## Briefing paper **Turceni coal power plant rehabilitation** July 2014

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# Summary

The Romanian power sector can seize a number of opportunities to transform into an efficient, renewables-based driver for low carbon transition. Among these opportunities are the overall decrease in energy consumption, decoupling of economic growth from energy consumption, availability and mix of domestic energy sources and continued increase in energy efficiency.

Energy consumption has gone down substantially since the beginning of the economic crisis, and gross domestic product was also impacted but, unlike energy consumption, it registered growth in 2009-2012. The economic crisis brought also a decrease in energy imports and improved the energy independence index for a country in a much more fortunate position than many of its neighbours when it comes to domestic energy sources and diverse mix of energy production capacities.

The mix of power production capacities has seen some changes in recent years, with old thermal power plants closing and commissiong of (mainly) wind and solar facilities. Overall, total installed capacity for power production remains similar to the level of year 2000. Thus, Romania has 18.8 GW of net installed electricity production capacity while 6-8 GW are normally operated to cover consumption, with a peak load around 10 GW. This over-capacity offers a short and medium buffer for the system to transform into a cleaner and more efficient one, to phase out fossil fuel based capacities and it excludes the need to build new coal power plants. Furthermore, Romania's energy intensity is twice the European Union average, which indicates there are still efficiency gains to count on in many sectors.

Thermal power plants, and particularly coal plants, are having difficulties because either their production is not needed or they cannot compete with prices of other sources. In April 2013, in a period of low consumption, less than 10% of net installed coal capacities could operate because their output was not needed.

Wind and solar power have seen a spectacular development the last few years (wind turbines from none installed to 2500 MW of net capacity in dispatchable units; solar from none to 550 MW), triggered by an attractive subsidy scheme. The EBRD has supported a lot of these projects.





The renewables support scheme has been criticised for being too attractive and adjustments were made that introduced some level of instability and possibly constitute a disincentive for such investments. Large consumers (Arcelor, Alro) successfully lobbied the government in order to lower their electricity bills, while the coal energy complexes (Oltenia and Hunedoara) succeeded in having guaranteed and priority access to the grid for part of their capacities. It may be more important though that while solar capacities are well distributed throughout the country, around 90% of wind turbines are located in just one region of the country. This means that on some days over 1,000 MW of wind turbines operate in the system, while there are also days when there's zero wind power production.

Turceni is the largest coal thermal power plant in Romania and it is part of a complex consisting of several coal power plants and lignite mining operations. Out of the seven units that were built at the Turceni power plant, 3 units (plus possibly unit 6, if refurbished) will continue to operate in the near future. The power plant uses local lignite and it was the second most polluting industrial facility in Europe in 2009; since then, facilities were built to comply with sulphur oxides emission standards.

Several provisions of the Bank's Environmental and Social Policy of May 2008 (ESP) have been breached and as a result the environmental and social impact of the Turceni rehabilitation project was not sufficiently assessed, which may lead to future further harm.

An environmental impact assessment should have been conducted for the project along with a public participation process. This was partly triggered by an incorrect categorisation of the project. As unit 6 has been out of operation since 2006 and partially dismantled, the baseline for this rehabilitation project is zero emissions. The project would lead to estimated emission levels of 1.6 million tonnes of carbon dioxide per year, as well as additional emissions of sulphur and nitrogen oxides, particulate matter and heavy metals. Furthermore, if refurbished, unit 6 of the Turceni power plant will need to comply with stricter emission limit values under the Industrial Emissions Directive (for new units) and not the emission limit value for existing units. The due diligence also failed to assess other issues directly related to the project, mainly deforestation of certain areas to expand lignite mining using a practice of slicing areas to avoid thorough environmental permitting. Finally, the due diligence for the project failed to review carbon capture and storage readiness for the project.

There are also concerns regarding corruption and other unfair practices in connection with the Turceni power plant. These include unjustified payments, suspicious contracts and procurement practice, money laundering, bribes and other related issues, all of them potentially falling within the definition of Prohibited Practices as stipulated in the Article 2.16 of the EBRD's Revised Enforcement Policy and Procedures. They may be indicative of the company's general practices and provides grounds for delaying the disbursement of the loan.





