

Operation Performance Evaluation Review

Bucharest Multi Sector Project
District Heating

Romania

(A Technical Cooperation Operation)

March 2009

Evaluation Department
(EvD)

PREFACE

The subject of this OPER is the technical cooperation (TC) operation *Bucharest multi-sector project (district heating)* in the committed amount of €1.3 million, which was funded through grants from Switzerland and the Netherlands and the Balkan Regional Special Fund.

The operation leaders (OLs) for the different components of above TC were Amory de Lannoy, Susan Goeransson, Anca Ocroteala and Jan-Willem Van de Ven. The operation team and other relevant Bank staff commented on an early draft. The Basic data sheet on page iii of this report is complementary to this OPER and designed to be read together.

The evaluation was carried out by Nicolas Mathieu, Senior Economist of the Evaluation Department. Information on the operation was obtained from relevant teams and departments of the Bank and its files as well as from external sector and industry sources. Fieldwork was carried out in October 2008. EvD would like to take this opportunity to thank those who contributed to the production of this report.

Post-evaluation selection and process

Selection of an operation for post-evaluation by EvD uses the following criteria:

- relevance to the Bank's likely future operations
- lessons-learned potential
- size of the Bank's investment commitment/exposure
- balance among countries of operations
- balance among sectors and types of operations
- relative priority of investment operation OPERs within EvD's overall work programme priorities and resources.

The Bank's post-evaluation process is described in Chapter 8 of the Operations Manual. The responsible operation leader first writes a TC PCR. The PCR report serves as a self-evaluation function and establishes the basic facts and lessons from the operation's implementation outcome and future prospects. EvD's independent evaluation follows, using the PCR as one of several inputs.

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ABBREVIATIONS

ANRE	Romanian Energy Regulator
ANRS	Romanian Energy Regulator
CEP	Creditworthiness enhancement programme
CGMB	General Council of the Municipality of Bucharest
CO	Carbon monoxide
EAP	Environmental action plan
ERU	Emission reduction unit
EUR	Euro
GoR	Government of Romania
ISA	Implementation support adviser
JI	Joint implementation
MVP	Monitoring and verification protocol
NOx	Nitrogen oxide
PIU	Project implementation unit
PPP	Public private partnership
RADET	Bucharest's district heating company
SECO	Swiss State Secretariat for Economic Affairs
SO2	Sulphur dioxide
TC	Technical cooperation
UNFCCC	United Nations Framework Convention on Climate Change

DEFINED TERMS

the Bank	European Bank for Reconstruction and Development
the client:	General Council of the Municipality of Bucharest (CGMB)
the OPER team	Staff of the project Evaluation Department who carried out the post-evaluation
the operation team	The staff in the Banking Department and other respective departments within the Bank responsible for the operation appraisal, negotiation and monitoring, including the PCR
The TC Project	The overall objective of the TC was to assist CGMB in providing advisory services for the preparation of the Bucharest multi-sector project and its implementation, especially for the Credit Enhancement of the Municipality and the restructuring of RADET.

BASIC DATA SHEET

Operation Codes: 26313, 33932
Location: Romania
Operation: Bucharest Multi Sector Project
Sector: Local Authorities Services
Type: Technical Cooperation
Facilitators: Switzerland, Netherlands, Balkan Regional Fund
Bank Unit: Municipal and Environmental

A. Funding

	TC commitment		Total committed (€)
	Number	Title	
TC1	BRSF-2002-02-02	Bucharest Municipal Multi-Sector Programme	49,690
TC2	SWI-2002-04-06	Preparation of Investment Plan - Bucharest District heating	47,061
TC3	SWI-2002-05-07	Bucharest District heating: Baseline Study and MVP	40,500
TC4	CHBU-2003-12-01	Bucharest District heating: Implementation Support Adviser	700,000
TC5	NBMS-2004-09-02	City of Bucharest Credit Enhancement Programme	310,000
TC6	CHBU-2007-07-01	Bucharest district heating: Implementation Support Adviser Contract Extension	184,003

B. Procurement

Consultant services TC1 to TC6

<u>Mode</u>	<u>Sources by country</u>
Selection from shortlist	Belgium, United States, Finland

C. Visits

<u>Type of Visit</u>	<u>No. of Visits</u>	<u>Person-days</u>
EvD/OPER	1	4

1. Introduction

The European Bank for Reconstruction and Development's (EBRD) technical cooperation (TC) under consideration was attached to a multi-sector project operation for the city of Bucharest. The TC had two major components: public transport and district heating. The public transport component included a proposed programme of reform in the sector and a public parking management strategy. The district heating components covered the support to project preparation and implementation as well as credit review of the city of Bucharest. This OPER focuses on the district heating component, which is larger in terms of amounts disbursed and more advanced in implementation.

