

Generating Electricity from Renewable Sources in CEE & SEE

Energy Industry Group

Romania

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Country General Information

Capital: Bucharest

Location: Situated in the south-eastern part of Central Europe and sharing a border with Hungary to the northwest, Serbia to the southwest, Bulgaria to the south, the Black Sea to the southeast, Ukraine to the east and to the north and the Republic of Moldova to the east. Romania lies between latitudes 43° and 49° N and longitudes 20° and 30° E.

Surface: With a surface area of 238,397 km², Romania is the largest country in South-eastern Europe and the twelfth (12th) largest in Europe.

Population: 18,889,374

Climate: temperate and continental, with four (4) distinct seasons.

Resources: Romania is blessed with an abundance of various natural resources, including rich farmland, water, wind, sun, biomass, geothermal potential, Black Sea access, Danube Delta, forests, fossil fuels, and deposits of a wide range of metallic ores, including iron, manganese, chrome, nickel, molybdenum, aluminium, zinc, copper, tin, titanium, vanadium, lead, gold, and silver, large deposits of pure salt, minerals, domestic raw materials to produce caustic soda, soda ash, chlorine, sulfuric and hydrochloric acid, and phosphate fertilisers, etc.

Electricity Grid: The total length of the national electricity grid is 8,931 km. The national electricity grid is interconnected with the electricity infrastructure of all neighbouring countries. The grid is comprised of overhead power lines with a nominal voltage of 750 kV, 400 kV, 220 kV, 110 kV and electrical stations having a higher voltage of 750 kV (1 station), 400 kV (38 stations) and 220 kV (42 stations).

Electricity Transmission, Distribution and Supply: Electricity transmission is a regulated natural monopoly and is provided by Transelectrica S.A. The electricity distribution market is divided into eight regions controlled by four distribution companies. The electricity supply is provided by more than forty 40 private providers. Electricity is traded on the Romanian electricity and gas exchange market platforms authorised by ANRE and outside these market platforms through direct negotiation between the parties.

Official Language(s): Romanian

EU Member: since 1 January 2007.

NATO Member: since 2004.

United Nations Member: since 1955.

Currency: Romanian leu (RON). Romania has committed to the EUR currency once it fulfils the necessary conditions.

Schengen: since 31 March 2024.

Political System, Administrative Organisation and Economy: Romania is a semi-presidential republic with a head of government – the prime minister – and a head of state – the president of the republic. The country is divided into 41 counties and the municipality of Bucharest. Romania has an economy predominantly based on services and is a producer and net exporter of machines and electricity.

1. Defined Terms for the Main Permits required for RES-Electricity Generation Facilities

Accreditation	Administrative deed (decision) issued by ANRE, stating the right to benefit from the renewable energy sources (“RES”) support scheme based on complying with all the legal requirements;
Building Permit	Administrative deed issued by the mayor of the local administrative unit where the RES-Electricity facility will be built, or by the president of the county council if the premises are located outside the city limits;
CfD	Contracts for Difference support scheme for generators of electricity from renewable sources and nuclear sources
Connection Certificate	Administrative deed issued by the grid operator certifying that all technical parameters have been met and connection to the public electricity grid has been performed;
Energy Transition Fund	A fund established in the treasury accounts of the Ministry of Finance for the purpose of collecting contributions from various sectors of the energy industry;
Environmental Approval	Administrative deed issued by the local Environmental Authority evidencing the compliance of the RES-Electricity facility with the environmental requirements as provided by law;
Grid Connection	Actions performed and administrative deeds issued by the grid operator to connect a new generating facility or to modify or replace the connection of a generating facility to the grid;
Guaranteed Access to the Electric Grid given to the RES-Electricity	Set of rules and technical and commercial conditions based on which RES-Electricity contracted on the electricity market shall be taken into the grid;
Land Book	The national Authority for Land Book and immovable assets registration (“ANCPI”).

Liability and Responsibility for Grid Connection and/or Capacity Upgrades, Improvements or Grid Expansion	<p>The RES-Electricity Producers benefit from regulated access to the electricity grid of public interest. Access to the electricity grid of public interest is a regulated, obligatory service to be managed by the transport and system operator, grid operator and licence holders, as well as any person who owns an electrical distribution network located in the public domain. These entities must provide their services to all users of the electricity grid, in a non-discriminatory manner, ensuring access to the electricity grid in accordance with the law and with the grid capacity to take over the output. The expenses for modifying any grid installations are borne, according to legal requirements, based upon objective criteria. Certain categories of reinforcement works to the grid may be required (depending on the size of the RES-Electricity generating facilities) from the RES-Electricity Producers. The grid operator will refund the RES-Electricity Producers the value of the expenses incurred for the reinforcement works upstream of the connection point, the method of compensation being agreed between the parties;</p>
Licence of RES-Electricity Facilities	<p>Administrative deed issued by ANRE, for the commercial exploitation of such RES-Electricity facilities, which gives a RES-Electricity Producer the right to operate the RES-Electricity facility and to sell the generated RES-Electricity on the market;</p>
Priority Access to the Electricity Grid given to RES-Electricity	<p>Set of rules and technical and commercial conditions, to have the possibility of taking over and selling the entire RES-Electricity output produced at a certain moment in time, depending on the capacity of the grid connection and the availability of the eligible units / resources (and as long as the national grid is not affected);</p>
RES-Electricity	<p>Electricity obtained from RES sources such as wind, solar, aerothermal, geothermal, hydrothermal and oceanic waves, hydraulic, biomass and biogas;</p>

RES Support Scheme	State-aid measure notified and approved by the European Commission based on the green certificates (“ GCs ”) support system applicable for all RES-Electricity capacities accredited until 31 December 2016. Under this support scheme, eligible producers of RES-Electricity (“ RES-Electricity Producers ”) received a specific number of GCs, depending on the technology used, for each MW produced and delivered to the grid, along with an obligation imposed on the electricity suppliers and certain producers (“ Entities¹ ”) to purchase a mandatory quota of GCs. GCs can be traded on the GCs and RES-Electricity markets organised and administrated by OPCOM S.A. (“ OPCOM ”), the market’s administrator and operator;
Setting-Up Permit	Establishment authorisation issued by the Romanian Energy Regulatory Body (“ ANRE ”) required for creating a new RES-Electricity generation facility.

1 Electricity suppliers and producers of (i) electricity purchased and used by suppliers for their final consumption as well as the electricity invoiced to end consumers; (ii) electricity used by a producer for their final end consumption, other than the electricity used for their technological consumption; and (iii) electricity used by a producer to power consumers connected through direct lines to the production facility.

