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MINISTRY OF ECONOMY, ENERGY AND BUSINESS ENVIRONMENT

THE DIRECTIVE 2003/87/EC - ARTICLE 10C (1)

**REPORT ON INVESTMENTS MADE IN UPGRADING ENERGY INFRASTRUCTURE AND CLEAN
TECHNOLOGIES FOR 2019**



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1. INTRODUCTION

During 2019 has taken important steps in implementing the derogation provided by Article 10c.

Thus:

- There have been monitored the Investments for which financing contracts have been concluded (*Rehabilitation and modernization of 330 MW power unit no. 4 on lignite – SE Rovinari, Rehabilitation and modernization of power unit no. 7 on lignite – SE Isalnita, and New combined cycle with gas turbine – Iernut and New combined cycle with gas turbine – CECC Brazi*)
- The payments for the following reimbursement requests have been made:
 - The Reimbursing Requests no. 2 and no. 3 under the Financing Contract no. 1/29.08.2016 concluded with the beneficiary Complexul Energetic Oltenia for the investment *Rehabilitation and modernization of power unit no. 7 on lignite – SE Işalniţa;*
 - The Reimbursing Request no. 3 under the Financing Contract no. 2/29.08.2016 concluded with the beneficiary Complexul Energetic Oltenia for the investment *Rehabilitation and modernization of 330 MW power unit no. 4 on lignite – SE Rovinari;*
 - The reimbursement requests no. 1 and 2 under the Financing Contract no. 3/14.09.2016 concluded with the beneficiary OMV Petrom S.A. for the investment *New combined cycle with gas turbine – CECC Brazi;*
- The investment works were continued at the *New combined cycle with gas turbine – Iernut* and at the investment *Rehabilitation and modernization of the unit no. 7, on lignite - SE Isalnita;*

2. LEGAL AND INSTITUTIONAL FRAMEWORK

The Romanian Government Report on investments made in upgrading energy infrastructure and clean technologies for 2019 pursuant to article 10c (1) of the Directive 2003/87/EC has been prepared in accordance with the provisions of the following legal acts and documents:

- ✓ Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community, and the derogation for free allocation of greenhouse gas emissions allowances for the modernization of the electricity production sector;
- ✓ Article 6.3. of the Communication from the Commission “Guidance document on the optional application of Article 10c of Directive 2003/87/EC (2011/C 99/03);



- ✓ Romania's Application for free allocation of allowances to the power sector for the period 2013 – 2020, pursuant to article 10c of Directive 2003/87/EC;
- ✓ **Governmental Emergency Ordinance no. 30/2015** regarding some measures for implementing of the mechanism to transitionally allocate greenhouse gas emission allowances free of charge to electricity producers for the period 2013-2020, including the National Investments Plan thereof (*Governmental Emergency Ordinance no. 30/2015*);
- ✓ **Governmental Decision no. 1096/2013** for the approval of the mechanism to transitionally allocate greenhouse gas emission allowances free of charge to electricity producers for the period 2013-2020, including the National Investments Plan thereof, as amended (*Governmental Decision (GD) no 1096/2013*);
- ✓ **Ministerial Order no. 1277/2015** for the approval of the Procedures on the management of the counter value of the greenhouse gas emissions allowances transitionally allocated free of charge, for financing the investments in the National Investment Plan, monitoring, verification and reporting on investments, and eligible expenses (*The Procedures*).

The report is based on individual supporting documents submitted by the operators included in the National Investment Plan, as included in Romania's Application for free allocation of allowances to the power sector for the period 2013 – 2020, pursuant to article 10c of Directive 2003/87/EC, amended.

3. STATUS OF THE IMPLEMENTATION OF THE DEROGATION PROVIDED BY ART. 10C (1)

3.1. Payment of the yearly allocations 2013 - 2019 – NIP FUND

The Application submitted by Romania based on art. 10c (6) of Directive 2003/87/EC of the European Parliament and of the Council to obtain the derogation for free allocation of greenhouse gas emissions allowances for the modernization of the electricity production sector, was approved through Commission Decision C(2012) 4564 final of 06.07.2012 and Commission Decision C(2012) 8776 final of 05.12.2012 on the state aid SA.34753 (2012/N).