Romania must phase-out the extended use of fossil fuels and concentrate its resources on the transformation to an energy-efficient, low carbon, sustainable renewables-based economy. The context can only be helpful in this direction, as we currently have production over-capacity. Considering this opportunity, as well as the need to meet stricter environmental standards (e.g. those set by the European Union's Industrial Emissions Directive) - it is imperative to speed up efforts to increase energy efficiency, connect our electricity system with that of neighbouring countries so as to exchange renewable energy and design alternative development paths for our coal mining regions.

The EBRD should freeze the disbursement of the loan for the Turceni Rehabilitation project until environmental, social and economic analyses have been performed for this project, in line with bank policies.





## 1. About the Oltenia Energy Complex

The Turceni coal power plant is part of the Oltenia Energy Complex (OEC), based in Romania's south-west, where the main lignite deposit lies. OEC was created in 2011 by bringing together a number of power plants and the lignite mines. OEC runs the Rovinari thermal power plant (4 units, 330 MW each), Turceni TPP (5 units, 330 MW each), Isalnita TPP (2 units, 315 MW each), Craiova TPP (2 units, 150 MW each) - total installed capacity 3,900 MW (out of the current total of 5,405 MW gross installed capacity running on coal in Romania).

The lignite mines can produce up to 34 million tonnes of lignite per year, in 17 open pit perimeters and 2 underground operations. OEC has a total of 18,800 employees, out of which 13,000 in mining operations. OEC's annual turnover is approximately EUR 600 million; OEC had a profit of approximately EUR 27 million in 2012. OEC's main shareholders are the Ministry of Economy (77%) and the Property Fund  $(21.5\%)^1$ , while the rest of shares are owned indirectly by the state as well.

<sup>&</sup>lt;sup>1</sup> The Fund was established by the Romanian Government in 2005 and eligible claimants who lost property under former communist governments were awarded shares in the Fund instead of compensation.





# 2. About the Turceni power plant

Turceni is the largest coal thermal power plant (TPP) in Romania (currently part of the Oltenia Energy Complex), with an installed capacity of 1,980 MW (330 MW x 6 units<sup>2</sup>, the figure includes unit 6, currently offline) and 1,900 employees<sup>3</sup> (2012 data). Units 1 and 4 at the Turceni TPP are on the opt-out<sup>4</sup> list under the Large Combustion Plants Directive<sup>5</sup> and, as of January 1<sup>st</sup> 2012, unit 1 had 7600 hours left to operate while unit 4 had 100 hours left to operate by 2015.

The power plant uses local lignite and it was the second most polluting industrial facility in Europe<sup>6</sup> in 2009, after the Maritsa Iztok 2 TPP in Bulgaria. Units 4 and 5 have been refurbished (boiler, turbine, generator, electrical stations, command room) and put back online in 2002 and 2006. The environmental investments included particulate matter reduction, refurbishment of a cooling tower, noise reduction. Currently, the TPP has 4 desulphurisation (FGD) units in place to reduce sulphur oxides emissions.

<sup>&</sup>lt;sup>2</sup> Units 1 (commissioned in 1978), 3 (1980), 4 (1981), 5 (1983), 7 (1987) still operational. Unit 6 (1985) to be overhauled. Unit 2 (1979) is permanently offline, being decommissioned. Unit 8 was never completed. The complex includes a 10 MW hydro power plant on river Jiu.

<sup>&</sup>lt;sup>3</sup> http://prtr.ec.europa.eu/FacilityDetails.aspx?FacilityId=167389&ReportingYear=2012

<sup>&</sup>lt;sup>4</sup> Existing large combustion plants, i.e. those permitted before 1 July 1987, may be exempted from compliance with the emission limit values set out in the LCP Directive and from their inclusion in the national emission reduction plan under certain conditions. In order to be eligible for such "opt out", the operator of the plant had to undertake, in a written declaration to the competent authority, submitted by 30 June 2004 at the latest, not to operate the plant for more than 20 000 operational hours starting from 1 January 2008 and ending no later than 31 December 2015. Power plant operators were allowed to 'opt out' of the LCPD obligations on the condition that they close (cease operation) by the end of 2015 or after 20 000 hours of operation after 1 January 2008, whichever is sooner.