2. Envisaged need of investments in Romania

According to the new European requirements, as a Member State, Romania should work to ensure that all available planning tools for the European Green Deal are coherently deployed. Therefore, it is expected that Romania will adopt a legal framework for the necessary investments to accelerate the transition to clean energy such as:

- Investments promoting the use of RES-Electricity for industrial purposes;
- Investments in development of alternative green fuels;
- High value-added investments and investments in low energy consumption, energy storage or carbon capture and use;
- Investments in the rehabilitation of the energy transportation system;
- Investments in promoting geothermal pumps for heating and cooling buildings;
- Investments in the technical configuration of gas transportation in infrastructure for transportation of biogas and green hydrogen;
- Investments in greening of transport fleets and equipping them with electrical charging stations;
- Investments to upgrade municipality heating systems;
- Investments in energy storage facilities;
- Investments in competitive electrolysis installations to obtain green hydrogen.

As per the provisions of Romania's National Plan in the field of Energy and Climate Change submitted with the European Commission, pursuant to the requirements of the Aarhus Convention, Romania proposes a clear plan to support further investments in RES-Electricity; mostly in wind and photovoltaic energy.

Romania will facilitate the funding of the following capacities to ensure a diversified and balanced energy mix with the purpose of securing its energy supply by 2030:

Type of source	New production capacities (2021-2030)	Capacity (Production of electricity MWe/ Production of heat MWt)	SACET (MWe) (MWt)	Industrial clients (MWe) (MWt)
Nuclear energy	CANDU	675	-	-
Natural gas	CCGT	1600/-	-	-
Natural gas	CHP	1,302/1,214	952/914	350/200
Hydro (watercourse/ reservoir)	Units>10MW	1,088		
RES	Wind	2,302		
RES	Solar Photovoltaic	3,692		

Investments in the flexibility of the energy system are also necessary, in the form of operational and investment state aid. As part of these necessary investments into the flexibility of the energy system, the implementation of storage capacities for all RES-Electricity investments will also need another state aid support scheme.

The digitisation of the Romanian energy system, including the transport and distribution networks (“smart grids”) also plays an important role in reducing own technological consumption (OTC) and increasing the production of RES-Electricity as well as in transforming the Romanian energy market into a “fit-for-RES” market and increasing integration of RES.

In Romania, it is estimated that in the coming years, photovoltaic capacities will be developed both in the form of medium-capacity solar parks, built on degraded or non-productive lands, and in the form of small capacities dispersed by the energy consumers who can make the transition to prosumer status.

It will also be necessary to replace electricity generating facilities that will be out of operation by 2030 with new, efficient, low emission and innovative investments in new capacities for electricity generation. To this end, the capacities anticipated from the repowering activity considered in the above-mentioned National Plan are:

- i. Wind energy – 3 GW installed capacity;
- ii. Photovoltaic energy – 1.35 GW installed capacity.

This should be done in the context of achieving the objectives of energy security, competitiveness and decarbonisation of the energy sector.

The level of interconnectivity with other Member States of the national electricity system is expected to increase rapidly due to both the electricity day-ahead market and intraday market functioning in coupling modus with other European countries. This involves both domestic capacity-building investments and specific investments for transport interconnections. As a logical consequence, these will become national projects with regional impact, which will later transform into projects of common interest. They are supported by the EU and will become clusters with operational impact on energy security and commercial impact related to the single energy market:

- Black Sea Corridor cluster with direct impact on the energy system in Bulgaria and Romania; and
- The Mid Continental East Corridor cluster with direct impact on the energy system in Montenegro, Romania, Serbia and Italy.

3. Executive Summary-RES Market Status and Development of RES-Electricity Facilities

3.1 Market Overview – Factsheets

- The Romanian RES-Electricity market has been under development since 2008 with the adoption of the first Renewable Energy Act (“**Law 220**”) introducing the RES Support Scheme providing for GCs, long-term power purchase agreements (“**PPAs**”), available connection to the grid and merit order off-take;

- In 2011, the RES Support Scheme was approved by the European Commission and this led to a dynamic development of solar and wind projects resulting in 1,375.91 MW of solar and 3,015.93 MW of wind projects installed by 2019;
- The RES Support Scheme is applicable for those RES-Electricity Producers commissioned prior to 31 December 2016;
- RES-Electricity certified by a guarantee of origin is traded on the markets organised and administrated by OPCOM and sold to energy suppliers and/or to large intensive consumers and therefore consumed in the energy mix by both economic operators and residential consumers;
- In 2013, the government introduced measures such as support of RES annual quotas, the obligation for energy agreements and GC agreements to be concluded on OPCOM, mandatory annual GC quotas to be purchased by the energy suppliers on the market and deferral from trading on the market of a number of GCs related to each RES technology. After 2014, few new projects were therefore developed on the local Romanian market;
- The development of electricity storage has evolved since 2014, through the construction and operation of hydroelectric power stations with an installed pumped-storage capability of more than 15 MW;
- Since 19 November 2014, the day-ahead market in Romania has been operating in a coupled way with the markets in the Czech Republic, Hungary and Slovakia through a price coupling mechanism, known as 4M MC;
- Since 2014, based on a state aid measure approved by the European Commission, energy intensive users are exempted from fully supporting RES-Electricity and are paying at least fifteen percent (15%) of the number of GCs related to the mandatory GCs quota;
- In 2015, the RES Support Scheme was amended and reapproved by the European Commission;
- In 2016, Romania reported to the European Commission that it had reached twenty five percent (25%) of total energy consumption from RES, exceeding the twenty four percent (24%) RES quota established as a country target for 2020 and provided no additional support scheme for new projects, except the sale of RES-Electricity on the specialised market;
- Since 2018, the Romanian government has regulated the use of RES-Electricity by prosumers, who own RES-Electricity facilities of at least 27 KW/consumption location and has given a strong signal that Romania encourages RES-Electricity consumption and energy efficiency;

- In November 2018, the Energy Minister drafted Romania's Energy Strategy 2019-2030 with an outlook set for 2050;
- In 2018 and 2019, the first electricity storage capacities were installed, which helps wind park and photovoltaic capacities to minimise energy losses during the charging process and adds new functionalities, including levelling of energy forecasts, recovery from power failures, as well as capturing energy at low voltages or on cloudy days;
- Since November 2019, Romania, Bulgaria, Croatia, Czech Republic, Hungary, Poland and Slovenia *inter alia* have successfully linked intraday markets with a total of fourteen (14) countries active in operational work since June 2018.
- Under the draft of the National Plan for Energy and Climate Change for 2021-2030 with a perspective towards 2050, in early 2020 Romania committed to having thirty-point seven percent (30.7%) of RES-Electricity as part of final energy consumption by 2030.
- In 2020, ANRE approved the conditions for obtaining a licence for the commercial operation of energy storage facilities, along with the rules for licence holders regarding the commercial exploitation of new hydrogen production facilities. That same year, the validity conditions for the Setting-Up Permit and licensing of new biogas/biomethane plants were also approved;
- On 1 February 2021, the following changes were introduced to the operation of the balancing market and the settlement of imbalances: (i) a 15-minute settlement time interval; (ii) a single imbalance price for settling imbalances of responsible parties; and (iii) a calculation method for dual imbalance prices (a single imbalance price for settlements between balancing parties (deficit and surplus price));
- In June 2021 the interim coupling project was launched by extending the 4M MC markets –(i.e. the integration of the day-ahead electricity markets from the Czech Republic, Slovakia, Hungary and Romania with those in Austria, Germany and Poland), as part of the pan-European SDAC project;
- In 2021, the Romanian government adopted amendments to the Energy and Gas Law 123/2012 to provide that wholesale electricity market transactions may also be concluded in the form of directly negotiated bilateral transactions (i.e. directly negotiated power purchase agreements (PPAs), through bids on organised markets, including for balancing services, or import/export transactions;

