed at that delivery point in the last closed financial year in accordance with paragraph (2) first sentence No. 3 or paragraph (3) No. 2 above; provision of proof that these values have been exceeded shall be subject, mutatis mutandis, to paragraph (2) third sentence above. If the enterprise is serviced by several utility companies when furnishing proof in accordance with paragraph (2) second sentence above, the limit under the first sentence above shall be shared by the utility companies in according to the individual quantities which they deliver to this final consumer at the delivery point; the enterprise shall make available to the utility companies the necessary information for the calculation of the individual shares. If the preferential treatment granted to all railway operators on the basis of this provision exceeded a total of 20 million euro, the percentage to be applied to railway operators shall, notwithstanding the provisions of the second sentence above, be uniformly defined not to exceed that total.

(5) Where the product of the share in accordance with Article 14(3) fourth sentence and the average fee in accordance with Article 14(3) fifth sentence would rise by more than 10 per cent as a result of the application of this rule in relation to the data for the year preceding the decision for those final consumers who do not benefit from this rule, the percentage in ac-
Article 17

Guarantee of origin

(1) Plant operators may request a person or organisation entitled to act as an environmental verifier or environmental verification organisation in the field of electricity production in accordance with the Environmental Audit Act to issue a guarantee of origin for electricity produced from renewable energy sources.

(2) Such guarantee of origin must specify

1. the energy sources from which the electricity was produced, listed according to type and major components, including the information to what extent the electricity was produced

2. where biomass is used, whether it is exclusively biomass within the meaning of the ordinance pursuant to Article 8(7),

3. the name and address of the plant operator,

4. the quantity of electricity generated in the plant, the period in which it was produced and to what extent it was paid for in accordance with Articles 5 to 12 and

5. the place, the capacity and the date of commissioning of the plant.

(3) Such guarantees of origin shall only be used if the information required in paragraph (2) above is complete.

Article 18

Prohibition of multiple sale

(1) Electricity produced from renewable energy sources and from mine gas or landfill gas, sewage treatment gas, mine gas or gas from biomass fed into a gas network may not be sold or otherwise transferred more than once.

(2) Plant operators who received payment in accordance with Articles 5 to 12 shall not forward any guarantees for electricity produced from renewable energy sources and from mine gas. If a plant operator forwards such a guarantee for electricity produced from renewable energy sources or from mine gas, the electricity shall not be paid for in accordance with Articles 5 to 12.

Article 19

Clearing house

The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety may establish a clearing house to settle any disputes and issues of application arising under this act, which may involve the parties concerned.
Article 20

Progress report

(1) The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety shall, in agreement with the Federal Ministry of Consumer Protection, Food and Agriculture and the Federal Ministry of Economics and Labour, report to the Bundestag by 31 December 2007 and subsequently every four years thereafter about the state of affairs with regard to the introduction to the market of plants generating electricity from renewable energy sources and from mine gas and about the development of electricity production costs in such plants and shall if necessary propose an adjustment of the amount of the fees to be paid in accordance with Articles 6 to 12 and of the degressive rates, in line with the development of technology and markets for plants commissioned after that date. The progress report shall also assess the storage technologies and the ecological effects of the use of renewable energy sources on nature and landscapes.

(2) For the purpose of spot checks of electricity production costs within the meaning of paragraph (1) above and in order to ensure the functioning of the equalisation scheme pursuant to Article 14, plant operators whose plants were commissioned on or after 1 August 2004 and who have received payment of fees in accordance with Articles 5 to 12, and grid system operators shall, upon request, provide the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and its authorised representatives with truthful and accurate information about all facts that may be relevant for the assessment of electricity production costs and of equalised energy quantities and payments of fees in accordance with Article 14. If the plant operators and grid system operators are traders within the meaning of the Commercial Code, the account books shall in addition be disclosed upon request where they may give information about facts that may be relevant for assessing the electricity production costs and the equalised energy quantities and payments of fees. The principles of data protection shall be observed.

