The Modernisation Fund

An open door for fossil gas in Romania

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Author

Raluca Petcu
Gas campaigner
Bankwatch Romania
raluca.petcu@bankwatch.org

Editors

Ioana Ciută

Michael FitzGerald

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Abbreviations

CCGT – combined-cycle gas turbine

CCUS – carbon capture, utilisation and storage

EC – European Commission

EIA – Environmental Impact Assessment

EIB – European Investment Bank

EU – European Union

EU ETS – European Union Emissions Trading System

GHG – greenhouse gas

IC – Investment Committee

IPCC – Intergovernmental Panel on Climate Change

MF – Modernisation Fund

MS – Member State

SEA – strategic environmental assessment

Summary

Romania is one of the largest recipients of the Modernisation Fund, a EUR 57 billion envelope created to support the energy transformation of lower-income EU countries. While a large share of the Fund in Romania has been going into renewable energy infrastructure, it is also the Member State with the most funding deployed to fossil gas.

By December 2023, Romania had been awarded EUR 521 million via the Fund for direct investments in gas projects. The Fund has so far directly and indirectly supported a total of 3,000 megawatts (MW) of new gas power plants – 1,300 MW directly and the remainder via a gas pipeline to supply a new plant. It has also financed a gas pipeline that supports offshore gas extraction, estimated at 100 bcm over the lifetime of the field. If built, these projects will cause large-scale gas lock-in and additional gas consumption, jeopardising Romania's climate neutrality goals.

Project supported directly	**Disbursed amount (EUR)**	**Project supported indirectly**	**Capacity**
Isalnita gas power plant	253 125 302		850 MW
Turceni power plant	167 504 815		475 MW
Black Sea-Podisor gas transmission pipeline	85 544 422	Gas exploitation of Neptun Deep 100 bcm	308.1 km, 12 bcm/y pipeline
Ghercești-Jitaru gas transmission pipeline	8 038 348		90 km, 1.9 bcm
Gas transmission pipeline to supply Mintia plant	6 826 947	Installation of 1,700 MW of gas power plant	56 km, 2.5 bcm
Total	521 039 834	1,700 MW and new gas exploitation at 8 bcm/year	1,325 MW, 454 km of pipelines

In this briefing we outline the criteria for Modernisation Fund financing and use the examples of two gas projects from Romania – the Turceni power plant and the Tuzla-Podisor pipeline – to demonstrate that the Fund's requirement to ensure projects' compliance with 2030 targets and carbon neutrality has not been rigorously applied, partly due to a lack of operational assessment criteria.

The Turceni case is particularly clear-cut, as it is expected to emit more than one million tonnes of CO_2 per year until at least 2051, locking Romania into fossil fuel use more than a decade after the EU's power sector must decarbonise.

The European Investment Bank's (EIB) due diligence was also insufficient regarding projects' alignment with EU laws. For the Turceni gas power plant, Modernisation Fund financing was approved even before the

environmental impact assessment (EIA) procedure had been carried out, while in the case of the Tuzla-Podisor gas pipeline, the EIA did not analyse the emissions from burning the gas transported in the pipeline, despite the legal requirement to assess cumulative impacts.

Even though the Modernisation Fund eligibility criteria somewhat improved starting in 2024, they still allow fossil gas projects to be supported. Of particular concern are investments made using allowances transferred from the now obsolete Article 10c, which are not even subject to the taxonomy criteria, which are incidentally insufficient, nor subject to a 'do no significant harm' assessment.

Considering the inadequate due diligence on previous projects and the fact that no new gas infrastructure should be built if we are to stand any chance of limiting global temperatures to 1.5 °C, EU funding, including the Modernisation Fund, must not accept further investments in fossil fuels, regardless of the efficiency they might achieve.

Introduction: What is the Modernisation Fund?

The EU's Modernisation Fund was established to support the transition to climate neutrality of 10 (now 13) lower-income EU countries[1] by financing the modernisation of their energy systems and improvements in energy efficiency. The Fund may amount to EUR 57 billion in grants, assuming a carbon price of EUR 75/tCO_2, and will be in operation until 2030.[2]

The Modernisation Fund was introduced by the 2018 version of the European Trading System (ETS) Directive and is financed through revenues from auctioning emissions allowances traded by all EU members from 2021 to 2030. According to Article 10d of the ETS Directive, the Fund should be coherent with 'the objectives of the Union's 2030 climate and energy policy framework and the long-term objectives expressed in the Paris Agreement',[3] so projects should support the -55 per cent GHG reduction target and the 2050 climate neutrality goal.

The 2018 ETS Directive covered the period of 2020-2030 and was amended in 2023 to cover the 2024-2030 period.

The Fund may support various schemes and projects, from renewables, electricity transmission, and energy efficiency to even nuclear and fossil gas. Even though the eligibility criteria were recently strengthened, the Fund still allows fossil gas projects if certain conditions are met.

The Fund is managed by the Commission, the EIB and the Investment Committee. The Investment Committee is composed of representatives from beneficiary Member States, the Commission and the EIB, as well as three representatives from non-beneficiary Member States. The EIB assesses whether proposed projects are priority or non-priority, and for the latter, technical and financial due diligence must be undertaken, including an assessment of the expected emissions reduction. The Investment Committee recommends financing for non-priority investments, while the European Commission takes the final decision on all investments.

Why fossil gas must not be supported by public funding

The Intergovernmental Panel on Climate Change (IPCC) is clear that 'Projected CO_2 emissions from existing fossil fuel infrastructure without additional abatement would exceed the remaining carbon budget for 1.5 °C.'[4] 'Abatement' means carbon dioxide removal. Most of the technologies associated with carbon dioxide removal are in reality very expensive, energy-intensive, and not proven at scale. This means that it is necessary to prioritise radical reductions in CO_2 emissions, and that no new fossil fuel infrastructure can be built.

[1] Bulgaria, Czechia, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia, Greece, Slovenia, Portugal.

[2] European Commission, Modernisation Fund, *European Commission*, accessed 10 February 2024.

[3] European Parliament and the Council, Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC, *Official Journal of the European Union*, 8 April 2018.

[4] IPCC, Climate Change 2023: Synthesis Report, *IPCC,* 19, 2023.

Even the International Energy Agency (IEA), which was established in the mid-1970s to secure OECD Member States' access to oil, has also confirmed that no new fields of coal oil and gas should be developed in order to ensure climate neutrality.[5]

Additional research based on IPCC scenarios shows that with more plausible carbon capture levels, 99 per cent of coal, 70 per cent of oil and 84 per cent of gas use must be cut by 2050.[6] And given that from February 2023 to January 2024, the 12-month global mean temperature was 1.52 °C above the pre-industrial average,[7] cuts will likely have to be even deeper and come even sooner.

With these conditions, no new investments in fossil fuel infrastructure should be made. Public finance, including EU funds, must be aligned with the EU's policy goals and only support projects that will help reach 55 per cent GHG emission reduction by 2030 and climate neutrality by 2050.