1.1 Sector background

Bucharest has a population of 2.1 million inhabitants, corresponding to 10 per cent of the country's total population. As the next largest cities have fewer than 400,000 inhabitants, Bucharest plays a particularly influential economic and financial role within the country. The district heating network of Bucharest is one of the largest in the world and requires significant investments to reach acceptable production and delivery standards.

A publicly owned company, RADET, provides heat and hot water services to approximately 560,000 residential households, 4,880 commercial and 150 government entities, and 286 hectare of greenhouses. The network serves over 1.2 million residents. Energy for heating was wasted in Bucharest because it was delivered even when demand was reduced. The substations lacked adequate control systems that enable energy supply to be matched to consumers' demands.

RADET, the district heating company, is run under the authority of the municipality through a "Régie" system. Under this system RADET is a legal public entity that has an autonomous management and budget. RADET obtains its revenues through tariff payment from customers and transfers from both municipality and the government. The transfers are determined by a complex set of policy and regulatory rules (see Box 1) that has lead to untargeted distribution of subsidies.

Box 1: Romania tariffs policies and regulations for district heating

RADET purchases most of its heat supplies from Termoelectrica (the state-owned thermal electricity generating company) and sells the heat, which it distributes throughout a network of 725 substations. As the national energy regulator, ANRE regulates the prices for heat sold by Termoelectrica. This regulatory agency sets heat prices on the basis of an approved assessment of production costs. Prices for heat sold by RADET are also regulated by another national energy regulator, ANRS, which sets heat prices according to approved assessment of distribution costs.

Additional elements entering in the determination heat tariffs in Romania at the distribution level are the national and local reference prices. This national reference price is a benchmark price set by the government of Romania (GoR). The reference price can be further adjusted locally (local reference price) and represents the maximum price that domestic consumers actually pay. The balance between the final reference price and the price approved by ANRS is paid directly to the district heating company by the local authority and GoR as a subsidy.

Prior to the intervention of the project and the related TC, RADET had strong engineering expertise. However, it was commercially weak and had only limited exposure to modern distribution practices. There was also little competitive pressure. The heat from other sources, electricity or gas, could only marginally substitute for district heat. Therefore, the development strategy for RADET was to improve the infrastructure so that heat services could be provided more cost effectively and with less energy waste. It also sought to advance the management performance of RADET through the use of management contracts.

1.2 The Bank's involvement

In 2002 The General Council of the Municipality of Bucharest (CGMB) asked for the Bank's assistance in preparing and financing a €1.5 million investment programme that included substations for the city's district heating system. A pre-feasibility study was carried out identifying needs for large investments in the district heating system.¹ The Bank provided a loan to the city with RADET as a co-signee. The loan was signed in April 2003. The project included the installation of an integrated control and automation system to be applied to 584 substations. A centralised network control unit would enable efficient monitoring and optimisation of the system.

At the corporate level, the expected transition impact from the *investment project* included the establishment of a transparent and consistent assessment of costs for the calculation of heat prices to be approved by ANRE (now ANRS), which was aimed at fully covering RADET's operating and investment costs. At the sector level, the expected impact from the *investment project* consisted of the introduction of commercial practices in RADET. This was to be achieved, first, through an operating contract with RADET's existing management. Then, after an initial period of 18 to 24 months, a competitive tender for new management to take over the RADET operation was to be issued.

2. TC project rationale

Since Bucharest was to receive Bank funds, due diligence required that the Bank be satisfied with the level of long-term solvency of the city. The first TC component (*TC1*) was to carry out an assessment of the credit worthiness of the city of Bucharest. In terms of project preparation, the EBRD needed to further verify and update the results from the pre-feasibility study, especially the scope of the investment programme, the cost estimates and benefits from the project. This information was to be delivered by a second TC component (*TC2*).