As important step towards implementation, Governmental Decision (GD) no 1096/2013 has been issued approving the mechanism to transitionally free allocate greenhouse gas emission allowances to electricity producers for the period 2013-2020, including the National Investments Plan. This Governmental Decision represents the legal framework on the basis of which the derogation under art. 10c of the Directive 2003/87/CE is implemented in Romania.

The Ministry of Economy, Energy and Business Environment, successor to the Ministry of Energy, is the authority in charge with the implementation of Article 10c of the Directive ETS in Romania, including the activity regarding monitoring and implementation of the investments in the National Investment Plan.



In order to set up the institutional circuits for NIP implementation, several additional acts have been issued and approved, as follows:

- a) Government Decision no. 151, published on March 2015 (amending GD 1096/2013), is presenting clarifications regarding the NIP implementation mechanism.
- b) Government Emergency Ordinance no. 30/2015 (primary legal framework), published on June 2015, is setting up and approve a dedicated necessary budget for activities related to the monitoring and implementation of NIP approved projects.
- c) Government Decision no. 770/2015, published on September 2015, is:
 - (i) Establishing a new necessary budget line to cover the costs of monitoring and implementation activities of NIP approved projects.
 - (ii) Approving the Framework Financing Contract, as provided in the Romanian application.
- d) Government Decision no. 550/2016, published on August 2016, is approving the Framework Financing Contracts as per types of investments:
 - (i) Approving the Framework Financing Contract for investments finalized when the Financing Contract is concluded;
 - (ii) Approving the Framework Financing Contract for investments under implementation when the Financing Contract is concluded;
 - (iii) Approving the Framework Financing Contract for new investments;
- e) Law no. 183/18.07.2017 for the approval of the Government Emergency Ordinance no. 30/2015.

All these new successive legislative have been adopted to make possible the implementation of the National Investment Plan pursuant to Article 10c of the ETS Directive.

Also, at the Ministry of Energy level, there have been approved the *Procedures on the management of the counter value of the greenhouse gas emissions allowances transitionally allocated free of charge, for financing the investments in the National Investment Plan, monitoring, verification and reporting on investments, and eligible expenses (hereinafter called "the NIP Procedures")* by the Minister's Order no. 1277/30.10.2015, which have been published on the 12th of November 2015, in the Official Gazette.

The total amount collected on the account of the National Investment Plan, based on payments made in relation to Article 10c (2013, 2014, 2015, 2016, 2017,2018 and 2019), is RON 1.616.887.769,87 (359.308.393,3 euro at an exchange rate of 4.5 lei/euro).



3.2. THE IMPLEMENTATION OF THE NATIONAL INVESTMENT PLAN (NIP)

3.2.1. Submitted Financing Requests

According to art. 17 para. (2) of *The Procedures*, related to the guidelines for financing requests, these could have been submitted by the beneficiaries of the NIP Fund starting with May 5th, 2014.

As concerns the Financing Requests submitted by NIP beneficiaries, so far, there have been received 7 (seven) Financing Requests, out of which:

- 4 (four) Financing Requests were approved for the following investments:
 1. **Rehabilitation and modernization of 330 MW power unit no. 4 on lignite – SE Rovinari with Societatea Complexul Energetic Oltenia SA as beneficiary;**
 2. **New combined cycle with gas turbine – CCCB Brazi, with Societatea OMV Petrom SA as beneficiary ;**
 3. **Rehabilitation and modernization of power unit no 7 on lignite – SE Isalnita, with Societatea Complexul Energetic Oltenia S.A. as beneficiary;**
 4. **New combined cycle with gas turbine (CCGT) - Iernut, with Societatea Nationala de Gaze Naturale Romgaz S.A. as beneficiary.**
- 3 (three) Financing Requests, submitted by the NIP beneficiaries that have not been approved, referred to the following investments:
 1. **RO-Ş-029 – New cogeneration with gas turbine and heat recovery boiler with CET Arad SA as beneficiary**
The Financing Request submitted three times was not complete according to the requirements provided in the NIP Procedures, such as, inter alia, not including the documents proving the financing capacity of the beneficiary to realize the investment and the Environmental Permit for the investment.
 2. **RO-Ş-12 – Waste to energy with International Recycling Energy SA as beneficiary**
The submitted Financing Request was not complete according to the requirements provided in the NIP Procedures, such as, inter alia, not including the documents proving the financing capacity of the beneficiary to realize this investment and the Environmental Permit for the investment.
 3. **RO-Ş-026 – Rehabilitation and modernization of 330 MW power unit no 5 on lignite – SE Rovinari with Complexul Energetic Oltenia as beneficiary**
The submitted Financing Request was not complete according to the requirements provided in the NIP Procedures, such as, inter alia, not including the documents proving the financing capacity of the beneficiary to realize this investment