The European Scientific Advisory Board on Climate Change has also backed this conclusion, urging EU decision makers to phase out fossil fuel subsidies and warning that EU policy is not fully aligned with a fossil fuel phase out, highlighting the need for further ETS reform.[8]

Modernisation Fund criteria until the end of 2023

Article 10d of the 2018 ETS Directive, together with the implementing regulation, introduced rules and criteria for schemes and projects until 2030,[9,10] but they were applicable up to 2023, when the Directive was updated.

According to Article 10d, 70 per cent of funding was to be dedicated to the following categories (also called priority investments in the implementing regulation):

- production and usage of renewable electricity,
- energy efficiency (except that relating to energy generation using coal/peat),
- energy efficiency in transport, buildings, agriculture and waste,
- energy storage and transmission network modernisation, including district heating networks, electricity grids and interconnections,

[5] International Energy Agency, Net Zero by 2050. A Roadmap for the Global Energy Sector, *International Energy Agency*, 11, May 2021.

[6] Pippa Gallop, Paris alignment: why there is no more space for European public money to finance fossil fuels, *CEE Bankwatch Network*, 5, December 2023.

[7] Copernicus Climate Change Service, Warmest January on record, 12-month average over 1.5°C above preindustrial, *Copernicus Climate Change Service News*, 9 February 2024.

[8] European Scientific Advisory Board on Climate Change, EU climate Advisory Board: focus on immediate implementation and continued action to achieve EU climate goals, *European Scientific Advisory Board on Climate Change* , 19 January 2024.

[9] European Parliament and the Council, Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC, *Official Journal of the European Union,* 8 April 2018.

[10] European Commission, Commission Implementing Regulation (EU) 2020/1001 of 9 July 2020 laying down detailed rules for the application of Directive 2003/87/EC of the European Parliament and of the Council as regards the operation of the Modernisation Fund supporting investments to modernise the energy systems and to improve energy efficiency of certain Member States, *Official Journal of the European Union,* 10 July 2020.

- just transition funding for job seeking, reskilling and upskilling of workers.

If an investment proposal did not fall into the categories above, was compliant with the climate and energy objectives, and was able to demonstrate decreases in GHG emissions, it was considered non-priority, and 70 per cent of eligible costs could be covered if all other conditions were satisfied. The EIB developed an Assessment Guidance Document[11] whose annexes provide a list of investment examples that may receive funding, including new district heating and cooling systems, gas infrastructure, gas-fired electricity generation, nuclear power, and renewable heating systems.

Investment assessment

For priority projects, among others, the Member States have to provide information[12] on:

- how the investment will contribute to the 2030 climate and energy framework objectives of the Member State and the long-term objectives as expressed in the Paris Agreement;
- the expected energy savings in MWh;
- greenhouse gas emissions to be saved equivalent to tonnes of CO_2;
- any additional renewable energy capacity installed.

The EIB has to confirm whether an investment is considered as a priority, and the European Commission then issues a disbursement decision.

For non-priority projects, Member States have to provide information[13] on:

- how the investment will contribute to the 2030 climate and energy framework objectives of the Member State and the long-term objectives as expressed in the Paris Agreement;
- a detailed demonstration of GHG emission reduction achieved by the investments calculated in accordance with GHG inventory reporting requirements;
- the status of the environmental permitting and environmental impacts, including the expected emission reductions and mitigation measures for air, water and solid waste emissions, and compliance with SEA and EIA Directives, as well as with the Birds, Habitats and Water Framework Directives.

The EIB's due diligence has to include the expected emission reductions. Based on this, the Investment Committee issues a financing recommendation, voted by consensus, and the Commission issues a disbursement decision.

[11] European Commission, European Investment Bank, Modernisation Fund. Assessment Guidance Document, *Modernisationfund.eu*, December 2022.

[12] European Commission, European Investment Bank, Modernisation Fund. Appendix 4: Investment proposal submission form for priority investments, *Modernisationfund.eu,* February 2021.

[13] European Commission, European Investment Bank, Modernisation Fund. Appendix 5: Investment proposal submission form for non-priority investments, *Modernisationfund.eu*, February 2021.

Unfortunately, the investment proposals submitted by the Member State and the following EIB assessment of those investment proposals are not publicly available. Furthermore, neither the 2018 ETS Directive nor the Implementing Regulation provides a target on the GHG emission reduction that investment proposals must achieve in order to meet Fund criteria. The fact that no limit was set on the number of fossil fuel schemes and projects that may be considered as a priority investments if certain energy efficiency improvements are achieved was even more outrageous.

Fossil fuels such as gas and oil could be financed as both priority investments – through energy efficiency measures – and non-priority investments, where only the overall 30 per cent financing ceiling and an uncertain emissions reduction seem to be the limit. According to CAN-Europe,[14] by March 2023, 17 per cent of overall Modernisation Fund disbursements had gone to gas schemes and projects, worth around EUR 800 million.

Modernisation Fund criteria for 2024-2030

The new ETS Directive entered into force in January 2024. It added three more Modernisation Fund beneficiary Member States: Greece, Portugal, and Slovenia, as well as additional funding for the 2024-2030 period.

It also changed the criteria for priority investments, with the following categories:

a) the generation and use of electricity from renewable sources, including renewable hydrogen,

b) heating and cooling from renewable sources,

c) energy efficiency, including in industry, transport, buildings, agriculture and waste,

d) energy storage and the modernisation of energy networks, including demand-side management, district heating pipelines, grids for electricity transmission, and infrastructure for zero-emission mobility,

e) support for low-income households, including in rural and remote areas, to address energy poverty and to modernise their heating systems,

f) a just transition in carbon-dependent regions, to support the redeployment, reskilling and up-skilling of workers, education, job-seeking initiatives and start-ups.

However, the amended ETS Directive regrettably still allows fossil gas financing, although some additional conditionality was introduced. The Directive states that it will eliminate 'support to any investments related to energy generation based on fossil fuels' [15] but then adds several exceptions:[16]

[14] Climate Action Network Europe, Assessment of the Modernisation Fund two years into operation, *Climate Action Network Europe*, March 2023.

[15] European Parliament and the Council, Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC, *Official Journal of the European Union,* 5 June 2023.

[16] Explanation below is courtesy of Marta Anczewska, Climate Action Network Europe.

Source of funding	Priority share	Non-priority share (70 per cent of costs covered)
2 per cent of allowances 2021-2030 under Article 10(1), third subparagraph	80 per cent Gas allowed: if the allowances are auctioned by the end of 2028. Additional criteria must be met: investment needs to qualify as environmentally sustainable under the EU Taxonomy [17] and is duly justified for reasons of ensuring energy security. Our reading is gas may be supported under priority investments c) & d) from above.	20 per cent Gas allowed: for energy generation if the allowances are auctioned by the end of 2027 and for downstream uses of gas if the allowances are auctioned by the end of 2028. Additional criteria must be met: investment needs to qualify as environmentally sustainable under the EU Taxonomy and is duly justified for reasons of ensuring energy security.
Additional 2.5 per cent of allowances from 2024-2030 under Article 10(1), fourth subparagraph (Same MS as 2 per cent + Greece, Portugal, Slovenia)	90 per cent No gas allowed	10 per cent No gas energy generation allowed, but pipelines seem to be eligible if deigned to be in line with 2030/2050 targets (which would require conversion to non-fossil fuel gas)
Allowances transferred under Article 10d(4)	80 per cent Gas infrastructure may be supported under priority investment c) and d)	20 per cent Allows gaseous fossil fuels (without additional conditions)

According to the amended EU ETS Directive, for the first two categories of funding, all proposed investments must go through a 'do no significant harm'[18] assessment starting in 2025, although the procedure on how the beneficiary countries will demonstrate compliance with the 'do no significant harm' principle is yet to be determined. Gas investments have to show alignment with the insufficient taxonomy criteria and, for the first category, be 'duly justified for reasons of ensuring energy security'. It is unclear how this energy security assessment will be carried out. For the non-priority share, the investments have to demonstrate GHG

[17] European Commission, Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, *Official Journal of the European Union*, 9 December 2021.