<sup>&</sup>lt;sup>5</sup> http://www.eea.europa.eu/data-and-maps/data/large-combustion-plants-lcp-opted-out-under-article-4-4-of-directive-2001-80-ec-2

<sup>&</sup>lt;sup>6</sup> http://www.env-health.org/IMG/pdf/heal\_report\_the\_unpaid\_health\_bill\_how\_coal\_power\_plants\_make\_us\_sick\_final.pdf





# 3. The Romanian power sector

The Romanian power sector can seize a number of opportunities to transform into an efficient, renewables-based driver for low carbon transition. Among these opportunities are the overall decrease in energy consumption, decoupling of economic growth from energy consumption, availability and mix of domestic energy.

#### 3.1 Primary energy

Gross primary energy<sup>7</sup> consumption has decreased since the 1990s (46 million tonnes of oil equivalent - toe<sup>8</sup> in 1992), as large industrial facilities had to shut down. In 2000-2008, gross primary energy consumption increased from 36 to 40 million toe, but with the global economic crisis it went under the 2000 level, as activities in industries and construction slowed down<sup>9</sup>.



Gross primary energy consumption (1,000 toe) in Romania. Data source: National Statistics Institute.

#### **3.2 Gross domestic product**

The economic crisis determined a decrease in gross domestic product, which hasn't had a negative evolution in 2009-2012 though. To put it simply, efficiency gains (among other factors) have meant in general that economic growth doesn't automatically bring an increase in energy consumption.

<sup>&</sup>lt;sup>7</sup> Primary energy = forms of energy that haven't gone through transformation processes. Includes oil, coal, natural gas, uranium, solar energy, wind energy, hydro energy, biomass, geothermal energy.

<sup>&</sup>lt;sup>8</sup> Tonne of oil equivalent = the energy released by burning one tonne of oil, 41,868 GJ.

<sup>&</sup>lt;sup>9</sup> Final energy consumption in industries and construction decreased from 9.1 million toe in 2008 to 6.6 million toe in 2009. Source: National Statistics Institute <u>www.insse.ro</u>







Gross Domestic Product in Romania, the production method, current prices (billion RON). Data source: National Statistics Institute.

#### **3.3 Domestic energy**

The economic crisis has also determined an increase of our energy independence index, as oil and gas imports decreased.



Romania's energy independence index. Data source: National Statistics Institute.

#### **3.4 Electricity production**

The economic crisis determined a slow-down of electricity production and consumption. The decrease in electricity consumption took place mainly in the industry and construction sector<sup>10</sup>, especially at metal works and in the chemical industry.

 $<sup>^{10}</sup>$  In this sector consumption decreased from 22,987 GWh in 2008 to 18,183 GWh in 2009 and 20,405 GWh in 2012.







Romania's electricity production (GWh). Data source: National Statistics Institute.

Romania exports relatively small amounts of electricity, currently around 2 TWh of a total production around 60 TWh.



Romania's electricity imports/ exports balance (GWh). Data source: Eurostat.

#### 3.5 Electricity - installed production capacity

In 2000-2012, thermal power plant installed capacity decreased by 3,000 MW (from 15,078 MW to 11,986 MW), which was replaced by new hydro capacities (from 6,120 MW to 6,548), wind turbines (from 0 to 1,822 MW) and a nuclear reactor (from 707 MW to 1,411 MW). Thus, total installed capacity in 2012 (21,767 MW) is similar to 2000 (21,905 MW).







Electricity - installed capacity in Romania (MW). Data source: National Statistics Institute.

#### **3.6 Capacity of thermal power plants**

In 2010-2013, the net available capacity<sup>11</sup> in the national power system increased from 16,795 MW to 18,545. During this time, net available capacity in thermal power plants had a downward evolution.



Electricity - net available capacity in Romania (MW). Data source: Transelectrica.

#### 3.7 Power mix - net values

As of July 2014, the net installed electricity production capacity in dispatchable<sup>12</sup> units is 18,848 MW, adding 2,165 MW in non-dispatchable units.

<sup>&</sup>lt;sup>11</sup> Net available capacity excludes the capacity required for own-consumption of power units, transformation losses, as well as capacities that are moth-balled/ shut down for maintenance and repairs etc.

 $<sup>^{\</sup>rm 12}$  Units that can be dispatched upon request by the power grid operator.







Electricity - net installed capacity in Romania as of July 1st 2014 (MW). Data source: Transelectrica.

