

## Accounting Changes on Green Certificates in Romania

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### Abstract

*The purpose of green certificates is to get more renewable electric energy into the energy market at the expense of traditional energy, which in most countries is based on fossil fuel. These renewable technologies are too expensive to enter the market on commercial terms. A key feature of the scheme is that producers of energy based on new renewable energy sources receive certificates from the authorities, proportional to their output. The users of electric energy are required to buy a certain amount of these certificates when they buy electricity. Green certificates may in principle contribute to a reduction of the production of traditional energy.*

**Key words:** green certificates, accounting, renewable energy

**J.E.L. classification:** M41, Q40, Q56

### 1. Introduction

A green certificate (GC) is a tradable asset which proves that electricity has been generated by a renewable (green) energy source and represents a form of support for electricity produced from renewable energy sources. The Green Certificates value represents an additional income received by the producers for the "clean" energy that they deliver into the network.

A green certificate is typically issued per 1 MWh of renewable power. Alternatively, the number of green certificates may depend on the source, whereby greener or more innovative technologies may obtain more certificates than other technologies per MWh of power produced.

Green certificates are issued and traded primarily because of governmental policies which require suppliers to have a certain percentage of renewable production in their supply portfolio. With green certificates, governments can set exact targets as to the level of renewable production in a country, while the market finds the most efficient way to meet these targets. It is an alternative to other policy mechanisms, such as renewable investment subsidies, renewable production subsidies, fiscal benefits and feed-in tariffs.

Romania introduced a Tradable Green Certificates (TGC) support mechanism in 2008. The trade of green certificates is done on the bilateral contracts' market and/or the centralized monthly TGC market, between the Renewable Electric Energy Sources (RES-E) producers and the electricity suppliers to end users. The annual RES-E quota that was achieved between 2009 and 2011 was lower than the annual quota legally established by the Romanian regulator (ANRE), in the year 2012 it was very close to the mandatory annual quota and in the year 2013 it exceeded the annual mandatory quota, which resulted in TGC price decrease from €55/certificate in 2009–2012 to €42/certificate in 2013 (Atanasoae, et al 2014). In the face of economic crisis an Emergency Ordinance of July 2013 imposed harsh restrictions for the RES-E sector, such as temporary suspension of the number of TGC granted to some technologies, limitation of RES installed capacity, TGC trading barriers and others. Also ANRE, in order to decrease the electric energy price, changed the method for calculation of the yearly quota for RES-E energy production, effective from 2014. With that change, the quota established for 2014 decreased from 15% (as regulated by the law before) to 11.9%, which led to an overflow of unsold green certificates on the market and further diminished their price to €26/certificate in 2014 (Bozsoki, 2015). Both the development and the startup of RES-E have nearly stopped. The renewable energy disaster has been confirmed by the March 16 trading session on the Green Certificates Market, in which only 5,490 TGC were sold from over 1.7 million offered. Renewable energy producers state that the

authorities' decisions make it impossible for them to sell their green certificates, and many companies will go bankrupt in this sector as a result.

Renewable energy producers received a breath of fresh air in March 2017, after the government approved an Emergency Ordinance 24/2017, modifying the operating rules of the green certificate support scheme. The normative act thus created the legal framework that ensures the demand for green certificates for the profile market that has been affected, starting with 2013, by less favorable regulations.

The amendments contained in the Ordinance refer, on the one hand, to the modification of the calculation method of the mandatory annual quota for the acquisition of green certificates, the extension of the validity of the green certificates and the green certificates trading regime, the moment of recognition of the green certificates in their accounts, their trading but also consumer protection on the other hand.

## **2. The formula for calculating the mandatory annual quota for the acquisition of green certificates**

The Emergency Ordinance introduces a new mechanism for calculating the total number of green certificates that must be purchased by electricity suppliers. In order to secure the demand for the total number of green certificates issued to the renewable electricity producers, the legislator calculates the static annual quantity of green certificates.

This static quantity represents the annual average of the available green certificates (meaning both the certificates that will be issued by 2031, and the certificates deferred from trading from 2013 onwards and which will be progressively reinserted). The static quantity is a fixed number that will be reviewed once every two years, starting with 2018. It is originally established for the period 2017-2018 at 14,910,404 green certificates.

By reference to this number, we observe that in 2016 a total of 14,906,693 green certificates were issued to the producers of renewable energy, but also that in 2017 the number of green certificates issued will be higher (given that the deferral measures to green certificates trading partially ceases, as detailed below). As a result, manufacturers will still be under some pressure with regard to green certificate applications.

The mandatory annual green certificate acquisition quota is established taking into account the static quantity of green certificates and the final consumption of electricity estimated for the following year, without exceeding the average impact in the invoice of 11.1 euro / MWh. Through the ANRE Order no. 27/2017 regarding the establishment of the estimated mandatory quota for the acquisition of green certificates, for the period April 1 – December 31, 2017, the related mandatory quota was fixed at 0.358 green certificates MWh. It is a higher quota than the 0,320 previously established by ANRE Order no. 119/2016, which shall remain applicable for the period January 1, 2017 to March 31, 2017.