- In October 2021, operations were completed for the coupling of the Romanian-Bulgarian border in the SDAC, which allowed for the integration of the Greek and Bulgarian day-ahead markets into the SDAC;
- Starting in November 2021, price caps for end consumers were introduced by Government Emergency Ordinance No. 118/2021 as approved by Law 259/2021. Furthermore, Law 259/2021 introduced a windfall tax for RES producers of 80% applied on revenues exceeding RON 450/MWh.
- In December 2021, the Romanian government presented its intentions to introduce a CfD support scheme (which is expected to be largely modelled on the existing CfD regime in the UK) as a means of promoting nuclear and renewable energy investments in Romania;
- On 21 December 2021, the European Commission approved an extension to the validity of the Romanian state aid scheme for a high-efficiency cogeneration bonus and related conditions;
- In March 2022, the Energy Ministry published an emergency ordinance draft for public debate, which was prepared in relation to an institutional and financial framework meant to implement and manage the funds allocated to Romania through the Modernisation Fund aimed at financing renewable energy projects.
- In July 2022, new legislation was approved by the Parliament, which simplifies the development of renewable energy generation facilities on extra-muros land with a surface of up to 50 hectares. For further details please see Section 5.4.
- In September 2022, the Government adopted Government Emergency Ordinance 119/2022 which amended the price caps and applicability period thereof. In addition, the windfall tax (contribution to the Energy Transition Fund) for surplus revenues was extended to all electricity producers and set to 100% of the revenues exceeding RON 450/MWh. The windfall tax is not applicable to capacities commissioned after the entry into force of Government Emergency Ordinance 119/2022. Furthermore, a windfall tax was introduced also for other market participants engaged in electricity trading activities. The compounding mechanism of the windfall tax for trading is different than that used for the windfall tax for producers of electricity and aims to ensure that the margin of market participants engaged in trading activities does not exceed 2% of the median price of the electricity acquired by the market participant.

- In April 2023, the law for the approval of the support agreement between the Romanian State and Nuclearelectrica S.A. for the development of Units 3 and 4 of the Cernavoda Nuclear Power Plant was enacted. Pursuant to the law, the Romanian state undertakes to implement the CfD for the support of Units 3 and 4 of the Cernavoda Nuclear Power Plant until 31 July 2025.
- In June 2023, new legislation was enacted which allows the issuance of building permits for renewable energy projects even in the absence of a General Urbanism Plan (PUG), or of a Zoning Urbanism Plan (PUZ), regulating the urbanism requirements applicable to the project lands. For further details please see Section 5.4.
- In June 2023, the Government approved the governing programme for the 2023-2024 Vision for the Nation, and one of the main objectives of the governing programme is the signing of the CfDs.
- In February 2024, ANRE submitted a draft methodology for grid capacity allocation for public consultation following a competitive tendering process. The main criteria for this shall be price per MW of grid capacity offered by the bidders. The capacity allocation mechanism (if approved) should be applicable starting from 1 January 2025.

3.2 RES Market Status, Permitting, Grid Connection, Licensing of RES-Electricity facilities in Romania

General Market Data

RES Target by 2030	Thirty-point seven percent (30.7%)
Net production	In 2023, overall energy production was 56.6 TWh. Consumption: 53.4 TWh Exported energy: 3.2 TWh
Installed capacity by RES technology	Biogas – 21.35 MW; Biomass – 106.26 MW; Wind power – 3,084. MW; Solar – 1,922 MW;

RES Support Scheme

Beneficiaries of RES Support Scheme	GCs are received by those RES-Electricity facilities accredited prior to 31 December 2016.
Priority and guaranteed off-take into the grid	RES-Electricity Producers receive priority access to the grid and the sale of the entire amount of energy with the observance of the market rules.
Other incentives	<ul style="list-style-type: none"> ○ Mandatory annual GC quotas to be purchased by energy suppliers; ○ National annual RES quotas supported.
Other conditions	<ul style="list-style-type: none"> ○ Licence for commercial exploitation above 1 MW; ○ No installed capacity limit as long as the grid allows this from a technical point of view;

Grid connection specifics

Approvals	<ul style="list-style-type: none"> ○ connection to the grid is based on a solution study or solution sheet, depending on the installed capacity; ○ the grid operator is responsible for drafting the solution study / sheet and for issuing the connection approval.
Permitting Timing: depending on the installed capacity and connection to the grid, an investor may obtain the necessary approvals in approximately six (6) months to two (2) years.	<ul style="list-style-type: none"> ○ building permit for civil works and connection works to the grid; ○ technical connection approval and connection agreement with the grid operator; ○ RES-Electricity capacity and related connection works' commissioning; ○ Environmental approval and environmental authorisation; ○ Connection Certificate.

Licensing	
Procedure	<ul style="list-style-type: none"> ○ Setting-Up Permit; ○ Accreditation; ○ Licence for commercial exploitation of the RES-Electricity facility.
Duration of administrative procedure	Within sixty (60) days from the submission of the full documentation.
Licence's validity	Twenty-five (25) years.

3.3 Designated/preferred legal form of investment vehicle and RES-Electricity project's

3.3.1 Acquisition

Romanian legislation does not require or recommend a particular type of investment vehicle in the RES-Electricity sector. Usually, the limited liability structure (“SRL”) is the most popular form of investment vehicle in this field.

A Romanian RES-Electricity project under development usually contains, within the structure of the SRL, several types of assets, including (i) rights to the land associated with the RES-Electricity project (ownership or superficies rights, as well as easements and rights of way); (ii) building permit for the construction of the RES-Electricity project; (iii) technical documentation (solution sheet or solution study, as the case may be); (iv) technical connection approval for the connection to the grid and sometimes, if the developer secured the financing for the RES-Electricity project, the connection agreement entered into with the local grid operator; (iv) contracts (loans, various services related to the development of the project, etc.); and (v) potentially tangible assets and employees.

The acquisition of a RES-Electricity project can be performed through the purchase of either the shares in the SRL (share deal) or on an individual asset basis (asset deal).

Below is a comparison of the advantages and disadvantages of each type of acquisition.

