

# TARIFFS GREEN POWER – Renewable Energy in CEE

## TARIFFS for GREEN POWER from concrete BIOMASS (WOOD CHIPS) – CEE Markets

For the supply of electricity by WOOD GAS POWER PLANTS – highly efficient FACILITIES with a maximum capacity of up to 500 kW (kilowatt) (so called „Small Facilities“)

[“GREEN Power from BIOMASS”]

February 2021

Pos.	Country	TARIFF	Mandatory Take OFF	Legal Basis/Law/Decree/other Enactment or Prescription
1.	Austria	21.56 Cent/kWh	<b>Yes</b> , there is a mandatory take off by the Republic of Austria (RoA) via „OeMAG“ as appointed authority for administration of the relevant processes. The RoA must purchase and take off the Green Electricity, because it represents Renewable Energy.	Decree on Green Power-Supply to Grid, dated 1 September 2020; As well as paragraphs 18 and 19 of the Law on Green Power and Electricity 2012 (ÖSG 2012) as amended in 2020, Law Gazette BGBl. I Nr. 24/2020
2.	Czech Republik	O1: 12.64 Cent/kWh (8.85 Green bonus) O2: 8.72 Cent/kWh (4.93 Green bonus) O2: 4.82 Cent/kWh (1.03 Green bonus) Attachment n.1 to Act No. 477/2012 in connection with pricing decision No. 5/2020 29. September 2020 Approx. 17.454 Cent/kWh (maximum for FIT or Green bonus) Pure biomass firing plants in new plants put into operation from 1 January 2015 – 31 December 2021 § 12 par. 6 Act No. 165/2012	In the Czech Republic, renewable electricity generation from plants up to 100 kW is supported through a feed-in tariff. Plant operators may choose between a guaranteed feed-in tariff and a green bonus paid on top of the regular electricity price achieved in the market (“Premium tariff”). Every electricity producer may make this choice once a year, i.e. on 1 January for a respective year (§ 8 par. 2 Act No. 165/2012). Responsible for the payment of the feed-in tariffs are the “mandatory purchasers” selected by the Ministry of Industry and Trade. To be able to enforce their claim for the feed-in tariff, plant operators are obliged to conclude an agreement with the grid operator.	The electricity has to be generated in a CHP plant with the certificate issued by the Ministry of Industry and Trade (§ 4 par. 5 Letter b Act No. 165/2012). The maximum capacity must not exceed 100 kW (§ 8 par. 2 Act No. 165/2012).  The installation must have been put into operation until 31 December 2015 (par. 2 Transitional Provision No. 1 Act No. 165/2012).  The holder of an authorisation for the construction of biomass plant issued before 2 October 2013 has to put a RES plant into operation within six years of granting the authorisation (par. 1 Transitional Provision No. 1 Act No. 165/2012).

3.	Slovakia	<p>Other biomass from waste: 7.43 Cent/KWh</p> <p>From 1 January 2017 (§ 10 par. 1 Letter e Decree No. 18/2017)</p>	<p>In October 2018, the major reform of RES Act (No. 309/2018 Coll.) was approved by the National Council of the Slovak Republic. Under the new legislation, the so-called local energy source (up to the capacity of 500 kW) promoting self-consumption, new large-scale RES-E installations' promotion solely via system of auctions or the single buyer principle will be introduced.</p> <p>The future amendment of the RES Act is entering into force on 1 January 2019. Since the amendment of the RES Act has not come into force yet, the information provided do not reflect the new legislative changes starting from 1 January 2019.</p> <p><b>Feed-in tariff:</b> Regional distribution system operators are statutorily obliged to purchase and pay for electricity from renewable energy sources.</p>	<p>Eligible for a feed-in tariff (§ 2 par. 1 Letter a No. 5 RES Act) with a limit of 40 GWh in case of new biomass facilities for RES-E generation (§ 3 par. 8 RES Act)</p>
4.	Hungary	<p>Plants of up to 500 kW or less:</p> <p>peak period: approx. 10 Cent/KWh (35.5 HUF)</p> <p>valley period: approx. 9 Cent/KWh (31.7 HUF)</p> <p>deep-valley period: approx. 4 Cent/KWh (12.96 HUF)</p>	<p>The feed-in tariff system remains essentially unchanged for installations with an installed capacity between 50 kW – 500 kW and are not subject to tendering procedures.</p> <p>The transmission system operator (TSO) MAVIR Ltd. is legally obliged to purchase electricity from renewable sources, sell it on the electricity stock market (HUPX), while paying a guaranteed price to plant operators.</p> <p>The TSO is also financially responsible for grid balancing.</p>	<p>For installations having applied for the feed-in tariff after 31 December 2016, the new Decree No. 299/2017. (X. 17.) applies.</p> <p>This decree sets out different regulations for renewable energy installations between 50 kW – 500 kW and for plants between 500 – 1,000 kW.</p> <p>Installations up to 500 kW are either eligible for the feed-in tariff or the green premium (market premium).</p> <p>The green premium is obligatory for plants with a capacity of 500 – 1,000 kW.</p>