#### **3.8** How much of the capacity operates

Generally, we use between 6,000 and 8,000 MW of power production capacities, with a maximum around 10,000 MW for limited periods in winter.



Load curve in Romania, 2013. Data source: Transelectrica





In April of 2013, due to low electricity consumption mainly, the coal capacity that needed to operate was reduced to 400 MW out of a total net installed capacity of 4,600 MW. The situation continued in May 2013, even when one of the nuclear reactors was shut down for maintenance.

#### **3.9 Energy intensity**

Energy intensity, an indicator showing the energy consumption when generating a gross domestic product unit (kg toe/ EUR 1,000) shows that, especially in industry, increasing competitiveness has to be directly linked to a decrease in resource consumption, including energy. In 2012, Romania's energy intensity was twice the EU average and was only outmatched by two other EU states (Estonia and Bulgaria).



Romania's energy intensity. Data source: Eurostat

#### 3.10 Development of renewables

Wind and solar power have seen a spectacular development the last few years (wind turbines from none to 2500 MW of net capacity in dispatchable units; solar from none to 550 MW), triggered by an attractive subsidy scheme. The EBRD has supported a lot of these projects<sup>13</sup>.

The renewables support scheme has been criticised for being too attractive and adjustments were made that introduced some level of instability and possibly constitute a disincentive for such investments. Large consumers (Arcelor, Alro) successfully lobbied the government in order to lower their electricity bills.

<sup>&</sup>lt;sup>13</sup> EBRD financed wind power projects <u>Crucea</u> Nord, <u>Smârdan</u>, <u>Land Power</u>, <u>Crucea I</u>, <u>Sarichioi și Vutcan</u>, <u>Chirnogeni</u>, <u>Cernavodă</u>, Peștera; solar power projects: ICCO, EDPR.





Also, the increase in renewable capacity brought further challenges for thermal power plants, in terms of prices competitiveness. To address that, the coal energy complexes (Oltenia and Hunedoara) succeeded to have guaranteed and priority access to the grid for part of their capacities.

Yet, it may be more important that while solar capacities are well distributed throughout the country, around 90% of wind turbines are located in Tulcea and Constanta counties<sup>14</sup>. This means that on some days over 1,000 MW of wind turbines operate in the system, while there are also days when there's zero wind power production.



Total 6718 MW - Productia in 31-03-2014 ora 14:14:20 Bad day for wind power. Graphic: Transelectrica. (carbune = coal; eolian = wind)

<sup>&</sup>lt;sup>14</sup> Bacau: 0,25 MW, Bistrita Nasaud: 0,82 MW, Botosani: 0,099 MW, Braila: 72,3 MW, Buzau: 20 MW, Caras-Severin: 57,3 MW, Cluj: 0,585 MW, <u>Constanta: 1475,68 MW</u>, Galati: 158,75 MW, Mehedinti: 1,8 MW, Suceava: 0,6 MW, <u>Tulcea: 759,56 MW</u>, Vaslui: 70,25 MW, Vrancea 1,2 MW





## 4. EBRD's support to the Turceni refurbishment

In 2008, the EBRD approved a EUR 150 million loan for the rehabilitation of units 3 and 6 at the Turceni TPP<sup>15</sup> (rehabilitation and modernisation of the boilers and auxiliary equipment, turbines, control system; reduction of nitrogen oxides, carbon monoxide and dust emissions; rehabilitation and modernisation of the solid fuel settlement first phase, water handling and thermo-mechanical technologic systems<sup>16</sup>). The EBRD project summary document<sup>17</sup> (PSD) was updated subsequently, and unit 3 was taken out of the project focus; the 2008 procurement process was cancelled and then re-launched<sup>18</sup> in 2009 to rehabilitate and modernise unit 6 only. The loan amount decreased from EUR 300 million<sup>19</sup> to EUR 150 million. The project was never completed because of unknown procurement issues. The company has been servicing the loan ever since.