Share Deal

Benefits	Disadvantages
<p>1. The most common way to purchase a RES-Electricity project in Romania.</p>	<p>Complying with Trade Registry formalities for share deal publicity towards third parties.</p>
<p>2. Taking over all civil and energy related permits and authorisations without any other formalities, except the notification to the relevant environmental authority in case of change of control over the SRL's shares or change of the project's characteristics.</p>	<p>The purchaser assumes all the historic corporate liabilities (and associated risks) of the SRL.</p>
<p>3. The transaction can be performed faster, at lower costs and ensures an easier transfer of the RES-Electricity project with the necessary elements for construction and operation.</p>	
<p>4. Flexible transaction structure based on the findings of a proper due diligence of the company, plus the real-estate assets, permits and authorisations, movable assets, and employees, as the case may be.</p>	
<p>5. Transaction in two stages: signing and closing. The transaction usually contemplates conditions precedent to closing: performing a comprehensive due diligence to the purchaser's satisfaction, not only legal, but also technical, commercial, tax and accounting on the RES-Electricity project and the SRL; the seller obtaining any outstanding permits and authorisation and securing any relevant rights to land or access; the seller terminating any unnecessary or undesired contracts and/or obtaining any relevant consents up to the decided development stage.</p>	

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6. The transaction might contemplate a holdback on the purchase price or payment in instalments, to ensure that certain agreed milestones are met.
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7. For the purchaser's protection, the share-purchase agreement may include a comprehensive set of representations and warranties regarding the SRL and the project, as well as indemnities, for any issues which the purchaser identified in the due diligence process.

It is also recommendable to include, as a condition for the transaction, obtaining a real estate title insurance and warranty & indemnity insurance policy covering the liability under the sale and purchase agreement.
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Asset Deal

Benefits	Disadvantages
1. The purchaser will not take over the historical corporate liabilities (and associated risks) of the SRL.	Complying with ANRE's formalities for notification of the transaction at least one hundred and twenty (120) days before the transaction date.
2. The purchaser can change the characteristics of the project before applying for various permits and authorisations.	If the project includes rights to land, the asset purchase agreement must be notarised by a Romanian notary public, subject to a fee.
3.	Additional fee to be paid for registering the transfer of the rights to land with the Land Register. In principle, an asset deal carries VAT (unless performed as a going concern).

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| 4. | The transfer of the energy-related permits associated with the project requires, in principle, the consent of the issuer and if there are technical changes to the project the issuance of other permits and authorisations. |
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| 5. | The transfer of relevant contracts requires the consent of the contracting parties and sometimes the conclusion of new agreements renewing the contracting parties and ensuring the undertaking of the assumed obligations. |
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4. Key Recent changes to the RES Legislative Framework

In 2018 the RES Support Scheme experienced several amendments as per the provisions of Emergency Ordinance No. 24/2017, as approved by Law 184/2018, Emergency Ordinance No. 88/2011 and Law 360/2018:

4.1 Introduction of the concept of *prosumer*

A prosumer is a natural or legal person that not only consumes energy from the grid but is also a RES-Electricity Producer.

The prosumer can sell the RES-Electricity produced and delivered to the grid operator, based on a Connection Certificate obtained from the grid operator at the weighted average price recorded on the day-ahead market in the previous year, published on the OPCOM website.

4.2 Deferral of GCs generated by photovoltaic facilities

Two (2) GCs of photovoltaic facilities accredited prior to 31 December 2013 shall be deferred from being traded as of 1 April 2017 until 31 December 2020.

The above-mentioned GCs and the GCs deferred until 31 March 2017 shall be recovered starting from 1 January 2021, in equal monthly instalments until 31 December 2030.

4.3 Trade of the deferred GCs after the expiration date of the Accreditation and Licence of RES-Electricity Facilities

RES-Electricity Producers have the possibility to receive those GCs deferred from trading and to trade them after the Accreditation and Licence of RES-Electricity Facility is set to expire.

In all cases, when the Accreditation or the Licence of a RES-Electricity Facility has expired, the RES-Electricity Producers are entitled:

- to obtain the GCs deferred from trading; and
- to trade until 31 March 2032 those GCs issued for their own production within the period of the Accreditation's validity.

4.4 GCs and electricity transactions between small RES-Electricity Producers and electricity suppliers

There is the possibility of concluding bilateral GC agreements and/or electricity agreements between small producers with an installed capacity of 3 MW and the electricity suppliers of the final consumers outside OPCOM markets.

4.5 All the GCs issued between 1 April 2017 and 31 March 2031, including all the deferred GCs will be guaranteed to be taken over on the market

This would eliminate the risk that RES-Electricity Producers will not make use of their GCs due to their expiration. The only condition is for annual electricity consumption to not fall under the average value registered between 2017-2022.

4.6 GCs may be traded only once between the RES-Electricity Producer and the electricity supplier

There is only one exception; when the RES-Electricity Producer faces a shortfall of promised GCs for GC sale and in this case may buy the GC difference on the centralised markets.

4.7 Payment of EUR 70 by the electricity suppliers for non-fulfilment of annual mandatory GCs quota

Since 2018, RES-Electricity Producers and suppliers who do not fulfil the annual mandatory GC quota shall be required to pay the equivalent value of the non-purchased GCs to the Environmental Fund Administration at EUR 70 for each non-purchased GC, calculated in RON at the average exchange rate set by the National Bank of Romania for the previous year.

4.8 GCs will receive value in the account of the RES producers at the time of trading

The GCs shall be registered in the RES-Electricity Producer GC accounts and as revenues for tax purposes only at the time of their trading on the markets and not at the issuing time. The change in registration will have a direct impact on the profit tax related to GCs.

The measure is applicable only for GCs issued after 31 March 2017.

4.9 Limited financial impact of RES Support Scheme on the end-customer's electricity invoice

By law, the economic impact of the RES Support Scheme on electricity invoices of end-customers is limited through:

- a new calculation of the value of GCs to be used by electricity suppliers in the electricity invoice of end-customers;
- the maximum trading value for a GC is reduced to EUR 35/GC compared to EUR 55/GC;
- the financial support of end-customers will not exceed more than EUR 14.5/MWh in 2022.

Electricity suppliers shall need to calculate the GC value in the electricity invoice separately.

The value shall be calculated as the product of the GC mandatory quota, invoiced electricity quantity and the GC price.

The GCs price will be calculated as the weighted average price of the transactions on the spot GC market and subsequently, at the time of the electricity invoice's settlement, at the weighted average price of GCs used by the electricity supplier to meet the mandatory GC quota for the previous year. This may not be higher than the weighted average price of GCs traded on the GC spot market in the previous year.

4.10 Electricity suppliers required to purchase fifty percent (50%) of the number of the GCs necessary for fulfilment of the GC quota

Companies with an obligation to purchase GCs on the market should purchase at least fifty percent (50%) of the GCs necessary for fulfilment of the GC quota from the GC centralised spot market.

