

# THE ROMANIA'S POSITION REGARDING THE COMMITMENTS OF GHG EMISSIONS REDUCTION

Georgiana CHIȚIGA<sup>105</sup>

## Abstract

Romania's Position of member in the EU It includes not only rights and opportunities, but also responsibilities - participation in the EU Emission Trading Scheme (EU ETS) of greenhouse gases; the analysis expands upon the three flexible mechanisms the Kyoto Protocol, they have been implemented in order to support and to fulfill of the Commitments of GHG Emissions Reduction.

The long term trend is to have an international carbon market where all the systems and the mechanisms of CO<sub>2</sub> emissions trading, they might unite and they might interconnect. Although initially, the Romanian's operators have encountered a lot of difficulties, using the mechanisms created to the Kyoto Protocol, they have overcome these issues and they have acquired the capacity to respond quickly to market developments.

**Keywords:** low CO<sub>2</sub> emissions, mechanisms, ETS market

**JEL classification:** Q53, Q58.

## 1. Introduction

Romania signed and transposed in the national legislation: The United Nations Frame Convention over the Climatic Changes (UNFCCC) (in 1994), as well as the Kyoto Protocol (in 2005).

The Kyoto Protocol allows the Parts which ratified it to fulfill the commitments to reduce the GES emissions (the carbon dioxide is the reference gas with the help of which the other GES are calculated and reported), combining the politics and the internal measures with three flexible mechanisms, and these are:

- Joint Implementation (JI);
- Clean Development Mechanism (CDM);
- International Emissions Trading (IET).

The EUA, CER and ERU certificates are transacted into Romania according to a decision of the government (2006) regarding the establishment of the Scheme of Trading the Certificates of Emissions with Greenhouse Effect.

The Frame Convention UNFCCC and the Kyoto Protocol were implemented through the National Strategy regarding Climatic Changes (2005 - 2007) and the National Plan of Action regarding climatic changes; it was also created the National System for estimating the level of the emissions of gases with greenhouse effect resulted from sources or from the retention through seizure of carbon dioxide; the National Inventory of the emissions of gases with greenhouse effect progress was recorded for accomplishing obligations.

Romania signed the Kyoto Protocol being the first Part found on Appendix I of UNFCCC.

(a) The mechanism of Joint Implementation (JI) is made by complying with the stipulations from OM (2006) - to approve the Guide regarding the use of the JI mechanism based on module II and OM (2008) - to approve the National Procedure regarding the use of the JI mechanism based on module I;

(b) The International Emissions Trading (IET) mechanism was implemented based on the National Strategy regarding Climatic Changes.

Through the Government Decision from 2006 regarding the establishment of the scheme of trading the certificates of gas emissions with greenhouse effect there was created the legislative frame for transposing the procedures of the European Parliament Directive and of the European Council

---

<sup>105</sup> Researcher, "Victor Slăvescu" Centre for Financial and Monetary Research, Romanian Academy, e-mail: georgiana\_chitiga@yahoo.com

(2003) regarding the establishment of the scheme of merchandising the certificates of gas emissions with greenhouse effect inside the Community; there were established the bases of implementing the instrument ( EU ETS) used by the European Union within the politics regarding climatic changes.

In our country, the bases of implementing the EU-ETS Directive were represented by:

-the procedure of issuance the authorizations regarding the gas emissions for the period 2008 - 2012;

-the establishment of the guides regarding the monitoring and reporting the GES emissions under the scheme of trading;

-the regulation regarding the management and operation of the National Register of the GES emissions;

- the approval of the Allocation National Plan.

At the moment, we are in the third phase EU-ETS (2013 - 2020); two stages of institutional construction were made on this market:

- stage I - pilot 2006 - 2008

A very high number of certificates were assigned, having as a consequence the sudden drop of their price.

- stage II - 2008 – 2012

According to the data from the European Agency for Energy (EAE) there were included over 12.900 installations from 30 attendee states with an annual aggregated average of 1970 Mt of carbon dioxide/year; 3/4 of the whole GES emissions come from the burning installations (73%) and from the thermal stations in cogeneration - ESS (the combined thermal stations that generate both electrical production and heat, ensuring a rational use of fuel).