[18] Ibid.

emission reductions. For allowances transferred under Article 10d(4), even the taxonomy regulation and the 'do no significant harm' assessment does not apply; therefore, fossil projects have an open door.

The Modernisation Fund in Romania

The Romanian government has set out the following investment categories,[19] referred to as key programmes. Some of these represent at least a degree of support for fossil fuels and other false solutions which are unlikely to make a significant contribution to tackling climate change.

1. Renewable energy and energy storage – construction of new renewable power plants, heating-cooling systems and electricity storage.
2. Replacing coal and balancing the network – construction of combined-cycle gas turbine (CCGT) power plants, which can be adapted to operate on hydrogen.
3. Modernisation and construction of new energy infrastructure – electricity and gas transmission and distribution networks, including for gas networks capable of receiving hydrogen, for gas storage facilities, and for increased interconnection of the electricity transmission network.
4. Hydrogen production and use in industrial applications.
5. High-efficiency cogeneration and modernisation of heating networks.
6. Nuclear energy – units U3 and U4 of the Cernavodă Nuclear Power Plant, small modular reactors, and support for the Pitesti Nuclear Research Institute.
7. Energy efficiency in industrial installations included in the EU ETS – CO_2 capture, transport, storage and use; modernisation of steel, cement, oil, gas, energy production, and other intensively polluting facilities.
8. Biofuel production.
9. Other key programmes proposed by the Supervisory Committee.

The document does not establish the amount available for each domain – these are established later through EC-approved investment schemes. The key programmes should be revised to align with the new Modernisation Fund framework.

By December 2023, the EC had approved financing for 24 projects and 8 schemes in Romania, of which 27 were priority investments and 5 were non-priority.[20]

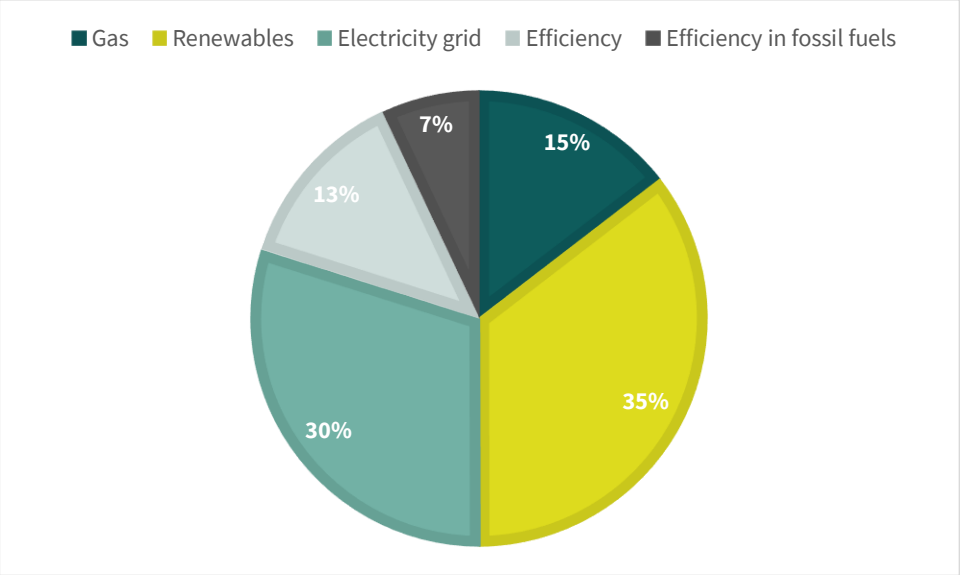
Around 78 per cent of the funds were directed to renewable energy and grid modernisation, while 15 per cent were granted to fossil gas and a further 7 per cent to indirectly supporting fossil fuels via energy efficiency investments in district heating.

[19] Romanian government, Government Emergency Ordinance 60/2022, *Official Monitor no. 459*, 9 May 2022.

[20] European Commission, European Investment Bank, Disbursement decisions, *Modernisationfund.eu,* accessed 10 January 2024.

The schemes and projects cost a total of EUR 3.3 billion, with nearly EUR 2.8 billion going to energy transition projects, more than EUR 500 million to gas infrastructure, and EUR 250 million to indirect support for fossil fuels.

As of February 2024, no schemes or projects submitted by Romania directly address household needs or support for just transition regions.



Modernisation Fund disbursements in Romania, July 2021-December 2023.

For more information about individual projects and schemes, please see Annex 2.

Priority investments

On renewable energy, Romania obtained approval for eight photovoltaic projects of around 700 MW on closed opencast lignite mines, as part of the Oltenia Energy Complex, under the lignite operation restructuring plan. These projects will be developed in a consortium with OMV Petrom, an oil and gas company, and are worth EUR 470 million. The other renewable investments are managed through four schemes. In total, 2,964 MW of renewable energy are expected to be installed from the Modernisation Fund, with approximately EUR 2.3 billion of support.

In the grids sector, ten transmission line projects and one scheme for distribution projects had been approved by December 2023. So far, the overall amount reserved by the government for grid development under the Modernisation Fund is approximately EUR 1.6 billion. But the need for financing in this area is higher – according to Transelectrica, its needs for transmission alone amount to EUR 1.5 billion.[21] In the distribution sector, only EUR 100 million was available for the first call for projects, but EUR 950 million worth of projects were submitted. Subsequently, another disbursement of EUR 500 million was granted in December 2023. Experts estimate that the distribution sector needs investments of EUR 7 billion by 2030.[22]

[21] Transelectrica, Planul de Dezvoltare a RET perioada 2022 – 2031, *Transelectrica*, 93, 2022.

[22] Energynomics, DSOs will have to allocate 6-7 billion euros for the energy transition, *Energynomics*, 27 September 2023.

Romania also has two approved schemes for energy efficiency in district heating. The first disbursements from the Fund are for EUR 250 million, but the total cost of these schemes is EUR 590 million.[23] These indirectly support fossil fuel use, as most district heating plants in Romania currently use fossil gas.

Non-priority investments

All non-priority funding so far has been granted to gas projects, which will enable higher gas consumption and will lock the country into fossil fuels for many years. Out of all the beneficiary Member States, Romania received the largest amount for fossil gas according to Bankwatch analysis. The European Commission approved five gas projects in Romania, amounting to EUR 521 million.