5. Significant and/or expected changes in 2023 and 2024

5.1 A new support system for RES-Electricity: contracts for difference

In June 2020, a memorandum for the approval of the principles for the implementation of contracts for different support schemes was published on the website of the Romanian government secretariat.

Romanian authorities, the Ministry of Energy in particular, and the consultants contracted for the development of the CfD support scheme have organised public debates and presented CfD support schemes in December 2021 as well as collected views and position papers from the industry and non-governmental organisations.

The implementation of a CfD support scheme may create an attractive and predictable environment for investors because it enables investors to lock an electricity price for a longer period and eliminate exposure to volatile wholesale prices.

In 2022, there were several public announcements and public consultations of the upcoming CfD mechanism and a questionnaire for the expression of interest was published on the Ministry of Energy website. However, the draft legislation for the CfD support scheme has not been published as at the date of this Chapter's publication.

The latest development is that in June 2023, the Government approved the governing programme for the 2023-2024 *Vision for the Nation*, and the main objective of the governing programme is the signing of the CfDs during this period.

5.2 CfD overview

The CfD mechanism works by stabilising incomes for producers who benefit from it, at a fixed price level known as “strike price”. The strike price is the final price per MWh that the investor will obtain as a result of the CfD. The strike price is an electricity price that reflects the cost of the investment in a certain technology. It is established following tenders held for the award of CfD support or, in the case of unique projects, through direct negotiation.

Simply put, the CfD is a two-way support payment, which will be the difference between the strike price and the market reference price:

- i. The CfD Counterparty pays the Generator when the market reference price is below the strike price;
- ii. The Generator pays the CfD Counterparty when the market reference price is above the strike price.

The total revenue of generators per unit of electricity is given by:

Actual Sale Price + (Strike Price - Market Reference Price)

The key documents for implementing CfD are:

- i. The CfD Law:
 - sets out the legal basis for the implementation of the CfD scheme;
 - this is the primary law which will be supported by secondary instruments amending existing legislation.
- ii. CfD Contracts:
 - are the bilateral, private-law contracts that will set out the detailed terms and conditions for the CfD support scheme between a generator and the CfD Counterparty
 - comprises 1) a “front end” contract agreement specifying generator and project details; and 2) standard terms and conditions as issued by the Ministry pursuant to the CfD Law.
- iii. Auction Framework (issued via secondary legislation)
 - sets out the technical procedures which apply to CfD applications and auctions.

5.3 Overview of the auction process

5.3.1 Eligibility requirements:

Eligibility criteria	Requirement
Applicant conditions	<ul style="list-style-type: none"> iv. Legally constituted, having electricity production as the main object of activity; v. Not in default, insolvent, bankrupt, in liquidation, etc. with fulfilled tax obligations and clear reputation of the legal representative (has not been subject to particular judgements relating to professional misconduct or fraud; vi. Not in serious breach of public procurement/ funding provisions/obligations; vii. Submission of bid bond as specified in the CfD AIO - envisaged to equal the RON -equivalent of EUR 10-20/kW
Eligible technologies	Will vary by CfD auction; generally low-carbon generators, will include onshore wind and solar
Minimum capacity	5MW ² – subject to change until we have a final version of the legislation. Moreover, the awarded capacity can be lowered where the grid connection certificate ultimately allows only a smaller amount of capacity to be constructed.
Grid Connection	Grid connection permit
Supply chain plan	Statement providing an overview of the supply chain for the Project
Bid bond	Payable by all bidders and refunded after closure of the auction and award of CfDs. Envisaged to equal the RON - equivalent of EUR 10-20/kW

² <https://energie.gov.ro/wp-content/uploads/2022/11/CfD-scheme-market-sounding-Nov22.pdf>

5.3.2 Review of bids and allocation of CfDs:

- i. Bidders submit a sealed bid specifying the technology, capacity and offer price;
- ii. The CfD scheme operator ranks all bids from eligible bidders by offer price;
- iii. If a bid violates a capacity constraint, several options exist for that marginal bidder (e.g. the bidder could be asked to accept a reduction in their capacity such that the exact allocation constraint is met);
- iv. If there is a tie in the offer price of two marginal bidders, preference should be given to the bidder with the smaller offered capacity.

5.3.3 CfD offer and signature:

- i. CfD contracts will be offered to successful generators within five (5) working days from the auction closure;
- ii. CfD contracts must be executed by the generator within ten (10) working days of their issue;
- iii. Where a generator fails to execute its CfD contract within this period, the CfD will be revoked and the CfD scheme operator will draw on the bid bond.

The CfD scheme will be open only to new generation projects and will not be available for existing facilities.

Although the Romanian government declared that they expected the legislation to be in force by the summer of 2023, as at the publication date of this Guide, the legislation has still not been adopted nor the tendering process commenced. It is currently anticipated that this will be done before the end of 2024.

5.4 New RES-Electricity share in final consumption promoted by Romania

Under the National Plan for Energy and Climate Change for 2021-2030, Romania has committed that by 2030, it will have thirty point seven percent (30.7%) of RES-Electricity as part of its final energy consumption, however the European Commission requested a higher RES-Electricity quota of thirty four percent (34%) in June 2019, which was subsequently accepted by the Romanian government in March 2023.

Other measures proposed to be adopted by Romania, in order to reach the assumed RES-Electricity target and energy efficiency target recommended by the European Union, are (i) to include RES-Electricity in public transportation; (ii) to develop policies and measures that would lead to further energy savings by 2030; (iii) to specify measures to support the achievement of the objectives in the field of energy security, regarding the diversification of energy sources and the reduction of energy dependency; (iv) to develop liquid and competitive wholesale and retail markets, both by stimulating competition within the country and by removing barriers to cross-border trade, (including export restrictions); and (v) to enhance regional cooperation with neighbouring Member States with regard to natural gas and electricity infrastructure, RES-Electricity, energy efficiency and research, innovation and competitiveness.

5.5 National Energy Strategy 2020-2030

Given the pressure of the new targets imposed by the Green Deal Act, it is expected that the new national energy strategy will preserve and improve, in terms of real measures: the generation of RES-Electricity based on low-carbon technologies, large scale energy storage, energy efficiency in buildings, the use of electric vehicles in public transportation, an increased share of RES-Electricity in heating and cooling, and necessary investments in the EU electricity interconnection infrastructure.

5.6 Amendments to the grid connection regulation

The grid connection regulation approved by ANRE Order 59/2013 was amended in June 2022, in order to facilitate the connection of generation facilities. Specifically, the amendment of the grid connection regulation provides that the grid operator has the obligation to also consider and propose solutions for grid connection that imply operational limitations for the N-1 functioning regime. The grid operator cannot refuse to endorse a grid connection solution that provides operational limitations in a N-1 functioning regime.