In order to implement the investment programme, RADET was to retain a single consulting firm to design, procure and supervise installation of the new equipment. This was a pilot project with definite demonstration effects, and the team envisaged that the experience of undertaking baseline studies and a joint implementation (JI) project would leverage additional investments in the future. The Swiss State Secretariat for Economic Affairs (SECO) considered a grant of €7 million to co-

¹ Two studies, the "Technical and Economic Appraisal for District Heating in Bucharest" produced by Energy & Utility Consulting for the EBRD in 2001 and the subsequent "Master Plans for Rehabilitation of Bucharest District Heating Systems" produced by EU Phare, had identified the scope of the rehabilitation needed.

finance the investment.² For this purpose, the EBRD recruited a consultant under a third TC component (*TC3*) to prepare a baseline study and assess the greenhouse gas emission reduction potential under the monitoring and verification protocol (MVP).³

In addition, the Bank required that RADET establish a project implementation unit (PIU) to supervise the implementation of the investment programme and monitor the use of Bank funds. However, RADET lacked the technical capacity and financial means to provide for a PIU that would meet the Bank's standards of management, monitoring and reporting of procurement for the implementation of the investment programme. Therefore, RADET requested that the Bank finance the services of an implementation support adviser (ISA).

The adviser to the PIU was hired under a fourth TC component (*TC4*). The contract was later extended under *TC6*. The EBRD loan was the first city of Bucharest financing without a sovereign guarantee. A key component of the project was the creditworthiness enhancement programme (CEP), which included measures to further develop the city's financial management and planning capacity in order to strengthen its creditworthiness.⁴ *TC5* was designed to help introduce an MIS system and support the CEP. Foreign and local experts were required for this task. The sequence of TC components from *TC1* to *TC6* is summarised below.

² SECO intended to convert the grant financing into an acquisition of emission reduction units (ERUs) under a JI agreement between the governments of Romania and Switzerland.

³ The technical assistance, which was funded by SECO, included (a) the design, procurement and supervision services to provide RADET with necessary assistance for the physical implementation of the project; and (b) advisory services for the preparation, tender and negotiation of a management contract, initially with RADET, and after no more than two years, with a private sector operator recruited through open competitive tender.

⁴ In addition, Bucharest sought to obtain a public credit rating to attract a larger pool of foreign investors.

Table 1:EBRD TC district heating in Romania – commitments and disbursements

ending programme	TC label and donor	TC ref. name	TC objective	Comm. amount (€)	Appr. date	Disburs. (€) as of Feb 09
Multi-sector project - municipality	TC1 Multi-donor (Balkan Regional Special Fund)	BRSF-2002-02-02	City of Bucharest: Creditworthiness	49,691	13 Feb 2002	49,690
	TC2 Switzerland	SWI-2002-04-06	Preparation of investment plan - Bucharest district heating	47,061	19 Apr 2002	44,706
	TC3 Same donor as above	SWI-2002-05-07	Bucharest district heating: Baseline study and MVP	40,500	8 May 2002	39,406
Multi-sector project - RADET	TC4 Same donor as above	CHBU-2003-12-01	Bucharest district heating: Implementation support adviser	700,000	18 Dec 2003	623,351
Multi-sector project - municipality	TC5 Netherlands	NBMS-2004-09-02	City of Bucharest: Credit enhancement programme	310,000	30 Sep 2004	210,603
Bucharest Multi-sector project RADET	TC6 Switzerland	CHBU-2007-07-01	Bucharest district heating: Implementation Support adviser contract extension	184,003	12 Jul 2007	0
Total				1,331,255		967,756

Source: Technical Cooperation System (TCS), as of 3 February 2009

3. Achievement of objectives

3.1 Objectives

TC1 Municipal multi-sector programme

The objective of the assignment was to ascertain the credit quality of the city of Bucharest that would lead to the design of an appropriate financing structure for the Bucharest municipal multi-sector programme. The consultants had to generate data and provide analysis of all factors influencing the credit position of the city of Bucharest and develop financial forecasts over the loan repayment period.

Influential factors included:

- economic initial conditions and performance
- fiscal affairs
- administrative and legal infrastructure of local government
- capital investment and debt policy.