## 2.GHG Emissions Reduction - The Romania's Position

In this stage, the economic crisis determined the restricting of economic activities and as a consequence, the reduction of the emissions much more than it had been foreseen so that the number of certificates given for free was much larger than the necessary in the ETS branches. However, as a tendency, the number of the emission certificates recorded a descendant trend in the second stage compared to the first one; in 2008, the GES emissions were reduced with 5% compared to the level from the year 2005, recording 1910 Mt of carbon dioxide, 14% under the level from 2005. The number of emission certificates was higher than the necessary/ the pollution target in all the countries, excepting Germany, Great Britain and Norway where the quantities of GES emissions overtook the value of the certificates.

*The ascension of the certificate market is also a sensitive barometer of the economic crisis.*

The third EU ETS stage is significantly different from the first two stages through the existence of:

-*the maximum European ceiling* (EU-cap-and-trade), instead of the national system of assigning emissions;

- *the Unique European Emission Register*;

-another rule is represented by the purchase through the actions organized by the European Commission and by the member states on the designated European exchange (compared to the method of free allocations used until now).

In 2013, a new decision was issued in order to modify and complete that from 2006; this transposes into Romania the regulations regarding the air district from the scheme of merchandising the certificates of gas emissions with greenhouse effect.

The projects *Joint Implementation in Romania* displayed by developed countries; these fulfill the commitments provided by the Kyoto Protocol with lower expenses (than if they had reduced the same quantity of emissions in their own country) and Romania implements projects which have as

a result the changeover of installations and the decrease of the GES emissions from different branches, such as: energy, industry, agriculture, transport, scraps and so on, thus supporting the economic and social development in a durable way, but also the recording of beneficial effects over the environment.

These mechanisms are part of the "win-win" politics, where both parts benefit from their implementation.

From the year 2009 transfers of the units of reducing emissions have taken place (for the reductions of emissions generated in the year 2008) based on the reports of checking the reductions of monitored emissions. The commitments of the transfers of the emission reduction units (ERU) resulted from the JI projects belong to the Parts and in accordance with the national legislation into force, Romania had to ensure the legal frame by signing some Understanding Memoranda or Agreements among Governments or among the Spring Ministries.

Romania subscribed to 10 Understanding Memoranda with different countries: Switzerland, Holland, Norway, Denmark, Austria, Sweden, France, Finland (including the international merchandising of emissions), Italy, as well as with the Prototype Fund of Carbon set up by the World Bank, following that, in the future to exist this type of agreements with other developed countries included on Appendix I.

Up until now, Romania has 16 JI projects, among the projects approved there prevails those which are situated under the incidence of the local authorities: systems of centralized heating (including by using renewable resources of energy - sawdust, geothermal energy), closing of scraps deposits. There are investments with positive impact, both by reducing the GES emissions and over the environment, generally from a social point of view (ensuring some comfort conditions at accessible prices). Through the JI projects it is offered the opportunity to fill in the financial scheme of a project that has as an effect the reduction of the GES emissions. The results of the project (materialized in ERU), will be the object of the transfer from Romania towards the investor country according to the credit period.

The reductions of the emissions produced, monitored and checked by an independent entity (accredited by JISC - Joint Implementation Supervision Committee) are transferred to Romania, with the help of the national register (as a result of the request of MMSC - the institution which is responsible for approving JI projects); the secure repository of the information comprised in the transfer notification and the modality of recording in the national register are established through the Decisions of the Conference of the Parts at the UNFCCC and at the Kyoto Protocol.

The National Agency for the Protection of the Environment is the main institution that ensures the technical support for the MMSC to implement some stipulations of the UNFCCC and of the Kyoto Protocol. ANPM analyses the technical documentation that comes with the proposals of JI projects, presenting the results of the MMSC evaluation.

MMSC is supported by the National Committee for Climatic Changes in order to make decisions for the approval of the JI projects; it is an organism composed of the representatives of all the ministries involved in implementing the national politics in the branch of climatic changes.