Article 21

Transitional provisions

(1) In the case of electricity generated in plants commissioned prior to 31 July, the provisions on fee rates, duration of the claim to payment and the availability of measuring data previously in force shall apply under the following conditions:

1. In the case of electricity generated in hydroelectric power plants, the provision previously in force shall only apply up to and including a capacity of 5 megawatts;
2. Electricity generated in run-of-river power plants that had a capacity of up to and including 5 megawatts prior to 1 August 2004 shall be subject to the provisions of Article 6 if the plant was modernised and such modernisation has demonstrably brought about a good ecological status or a substantial improvement of the previous status. Article 6(3) shall apply mutatis mutandis. Notwithstanding Article 3(4), such plants shall be deemed to have been newly commissioned once the modernisation work has been completed;

3. Electricity generated in biomass plants commissioned after 31 December 2003 as of 1 August 2004 shall be subject to the fees under Article 8 of this act;

4. In the case of electricity generated in biomass plants commissioned prior to 1 January 2004, the minimum fees paid shall be increased as specified in Article 8(2) of this act;

5. Electricity generated in biomass plants commissioned prior to 1. August 2004 shall be subject to Article 8(6) second sentence of this act;

6. In the case of electricity generated in wind-powered plants commissioned after 31 March 2000, the annex to Article 10(1) of this act shall be applied to calculate the reference yield;

7. Electricity from plants generating electricity from solar radiation and commissioned prior to 1 January 2004 shall be subject to the provisions of Article 8 of the Renewable Energy Sources Act of 29 March 2000 (BGBl. I p. 305), last amended by the Act of 22 December 2003 (BGBl. I p. 3074) as promulgated on 22 July 2003;

8. Electricity from plants generating electricity from solar radiation and commissioned after 31 December 2003 shall be subject to the provisions of Article 8 of the Renewable Energy Sources Act of 29 March 2000 (BGBl. I p. 305), last amended by the Act of 22 December 2003 (BGBl. I p. 3074) as promulgated on 1 January 2004, with Articles 8(3) and 8(4) applying only to electricity generated in plants commissioned after 30 June 2004.

(2) Article 4(1) second sentence shall only apply to electricity from plants commissioned within three months of the notice of establishment of a register of installations in the Federal Gazette (Bundesanzeiger). Electricity generated in any other plants shall be subject to the provisions of Article 4(1) second sentence for a period of three months after receipt of a separate written notice requesting registration from the grid system operator, specifying contact details of the register and stating the legal consequences of failure to submit an application.

(3) Electricity from biomass plants that also use waste wood classified in categories A III and A IV set out in the Waste Wood Ordinance of 15 August 2002 (BGBl. I p. 3302) and were commissioned prior to 30 June 2006 shall be subject to the provisions of Article 8(1) first sentence, instead of Article 8(1) second sentence.
(4) Article 10(4) shall only apply to plants commissioned after 31 July 2005.

(5) Until the ordinance referred to in Article 8(7) has been issued, if reference is made to such ordinance under this act, the Biomass Ordinance of 21 June 2001 (BGBl. I p. 1234) shall apply in its place. Article 8(6) shall remain unaffected.

(6) Notwithstanding Article 16(6) first sentence, the application for 2004 shall be submitted by 31 August. Applications to limit the share of the energy quantity under the special equalisation scheme in accordance with the Renewable Energy Sources Act of 29 March 2000 (BGBl. I p. 305), last amended by the Act of 22 December 2003 (BGBl. I p. 3074), which are submitted prior to 1 August 2004 shall be processed and decided upon in accordance with the provisions in force, if they have not been submitted by companies, for which the share of the electricity has already been limited beyond 1 August 2004. Decisions by the Federal Office of Economics and Export Control to limit the share of electricity in application of the provisions specified in the second sentence above, of which the applicant was informed prior to 1 August 2004, shall be extended until 31 December 2004 notwithstanding the fourth sentence above. Decisions within the meaning of the third sentence above that are valid beyond 31 December 2004, shall become ineffective on 1 January 2005 if the company submits an application in accordance with Article 16(1) of this act prior to 1 September 2004 and if such application has not been finally rejected.

Annex (to Article 10(1) and (4))

1. The reference plant shall be a wind-powered plant of a specific type for which a yield at the level of the reference yield can be calculated on the basis of the P-V curve (power-wind speed curve) measured by an authorised institution at the reference site.