In 2013, the EBRD decided to restructure and re-finance the EUR 150 million A/B loan arranged in 2009 for the Turceni project<sup>20</sup>. The 2013 syndicated loan (EUR 200 million loan, total project cost approximately EUR 266 million) was meant to improve energy efficiency, reduce  $CO_2$  emissions by 300,000 tonnes per year, increase availability and reliability, reduce pollution and implement a modern automation and control system<sup>21</sup>. Following the due diligence and environmental and social analyses, the PSD was updated, so that the  $CO_2$  emission reduction stands at 160,000 tonnes per year. The project category is B, even though the PSD states that the due diligence included the area of influence (the company's other power plants and all lignite mines), because it would not result in an increase in thermal capacity. The Romanian authorities didn't require an environmental impact assessment for the project.

Following the due diligence, the PSD has also been updated in relation to the area of influence, having identified resettlement issues, and the Environmental and Social Action Plan is set to require a corporate livelihood restoration framework, a resettlement action plan and a stakeholder engagement plan.

<sup>&</sup>lt;sup>15</sup> https://www.devex.com/en/projects/turceni-rehabilitation-and-modernization-project-in-romania

<sup>&</sup>lt;sup>16</sup> http://www.publictenders.net/tender/175748

<sup>&</sup>lt;sup>17</sup> http://www.ebrd.com/english/pages/project/psd/2008/37696.shtml

<sup>&</sup>lt;sup>18</sup> http://www.publictenders.net/tender/547991

<sup>&</sup>lt;sup>19</sup> http://oilaid.priceofoil.org/userdata\_display.php?modin=50&qty=50&offset=150

<sup>&</sup>lt;sup>20</sup> http://www.ebrd.com/english/pages/project/psd/2013/37696.shtml

<sup>&</sup>lt;sup>21</sup> http://www.ebrd.com/pages/project/psd/2013/local\_translations/44732.pdf





## 5. Breaching EBRD's Environmental and Social Policy

Several provisions of the Bank's Environmental and Social Policy of May 2008 (ESP) have been breached and as a result the environmental and social impact of the project was not sufficiently assessed, which may lead to future further harm. For this reason a complaint to the Project Complaint Mechanism Officer was lodged on 11 July 2014, based on the following arguments.

## 5.1 Inadequate assessment of environmental impacts of the project and failure to ensure compliance of the Project with the EIA Directive

An EIA assessment was not done for the unit 6 rehabilitation project. However, we are of the opinion that the EU Environmental Impact Assessment (EIA) Directive should have been applied to the project, which leads to the conclusion that an EIA should have been conducted. The EBRD's Oltenia - Turceni Rehabilitation Project assessment therefore did not take relevant EU legislation sufficiently into account and as a consequence the project does not meet "relevant EU environmental requirements" and the appraisal failed to identify "applicable laws and regulations of the jurisdictions in which the project operates that pertain to environment and social matters" as is obliged under the ESP. The Bank was in this regard obliged to verify that the project promoter had met relevant requirements for environmental and social impact assessment and as Romania is an EU Member State, assess and require compliance with the EU legislation, including the EIA Directive, and therefore to review whether the decision not to run an EIA assessment was or was not in compliance with the EIA Directive. Failure to review this results in a breach of the ESP's PR 1 and PR 3. As a consequence of not carrying out an EIA assessment, the potential impact of the project was not sufficiently examined, resulting in a breach of the ESP's PR 1 and PR 6.

## **5.2** Failure to provide with sufficient public participation in decision making in connection to the project

In the decision-making process concerning the complex renovation of Unit 6 there has been no opportunity for the public to participate in the processes connected to the Project so far. First of all, if an EIA had been carried out, it would most probably have provided the public with an opportunity to provide their views and comments on the project. But as already stated, the EIA was not run in this case.

Secondly, there was no other option during the evaluation of the project where the public could effectively participate. The Non-Technical Summary of project analyses was not published by the Bank for consultation, as it sometimes does. It was only published





by the Oltenia company on its website in 2013, however, it was after the loan was already signed and without any call for the public to submit their comments concerning the Project.

This leads to the situation that there was no opportunity for members of the public interested in the project to raise their concerns and opinions and to have their comments considered by the Romanian authorities during the process. For this reason Article 6 of the Aarhus Convention was breached.

Since the Bank, according to the ESP PR 1.5 and 10.2, has to take relevant international as well as European requirements into account, among others the Aarhus Convention, during the appraisal and pursuant to PR 3.5 to design the Project to comply with EU law, we are of the opinion that because in the case of Turceni rehabilitation the requirements stemming from the EU law (the EIA Directive) and international law (the Aarhus Convention) were not fulfilled, the Bank did not act in compliance with PR 1, 3 and 10 of the ESP.