For a project to be accepted, one must take into account the following criteria:

1. to support the sustainable development of Romania and to be in accordance with the objectives of the national strategies in the environmental district;
2. to present the project according to the procedure and to respect the eligibility criteria;
3. to take into account the stipulations of the UNFCCC, of the Kyoto Protocol and of all the rules, decisions, directing lines and procedures regarding the JI projects;
4. to offer environmental, social and economic benefits.

In what regards the externalities of the project:

1. The externalities regarding the GES emissions (leakage) may have as a result:
  - a. reduction;
  - b. overtaking the general benefits of limiting the GES emissions that the project can generate.

This situation does not exclude the project only if the externalities that may be negative come to overtake the possible benefits of the project.

2. The externalities (that do not refer to the GES emissions) can include effects on the development (social, economic, property rights, work force) or on the environment (availability of resources, emissions of pollutants and the loss of habitats and/or of biodiversity). The projects must not overproduce negative externalities these might overtake the general benefits of the project regarding the reduction of the GES emissions.

For Romania, the JI projects may refer to the changeover and efficiency of the installations which are outdated from a physical and moral point of view and implementing some new technologies in sectors (type of project) such as:

- rehabilitation and/or efficiency of the centralized heating systems;
- building installations of cogeneration/ transformation of some thermal stations into cogeneration ones;
- changing fuel in the installations of producing energy with "green" fuel/ using fuel with a low-content of carbon;
- rehabilitation and/or efficiency of some groups from power-stations; of some hydro-aggregates or hydroelectric stations;
- supporting the renewable resources of energy (hydro, geothermal, wind, solar, biomass);
- avoiding or recovering - with the purpose to use energy - gases dump;
- thermal rehabilitation of buildings;
- growth of energetic efficiency;
- changeover of some industrial installations;
- reduction of the GES emissions resulted from transport;
- reduction of the GES emissions resulted from agriculture;
- restocking of the land surfaces.

(b) Romania's quality as a member of the European Union includes not only rights and opportunities, but also responsibilities; the attendance at the European Scheme of trading certificates of gas emissions with greenhouse effect (EU-ETS) needed, in 2007, to adapt to the new requirements of 244 installations, afterwards the number grew as a consequence of accessing the reserve of new-entries.

From the year 2013, the novelty granted through the legislative pack is that the system of assigning emission certificates is harmonized at the level of the EU; the number of certificates given for free will be lower, they will be approved depending on the entrepreneurial strategies of the economic agents, on the business plan and they will quicken the significant growth of the importance of the market and at the same time of the price. Depending on the number of free certificates received, one will give up to a number of certificates equivalent with the quantities of emissions checked at the end of April every year. The companies that will dispose of a higher number of certificates than they require in order to cover their emissions will have either to sell certificates to other operators, or to keep them for other years. Companies can obtain emission credits from the CDM or JI projects in a limited volume to achieve the obligations regarding the abandonment of certificates, based on the CE Directive 2004/101.

The companies whose emissions exceed the assigned share will have to face high sanctions: 100 euro/t in the period 2013-2020; more than paying the penalties, the companies are obliged to continue depositing the lacking certificates for the following year.

The legislative efforts of the authorities from our country (the Environment Ministry, the Economy Ministry, ANPM) allowed the Romanian operators to transact in the year 2007 too, unlike those from other member states, for example Bulgaria. Initially, the Romanian operators had to face difficulties regarding both the understanding of the stipulations of Directive 2003/ EC and the ways of transacting the carbon certificates; with the help of the mechanisms created at the Kyoto Protocol, they surpassed these inconveniences and they achieved the ability to respond quickly to the evolution of the market, without any additional expenses. The Romanian operators (for example, Consus Romania SA was the first member of the Transacting Platform of the Certificates

of Gas Emissions with greenhouse effect of OPCOM - the operator of the market of electric energy and natural gases from Romania where 12 companies activate, as well as Alpiq Rom Energie SRL, Energetic Complex: Craiova SA, Rovinari SA, Turceni SA, EGL Gas & Power Romania SA, etc.) are members of the main European stocks: Blue Next (2006), EEX (2006) and ECX (2010), the Romanian Stock of Merchandise (2010).