## **3. The validity period of green certificates**

The validity period of green certificates has been extended from 12 months, until March 31, 2032. This eliminates the risk that producers will not use the green certificates because of their expiration. The measure targets both the green certificates issued from April 1, 2017, and those deferred from trading starting with July 1, 2013, which will be recovered from 2018.

## **4. Trading green certificates**

Significant changes have also been made to the green certificates trading regime, given the complaints of the producer associations concerning certain green certificate trading practices. We recall that, previously, the green certificates could be traded by producers and suppliers either on the centralized green certificates market or on the bilateral counterparts market, both managed by OPCOM.

Starting with September 1, 2017, the green certificates can be traded either on anonymous centralized green certificates markets (of on spot or forward transactions type) or on the centralized electricity market supported by the state aid scheme, the market where electricity is sold in

association with the green certificates associated with the amount of electricity traded. A distinct regime is regulated for small producers.

Following the reform from March 2017 of the Romania's support system for renewable energy based on green certificates (GCs), a new green certificates centralized market became operational on September 1, 2017 managed by OPCOM ("New GC Market").

Late August 2017, the National Regulatory Authority for Energy (ANRE) issued and published in the Romanian Official Gazette, Order 77/2017 approving the Regulation concerning the organization and functioning of the green certificates market ("GCM Regulation").

The New GC Market includes centralized platforms for trading GCs (spot and forward transactions) organized by OPCOM, allowing participants to submit firm sale or purchase offers for GCs with respect to quantity and price, without revealing their identity to the other participants to the trading session.

The **New GC Market** is separate from the trading of the electricity produced from renewable sources, and has the following trading platforms:

1. *forward centralized anonymous market for green certificates;*
2. *spot centralized anonymous market for green certificates.*

In addition to concluding bilateral contracts on the OPCOM platform under (a) above, producers of electricity from renewable resources with installed capacity of less than 1 MW will continue to have the possibility to enter into bilateral agreements for green certificates, directly negotiated with electricity suppliers for end customers, outside the OPCOM platform.

Following the legal reform of the GC scheme, a GC may be subjected only to one transaction between a producer as seller and a supplier as buyer, except for the case when a producer is bound by a GCs sale and the purchase contract is not in a position to fulfill its sale obligations under such contract and has to purchase additional GCs to cover the difference. This prohibition to re-sell GCs will affect current buyers of GCs under outstanding long term; GCs sale and purchase contracts which do not need the entire quantity of GCs bought to fulfill the mandatory quota obligation – this may result in transfers of the bilateral contracts concluded by such GC traders, provided ANRE allows them.

According to the GCM Regulation, the participants to the New GC Market are:

1. producers of electricity from renewable resources;
2. electricity suppliers that purchase electricity both for their end consumption and in view of re-selling to end customers;
3. electricity producers that use the electricity produced for their own consumption, other than own technological consumption;
4. electricity producers that use the electricity produced to supply it to customers directly connected to the power plant.

## **5. The moment of recording the green certificates in the accounting system**

Unlike the previous regulation, under OUG 24/2017, green certificates are recorded in the manufacturers' accounting system only when they are traded on the markets, and not when they are issued. Changing the moment when they are recorded has a direct impact on the way they pay the tax on their respective profits.

The measure targets exclusively the green certificates issued after the date of entry into force of the emergency ordinance, the ones previously issued keeping the accounting value from the time of issuance.

## **6. Trading with green certificates**

Green certificates can only be transacted once between the manufacturer and the supplier. There is, however, a derogation that occurs when the producer is in a deficit concerning the number of green certificates promised for sale to a supplier. In this case, the manufacturer in question can buy the green certificates difference from the centralized markets.

The Emergency Ordinance continues the series of measures for deferring the green certificates from trading. In the case of photovoltaic producers, it is deferred the trading of two green certificates until December 31, 2024.

Therefore, in the near future, they will be entitled to 4 green certificates per MWh (as opposed to the previous deferral, based on which they only received 3 green certificates per MWh).

The green certificate re-entry period is modified by this regulation for all categories of producers, as follows:

- Hydro and wind: January 1, 2018 - December 31, 2025, instead of January 1, 2018 - December 30, 2020, in equal monthly installments;
- Photovoltaic: January 1, 2025 - December 31, 2030, instead of January 1, 2018 - December 30, 2020, in equal monthly installments.

The result of the prolongation of the postponement period gives the possibility to producers, whose accreditation / license expires before 31.03.2031, to obtain green certificates postponed from trading including after the expiry of the validity period of the accreditation decision and to trade the green certificates received for the production during the 15 years period covered by the accreditation decision, even after the accreditation expires, until March 31, 2032.