#### 5.3 Incorrect categorisation of the project by EBRD

The Turceni rehabilitation project has been categorised as a "B" project. However, according to the Bank's policy, projects shall be categorised as "A" in case they represent a major extension of the listed "project categories", among which thermal power plants with output of 300 MW or more are included. In the present case, Unit 6 meets the threshold of 300 MW heat output and should be assessed as a major extension due to the fact that since 2006, the Unit 6 has not been in operation. The Oltenia-Turceni Non-Technical Summary states that the project operator has only 5 units in operation and Unit 6 has not been operational since 2006. Furthermore, works concerning dismantling of parts of Unit 6 have taken place. It follows, that since 2006, there were no emissions from Unit 6, which resulted in overall emission reduction at the Turceni power plant. The complex modernisation of Unit 6 which is covered by the project concerned would lead to launching the operation of this unit, resulting in estimated emission levels of 1.6 million tonnes of  $CO_2$  per year, as well as additional emissions of  $SO_x$ ,  $NO_x$ , PM and heavy metals. Moreover, the project is intended for 15 years operation in the future which, compared to current non-existing operation, presents a major extension.

The complex modernisation of Unit 6 shall be assessed and perceived as a new unit not a mere modernisation and in view of the above we are of the opinion that the categorization of the project was conducted incorrectly. Works which are going to be done at the site are of such an extent, that the project should be treated as a project in the "A" category, with all the consequences, such as special formalized and participatory assessment processes as stipulated in the ESP PR 1.9. It can be concluded that the project could result in issues which, at the time of categorisation, cannot readily be identified or assessed and therefore it should not be classified as Category B. The Bank for these reasons breached PR 1 of its ESP.





## 5.4 Insufficient assessment by the EBRD of whether the Project complies with the emission limit values under the IED Directive

The updated Integrated Pollution Prevention and Control (IPPC) permit sets conditions for the future operation of Unit 6, which are in compliance with the emission limit values (ELVs) for combustion plants laid down in Part 1 of Annex V to the IED Directive. However, Part 1 of Annex V is applicable only for combustion plants which have been granted a permit before 7 January 2013, or the operators which have submitted a complete application for a permit before that date, provided that such plants are put into operation no later than 7 January 2014.

Unit 6 is not currently operating and would be put into operation only after 7 January 2014 which means Part 2 of Annex V applies, setting stricter emission limit values than Part 1. The emission limit values set forth in Part 2 of Annex V are also applicable to the part of the plant which has changed in relation to the total rated thermal input in the case of change to a combustion plant of rated thermal input of 50 MW or more, which may have consequences for the environment. Therefore even if the Bank is of the opinion that Unit 6 is an existing installation and not a new unit, the project has to be assessed as a change to the installation and emission limit values from Part 2 of the Annex V should be required in order to comply with the IED Directive. It follows that no matter whether unit 6 will be in the end seen as new unit or change of the existing installation the emission limit values set in Part 2 of Annex V to the IED Directive need to be followed and therefore the ELVs set in the updated IPPC permit and actual expected emission levels as described in the NTS are not in compliance with relevant requirements of the IED Directive. The Project therefore fails to comply with relevant EU environmental requirements, which amounts to a breach of the ESP PR 1.5 and 3.5 by the EBRD.

#### 5.5 Failure to assess relevant issues directly linked to the Project deforestation of certain areas taking place due to the enlargement of the lignite mines providing supply for the Turceni Power Plant.

As stated in the operational change report the lignite for the operation is to be provided mainly from the Oltenia region, which means that lignite mines providing supply for the Turceni power plant are being expanded. The company uses the so-called "salami slicing" method", while getting a number of approvals for deforestations of areas. The current practice of granting permits for the deforestation is being challenged on the national level (8 court cases initiated in 2012, all of them are currently at the appeal stage) as well as the European level (official complaint submitted to the European Commission on the breach of the EIA Directive submitted in December 2012 and not resolved so far). The Operation Change Report mentions the mines, admitting it is directly connected to the operation of the whole "Oltenia" energy complex, including the future Unit 6. According to our information, the due diligence did not flag the problems with deforestation for lignite mining expansion at all. It follows that the mining is an issue directly associated to the project concerned and as such should have been according to PR 1, especially PR 1.6, of the ESP assessed during project appraisal. As part of the due diligence process, the Bank was pursuant to PR 3.5 of the ESP obliged to require compliance of the activities of the operator with EU law.