When the company is included in the National Plan of Allocation, it means that it is included in the Scheme of Transacting European Emissions and it is obliged to comply with a number of certificates reported to the emissions declared in the reference year; it has to fulfill a the legal requirements.

Once they are given the emission shares, the profit of the company grows by selling these certificates at the best market price and in the best moment.

If the company has less emissions of carbon dioxide compared to the number of certificates assigned, these certificates can be kept as a reserve or they can be sold on the market. In the case in which there are not enough EUA certificates for compliance, there are variants of purchasing certificates.

Even if the functioning issues of the certificate emission market are major, recording a retrogression, there are premises that the market can ensure the decrease of emissions in the main economic branches that affect the environment; if this market transforms itself into an impediment regarding the growth of the competitiveness among companies by not achieving their purpose - modification of the companies' behavior towards the environment - and not only a powerful tool to adjust the environmental issues, there will appear a more pronounced risk of failure of the climatic policies of the European Union.

We confront ourselves with two situations: energetic policies that are complementary to the carbon market (the measures that aim at the request of thermal energy or of fuel in transport), other energetic policies influence directly the carbon market (energetic efficiency measures or promoting regenerative energy). In the case in which the measures appear after having established the limit of the allocated certificates, a diminished signal will be recorded, one transmitted by the level of the price of carbon and which decreases the investors' predilection towards green energy or non-pollutant technologies. As a consequence, a flexible tool is required, a tool to adjust in a proper manner the volume of certificates existing on the market/ their duration of validity and so on.

At the level of the EU, the ETS market was and it is still appreciated in a critical manner because of *the risks* that the investors have to face:

- the volatility of the price;
- the fluctuation of the investors' profit;
- allocating a great number of free certificates.

These low levels of the price do not stimulate the states, the companies or the investors to stand for additional expenses generated by the protection of the environment in order to support the expenses to reduce emissions/ modify technologies.

The trading of gas emission certificates may become the most profitable funding instrument for, the resulted funds can be used in order to finance any activity within the society, without any restraint.

### **3.Conclusions**

The long-term tendency is to have an international carbon market in which all these systems and mechanisms of merchandising carbon dioxide emissions to join and inter-connect.

It is not enough to state that the insurance of the carbon emission certificates should continue - must continue at a maximum level for the most effective equipments. It is required: to ensure clear procedures referring to the new European regulations regarding the environment and the energy that will not impose direct or indirect expenses for carbon emissions for the most performing units, for the European industry that compete at a global level.

The companies should modify their technologies so that the technological and production processes could be less pollutant for the environment and for the human. In order to support the institutional effort, there appears the need for companies and economic sectors to participate in a larger specter.

It is requested a policy based on a functional producing industry, with places of employment in Europe, a policy which is beneficial for the European society; the products, their applications but also the employees represent the foundation of a prosperous European society, one which is effective from an energetic point of view, with reduced carbon emissions.

## Bibliography

- 1.\*\*\*, CEROPE (2003), Environmental taxes in Romania p. 2.
- 2.\*\*\*, EEA (2012) – „Greenhouse gas emission trends and projections in Europe 2012. Tracking progress towards Kyoto and 2020 targets”, EEA report No. 6, Copenhagen.
- 3.\*\*\*, European Environmental Agency (2006) *Using the market for cost-effective environmental policy Market-based instruments in Europe*, Office for Official Publications of the European Communities, p. 9, Luxembourg.
- 4.\*\*\*, IPCC (2007) – „Summary for Policymakers. In: *Climate Change 2007: Fourth Assessment Report. Synthesis Report (AR4)*”, Cambridge University Press, Cambridge UK and New York, USA.
- 5.\*\*\*, IPCC (2009) – „Summary for Policymakers. In: *Climate Change 2009: Fifth Assessment Report. Synthesis Report (AR5)*” Cambridge University Press, Cambridge UK and New York, USA.
- 6.\*\*\*, IPCC (2014) – „Impacts, Adaptation and Vulnerability”, Working Group II, Contribution to the Fifth Assessment, Cambridge University Press, Cambridge UK and New York, USA.
- 7.\*\*\*, <http://www.afm.ro>