Two gas power plants, Turceni and Isalnita, with a total installed capacity of 1,325 MW, have been approved, for a total of EUR 420 million. The 850 MW Isalnita gas plant is supposed to replace 630 MW of lignite power, and the 475 MW Turceni gas plant would replace 990 MW of coal capacity.

Three gas transmission pipelines had also received grants totalling EUR 100 million by December 2023. Tuzla-Podisor is a 308-km pipeline which will connect the Black Sea to the BRUA (Bulgaria-Romania-Hungary-Austria) pipeline. It is expected to enable the supply of gas in three gas-fired power plants (Turceni, Isalnita and Mintia) as well.

Below, we provide more details about two of these projects – the Turceni power plant and the Tuzla-Podisor pipeline – and discuss why, in these cases, the Modernisation Fund criteria are insufficient for ensuring a significant reduction in GHG emissions and the contribution of approved projects that support climate targets.

Although they were approved under the 2018 rules, the threat of similar projects being funded still exists today, not least due to the funds available from allowances transferred under Article 10d(4), which do not even require compliance with the insufficient taxonomy criteria and the ‘do no significant harm’ assessment.

[23] Energy Ministry of Romania, Applicant’s Guide, *Energy Ministry of Romania,* 10 January 2024.

Case study: Turceni CCGT power plant

Photo: Mihai Stoica for Bankwatch Romania

Power	475 MW 3 TWh/year estimated production
Efficiency	59 per cent
Consumption (fossil gas)	80,000 cubic metres/h
Operating hours	8,100 hours/year 200,000 h total (25 years, until approx. 2051)
Hydrogen mix	Optional, max. 15 per cent
Claimed stack emissions	0.335 tonnes CO_2 / megawatt hours (MWh)
Claimed commissioning year	2026
Financing	Modernisation Fund + own funds: EUR 167 million + EUR 168 million (total EUR 335 million)

One of the most advanced of all the planned gas projects under the Modernisation Fund in Romania is the replacement of Turceni coal power plant with new fossil gas units. The project is part of the restructuring plan of the Oltenia Energy Complex, a state-owned energy company whose entire electricity production is from lignite.

Approved by the European Commission in January 2022,[24] the plan aims to restore the financial viability of the company and supposedly also to ensure 'decarbonisation'. The planned projects are 1,325 MW in two CCGT gas power plants and 725 MW of solar power, all financed from the Modernisation Fund. The gas power plants are slated to begin operating in 2026, as most coal units are set to be shut down by then.[25]

Of particular concern is that when the Turceni project was approved as a non-priority under the Modernisation Fund in May 2022,[26] the environmental impact assessment (EIA) process had not even started. It began three months later, in August 2022, and only in October 2023 did the company receive the Environmental Impact Assessment (EIA) permit.[27]

Such practices send a message to national authorities that the EIA process is only a formality and prejudice the outcome of the process, as the financing is already approved. They also represent a failure of due diligence, as projects may be approved despite the fact that their permitting process can later turns out not to be compliant with national and EU law. The statement in the Investment Committee's recommendation[28] to approve the project, that 'Romania has confirmed in writing that the investment complies with any other applicable requirements of Union and national law', is hardly reassuring.

Although the Modernisation Fund may only support investments that are consistent with 'the objectives of the Union's 2030 climate and energy policy framework and the long-term objectives as expressed in the Paris Agreement', for the first implementation phase, this was watered down into a criterion requiring governments merely to demonstrate emissions reductions, without specifying how large the reduction should be in order to qualify.

The investment recommendation[29] states that 'Romania has demonstrated that the investment complies with the requirements laid down in Article 10d(1) of the ETS Directive', but the data submitted by Romania on this project is not public. The recommendation also claims that the project will reduce CO_2 emissions by 1.67 million tonnes/year, but without any information on the methodology used. However, the EIA permit for the project mentions a CO_2 emission reduction of 41 per cent compared to the current coal plant, or up to 1.4 million tonnes/year, so lower than the one expected by EIB, and very far from the global cuts of at least 84 per cent needed by 2050. This project will still emit greenhouse gas emissions, at around one million tonnes of CO_2/year, and only direct emissions at the stack are estimated.

The EIA report does not undertake any life-cycle emissions assessment, and fugitive methane emissions assessment is omitted. Methane, a main component of fossil gas, is responsible for about 30 per cent of the

[24] European Commission, Commission approves restructuring aid of up to around €2.7 billion for Romanian power company Complexul Energetic Oltenia SA, *European Commission press corner*, 26 January 2022.

[25] Oltenia Energy Complex, Planul de restructurare revizuit al Complexului Energetic Oltenia 2021-2026 cu perspectiva 2030, *Oltenia Energy Complex*, 2023.

[26] European Commission, Annex to the Commission decision on disbursement of revenues of the Modernisation Fund under Directive 2003/87/EC of the European Parliament and of the Council, *Modernisationfund.eu*, 23 May 2022.

[27] Environmental Protection Agency of Gorj County, Environmental Permit no. 12, *Environmental Protection Agency of Gorj County*, 12 October 2023.

[28] Modernisation Fund Investment Committee, IC Recommendation on Non-Priority Proposal MF 2022-1 RO-1-002 "Construction of a Natural Gas-Fired Combined Cycle Power Unit of approx. 475 MW at Turceni", *Modernisationfund.eu*, 7 April 2022.

[29] Ibid.

rise in global temperatures since the industrial revolution,[30] being 84 times more powerful in gathering heat than CO_2 over a period of 20 years. Fossil gas facilities leak methane, especially those involving their extraction and transport. Recent research[31] shows that even leakage of two per cent of methane of the total gas produced can result in fossil gas being equal to coal in overall GHG emissions.

The Turceni gas power plant will cause new fossil-fuel lock-in. It will be online for at least 25 years, until 2051, more than a decade after the EU's electricity should be net zero.[32] The Turceni power plant will increase national gas consumption by around 0.65 bcm, compared to the 2022 national level of around 10 bcm.[33] Romania plans to significantly increase its gas consumption, in blatant contradiction to the EU Climate Law and the REPowerEU package.[34]

The Modernisation Fund criteria do not require this project to ensure a transition to renewable energy or renewable hydrogen, as even the insufficient taxonomy criteria did not apply prior to 2024. The project's EIA documents mention the option of using 15 per cent hydrogen mixed with fossil gas, but no concrete plans exist.

Even if it did use hydrogen produced from renewable energy, this would be an extremely expensive and inefficient way to generate electricity. To produce renewable hydrogen, a huge amount of additional renewable sources that are currently missing are needed. There is a significant loss of energy in the conversion process of producing hydrogen by electrolysis, storing the hydrogen, and then converting it back to electricity by using gas power plants, amounting to a 60 per cent loss of energy.[35]

Overall, the Turceni project represents a counterproductive use of EU public money. None of the information available publicly confirms its compatibility with EU decarbonisation goals, as required by the Modernisation Fund rules. Rather, even the insufficient GHG assessment in the EIA demonstrates that the project will continue to emit significant greenhouse gas emissions even after 2050.

[30] International Energy Agency, Global Methane Tracker 2022, *International Energy Agency*, February 2022.