5.	Croatia	<p>The amount of the guaranteed purchase price for the delivered net electricity is determined by the decision of the HROTE, which selects the lowest bidder in the public tender.</p> <p>Basically, the guaranteed purchase price does not change for the duration of the contract between the installation owner and the HROTE.</p> <p>However, the guaranteed purchase price of electric energy will be adjusted every year in relation to the established corrected guaranteed purchase price of electric energy from the previous year by applying the average annual consumer price index (Art. 35 par. 6 RES Act).</p> <p>The maximum guaranteed purchase price of electric energy will be determined by the HROTE based on the methodology of guaranteed purchase prices of electricity defined in the RES Promotion Decree.</p>	<p><b>Feed-in tariff:</b></p> <p>Privileged producers owning RES installations, which do not exceed a capacity of 500 kW, can conclude a power selling contract at a guaranteed purchase price, if they have won a public tender carried out by the Croatian Energy Market Operator.</p>	<p>The eligible installation must not exceed a capacity of 500 kW (Art. 33 § 1 RES Act). The classification of power plants by technology and source of energy are defined under the RES Promotion Decree. Art. 4 of the RES Promotion Decree differentiates between the size of projects across eligible technologies.</p> <p><b>For further information:</b> <a href="http://www.hrote.hr/en">www.hrote.hr/en</a></p>
6.	Romania	<p>The yearly quota is established by ANRE in December for the following year. The quota is calculated taking into consideration the estimated final energy consumption for the upcoming year and the medium impact on consumers that should not exceed 1.25 Cent/KWh in 2019, 1.3 Cent/KWh in 2020 and 2021 and 1.45 EUR/KWh from year 2022.</p> <p>A new methodology for defining the obligatory annual quota acquisition of Green Certificates was developed by ANRE (following the provision of the Art. 4 par. 7 and par. 91 – 94 Law. No. 220/2008) and approved by the Decree No. 157/2018, according to which the methodology entered into force on 1 August 2018.</p>	<p><b>Quota system:</b></p> <p>In Romania, the main means of promotion is a quota system based on quota obligations, tradable certificates, and minimum and maximum prices.</p> <p>Electricity suppliers and producers are obliged to present a certain number (or quota) of green certificates (Art. 8 par. 2 Law No. 220/2008 as referred to in Art. 1 par. 6 Emergency Ordinance No. 57/2013).</p> <p>These tradable certificates are allocated to the producers of electricity from renewable sources (art. 6, par.1 Law no. 220/2008 as referred to in Art. 1 par. 9 Emergency Ordinance No. 88/2011). The quota system cannot be accessed by new installations since 1 January 2017 any longer.</p>	<p>Plants put into operation after 1 January 2004 cease to be eligible after 15 years (art. 3 par. 2 letter a, Law No. 220/2008).</p> <p>The operators of biomass plants are eligible for green certificates as set out in Law No. 220/2008 only if they present certificates of origin for the biomass used (art. par. 9 Law No. 220/2008 as referred to it in art. 1 part 7 Emergency Ordinance No. 88/2011).</p>