Furthermore, the provisions of the grid connection regulation regarding the termination of the grid connection permit (“ATR”) for failure to post the guarantee within 3 months as of the issuance of the ATR, were repealed.

In addition, new grounds for the termination of the ATR and of the grid connection agreement were introduced, namely the ATR and the grid connection agreement will be automatically terminated if the building permit of the generation facility is not submitted to the grid operator within 18 months of the issuance of the ATR, and within 12 months of the signing of the grid connection agreement.

5.7 Amendments to the permitting framework for RES generation facilities

In July 2022, the Romania Parliament adopted Law No. 254/2022 for the amendment of Land Law No.18/1991, with the aim of simplifying the authorisation process for the development of RES generation facilities. Specifically, Law No. 254/2022 introduced an exemption to the restriction to build on extra-muros lands (i.e. agricultural lands, pastures, etc). Thus, Law 254/2022 specifies that RES generation and storage facilities can be developed on extra-muros lands having soil fertility quality class III, IV and V with a total surface of up to 50 hectares, based on the building permit and the approval of the removal of the land from the agricultural circuit without the requirement to introduce the land intra-muros. Introducing the land intra-muros is done by means of approval of a Zonal Urban Plan (“PUZ”). This is usually a lengthy procedure that may take up to one year.

While Law 254/2022 was intended to provide a facility for the streamlining of permitting for RES generation and storage facilities developed on lands having soil fertility quality class III, IV and V, with a total surface of up to 50 hectares, the Ministry of Agriculture's strange interpretation of the abovementioned provisions is that only the development of RES projects on lands with the aforementioned soil fertility quality classes and a total surface of up to 50 hectares, is permitted. Furthermore, development of projects located on lands with a total surface area of over 50 hectares is forbidden. Thus, the Ministry of Agriculture has refused the issuance of the endorsement required, in relation to the PUZ procedure, for the introduction of land intra-muros that is intended for RES projects developed on lands with a surface area of over 50 hectares.

In addition to the above, the permitting procedure was also streamlined by the amendment of Construction Law No. 50/1991 in June 2023 through Law 166/2023, which introduced an exception to the general provisions of both the Urbanism Law 350/2001 and the Construction Law 50/1991. The aforementioned provisions require the prior existence of territory planning documents and/or urbanism documentation as a condition precedent for the issuance of a building permit.

As such, building permits for renewable energy projects may be validly issued even in the absence of a General Urbanism Plan (PUG) or of a PUZ regulating the urbanism requirements applicable to the project lands. We note however that Law 166/2023 must be read in conjunction with art. 92 paragraph (2) letter j) of the Land Law 18/1991 referring to the exception to the restriction to build RES generation and storage facilities on extra-muros land having soil fertility quality classes III, IV and V, provided that the total surface area of the land used for the development of such facilities is no greater than 50 hectares. Therefore, RES generation facilities that are not located on land with soil fertility quality class III, IV and V, with a total surface of up to 50 hectares, will still have to undergo the PUZ procedure for the introduction of the land intra-muros.

5.8 New Land Book rules for registering photovoltaic panels on buildings or structures

The new Land Book registration regulation entered into force on 14 February 2023. Specifically, it clearly states that photovoltaic panels erected on buildings or other similar surfaces do not have to be registered in the Land Book. With this added

clarity on the matter, photovoltaic panels can now be installed without legal hassle or doubt on structures including, but not limited to, constructions, constructive elements of road or rail transport infrastructure, constructive elements of building networks, elements of irrigation infrastructure, etc.

6. Electricity Storage and THE Applicability of SAID Storage Technologies in Romania

The national electricity system (“NES”) should maintain a balance between generation of electricity and demand uncertainty.

As more RES-Electricity will flow through grids, the more flexible these grids must become. This will be achievable only with the help of storage technologies.

Energy storage is increasingly being seen as a key cornerstone and enabler of the transition to RES-Electricity worldwide.

Law 155/2020 introduced specific provisions for new storage facilities and rules for their management. ANRE included references to storage capacities for energy producers in their recent provisions regarding licenses.

The NECP lists storage as an instrument to improve energy security. Transelectrica’s system adequacy assessment study mentions a minimum 400 MW of needed storage capacity.

The first battery energy storage station in Romania was inaugurated in 2018 in Constanta by EDP Renewables S.A. The Cobadin 1 wind energy storage system, with an installed capacity of 1 MW, will help the wind park to level the energy forecast, and therefore the power generation fluctuations.

The second energy storage capacity in Romania was also installed by EDP Renewables S.A. in December 2019. The battery energy storage system is connected to the solar photovoltaic installation near Băilești in Dolj county.

EDP Renewables S.A. has installed an innovative energy conversion system that connects photovoltaic panels and uninterrupted current batteries with an alternative

current transformer and a lithium-ion battery, as well as a system that monitors the entire process.

An Austrian investment fund is currently building a 7MW storage solution in Moara Vlasiei, Ilfov County, and plans to expand it to a total of 14 MW.

While analysing monthly reports issued by ANRE in 2023, we noted an increase in requests for authorising battery storage capacities for covering the 1% reserve.

The storage system is remarkable, mainly because of its direct connection installation, which minimises energy losses during the charging process and adds new functionalities, including recovery from power failures, as well as capturing energy at low voltages or on cloudy days.

It is expected that an increasing number of RES-Electricity Producers in Romania will adopt the solution of using batteries in order to improve energy forecasts and to reduce load imbalances that could occur during operation of RES-Electricity facilities.

7. Support scheme for cogeneration

Romania implemented a support scheme for the promotion of high-efficiency cogeneration, which was approved by the European Commission through Decision No. 437/2009.

The high-efficiency cogeneration capacity installed in Romania totals 1,223.51 MW.

The high-efficiency cogeneration of heat and power (“CHP”) systems injecting electricity into the national grid receive operating support provided that the electricity is produced from high-efficiency cogeneration, as defined in the Community guidelines on state aid for environmental protection.

The initial support scheme was applicable for the period between 2010-2023, but the European Commission extended its application in its Decision no. 9774, dated 20 December 2021, prolonging the aid until 31 December 2033.

The amendments to the scheme concern: (i) the duration of the CHP support scheme for selected beneficiaries; (ii) an increase in the support scheme budget; and (iii) an amendment to the rules applicable to companies experiencing financial difficulty. The remaining elements of the existing aid scheme, as approved in the Commission decisions of 2009 and 2016, remain unaltered.

The level of the bonus received by the producers for each MWh produced in high efficiency cogeneration capacities, and delivered in the grid, is set annually by ANRE.

The bonus covers the difference between the production costs of electricity from high efficiency CHP and the market price of electricity, including a reasonable return on investment. The premium is calculated ex-ante separately for three types of CHP: (i) solid fuel-based CHP; (ii) CHP fuelled by gas supplied directly through the transmission network; and (iii) CHP fuelled by gas supplied through the distribution network.