[31] Deborah Gordon et al, Evaluating net life-cycle greenhouse gas emissions intensities from gas and coal at varying methane leakage rates, *Environmental Research Letters,* Volume 18, Number 8, 17 July 2023.

[32] Electricity generation will need to reach net zero emissions globally by 2040 and even sooner in developed countries; see International Energy Agency, Net Zero by 2050, *International Energy Agency*, 20, October 2021.

[33] Eurostat, Supply, transformation and consumption of gas, *Eurostat*, accessed 15 February 2024.

[34] For more details, see Rheanna Johnston et al., Are we on track? Repowering towards EU gas demand reduction, *E3G*, October 2022.

[35] European Union Agency for the Cooperation of Energy Regulators, Transporting Pure Hydrogen by Repurposing Existing Gas Infrastructure: Overview of existing studies and reflections on the conditions for repurposing, *ACER,* 16 July 2021.

Case study: Tuzla-Podisor pipeline (Black Sea)

The 308-km Tuzla-Podisor pipeline is part of the second development phase of BRUA, a gas interconnector between Bulgaria-Romania-Hungary-Austria. The Tuzla-Podisor pipeline was approved as an EU Project of Common Interest (PCI) in the 5th PCI list, but it has not yet accessed any financing from the Connecting Europe Facility. However, it received a loan of EUR 150 million from the European Investment Bank in 2018.[36] The project received another EUR 80 million in financing from the Modernisation Fund in May 2023, and in June 2023, the project promoter, national gas transmission system operator Transgaz, announced the start of construction works.

In 2018 this project received an EIA permit, which claims that there are no significant negative impacts on the environment. However, the permit does not mention any climate change impacts related to emissions and states that the project's operation will not produce greenhouse gas emissions. The EIA authors considered emissions from burning the gas transported by the company to be indirect emissions and did not take them into account – as if a gas pipeline has any purpose other than transporting gas to be burned. Methane emission leaks were ignored as well. However, according to the EIA Directive, cumulative impacts from projects must be assessed, and given that combustion emissions are the most significant impacts from pipeline projects, it is inexcusable to omit them.

The Modernisation Fund Investment Committee's investment recommendation[37] claims that the project should enable a reduction in GHG emissions by replacing coal with gas, but there is no publicly available assessment proving it, and no figures are provided. As was explained in the previous case study, fossil gas is as bad for the climate as coal in many cases, once fugitive emissions are considered, and even where it is not, its emission reductions are insufficient to contribute to decarbonisation.

And in this case, it is not even clear that all the gas would replace coal, as around half of it may be left for other purposes, which may include fulfilling a completely new demand. The investment recommendation states that the pipeline will ensure gas for three fossil gas power plants replacing coal ones, with a total capacity of 3,000 MW.[38] For the 1,700 MW Mintia power plant, the investors have requested that a 2 bcm pipeline be connected to the grid. For the Turceni and Isalnita CCGTs with a total capacity of 1,325 MW, we estimate that around 1.8 bcm will be needed.[39] Therefore, only around half of the gas transported by the pipeline will be consumed by the new power plants, despite the statement in the investment recommendation that 'the gas transmission capacity (...) corresponds to the amount of gas that can be reasonably estimated to replace coal-fired electricity generation'. It is not clear how the other half of the gas transported will be used, as the public information on this is scarce and speculative, leaving space for even more fossil gas investments that would take Romania even further from decarbonisation.

[36] European Investment Bank, Black Sea Gas Connection, *EIB Projects to be Financed*, 19 October 2018.

[37] Modernisation Fund Investment Committee, IC Recommendation on Non-Priority Proposal MF 2023-1 RO 1-001 - Gas Transmission Pipeline Black Sea-Podisor, *Modernisationfund.eu*, 30 March 2023.

[38] Turceni – 475 MW, Isalnita – 850, Mintia – 1700 MW.

[39] For Turceni of 475 MW = 0.65 bcm/year (see previous chapter) + Isalnita estimated at 850 MW, so approx. double = 1.2 bcm/year. Total = 1.8 bcm/year.

What Tuzla-Podisor does is to directly enable the large-scale offshore gas exploitation Neptun Deep, expected at 8 bcm[40] per year and planned to be operational in 2027. These plans have a huge impact on energy policy. The national TSO's development plans[41] foresee a gas consumption increase of 66 per cent from 2027 onwards (from 10 bcm in 2022 to 20 bcm).

When combusted, the gas transported by this pipeline would generate around 15 million tonnes of CO_2 emissions annually according to our calculations (for details, please see Annex I), without taking fugitive emissions into account. So it is not credible that this project will support decarbonisation. Although it is expected to operate for ten years at plateau production levels,[42] these are ten years we do not have. The IPCC has, as explained above, made it clear that emissions from existing oil and gas fields will already take us above 1.5 °C.

The investment recommendation claims that the project creates 'conditions to transport the natural gas-hydrogen mix to reduce greenhouse gas emissions', but as only around 20 per cent of hydrogen can be blended with fossil gas for technical reasons, this is largely irrelevant, as well as being purely theoretical in the absence of available renewable hydrogen. There is no concrete plan to make this pipeline fit for 100 per cent hydrogen.

Given the lack of convincing evidence on emissions reduction and compatibility with carbon neutrality, this project should never have been financed under the Modernisation Fund at all, even under the previous rules.

Lessons learned from the Turceni and Tuzla-Podisor cases: Could they happen again?

Although the ETS Directive requires projects financed under the Modernisation Fund to be compatible with the EU's 2030 targets and Paris Agreement commitments, i.e. carbon neutrality, due to weak operational environmental criteria, these projects were financed despite their evident incompatibility with decarbonisation.

The Turceni power plant is clearly planned to operate until at least 2051 and does not envision a renewable transition, so it does not fit with a climate neutral pathway. The Tuzla-Podisor pipeline, meanwhile, is based on an EIA that does not even admit that burning gas will result in GHG emissions. The EIB agreed that the pipeline would help to reduce emissions overall, based on the possibility that the gas transported will replace coal, which is flawed, as explained above.

The new framework of the Modernisation Fund aimed to limit such investments, using the taxonomy criteria and the 'do no significant harm' assessment. However, from 2023, the taxonomy criteria are subject to legal challenges precisely due to their inclusion of gas and the lack of scientific justification for this.

[40] OMV Petrom, OMV Petrom and Romgaz announce the decision to develop Neptun Deep, the largest natural gas project in the Romanian Black Sea, *OMV Petrom*, 21 June 2023.

[41] Transgaz, Planul de dezvoltare a sistemului național de transport gaze naturale 2022-2031, *Transgaz.*

[42] OMV Petrom, OMV Petrom and Romgaz announce the decision to develop Neptun Deep, the largest natural gas project in the Romanian Black Sea, *OMV Petrom*, 21 June 2023.

Under the taxonomy criteria, the 2 per cent share of the Fund will still allow investments in gas for power plants where project promoters can prove direct GHG emissions of below 270g CO_2/kWh or an annual emissions limit of 550g CO_2e/kW of the facility's capacity over 20 years, which is not particularly demanding for gas. However, they also have to ensure a transition to 'low-carbon' or renewable gases by 2035 and prove that there is no alternative available to the investment, including by having a publicly consulted assessment done. For pipelines, only investments for conversion to renewable gases are allowed under the 2 per cent share. But, if the Paris alignment criteria are not properly applied, the 2.5 per cent portion of the Fund may allow gas pipeline investments under the non-priority share.