#### 5.6 Failure to review CCS readiness of the Project

As already noted, the PR 3.5 of the ESP establishes the obligation of the Bank to require compliance with the EU law of the projects it is supporting. Article 36 of the IED Directive requires to carry out a "CCS readiness assessment" for installations with a rated electrical output of 300 MW or more for which the original construction licence or, in the absence of such a procedure, the original operating licence is granted after the entry into force of the CCS Directive (25 June 2009). The assessment shall include an assessment of whether suitable  $CO_2$  storage sites are available as well as of the technical and economic feasibility of  $CO_2$  transport and retrofitting  $CO_2$  capture technology. If the conditions laid down in the paragraph 1 are met, member states are obliged to ensure that suitable space on the installation site for the equipment necessary to capture and compress carbon dioxide is set aside.

Pursuant to the IED Directive, the Member States shall ensure that such an assessment has taken place. It was already found in previous PCM conclusions that the obligation to carry out a CCS readiness assessment amounts to "relevant environmental requirements" within the meaning of PR 3.5.

The rehabilitation of Unit 6 shall be assessed as a new installation which has not been granted a respective construction permit yet, however the competent authorities are obliged to do so under the national law nr. 50/1991 regarding the authorisation for execution of construction works.

What is more, there are indications that the company was aware of the need to take CCS technology into consideration, since it was reported that a CCS project would cost EUR 500 million and it asked for EU funds, which it did not get and there are no recent developments on this matter. Nevertheless, the operation change report only notes that since the Project is a rehabilitation of an existing plant, an assessment of readiness for CCS is not required under the IED guidelines.

The role of the Bank connected to CSS readiness assessment was to check whether such an assessment was done and whether it was done sufficiently well to achieve the objectives of the Directive. This interpretation was confirmed by the outcome of the Project Compliance Expert of the EBRD, who on the Compliance Report on the Šoštanj Power Plant confirmed that it is part of the Bank's responsibility to ensure that the CCS assessment meeting requirements of the CCS Directive is carried out under the ESP.

Since the CCS readiness assessment was not in the end conducted, we are of the opinion that the EBRD's Oltenia - Turceni Rehabilitation Project assessment did not take relevant EU legislation sufficiently into account and as a consequence the Bank breached PR 3.5 of the ESP.





## 6. Corruption allegations involved in the Turceni power plant

Concerns that several cases of corruption and other unfair practices occurred in connection with the Turceni power plant led us to submit a report to the EBRD's Office of the Chief Compliance Officer on 27 May 2014.

These allegations include unjustified payments, suspicious contracts and procurement practice, money laundering, bribes and other related issues, all of them potentially falling within the definition of Prohibited Practices as stipulated in the Article 2.16 of the EBRD's Revised Enforcement Policy and Procedures. Given the fact that allegations are based on very reliable sources (for example report of the Romanian Court of Accounts set up by the Romanian Constitution or the Prime Minister's Auditing Body) and prison sententeces were even imposed in connection with the Turceni power plant in 2013 for money laundering, where a former member of the Romanian Parliament and previously the prefect of the lignite mining county was convicted alongside the administrator of a company and three former directors at the Turceni energy complex, we found the situation very serious. The above-mentioned sentence was appealed and the case is pending, but may be indicative of the company's general practices and provides grounds to delay the disbursement of the loan.





## 7. Conclusions

While it may seem to be an environmental project at a quick glance, there are a number of facts that question the justification of the Turceni unit 6 rehabilitation project. The Turceni unit 6 project isn't just a rehabilitation of the power plant unit, it is part of a county-wide operation with ignored social and environmental impacts. The immediate question is whether this is it really a pollution reduction project. Considering that unit 6 hasn't operated since 2006 and it has been partially dismantled, one cannot argue that a refurbished unit would pollute less than the old unit, as there is no old unit to operate in absence of the rehabilitation project. Making reference to the emission levels of unit 6 in the past is one thing, but the fact remains that unit 6 would expand lignite mining, burn lignite and emit particulate matter, sulphur and nitrogen oxides, carbon dioxide and heavy metals and it would have environmental and health impacts, whether those emissions meet permitted levels or not.