## 7. Consumer Protection: Financial Impact

In order to protect consumers (industrial and domestic), the amending ordinance introduces several provisions which limit the financial impact of the contribution for the green certificates included in the invoices issued to them:

- The supplier invoices the final consumer the green certificates at a value equal to the weighted average transaction price in the anonymous centralized market spot, and, subsequently, at the time of regularization, at the weighted average price of the green certificate used by the supplier in order to meet the mandatory green certificate acquisition quota for the previous year, which cannot be higher than the weighted average price of the transactions from the centralized anonymous spot market in the previous year;
- The maximum trading value of the price per green certificate was reduced from € 55 to € 35 / certificate;
- The financial effort reflected in the consumer's bill will not exceed 11.1 Euro / MWh.

## 8. Accounting treatment for green certificates

Until the Emergency Ordinance (OUG) 24/2017 appeared, in line with OMFP 1802/2012, the green certificates accounting treatment provided for the producers of energy from renewable sources that benefited from green certificates issued by the transport and system operator the following records:

- Monthly highlighting of the right to receive green certificates  
4458 „Other amounts received as subsidies” = 7411 „Subsidies related to the turnover”
- When receiving the green certificates, their value was reflected in the account 507 "Received green certificates"  
507 „Received green certificates” = 4458 „Other amounts received as subsidies”
- The difference between the value of the green certificates registered in the account 4458 "Other amounts received as subsidies" is distinct when establishing the right to receive green certificates and their value at the date of receipt, determined on the basis of the trading price from the date of receipt, represents financial income (account 768 "Other financial revenues" or the financial expense (account 668 "Other financial expenses"), as appropriate.
- When selling green certificates, the earnings must be recognized (account 7642 "Gains on disposal of short-term financial investments"), respectively record the loss (account 6642 "Losses on disposal of short-term financial investments") from their sale.

In order for the green certificates to be reflected in the accounting system after the EGO 24/2017 came into force, the Ministry of Public Finance modified through the OMFP 895/2017, the Accounts Plan introducing the 804 "Green certificates" account. With this account, evidence is being kept of the green certificates received, according to the law, and which have no value until the moment of trading. In debit of the account 804 "Green certificates", the green certificates received and which have not been traded are highlighted, and in the credit, those traded. The balance of the account is represented by the number of green certificates that the entity benefits from.

Thus, the green certificates received, including those deferred from trading, after April 1, 2017, are highlighted numerical extra accounting in the account 804 "Green certificates".

The green certificates highlighted in the account 804 "Green certificates" are recognized as revenues in the account 768 "Other financial revenues", only at the time of their trading;

The green certificates deferred from trading and existent on April 1, 2017 in the account balance 266 "Deferred green certificates", respectively 472 "Deferred income", are evidenced numerically in the debit of the account 804 "Green certificates" and at the same time the operation of reversing their counter value takes place.

$$472 \text{ „Deferred income”} = 266 \text{ „Deferred green certificates”}$$

## 9. Conclusions

These new measures could revitalize a sector that had initially drawn substantial foreign investment and made Romania one of the most attractive countries in the world for renewable energy projects. The scope of the measures is, primarily, to strike a balance between two diverging interests, those of the producers, and those of the consumers, to encourage, ultimately, an increase in demand for green certificates.

Making the support scheme functional again is also paramount to attaining the objectives set by the Romanian Energy Strategy for the 2016–2030 period published in December 2016, where the 2030 target for the share of electricity generated from renewable energy sources in the final consumption of electricity is 27%.

## 10. References

- Atanasoae P, Hopulele E. *The impact of the support scheme on the installed capacity in renewable energy sources in Romania*. In: 2014 International Conference and Exposition on Electrical and Power Engineering (EPE 2014), IEEE Xplore, 2014, pp. 1148 – 1151
- <http://dx.doi.org/10.1109/ICEPE.2014.6970089>
- Bozsoki I. *Keep on Track! Project. National Report: Romania, EU Intelligent Energy Europe programme*. Contract No: IEE/11/842 [02.02.15]. URL
- [http://www.keepontrack.eu/contents/keeptrackcountryfactsheet/kot\\_year-3\\_-barriers-report\\_ro\\_final\\_v2.pdf](http://www.keepontrack.eu/contents/keeptrackcountryfactsheet/kot_year-3_-barriers-report_ro_final_v2.pdf)
- *Law No. 220/2008*, the system for the promotion of energy from renewable energy sources, as amended and supplemented;
- *National Regulatory Authority for Energy (ANRE) - Order no. 60 of 04.01.2015* for approval of the organization and functioning of the market for green certificates;
- *Ministry of Finance – OMFP nr. 1802/2014* Accounting Regulations on the individual financial statements and consolidated annual statement as amended;
- *Ministry of Finance - Order no. 4160/2015* amending and supplementing certain accounting regulations.