However, investments under the free allowances transferred under Article 10d(4) do not have to follow these criteria and can still encompass any gas infrastructure, regardless of the scope, if the Paris alignment criteria are not well-applied. The transferred allowances represent a little less than half of all available allowances under the Modernisation Fund, making it a significant source for gasification in the relevant countries, including Romania.

So unless the EIB's due diligence on Modernisation Fund projects' compliance with EU decarbonisation goals is significantly tightened up, similar projects could still end up being financed.

The 'do no significant harm' criteria may offer an additional level of safeguards from 2025 if well applied, which could help prevent projects like Tuzla-Podisor from being financed again. The project would likely not have passed a 'do no significant harm' assessment, because it crosses several Natura 2000 sites and received a derogation from the national legislation for natural protected areas.[43] However, the same problem as above applies to the projects under allowances transferred under Article 10d(4), which are not required to undergo such an assessment.

According to the Commission's estimates,[44] Romania still has around 200 million emissions allowances, equivalent to EUR 14-15 billion, of which 143 million allowances are transfers under Article 10d(4). Therefore, even in the future it could finance fossil gas projects that do not even meet the taxonomy or the 'do no significant harm' criteria.

What could be financed instead of gas

The current energy transition direction of the Romanian government will drastically increase gas consumption in Romania by 2030. In addition, there is a plan to turn all gas power plants to renewable hydrogen after 2035, as modelled in the Romanian Long-Term Strategy, but it not clear how this will happen. Instead of further gasifying power generation at a massive cost, decision makers and companies in Romania should take advantage of the renewable potential.

In the Oltenia region, where the Turceni power plant will be built, the sun shines over 2,000 hours/year and the potential of solar energy is at around 1,300 kwh/m^2 per year. In comparison, southern Spain, which is known as an excellent area for solar developments, has a solar energy output of 1,700 kwh/m^2 per year.[45] A

[43] Laura Nazare, State Capture: A case study about natural gas exploitation and transportation in Romania, *Bankwatch Romania*, October 2019.

[44] European Commission, Modernisation Fund, *European Commission*, accessed 12 December 2023.

[45] The World Bank Group, Global Solar Atlas, *globalsolaratlas.info*, accessed 20 October 2023.

study commissioned by Greenpeace in this region[46] shows that there is 33 GW technical potential for solar energy. The Turceni area alone has solar potential of 2.2 GW. Yet renewable energy was not considered by CE Oltenia as the main option to replace coal capacity. The operator of this power plant is planning only 700 MW installed capacity in photovoltaic panels, financed from the Modernisation Fund. Of these, only 112 MW are planned in the Turceni area, on the slag and ash deposits.[47] No projects are planned on the closed coal mines at Lupoaia, Roşiuţa or Jilţ, which supply the Turceni power plant. CE Oltenia could have invested more in renewable energy and storage solutions, but it chose gas instead, with the approval of the EU Commission.

This major fund should tackle the most critical issues and fill in the missing pieces of the puzzle in the Romanian energy system. These include the following, all of which are badly needed.

- Grids are a major issue, and renewable projects experience setbacks due to low transmission and distribution capacity and digitalisation. Even though the Fund has already provided EUR 1.6 billion for grids, much more is needed to achieve electrification of the economy.

- Power storage – Romania proposed only 100 MW by 2030 through the Recovery Plan, and there is no other source of financing available for storage. This is crucial for balancing grids in a scenario where gas doesn't play a major role.

- Energy efficiency in buildings – only 6 per cent of Romania's buildings were renovated as of 2020,[48] and while a lot of funding will already be going into this by 2027 though the Recovery Facility and operational programmes (approx. EUR 2 bn), much more is needed.

- Pilot projects for 4th generation district heating – the use of industrial heat pumps, geothermal, industrial waste heat, data centre and other existing sources of heat to be transformed into energy. There are no such projects right now in Romania.

- Support for households in de-fossilising heat production and reducing gas demand. Since gas boilers will eventually be banned,[49] countries need to prepare for this and support citizens financially. At present there is no programme in Romania supporting heat pumps, for example. A programme for solar rooftops has enjoyed huge success, reaching 1,500 MW in installed capacity from 100,000 prosumers.[50] It is obvious that citizens are open to renewable technologies and are also potential customers for heat pumps.

- The creation of energy communities and the decentralisation of production (see previous point).

[46] Mihnea Cătuți et al., The sustainable transition of Gorj County, *Greenpeace Romania*, *Energy Policy Group*, September 2021.

[47] Oltenia Energy Complex, Planul de restructurare revizuit al Complexului Energetic Oltenia 2021-2026 cu perspectiva 2030, *Oltenia Energy Complex*, 2023.

[48] Ministry of Development and Public Works, National Long-Term Renovation Strategy, *MDLPA.ro*, 17, 17 July 2020.

[49] Ajit Niranjan, EU agrees deal to cut emissions from homes and buildings, *The Guardian*, 8 December 2023.

[50] Mihai Nicut, În 2023 au apărut în România capacități energetice noi de 624 MW, de zece ori mai mult decât în 2022, plus cei 1.500 MW de la prosumatori, *Economica.net*, 17 January 2024.

- Renewable hydrogen projects in hard-to-abate sectors such as chemicals, steel, cement, and heavy-duty transport, following the recently drafted hydrogen strategy.
- Electrification in industrial sectors – pilot demonstration projects.
- Tackling energy poverty with renewable solutions and energy efficiency. The latest data shows that over 30 per cent of Romanians, of which 75 per cent are in rural areas, spend more than 10 per cent of their income on energy.[51] Some of the measures suggested above are relevant but need to be adjusted to assist these vulnerable households.

Conclusions

The Modernisation Fund is the main enabler of fossil gas projects in Romania, contrary to the declared scope of the Fund to support the attainment of climate neutrality in lower-income Member States. Romania has already granted 22 per cent of the spent funds – around EUR 750 million – to gas projects, and it will probably not stop there, as the new ETS Directive has left the door open for fossil gas projects.

Due to weak financing criteria, which do not ensure real alignment with the climate and energy objectives of the EU, the Investment Committee has approved projects which are incompatible with carbon neutrality. In the case of the Tuzla-Podisor pipeline, the emissions from burning the gas carried by the pipeline were not even included in the EIA, while the Turceni power plant locks in over a million tonnes of carbon emissions annually until at least 2051, and methane leaks have not been taken into account in its EIA.

Project promoters often pledge that their infrastructure will be hydrogen-ready, but these are just pretexts used because the projects will not be accepted otherwise. Even if renewable hydrogen is used – and it is not clear when this will happen, given the low volumes currently produced – the transition from gas to hydrogen will be costly, slow and inefficient, requiring numerous large investments along the chain. It is highly likely that this infrastructure will simply continue to transport and burn fossil gas in the coming decades. For most purposes, including power generation and heating/cooling, direct use of renewable electricity is much more efficient.