2. The reference yield shall be the quantity of electricity which each specific type of wind-powered plant, including its hub height, would, if calculated on the basis of measured P-V curves, yield during five years of operation if it were built at the reference site. The reference yield shall be calculated in accordance with the generally accepted rules of technology; the generally accepted rules of technology shall be assumed to have been complied with if the procedures, foundations and calculating methods set out in the *Technische Richtlinien für Windenergieanlagen* (Technical guidelines for wind-powered plants), Part 5, published by the *Fördergesellschaft Windenergie e.V.* (FGW)\(^4\), in the version applicable at the time of calculating the reference yield, have been used.

\(^4\) Official information: This publication can be ordered from *Windenergie e.V.*, Stresemannplatz 4, D-24103 Kiel.
3. The type of a wind-powered plant shall be defined by the type designation, the swept rotor area, the rated power output and the hub height as specified by the manufacturer.

4. The reference site shall be a site determined by means of a Rayleigh distribution with a mean annual wind speed of 5.5 metres per second at a height of 30 metres above ground level, a logarithmic wind shear profile and a roughness length of 0.1 metres.

5. The P-V curve shall be the correlation between wind speed and power output (irrespective of hub height) determined for each type of wind-powered plant. P-V curves shall be determined in accordance with the generally accepted rules of technology; the generally accepted rules of technology shall be assumed to have been complied with if the procedures, foundations and calculating methods set out in defined in the *Technische Richtlinien für Windenergieanlagen* (Technical guidelines for wind-powered plants), Part 2, published by the *Fördergesellschaft Windenergie e.V.* (FGW), in the version applicable at the time of calculating the P-V curves, have been used. P-V curves which were determined by means of a comparable procedure prior to 1 January 2000 can also be used instead of P-V curves as specified in the second sentence above, provided that no construction of wind-powered plants of the type to which these curves apply is commenced within the territorial scope of this act after 31 December 2001.

6. Technical expertises in accordance with Article 10(4) to prove that the plant may at least achieve 60 per cent of the reference yield at the intended site shall include a physical site analysis and use site-specific wind measurements or extrapolatable operational data from a neighbouring wind park and relate them to data from existing wind data bases to obtain a long-term prognostic assessment. Calculation of the energy yield shall be based on the flow speed to which the wind-powered plant is exposed.

7. For the purposes of this act, measurements of the P-V curves in accordance with No. 5 above and calculations of the reference yields of different types of wind-powered plants at reference sites in accordance with No. 2 above, and the determination of possible energy yields at the intended site in accordance with No. 6 may be carried out by institutions which are properly accredited in accordance with the *Allgemeine Anforderungen an die Kompetenz von Prüf- und Kalibrierlaboratorien* (General requirements for the competence of testing and calibration laboratories) (DIN EN ISO/IEC 17025) of April 2000 by an accreditation body which is officially recognised or has been evaluated with the involvement of public authorities.

---

5 Official information: This publication can be ordered from *Windenergie e.V.*, Stresemannplatz 4, D-24103 Kiel.

6 Official information: This publication can be ordered from *Beuth Verlag GmbH*, D-10772 Berlin.
Section 2
Amendment of the Environmental Audit Act

The following German sentence shall be added to Article 15(9) of the Environmental Audit Act as promulgated on 4 September 2002 (BGBl. I p. 3490):

“Paragraph (6) above shall apply mutatis mutandis to the activities of environmental verifiers or environmental verification organisations on the grounds of any other legal provisions.”

Section 3
Amendment of the Combined Heat and Power Generation Act

In accordance with Article 4(3) second sentence of the Combined Heat and Power Generation Act of 19 March 2002 (BGBl. I p. 1092), as last amended by Article 136 of the Ordinance of 25 November 2003 (BGBl. I p. 2304), the following sentence will be added:

“The usual price shall in each case be understood as meaning the average price of baseload electricity at the EEX electricity exchange in Leipzig in the previous quarter.”

Section 4
Entry into Force, Expiry

This act shall enter into force on the day following its promulgation. At the same time, the Renewable Energy Sources Act of 29 March 2000 (BGBl. I p. 305), last amended by the Act of 22 December 2003 (BGBl. I p. 3074), shall expire.