The details regarding the investment's values and eligible costs included in the submitted and approved Financing Requests are presented in Table no. 1.

3.2.2. Concluded Financing Contracts

Based on the approved Financing Requests, above mentioned, 4 (four) Financing Contracts have been concluded to date, as presented in the Table no. 2.



Table no. 1 - Details regarding the costs included in the approved Financing Requests

ID of the installation as per the Application	Installation ID (Union Registry)	No.	Investment	Total investment value (VAT included)		Eligible cost included in Financing Request (VAT excluded)		The percentage of eligible costs to be financed from NIP fund
				Lei	Eur	Lei	Eur	
RO-009	RO-87	RO-Ş-025	Rehabilitation and modernization of 330 MW power unit no. 4 on lignite - SE Rovinari	511,279,700.00	113,617,711.12	369,164,860.00	82,036,635.56	25%, respectively 92,291,215 lei (approx. 20.5 mil euro)
RO-033	RO-292	RO-Ş-015	New combined cycle with gas turbine - CCCC Brazi	2,757,034,185.67	612,674,263.49	1,634,381,302.70	363,195,845.05	25%, respectively 408,595,325,69 lei (approx. 90.8 mil, Euro)
RO-007	RO-86	RO-Ş-028	Rehabilitation and modernization of power unit no 7 on lignite - SE Isalnita	171,284,500	38,063,222.23	134,226,700.00	29,828,155.56	25%, respectively 33,556,675 lei (approx. 7.5 mil euro)
RO-017	RO-108	RO-Ş-027	New combined cycle with gas turbine (CCGT) - Iernut	1,539,542,560	342,120,568.89	1,284,581,900	285,462,644.44	25%, respectively 321,145,475 lei (approx. 71.4 mil. euro)

The exchange rate: 1 Euro =4.5 Lei



Table no. 2 - Details regarding the costs included in the concluded Financing Contracts

ID of the installation as per the Application	Installation ID (Union Registry)	No.	Investment	Total investment value (VAT included)		Eligible cost included in Financing Contract (VAT excluded)		The percentage of eligible costs to be financed from NIP fund
				Lei	Eur	Lei	Eur	
RO-009	RO-87	RO-Ş-025	Rehabilitation and modernization of 330 MW power unit no. 4 on lignite - SE Rovinari - Financing Contract no. 2/29.08.2016	381,549,625.21	85,549,243.32	245,300,000.00	55,000,000.00	25%, respectively 61,325,000 lei equivalent of 13,750,000 euro at the exchange rate of 4.46 lei/euro
RO-033	RO-292	RO-Ş-015	New combined cycle with gas turbine - CCCC Brazi - Financing Contract no. 3/14.09.2016	2,756,819,146.77	618,120,884.93	1,633,700,192.31	366,300,491.55	25%, respectively 408,425,048.10 lei equivalent of 91,575,122.89 euro at the exchange rate of 4.46 Lei/euro
RO-007	RO-86	RO-Ş-028	Rehabilitation and modernization of power unit no 7 on lignite - SE Isalnita - Financing Contract no. 1/29.08.2016	171,284,500.00	38,404,596.42	134,226,700.00	30,095,672.65	25%, respectively 33,556,675 lei equivalent of 7,523,918.16 euro at the exchange rate of 4.46 Lei/euro
RO-017	RO-108	RO-Ş-027	New combined cycle with gas turbine (CCGT) - Iernut - Financing Contract no. 4/07.12.2017	1,526,794,527	334,823,361	1,283,649,435	281,502,069	25%, respectively 320,912,359 equivalent of 70,375,517 euro at the exchange rate of 4.56 Lei/euro