The current version of the Modernisation Fund, from 2024 onwards, has stricter financing criteria compared to the previous phase of the EU ETS, but it may still allow billions of euros to be poured into fossil gas infrastructure, including district heating, gas pipelines and even power generation, if the Paris alignment criterion is not properly applied. This is the case for projects financed from transfers under Article 10d(4) in particular, which do not even have to apply the already insufficient taxonomy criteria or undergo a 'do no significant harm' assessment.

At the same time, the new policy allows more support to be given to renewable heating and to households. Members States should focus on these instead of on fossil fuel projects, should take advantage of the huge funds available, and should find ways to decarbonise these sectors, while supporting the wide deployment of sustainable forms of renewable energy and infrastructure that enable it, such as smart grids, storage, and demand-response management.

[51] The Romanian Observator for energy poverty, ORSE: Sărăcia energetică afectează jumătate dintre gospodăriile din România, *saracie-energetica.ro*, 9 November 2023.

Recommendations for the European Commission and the EIB

EU funding, including the Modernisation Fund, must not allow further investments in fossil fuel, regardless of the efficiency they may achieve. The EU must also be much more selective about hydrogen, limiting any public support to renewable hydrogen manufactured using additional energy, and corresponding only to the needs of hard-to-decarbonise sectors, not for heating/cooling or local public transport.

Although the Modernisation Fund framework for the period until 2030 has now been set up, the Commission must still ensure that the 'do no significant harm' assessment is robustly applied, including in-depth, publicly consulted assessments by independent experts.

Likewise, the EIB should substantially improve its application of the Article 10d requirement to ensure that investments are truly aligned with the EU's 2030 targets and the Paris objectives. More detailed operational rules on how this would be done in the case of 10d(4) investments could be of significant benefit, considering they do not even have to apply the taxonomy rules or the 'do no significant harm' criteria.

The EIB should also increase transparency by publishing the investment proposals submitted by Member States and related documents, and it should avoid referring to theoretical scenarios of renewable hydrogen use or coal-to-gas switches. Instead, it should publish its full GHG assessment of investment proposals. The Commission must also refrain from approving projects which have not yet been subject to EIA procedures, in order to be able to properly assess their compliance with EU law.

Annex 1 – Calculation methodology for GHG emissions of fossil gas

Fossil gas emission factor is around 1.9-2 kg/m3 based on various sources:

- Eeagrants.gov.pt: 1 m3 natural gas = 1.9 kg CO_2
- Canada.ca: between 1919-1965 g/m3 = around 1.9 kg/m3.
- Climateneutralgroup.com: The emission factor for Dutch fossil gas is 2.085 kg CO_2eq per m3
- Possible annual emissions from gas transported by Tuzla-Podisor pipeline:
- 8 bcm * 1.9 kg CO_2 = 15.2 bn kg co2 = 15.2 million tonnes
- 8 bcm * 2 kg CO_2 = 16 bn kg co2 = 16 million tonnes

Annex 2 – Indicative projects list of Romania from the Modernisation Fund through December 2023

Project		Amount disbursed by the European Commission	Amount provisioned by MS	Investments allowed and type and amount of energy source covered	Financing status in January 2024 (calls launched, contract signed)	Recipients/ beneficiaries	Red flag
Non priority							
Gas total		521,039,834	261,087,585	1300 MW + possible 1700 MW = 3000 MW			
Construction of a Natural Gas-Fired Combined Cycle Power Unit of approx. 850 MW at Isalnita	Project	253,125,302		850 MW gas CCGT at Isalnita to replace liginite power plant	no competitive call, Contract not signed	CE Oltenia based on Restructuring plan to phase out coal	double, more expensive transition from coal to gas and then to hydrogen no public consultation before submission
Construction of a Natural Gas-Fired Combined Cycle Power Unit of approx. 475 MW at Turceni	Project	167,504,815	167,504,815	475 MW gas CCGT at Turceni to replace lignite power plant	no competitive call, Contracts signed	CE Oltenia based on Restructuring plan to phase out coal	double, more expensive transition from coal to gas and then to hydrogen no public consultation before submission
Gas Transmission Pipeline Black Sea-Podisor	Project	85,544,422	85,544,422	Gas transmission pipeline: 308.1 km, 12 bcm/y pipeline (32.4 km DN1200, 275.7 km DN1000). This piece of infrastructure will carry gas from new offshore exploitation starting with 2027. Enables the consumption for 3 new gas powerplants, two from above	no competitive call, Contracts signed	Gas TSO - Transgas	increase in gas consumption, gas lock-in no public consultation before submission

				and Mintia - a private investment of 1700 MW			
Gas transmission pipeline Ghercești-Jitaru" (including power supply, cathodic protection and fibre optic)	Project	8,038,348	8,038,348	Natural gas transmission pipeline: 90 km, 1.9 bcm/y pipeline (DN600).	no competitive call, Contracts signed	Gas TSO - Transgas	increase in gas consumption, gas lock-in no public consultation before submission
Gas Transmission Pipeline to supply Mintia Plant (covering other industrial and casnic consumers)	Project	6,826,947		Investment mainly concerns connection of the Mintia CCGT to the gas distribution network.	no information	Gas TSO - Transgas	Increase in gas consumption, gas lock-in no public consultation before submission
Priority							
Renewables total		1,269,561,946	2,284,561,946	2,964 MW			
Construction of a Photovoltaic Park on the Waste Pile Rovinari Est –Open Pit Mining Unit	Project	72,863,317	72,863,317	Construction of a 110 MW solar PV farm	no competitive call, Contracts signed	CE Oltenia coal operator and OMV Petrom oil and gas producer and Timnar Energy - energy supplier, which formed a consortium to build RES and gas projects	investments are delayed by 2025, should have been in place in 2023
Construction of a Photovoltaic Park on the Waste Pile Pinoasa Open Pit Mining Unit	Project	47,902,281	47,902,281	Construction of a 65.78 MW solar PV farm	no competitive call, Contracts signed		
Construction of a Photovoltaic Park on the Waste Pile Bohorelu – Jilt Open Pit Mining Unit	Project	12,933,740	12,933,740	Construction of a 19.21 MW solar PV farm	no competitive call, Contracts signed		
Construction of a Photovoltaic Park on the ash and slag closed deposits of SE Isalnita	Project	53,432,006	53,432,006	Construction of a 85 MW solar PV farm	no competitive call, Contracts signed		