7.	Bulgaria	No preferential tariff for energy produced by newly connected biomass facilities. The electricity produced is purchased by electricity traders at market price which can be estimated at around 4.9 Cents/kWh	The operators of renewable energy systems may sell the electricity produced on the free market.	<p>In Bulgaria, renewable energy installations with a capacity below 4 MW are supported through a feed-in tariff. The feed-in tariff applies to producers of electricity from renewable sources who inject their electricity into the public grid. The amount of tariff is determined annually by the Energy and Water Regulatory Commission (Art. 32 par. 1 ERSA).</p> <p>As of 1 July 2018, the statutory obligation of NEK and the other off-takers to purchase the energy output of RES Producers under FiTs is terminated. RES Producers, which enjoyed PPAs and FiT are offered to execute Premium contracts with the ESSF by 1 July 2018.</p>
8.	Slovenia		The operators of production facilities connected to the grid after 22 September 2014 can take part in a public tender.	<p>The Slovenian Energy Agency publishes annually an open call for tenders for plants producing electricity from renewable energy sources and high-efficient cogeneration for admission to the support scheme.</p> <p>All production facilities connected to the grid after 22 September 2014, could take part in the currently open public tender published by the Energy Agency.</p> <p>The operators of renewable energy plants connected to the grid before 22 September 2014 may sell their electricity to the Slovenian power market operator Borzen at a „uniform annual price“, i.e. the feed-in tariff (alternatively, they can opt for a premium tariff).</p>

9.	Poland	<p><b>1. Feed-in tariff:</b> The tariff amounts to 95% of the reference price set pursuant to RES-Act, for a given type of installation, from the day of submission of the FIT declaration, reduced with a value of granted investment support.</p> <p>The price will be yearly inflation-adjusted. The reference price stipulated for 2020, for the biomass using power plants was differing from 465 – 490 PLN/MWh (ca. 103 – 108 EUR/MWh).</p> <p><b>2. RES auction:</b> The RES auction price is indicated in the offer submitted before the auction is started. The auction offer shall take into consideration that the price shall be reduced with a value of granted investment support. The offer price may not be higher than the reference price indicated in the regulation of the Ministry of Climate.</p> <p>The reference price stipulated for 2020, for the biomass using power plants was differing from 465 – 490 PLN/MWh (ca. 103 – 108 EUR/MWh).</p>	<p><b>1. Feed-in tariff:</b> The Feed-in tariff is available for unused electricity from biomass installations under 500 kW that meet statutory regulations concerning age and prior public support granted for the installation. The entrepreneur must submit a declaration to the President of the Energy Regulation Authority (PERA). Upon the declaration PERA is issuing the certificate upon possibility to sell the energy within the system. After obtainment of the certificate, an entrepreneur shall execute contract on sale of the energy within the system with a mandatory buyer. The entrepreneur is selling the energy to the mandatory buyer upon the tariff price. <b>The system of support lasts max. 15 years.</b></p> <p><b>2. RES auction:</b> The RES auction system is also available for the biomass installations under 500 kW that meet statutory regulations concerning i.e. age of the installation. The system of support is currently predicted for the installations that will win the RES auction until 30 June 2021. From the information provided by the Ministry of Climate, the amendment of the current regulation is on-going, which shall extend the operating of the system beyond 2021. The entrepreneur must submit a declaration to the PERA on participation in the auction. The RES auctions are as a rule performed once a year. After certification of possibility of participation in auction by an entrepreneur, the offer on sale of the energy in the indicated amount and for the set price shall be submitted. As a rule, the entity offering the lowest price for the given amount of energy wins. The support is granted until the amount of energy predicted for the indicated auction is disposed. The biomass installations under 500 kW that meet statutory regulations concerning i.e. age of the installation and win the auction may sell the energy to the mandatory buyer upon the auction price. After winning the RES auction the entrepreneur shall execute contract on sale of the energy within the system with a mandatory buyer. <b>The system of support lasts max. 15 years.</b></p>	Act as of 20 February 2015 on Renewable Energy Sources (RES-Act), Art. 39a, Art. 70a-70f, Art. 71 – 82, Art. 92
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10.	Italy/ South Tirol	<p>Guaranteed minimum price for 2021: 9.45 Cent/KWh</p> <p>The formulas for calculating the exact guaranteed minimum price are available in Art. 7, of the adapted Annex A, AEEG 280/07.</p>	<p><b>Premium tariff:</b> Renewable energy installations are promoted through a simplified purchase from GSE at a guaranteed minimum price. ("ritiro dedicato".) Producers up to the following capacities may choose the guaranteed minimum price (prezzo minimo garantito) determined by the energy authority (Art. 7, Annex A, AEEG 280/07 in connection with Art. 4 AEEG 34/05).</p> <p>1,000 kW for all sources, if they make use of other support schemes.</p>	Eligible (Art. 13, c. 3,4 DL 387/03 and Art. 1 par. 41 L 239/04).
11.	Germany	12.8 Cent/KWh (according to plant size) (§ 42 EEG 2021) minus 0.2 Cent/kWh (§ 53 no. 1 EEG 2021).	<p>Eligible (§ 19 par 1 EEG 2021). § 3 no. 21 EEG 2021 specifies that biomass includes biogas, biomethane, landfill gas and gas from purification plants and from the biological degradable part of household and industrial waste. A further specification of the substances regarded as biomass are to be found in a separate ordinance (BiomasseV).</p> <p>Additionally, there is an 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 (§ 44c par. 1 EEG 2021).</p>	<p>In Germany, small RES-E plants up to 100 kW are eligible for feed-in tariff as set out in the EEG 2017 (§ 19 par. 1 no. 2. And § 21 EEG 2021). The eligibility is coupled to the obligation of the plant operator to feed the electricity into the grid in the months for which he raises the claim of receiving the financial support.</p> <p>Regardless of the size, all plants are eligible in exceptional cases for a feed-in tariff reduced by 20% (Ausfallvergütung), however no longer than 3 consecutive months and no more than 6 months within a calendar year (§ 21 par. 1 no 2 EEG 2021).</p> <p>The maximum value for electricity from biomass plants in 2021 is 16.4 cents per kilowatt hour. The maximum value will decrease from 1 January 2020 by 1 percent per year compared to the maximum value applicable in the previous calendar year [...] (§ 39b par. 1 and 2)</p> <p>The Federal Network Agency (BNetzA) carries out tenders to determine the values to be applied for electricity from biomass plants. The determined value to be applied serves as the basis for calculating the amount of the payment claim (market premium). Sections 39 to 39i EEG 2021 are relevant.</p>