During 2019, the following took place:

- For 3 financing contracts concluded, respectively for Rovinari (RO- $\text{\$}$ -025), Brazi (RO- $\text{\$}$ -015) and Isalnita (RO- $\text{\$}$ -028), the beneficiaries have submitted, in 2019, the reimbursement requests no. 4 and for the fourth financing contract concludes, respectively for the investment *New combined cycle with gas turbine - Iernut* (RO- $\text{\$}$ -027), the Reimbursing Request no. 3 was submitted.
- For the investment *Rehabilitation and modernization of power unit no, 7 on lignite - SE Isalnita* (RO- $\text{\$}$ -028) – Financing contract no. 1/2016, it were approved the Reimbursement Requests no. 2 and 3 and the total amount of 10.632.565,55 lei respectively 2.166.360,8 lei, related to them were reimbursed.
- For the investment *Rehabilitation and modernization of 330 MW power unit no 4 on lignite - SE Rovinari* (RO- $\text{\$}$ -025) - Financing contract no. 2/2016, has been approved and the Reimbursement Request no. 3 and the total amount of 21.057.546,0 lei related to it was reimbursed.
- For the investment *New combined cycle with gas turbine CECC Brazi* (RO- $\text{\$}$ -015)) – Financing contract no. 3/2016 have been approved the Reimbursement Request no. 1 and 2 and the total amount of 33,212,872.13 lei respectively 193,374,717.73 lei related to them were reimbursed.
- The investment works were continued at the *New combined cycle with gas turbine – Iernut* and at the investment *Rehabilitation and modernization of the unit no. 7, on lignite - SE Isalnita*.

The Reimbursement requests submitted are presented together with independent audit reports and include the data presented in Tables no. 3 to 6 below.

For the investment RO- $\text{\$}$ -025 - *Rehabilitation and modernization of 330 MW power unit no, 4 on lignite - SE Rovinari, which is a finalized investment and for which the Beneficiary has presented the final audit report:*

Table no. 3

According to:	Total Investment Value VAT included	Eligible expenses	Non-reimbursable financing from NIP Fund
Financing Contract (Lei)	381,549,625.21	245,300,000	61,325,000
(EUR)	85,549,243.32	55,000,000	13,750,000
Audit report (Lei)	381,549,625.21	245,300,000	61,325,000



For the investment RO-Ş-015 - *New combined cycle with gas turbine - CCCC Brazi, which is a finalized investment and for which the Beneficiary has presented the final audit report:*

Table no. 4

According to:	Total Investment Value VAT included	Eligible expenses	Non-reimbursable financing from NIP Fund
Financing Contract (Lei)	2,756,819,146.77	1,633,700,192.31	408,425,048.10
(EUR)	618,120,884.93	366,300,491.55	91,575,122.89
Audit report (Lei)	2,756,484,347.00	1,633,430,192.00	408,357,548.00

For the investment RO-Ş-028 - *Rehabilitation and modernization of power unit no. 7 on lignite - SE Isalnita, which is an investment under implementation and for which are presented the audit reports for the first four Reimbursing Requests:*

Table no. 5

According to:	Total Investment Value VAT included	Eligible expenses	Non-reimbursable financing from NIP Fund
Financing Contract (Lei)	171,284,500.00	134,226,700.00	33,556,675.00
(EUR)	38,404,596.42	30,095,672.65	7,523,918.16
Audit reports for the first four Reimbursing Requests (Lei)	74.053.035,14	61.494.647,80	15.373.661,95
of which:			
Audit report for the Reimbursing Request no. 1 (Lei)	10,461,645.26	10,252,235.40	2,563,058.85
Audit report for the Reimbursing Request no. 2 (Lei)	53,057,991.85	42,530,262.20	10,632,565.55
Audit report for the Reimbursing Request no. 3 (Lei)	10,478,664.86	8,665,443.20	2,166,360.80
Audit report for the Reimbursing Request no. 4 (Lei)	54.733,17	46.707,00	11.676,75



For the investment RO-Ş-027 - *New combined cycle with gas turbine (CCGT) - Iernut*, which is an investment under implementation and for which it is presented the audit reports for the first three Reimbursing Requests:

Table no. 6

According to:	Total Investment Value VAT included	Eligible expenses	Non-reimbursable financing from NIP Fund
Financing Contract (Lei)	1,526,794,527	1,283,649,435	320,912,359
(EUR)	334,823,361	281,502,069	70,375,517
Audit reports for the first three Reimbursing Requests (Lei) of which:	1.096.268.211,80	920.677.949,25	230.169.487,33
Audit report for the Reimbursing Request no. 1 (Lei)	100,715,518.0	83,976,896.53	20,994,224.14
Audit report for the Reimbursing Request no. 2 (Lei)	547,450,291.95	460,108,107.06	115,027,026.77
Audit report for the Reimbursing Request no. 3 (Lei)	448.102.401,85	376.592.945,66	94.148.236,42

3.2.3. Status of the investments included in the National Investment Plan

Table no. 7 details the status of the investments included in the National Investment Plan from the point of view of the provisions of art. 10c (1) of Directive 2003/87 / EC, including the stage of development or cancelled at 31 December 2019. The status is based on the evidence documents received upon request from the beneficiaries of the investments from the National Investment Plan.



Table no. 7: Status of the investments included in the National Investment Plan

No.	Operator	Company group	Investment description	Year of starting	Status of the investment
RO-Ş-001	SEB – CET Bucuresti Sud	ELCEN	New cogeneration with combined cycle with gas turbine (CCGT)	2014	Investment cancelled
RO-Ş-002	SEB – CET Grozavesti	ELCEN	New cogeneration with combined cycle with gas turbine (CCGT)	2014	Investment cancelled
RO-Ş-003	Titan Ecopower	Titan Ecopower	New cogeneration with gas engines units	2014	Investment cancelled
RO-Ş-004	SE Turceni	SE Turceni	Rehabilitation and modernisation of 330 MW power unit no 6 on lignite	2015	Investment cancelled
RO-Ş-005	SE Rovinari	SE Rovinari	New 500 MW power unit on local lignite, supercritical parameters	2013	Investment cancelled
RO-Ş-006	SE Galati	SE Galati	New cogeneration with gas turbine and heat recovery boiler	2015	Investment cancelled
RO-Ş-007	Power Plant Fagaras	PP Fagaras	New combined cycle	2013	Investment cancelled
RO-Ş-008	ELCEN	ELCEN	New peak units with gas turbines at Fantanele	2015	Investment cancelled
RO-Ş-009	CET Govora	CJ Valcea	New cogeneration on biomass	2013	Investment cancelled



No.	Operator	Company group	Investment description	Year of starting	Status of the investment
RO-Ş-010	CTE Deva	SC Deva	New combined cycle with gas turbine	2013	Investment cancelled
RO-Ş-011	ADREM	ADREM	New cogeneration with gas turbine and heat recovery boiler	2013	Investment cancelled
RO-Ş-012	International Recycling	CL Timisoara	Waste to energy	2013	Investment cancelled
RO-Ş-013	Energy Cogen - Fagaras	Energy Cogen	New cogeneration with gas turbine and heat recovery boiler	2013	Investment cancelled
RO-Ş-014	Energy Cogen - Savinesti	Energy Cogen	New cogeneration with gas turbine and heat recovery boiler	2013	Investment cancelled
RO-Ş-015	CCCC Brazi	PETROM	New combined cycle with gas turbine	2009	Investment finalized in August 2012; Financing Contract concluded on September 14, 2016; Four Reimbursing Requests submitted ; It was finalized the analysis and reimbursed the first two Reimbursing Requests. The other two Reimbursing Requests are under analysis.
RO-Ş-016	Braila Power	Braila Power	New 800 MW power unit on imported hard coal, supercritical parameters	2014	Investment cancelled
RO-Ş-017	Ecogen	Ecogen	New cogeneration with thermal engines	2013	Investment cancelled