Construction of a Photovoltaic Park on the ash and slag closed deposits of SE Rovinari	Project	51,187,936	51,187,936	Construction of a 83.35 MW solar PV farm	no competitive call, Contracts signed		
Construction of a Photovoltaic Park on the ash and slag closed deposits of SE Turceni	Project	70,407,657	70,407,657	Construction of a 111.68 MW solar PV farm	no competitive call, Contracts signed		
Construction of a Photovoltaic Park on the Inner Waste Pile within Tismana 1 – Rosia-Rovinari Open Pit Mining Unit	Project	80,084,542	80,084,542	Construction of a 128.3 MW solar PV farm	no competitive call, contracts signed		
Construction of a Photovoltaic Park on the Inner Waste Pile Tismana 2 Rosia – Rovinari Open Pit Mining Unit	Project	80,750,467	80,750,467	Construction of a 131.67 MW solar PV farm	no competitive call, contracts signed		
Supporting investments in new renewable electricity (solar and wind) generation capacities for self-consumption of enterprises in the agricultural and food sectors	Scheme	100,000,000	500,000,000	New RES production capacities from wind and solar sources, with or without storage 584 MW of installed capacity, composed of: 28 MW in wind energy and 556 MW in solar energy	competitive call launched in November 2023	Agri food business	
Supporting investments in new production capacities of electricity produced from renewable	Scheme	250,000,000	415,000,000	new RES production capacities from wind, solar and hydro sources for self-consumption. 607 MW of installed capacity as follows: 43 MW in wind energy,	Not launched, guide was in public consultation in October 2022	SMEs and large companies	might support unsustainable hydro

sources - solar, wind and hydro for self-consumption				170 MW in solar energy below 1 MW, 380 MW in solar energy over 1 MW and 14 MW in hydro energy, but also biomass, biogas, geothermal allowed.	and again in January 2024		
Supporting investments in new production capacities of electricity produced from renewable sources - solar, wind and hydro	Scheme	250,000,000	400,000,000	new RES production capacities from wind, solar and hydro sources. 598 MW of installed capacity, of which 143 MW in wind energy, 400 MW in solar energy and 55 MW in hydro energy, but also biomass, biogas and geothermal allowed	Not launched, guide was in public consultation in October 2022 and again in January 2024	energy production companies	might support unsustainable hydro
Supporting investments in new production capacities of electricity produced from renewable sources – solar, wind and hydro for self-consumption for public institutions	Scheme	200,000,000	500,000,000	Scheme to support the creation of new RES production capacities from wind, solar and hydro sources for self consumption for public institutions based on a first come, first served principle. 442 MW of installed capacity, of which 25 MW in wind energy, 409 MW in solar energy and 8 MW in hydro energy	the call was launched in November 2023, guide was In public consultation in august 2023	public authorities	
Electricity grid		1,072,745,577	1,524,404,843				
Building a new 400 kV OHL double circuit Constanţa Nord - Medgidia Sud (one circuit equipped)	Project	22,992,330	22,992,330	The investment comprises a 400 kV overhead line with a total length of 35.35 km and 400 kV underground cable with a total length of 2 km.	no competitive call, Contracts signed	TSO - Transelectrica	
Building a new 400 kV OHL single circuit Gădălin – Suceava,	Project	101,208,938	101,208,938	The investment comprises a 400 kV overhead line with a total length of 260.8 km.	no competitive call, Contracts signed		

including its interconnection to the National Power Transmission System							
Internal Line between Reşita and Timişoara/Săcălaz (PCI 3.22.3.), consisting of new 400 kV OHL Reşita-Timişoara/Săcălaz and retrofit to 400 kV of 110/2020 kV Timişoara substation	Project	63,610,824	63,610,824	The investment comprises a 400 kV double circuit overhead line with a total length of 109.8 km.	no competitive call, Contracts signed		
Building the 400 kV OHL Timişoara/Săcălaz - Arad	Project	57,506,448	57,506,448	The investment comprises a 400 kV double circuit overhead line with a total length of 68 km.	no competitive call, Contracts signed		
Converting to 400 kV of the OHL Brazi Vest - Teleajen - Stâlpu	Project	51,067,426	51,067,426	Conversion to 400 kV of the existing Brazi – Vest – Teleajen – Stâlpu overhead line in order to create a new 400 kV corridor connecting Dobrogea to Bucharest city	no competitive call, Contracts signed		supports nuclear development, but also renewables
Pilot project - Refurbishment of the 220/110/20 kV Alba Iulia station – in digital concept station	Project	46,956,109	46,956,109	The investment concerns the refurbishment of the 220/110/20 kV substation of Alba Iulia with the installation as a pilot project of a smart grid architecture and digital standards.	no competitive call, Contracts signed		
Installation of two modern means of compensating reactive power in the	Project	52,336,143	52,336,143		no competitive call, Contracts signed		

400/220/110/20 kV Sibiu Sud and 400/220/110/20 kV Bradu substations							
Optimising the operation of the existing 400 kV OHL in NPS (SEN), used for interconnection and power output from Cernavodă nuclear power plant and the renewable-energy power plants in Dobrogea, by installing on-line monitoring systems (SMART GRID)	Project	10,475,032	10,475,032	The investment concerns the installation of Dynamic Line Rating (DLR) monitoring systems for twenty-three 400 kV overhead lines of the national transmission system. DLR monitoring systems will be installed on 10 interconnection lines and 12 power transmission lines used for power output from Cernavodă nuclear power plant and the renewable energy power plants in Dobregea region.	no competitive call, Contracts signed		supports nuclear development, but also renewables
Digitalisation of Electricity Transmission Network in Romania by installing two on-line systems, for Metering and Data Management for measuring the electricity on the wholesale electricity market and for Monitoring the quality of electricity	Project	18,251,593	18,251,593	The investment concerns the installation of a metering and data management system for measuring electricity on the wholesale electricity market as well as a power quality monitoring system that will be integrated into the smart grid platform of the Transmission System Operator.	no competitive call, Contracts signed		
DigiTEL Green Pilot Project – Refurbishment of	Project	48,340,734		Refurbishment of 220/110/20kV Mostistea substation.	no information		

220/110/20kV Mostistea in digital and low environmental impact substation concept							
Support for the expansion and modernisation of the electricity distribution network	Scheme	100,000,000	1,100,000,000	The investment concerns the modernisation and digitalisation of substations and power lines of the distribution networks as well as the expansion of the power distribution infrastructure.	uncompetitive call in oct 2022; 18 Contracts signed	DSO - distribution companies	
Support for the expansion and modernization of the electricity distribution network	Scheme	500,000,000					
Efficiency		720,246,750	590,000,000				
Support for the modernisation /rehabilitation of the smart district heating network - Type B Projects which do not fall under the incidence of state aid	Scheme	190,000,000	390,000,000	The investment proposal concerns a scheme for the period 2023-2030 relating to the modernisation, digitalisation, extension of the District Heating networks in Romania. The main objective of the investment is to support the energy efficiency improvements in district heating and reduction of heat losses.	Call launched in Jan 2024, guide was in public consultation in september 2023	muncipalities and heat producers	supports improvements for fossil gas infrastructure
Support for the modernisation /rehabilitation of the smart district heating network - Type A Projects which fall	Scheme	60,000,000	200,000,000	The investment proposal concerns a scheme for the period 2023-2030 relating to the modernisation, digitalisation, extension of the District Heating networks in Romania. The main objective	Call launched in Jan 2024, guide was in public consultation in september 2023	muncipalities and heat producers	supports improvements for fossil gas infrastructure

under the incidence of state aid				of the investment is to support the energy efficiency improvements in district heating and reduction of heat losses.			
Supporting the reduction of energy consumption through energy efficiency in the transport sector- sustainable rolling stock	Project	470,246,750		Replacement of 77 old electric trains by 62 new electric multiple-unit (EMU) trains in 11 routes in RO.		Transport Ministry/ Romanian Railways	

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