12.	Estonia	<p>Bonus of 5.37 or 3.2 Cent/KWh on top of the average electricity market price of the last month. The premium is reduced if the average price rises above 3.93 Cent/KWh and reaches zero once the average price is above 9.3 Cents/KWh.</p> <p>The bonus amounts to 5.37 Cent/KWh and does not differ for the individual technologies (§ 59 par. 2 no. 1 ELTS). However, CHP plants with a production capacity below 10 MW using waste, peat or oil-shale retorting gas are eligible for a tariff amounting to 3.2 Cent/KWh (§ 59 par.2 no. 2 ELTS).</p>	<p><b>Premium tariff:</b> The operators of renewable energy systems may sell the electricity produced on the free market and receive a bonus on top of the market price.</p>	<p><b>Eligible under following conditions:</b> The electricity must be generated by high-efficiency CHP plants (§ 59 par. 1 no. 2; § 108 par. 1.2 ELTS).</p> <p>The net capacity of the generating installation does not exceed 125 MW (§ 59 par. 1 ELTS).</p> <p>Electricity generated from biomass in a condensation process is not eligible (§ 59 par. 1 ELTS).</p>
13.	Latvia			<p>Latvia's RES support scheme is temporarily suspended, and it is planned to be closed for new installations until the end of 2019. In July 2016, an overcompensation prevention mechanism for payments for the electricity acquired under mandatory procurement or plants installed electric capacity was introduced. As a result, the profit in the plant may not exceed 9% during the entire period of support.</p> <p>Energy Development Guidelines 2016-2020 were introduced in 2016 by the Cabinet of the Ministers. The Guidelines foresee an increase of the share of renewable energy sources (RES) in final energy consumption to 40% by 2020 and to 50% by 2030. The guidelines set the goal to develop a new national support mechanism for the electricity production from RES until 2018.</p> <p>In order to ensure that energy is produced using the most cost-effective technologies, support measures should be technology neutral. No new developments regarding a new funding system could be detected until December 2018.</p>

14.	Lithuania	tariff rate for newly built power plants using biomass with the installed capacity of up to and including 10 kW: 6.6 Cents/kWh (Item 5.1. Resolution No. O3E-171/2018)	All electricity produced by renewable electricity generating technologies whose total installed capacity does not exceed 10 kW shall be purchased at the tariff set by the National Commission for Energy Control and Prices (NCC).	Biomass power plants exceeding 10 kW are eligible for tenders. Tender requirements are specified in the tender announcements. For biomass plants, the sliding feed-in premium is paid for 12 years from the issue of the power generation license (Chapter III Art. 13 Par. 3 Item 4 and Art. 20 Par. 7 Law on Energy from Renewable Sources).
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