The Oltenia Energy Complex has been having a hard time selling its production because there are other energy sources that are more competitive, and there's plenty of generation capacity. Besides the negative health and environment impacts of coal power plants, there are feasibility problems around both greenfield and brown field projects. New coal power plant projects are being abandoned because coal power plants are not flexible enough in an energy system more and more reliant on renewable energy (in 2013, Enel cancelled an 800 MW coal power plant in Galati and EON and Enel cancelled another 800 MW coal power plant project in Braila). Lignite is far from being a central element of the economy anymore. It can only get worse for lignite, with more and more wind and solar capacities coming online. An important question is whether the unit 6 project would pay back and whether it could do so without further subsidies. Currently, the lignite complex has its lignite mining expropriations paid by the state while its power plants have guaranteed and priority access to the grid, to some extent. These subsidies may not be sufficient and this raises the question on what other forms of subsidy it will require in the future.

The project doesn't meet the requirements of the EBRD's environmental and social policy. An environmental impact assessment should have been conducted for the project along with a public participation process. This was partly triggered by an incorrect categorisation of the project. As unit 6 has been out of operation since 2006 and partially dismantled, the baseline for this rehabilitation project is zero emissions. The project would lead to estimated emission levels of 1.6 million tonnes of carbon dioxide per year, as well as additional emissions of sulphur and nitrogen oxides, particulate matter and heavy metals. Furthermore, if refurbished, unit 6 of the Turceni power plant will need to comply with stricter emission limit values under the Industrial Emissions Directive (for new units) and not the emission limit value for existing units. The due diligence also failed to assess other issues directly related to the project, mainly deforestation of certain areas to expand lignite mining using a practice of slicing areas to avoid thorough environmental permitting. Finally, the due diligence for the project failed to review carbon capture and storage readiness for the project.





There are also concerns regarding corruption and other unfair practices in connection with the Turceni power plant. These include unjustified payments, suspicious contracts and procurement practice, money laundering, bribes and other related issues, all of them potentially falling within the definition of Prohibited Practices as stipulated in the Article 2.16 of the EBRD's Revised Enforcement Policy and Procedures. They may be indicative of the company's general practices and provide grounds to delay the disbursement of the loan.

Romania must phase-out the extended use of fossil fuels and concentrate its resources on the transformation to an energy-efficient, low carbon, sustainable renewables-based economy. The current context can only be helpful in this direction, as we currently have a net installed dispatchable capacity of 18 GW, while the system load is generally between 6 and 8 GW. Considering this opportunity, as well as the need to meet stricter environmental standards (e.g. those set by the European Union's Industrial Emissions Directive) - it is imperative to speed up efforts to increase energy efficiency, connect our electricity system with that of neighbouring countries so as to exchange renewable energy and design alternative development paths for our coal mining regions.

The EBRD should freeze the disbursement of the loan for the Turceni Rehabilitation project until environmental, social and economic analyses have been performed for this project, in line with bank policies.





## About us

**CEE Bankwatch Network** is an international non-governmental organisation formally set up in 1995 with member organisations in 13 countries across central and eastern Europe (BG, CZ, SK, HU, EE, LV, LT, RS, MK, GE, HR, PL, UA). We monitor the activities of international financial institutions which operate in the region and promote environmentally, socially and economically sustainable alternatives to their policies and projects. We are a non-profit, non-partisan organisation and funding for our work comes from EC and private foundations.

We promote sustainable projects, support communities to participate in decision-making around projects that can have a negative social and environmental impact and we advocate for policies that ensure that public funds bring public benefits. Our main area of work is combating climate change and within this area, we focus on the energy sector and the transition to a low-carbon economy, among other through energy efficiency and renewable energy. As such, we work with European Union institutions and we also target public banks such as the EBRD and EIB.

#### Frank Bold

We are a fifty-person law organisation operating six branches in three EU countries. Since 1995 we serve individuals, municipalities and businesses. We promote corporate and governmental accountability, and provide legal support to civil society in human rights, environmental, and anticorruption cases.

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