In terms of the bonus value, electricity and thermal energy prices are adjusted annually based on average annual fuel prices, the annual average CO₂ certificate price, the average annual electricity trading price on the day-ahead market and inflation coefficient of variation. If they lead to a variation of the bonus level, the prices of thermal or electrical energy are adjusted by more than 2.5%.

The bonus is calculated based on the following formula:

$$\text{Bonus} = (\text{Total costs} - \text{Revenues el.} - \text{Revenues h}) / \text{Electricity}$$

where:

Total costs = variable costs + fixed costs + return on capital

Revenues el = income from the sale of the electricity delivered by a typical CHP plant at the electricity market price.

Revenues h = income from the sale of the heat produced in a typical CHP plant at the heat price.

Electricity = electricity delivered annually by the CHP plant.

8. Offshore Wind

There have been several initiatives by state-owned companies and private companies to explore the possibility of investing in offshore wind capacities in Romania.

A draft law for offshore wind energy was approved by the Romanian Senate at the end of 2020.

The draft law lays the ground-rules to build and commercially operate offshore wind parks. The Ministry of Energy plays an important part in this process, as it is tasked with issuing licenses and coordinating with other authorities for the full permitting process.

However, the draft law has received several negative observations from Parliamentary committees and the central Government, and as such has not been adopted.

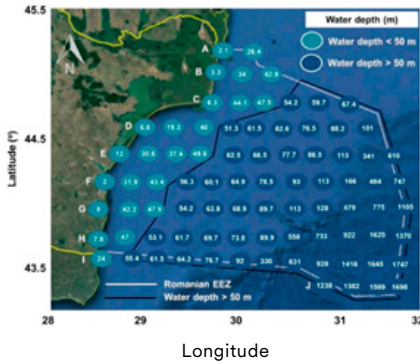
A second offshore wind draft law was registered with the Chamber of Deputies in October 2022. However, the second draft law has also received several negative observations from the Parliamentary committees and the central Government and will not be adopted either.

The former Ministry of Energy declared in March 2023 that a new draft of the wind offshore law will be submitted to Parliament for approval in 2023.

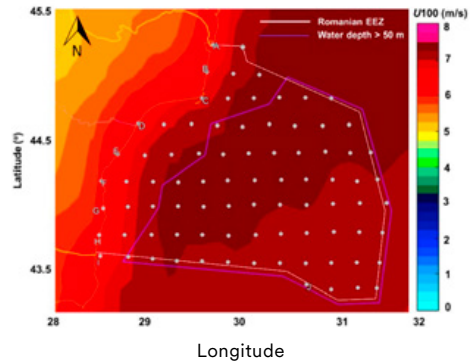
In November 2023, a new draft offshore wind law was published on the Ministry of Energy website. The draft law was registered on the dockets of the Senate, as first decisional chamber, in December 2023. The deadline for the tacit approval of the draft law is 11 March 2024. Following the approval of the draft law by the Senate, the Chamber of Deputies will decide on the approval of the draft law as the final decisional chamber of the Parliament.

Below we see part of a study that reveals a potentially excellent opportunity for offshore wind production capacities.

Water depth in the commercial areas of the Black Sea



Wind speed at a height of 100 m



9. Green Hydrogen

In Romania, the Dobrogea region (near the Black Sea) meets the prerequisites to host a hydrogen technology cluster, as it has both an exceptional capacity to produce clean hydrogen through wind energy, and a potentially significant hydrogen demand from existing refineries, the steel industry, district heating, urban public transport and decarbonising port activities, as well as naval transport in the port of Constanta.

Law 155/2020 aligned Romania with EU legislation by defining hydrogen producers and regulating its commercial exploitation.

In 2021, ANRE also introduced rules for Setting-Up Authorisations and commercial exploitation licences for hydrogen.

The licence gives investors the right to collect tariffs for services provided in connection with the operation of hydrogen installations, including hydrogen storage facilities.

Of particular importance for the authorities is the establishment and maintenance of protection and safety areas associated with the normal operation of hydrogen production facilities.

Recently, a “Green Valley” producing green hydrogen was announced for planned construction in Galati County. The project is valued at EUR 32 million and will be funded directly from European Commission funds. Furthermore, the Ministry of Energy approved projects for seven (7) companies, in order to build green hydrogen production facilities in Romania.

On 31 May 2023 the Ministry of Energy submitted a draft of the National Hydrogen Strategy and Action 2023-2030 on its website for public consultation. On 8 November 2023, the Ministry of Energy submitted an updated draft National Hydrogen Strategy for public consultation. However, as at the date of publication of this Guide, the approval thereof by Government Decision has not occurred.

The general objectives set out in the draft National Hydrogen Strategy are to facilitate the development of green hydrogen use and production in Romania in 2030, to support technological development and transfer to industrial applications and finally, to support the balanced and stable development of the National Energy System. Besides green hydrogen, the use of clean hydrogen will also be promoted in the industrial sector.

9.1 Support scheme for green hydrogen

The Romanian Ministry of Energy has recently opened public consultation on the state aid scheme aimed at boosting investments in the construction of green hydrogen production capacity in electrolysis plants, which is financed through the National Recovery and Resilience Plan (“NRRP”). This draft state aid scheme aims to support the expansion of green hydrogen production capacity, reduce greenhouse gas emissions and increase the share of renewable energy sources in Romania’s energy mix.

Projects eligible under this scheme are expected to enable the installation of at least 100MW of green hydrogen production capacity in electrolysis plants, and to produce at least 10,000 tons of hydrogen annually from renewable sources (wind, hydro or solar power) by 31 December 2025.

Moreover, as part of the green hydrogen technology process, storage capacity must be proportional to production capacity. However, during the project’s implementation, storage capacity expenses of up to 20% of the cost of the production facility will be reimbursed.

With respect to the amount of aid granted, the total estimated budget rises to the Romanian-leu equivalent of EUR 149.5 million. The budget is comprised of EUR 115 million in non-reimbursable European funds provided by the Recovery and Resilience Mechanism under the National Recovery and Resilience Plan, and EUR 34.5 million in national funds by applying an over-contracting percentage of 30%.

The maximum aid that can be granted to any one company is EUR 50 million. The difference between this and the total value of the project must be met by the beneficiary. In addition, state aid for investment granted under this scheme cannot be cumulated with any other state aid for the same investment, including *de minimis* aid, for the same beneficiary and the same eligible expenditure.

This state aid scheme for investments in the construction of green hydrogen production capacity in electrolysis plants will apply from the date of its entry into force until 30 June 2024.

On 8 August 2022, the European Commission approved a state aid scheme for Romania worth EUR 149 million, in order to support the production of hydrogen from renewable sources. This scheme is in line with the objectives of the EU strategy to encourage the development of hydrogen and the Green Pact of the EU. The scheme will also contribute to the objectives of the REPowerEU plan to reduce the EU's dependence on Russian fossil fuels and accelerate the green transition.