No.	Operator	Company group	Investment description	Year of starting	Status of the investment
RO-Ş-018	Amonil	Amonil	New cogeneration with gas turbine and heat recovery boiler	2014	Investment cancelled
RO-Ş-019	SC CET SA Braila	CL Braila	New cogeneration with gas turbine and heat recovery boiler (simple cycle)	2013	Investment cancelled
RO-Ş-020	SE Isalnita	SE Craiova	New power unit on local lignite, ultra-supercritical parameters	2015	Investment cancelled
RO-Ş-021	SE Craiova II	SE Craiova	New cogeneration with combined cycle with gas turbine (CCGT)	2016	Investment cancelled
RO-Ş-022	SC Paroseni	SC Paroseni	New 200 MW power unit on local hard coal, supercritical parameters	2014	Investment cancelled
RO-Ş-023	Vilcet	Vilcet	New cogeneration with gas turbine and heat recovery boiler	2013	Investment cancelled
RO-Ş-024	SE Turceni	SE Turceni	Rehabilitation and modernisation of power unit no. 3 on lignite	2015	Investment cancelled



No.	Operator	Company group	Investment description	Year of starting	Status of the investment
RO-Ş-025	SE Rovinari	SE Rovinari	Rehabilitation and modernisation of 330 MW power unit no 4 on lignite	2013	Investment effectively started in March 2012 and started the commercial operation in January 2015; Financing Contract concluded on August 29, 2016; Four Reimbursing Requests have been submitted; The first three Reimbursing Requests have been verified, approved and the amounts relating to them have been reimbursed. The fourth Reimbursing Request has been submitted in 2019 and it is under analysis.
RO-Ş-026	SE Rovinari	SE Rovinari	Rehabilitation and modernisation of 330 MW power unit no 5 on lignite	2014	Investment cancelled
RO-Ş-027	SE Mures-CTE Iernut	Romgaz	New combined cycle with gas turbine (CCGT)	2014	Project under implementations with final execution in Q2, 2020; The Financing request was submitted in December 2016 and approved in January 2017; Financing Contract concluded on December 7, 2017; Three Reimbursing Requests have been submitted. The first Reimbursing Request has been verified, approved and reimbursed the amount related to it. The other two Reimbursing Requests are under analysis.



No.	Operator	Company group	Investment description	Year of starting	Status of the investment
RO-Ş-028	SE Isalnita	SE Craiova	Rehabilitation and modernisation of power unit no 7 on lignite	2013	Investment started in Q2, 2010 Project under implementation with final execution in Q2, 2020; Financing Contract concluded on August 29, 2016; Four Reimbursing Requests have been submitted. The first three Reimbursing Requests have been verified and the amount relating to them have been reimbursed. The fourth Reimbursing Request has been submitted in 2019 and it is under analysis.
RO-Ş-029	CET Arad	CL Arad	New cogeneration with gas turbine and heat recovery boiler	2013	Investment cancelled



Conclusions:

Out of 29 investments initially proposed to be financed through the National Investment Plan, there are:

- ✓ 2 investments (RO- $\text{\$}$ -015, RO- $\text{\$}$ -25) - finalized;
- ✓ 1 investment (RO- $\text{\$}$ -028) - under implementation with final execution in Q2, 2020;
- ✓ 1 investment (RO- $\text{\$}$ -027) - under implementation with final execution in Q2, 2020;
- ✓ 25 investments (RO- $\text{\$}$ -001, RO- $\text{\$}$ -002, RO- $\text{\$}$ -003, RO- $\text{\$}$ -004, RO- $\text{\$}$ -005, RO- $\text{\$}$ -006, RO- $\text{\$}$ -007, RO - $\text{\$}$ - 008, RO- $\text{\$}$ -009, RO- $\text{\$}$ -010, RO- $\text{\$}$ -011, RO- $\text{\$}$ -012, RO- $\text{\$}$ -013, RO- $\text{\$}$ -014, RO- $\text{\$}$ -016, RO- $\text{\$}$ -017, RO- $\text{\$}$ -018, RO- $\text{\$}$ -019, RO- $\text{\$}$ -020, RO- $\text{\$}$ -021, RO- $\text{\$}$ -022, RO- $\text{\$}$ -023, RO - $\text{\$}$ - 024, RO- $\text{\$}$ -026, RO- $\text{\$}$ -029) shall be considered as canceled by their beneficiaries from the point of view of the legislation on the implementation of the derogation provided by art. 10c (1) of Directive 2003/87/EC.