9.2 Enactment of new legislation for the integration of green hydrogen in the industry and transportation sector

At the end of July 2023, a new law for the integration of green hydrogen was enacted. The new law establishes the obligation of suppliers of fuels to secure non-biological renewable fuels from hydrogen suppliers. Thus, from 2030 onwards, fuel suppliers are obligated to ensure that the energy value of the quantity of non-biological renewable fuels supplied on the Romanian market and used in the transport sector during a year, is at least equal to 5% of the energy content of all fuels supplied by them for consumption or use on the Romanian market in the transportation sector. The quota of non-biological renewable fuels that shall be supplied by fuel suppliers is set at 0.5% in 2025, 1% in 2026, 2% in 2027, 3% in 2028 and 4.5% in 2029 of the energy content of all fuels placed on the market in Romania in that year.

The fuels supplied for consumption on the Romanian market by the supplier used for determining the quota shall include petrol, diesel, natural gas, biofuels, biogas, non-biological renewable fuels used in transport and recycled carbon-based fuels supplied or any other liquid or gaseous fuel supplied in transport.

In addition, the law establishes the obligation of industrial hydrogen consumers to acquire non-biological renewable fuels and green hydrogen from hydrogen suppliers. Therefore, each industrial consumer of hydrogen used in industry for energy and non-energy purposes shall ensure that:

- a. from the year 2030 onwards, at least 50% will be fuel from non-biological renewable sources or green hydrogen;
- b. from 2035 onwards, a minimum of 75% will be fuel from non-biological renewable sources or green hydrogen.

10. Trends and Challenges on the Romanian PPA market

10.1 Short overview

The PPA market is still in its infancy in Romania, given that long-term PPAs were banned in Romania in 2012, because they drove some companies to insolvency on the market. The ban was lifted in 2020 when the law provided that PPAs could be signed for power plants put into operation after June 1st of that year.

Presently, there is an interest for PPAs on the part of developers who want to secure a future income stream for their project and thus assure lenders that they can repay any loan financing. Hence, PPAs can improve the bankability of a project in the absence of stable income guaranteed by government subsidy or support schemes.

Long-term offtake options are still limited compared to other markets with only a handful of players offering fixed price PPAs for longer tenors.

Corporate appetite is emerging on the Romanian market but mostly concentrated on international companies with previous PPA experience. This reduced appetite could be explained by the fact that these PPAs have an inherent number of risks that corporates are not used to working with. It can be assumed that after Romania finalises (in 2025) its membership in the Association of Issuing Bodies – which will make possible the trading of guarantees of origin along with energy -- that this will lead to greater interest from corporate off-takers. Utility PPA demand is recovering after the energy crisis turmoil and volatility extremes. Because they have a rather low liquidity, utilities are not willing to offer PPAs for a duration of longer than 3-7 years and at a lower price than expected by developers of renewable power plants. Such PPAs concluded conditionally with utilities up to the date the developer obtains the commercial operating license are negotiated and concluded either with or without assumption of balancing costs.

Options among Romanian energy traders are: a) PPAs with physical delivery and tailor made solutions; b) virtual PPAs with sleeving solutions with different price structures; or c) corporate PPAs with corporate and industrial clients.

In 2023, few PPAs were signed and made public for a total capacity of almost 77 MW. Among these we can list:

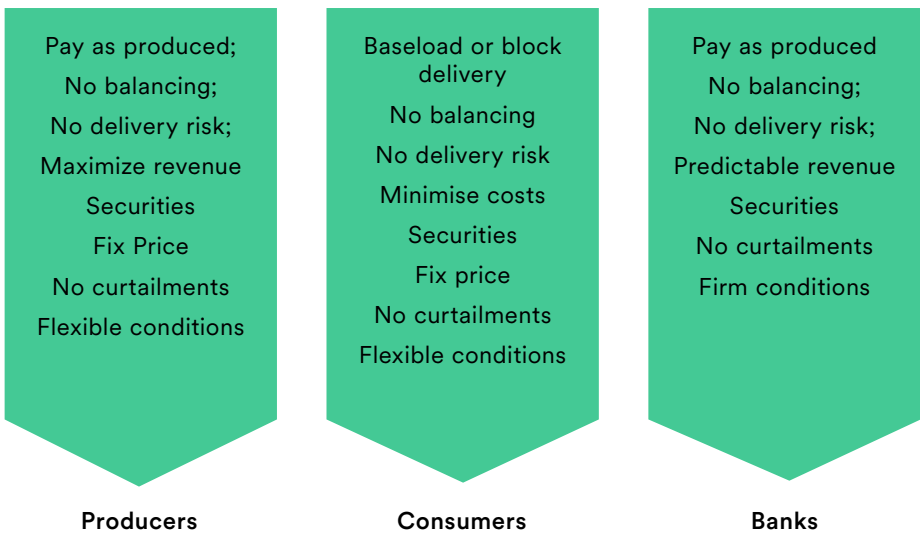
- virtual PPA signed in July 2023 between Enery and Ursus Breweries for a capacity of 50MW (PV technology) for a tenor of 12 years;
- virtual PPA signed in August 2023 between Engie and Orange for a capacity of 20MW (PV technology) for a tenor of 6 years;
- on-site PPA (energy as a service) signed in November 2023 between the Switzerland-based Connect44 Group's member, company NextE and RAAL, manufacturer of complete cooling systems and heat exchangers for a capacity of 7.4MW (PV technology) for a tenor of 6 years;
- on-site PPA (energy as service) signed in January 2024 between NextE and a Romanian consumer for a capacity of 51.5 MW (PV capacity). The tenor and the consumer's name are not known from public sources.

10.2 Challenges and Opportunities for PPAs in Romania

RES suppliers and corporate buyers are exposed to volatile electricity prices. A corporate PPA can be a solution for both parties if the buyer can achieve prices lower than current market prices at an acceptable risk and the renewable power plant owner secures an acceptable return on their project over a suitable period.

A PPA could be signed several months before electricity production and delivery starts. For a corporate buyer and utility company it is important to manage the risk from signing up to the commercial operation date. In a situation where the project does not reach the commercial operation date, it faces a lack of capacity without reinforcement works or the project timeline is delayed, this could cause substantial financial loss to the buyer, since the market conditions could change significantly. It is therefore important that the buyer secures guarantees to cover these potential losses. The size of this guarantee will depend on the market conditions, the counterparty and the stakeholders.

Below is a summary of what contracting parties negotiating the terms and conditions of a PPA would typically like to achieve in a PPA:



The PPA is therefore a tool to set a baseline for prices that can be considered as revenues by the renewable producer and banks. However, in the case of financial PPAs, there is still an element of price risk exposure to the agreed settlement market for wholesale electricity.

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