4. INVESTMENTS FINISHED IN THE ENERGY GENERATION SECTOR IN 2009 - 2019

From the investments included in the National Investments Plan, two investments have been completely finalized in 2009-2019, respectively:

1. **RO- $\text{\$}$ -015 – New combined cycle with gas turbines – CCCC Brazi with OMV Petrom S.A. as beneficiary.** This power unit started commercial operations in 2012, August 8th. This power unit was operational during 2019 and accounted an electricity production of **3,480,551.4 MWh.**
2. **RO- $\text{\$}$ -25 - Rehabilitation and modernization of the 330 MW power unit no, 4 on lignite - SE Rovinari with Societatea Complexul Energetic Oltenia SA - SE Rovinari as beneficiary.** This project was finalized and has started commercial operations in 2015. This power unit was operational during 2019 and accounted an electricity production of **1,997,099 MWh.**

According to *NIP Procedures*, the technical performance indicators have to be:

- For the Greenfield projects - the CO₂ specific emission (tCO₂/MWh produced) has to be reduced and it is calculated as difference between the average CO₂ emissions of the power plants on fossil fuels from the National Power System and the CO₂ emissions of the new unit/plant reported to the same yearly quantity of energy. The reference value of the average CO₂ emission of the power plants on fossil fuels from the National Power System is provided by the National Regulatory Authority for Energy (ANRE) and is published annually, for the previous year, on its website.
- For modernization/retrofit projects:
 - ✓ the CO₂ specific emission (tCO₂/MWh produced) after the investment shall be lower than the CO₂ specific emission before the modernization/retrofit;
 - ✓ reductions in the greenhouse gas emissions is calculated as a difference between the CO₂ emissions of the power units before and after the modernization for the same annual quantity of electricity generated.



The technical performance indicators reported for the finalized investments for 2019, are presented in Table no.8, below.

Table no. 8 – Compliance indicators of the finalized investments

Investment no.	Investment name	Year	Achieved technical performance indicators	
			CO ₂ specific emission (tCO ₂ /MWh)	CO ₂ emission reduction (tCO ₂ /year)
RO-Ş-015	New Combined Cycle with Gas Turbines CECC Brazi, 860 MW	2019	0.3609141	1,200,441
RO-Ş-025	Rehabilitation and modernisation of 330 MW power unit no 4 on lignite	2019	0.8109043 compared to 0.9342 before modernization	246,233.6361

Comparing to Romania's Application where a national emission factor of 0,905 tCO₂/MWh was used in calculating the emission reductions, for the data presented above it was used the national emission factor of 0,7058 tCO₂/MWh (as published by the National Regulatory Authority for Energy - ANRE for 2018).

5. CONCLUSIONS

The National Investment Plan in upgrading Romanian energy infrastructure and clean technologies for 2017, under the derogation provided by the provisions of art. 10c (1) of the Directive 2003/87/EC, amended, is currently under implementation and complying with the Directive requirements.

Out of the 29 investments approved, 2 have been finalized, 2 investments are under different stages of implementation, 25 investments have been cancelled from the point of view of the legislation on the implementation of the derogation provided by art 10c of Directive 2003/87/EC.

The National Investment Plan was affected by the modification of the parameters valid at the date of the Application, mainly:

- lack of financing possibilities for some of the proposed projects, due to the worsening financial situation of some Beneficiaries (some NIP Beneficiaries entered under insolvency procedure in the period of 2012-2018);



- the modification of the electricity market structure and the market share more increased got by the renewable energy producers, with an impact on the price of electricity and which has led to give up some NIP projects, mainly in the case of green-field projects;
- disappear of major consumers, mainly in the chemical industry, which led to giving up for making the planned investments (mainly cogeneration projects);
- restructuring and reorganization of power producers based on coal, which led to prioritizing investments in progress and allocation of existing resources to the most profitable projects.

Having the legal framework in place and Financing Contracts concluded, the implementation of the derogation under article 10c will continue.

In addition, in relation with the implementation of the National Investment Plan, the Romanian State has as strategic commitments to monitor the achievement of NIP investment as well as to finance of the NIP investments according to the Romanian Application.