The consultants had to work with the city to generate data from original sources. The assignment involved both field visits and desk work in approximately equal proportion. The expected output was a report to be produced over a two-month period.

TC2 Preparation of investment plan

The objective was to prepare a detailed priority investment programme and investments financed by the EBRD, SECO, the city and RADET. The technical validity and cost estimates of the investments proposed by the consultants in previous reports were to be verified and finalised, and the consultant had to specify the appropriate procurement plan for the investment.

TC3 Baseline study and MVP

This assignment intended to foster the use of the flexible mechanisms under the Kyoto Protocol and thereby enhance the chances to make use of greenhouse gas emission reductions that might result from the implementation of the project. *TC3* was to facilitate the establishment of a JI project between the governments of Switzerland and Romania. Major outputs of the assignment were expected to include:

- a baseline study leading to an assessment of the greenhouse gas emission reduction potential of the project
- the design of an MVP
- recommendations on the institutional and contractual framework for implementing the project under JI, including the transfer of the emission reduction units (ERUs) from Romania to Switzerland.⁵

The baseline study and MVP, once produced, had to be validated by an independent auditor.⁶ In instances when these countries would decide not to pursue a JI agreement, the TC should envisage options for transferring the ERUs to another party.

In parallel, the Bank agreed with SECO that it would provide a *maximum* grant of €7 million towards the district-heating component. Up to €1 million of this amount was made available for technical assistance and the remaining component, €6 million, was to finance electronic panels for substation controls (51 per cent of the equipment of Swiss origin). SECO signed the grant agreement at the same time the EBRD loan was signed.

In addition, SECO referred to this agreement in the JI protocol with the Romanian government, expecting to later convert the grant into a purchase of ERUs. This was perhaps without fully anticipating that the Romanian counterpart might oppose the equivalence between the grant and the purchase of ERUs on the ground of differences in legal obligations between the two initiatives.⁷

⁵ The contractual framework that would ensure the successful transfer of ERUs would take into account the status of the relevant institutions and the provisions under the United Nations Framework Convention on Climate Change (UNFCCC).

⁶ The objective of the validation is to verify that the baseline and the calculation of ERUs are conducted in accordance with the regulations under Article 6 of the Kyoto Protocol and the UNFCCC.

⁷ Evidence of SECO's intention to convert the grant into a purchase of ERUs and indications of potential legal inconsistencies were found in the first JI memorandum between Switzerland and the

TC4 Implementation support adviser

The objectives were to:

- enable RADET design an effective contract structure for the investment programme
- undertake the tendering on the best possible terms for RADET
- carry out the contracts according to agreed schedule, standards and budget.
- “improve the management and the organisational structure of RADET”.

This last objective, which was clearly spelt out in the TC funding request to the donor, was not well reflected in the terms of reference (ToR) of *TC4*. It is, nevertheless, the view of the evaluation team that the donor had the right to expect, on the basis of the request submitted, that *TC4* was also to support the commercialisation and the restructuring of RADET.

TC5 City of Bucharest CEP

The objectives of the CEP were to provide training that would enable the city implement the enhancement programme. This was also to review the city’s progress in implementing the CEP and to provide follow-up support as needed, especially in assisting the city with monitoring and reporting capacity in this area. The success of the consultants’ assignment was to be determined by the degree to which the city would be able to achieve better cash management, financial planning and reporting.

TC6 Implementation support adviser contract extension

This was an extension of *TC4* that was to enable the work to be completed and therefore included exactly the same objectives as those spelled out in *TC4*.

3.2 Achievement of objectives

TC1

The due diligence objective to ascertain the credit quality of the city of Bucharest was achieved. The EvD mission found that, several years after the end of the TC assignment, the city still has a solid set of financial budget procedures and practices in place, which lead to adequately conservative borrowing. First, the city estimates the amount of revenues it is most likely to collect. The total amount of revenues is then taken as a constraint for the determination of current expenditures.

The latter are decided according to priorities rules, with salaries coming before subsidy expenditures. Second, the city calculates the amount of funds available for capital expenditures. This calculation is based on the surplus of the current expenditure budget and a maximum amount of borrowing to maintain creditworthiness. Within the availability of these funds, the municipality decides upon the priority capital expenditures.

GoR with a paragraph referring to the use of a grant (2.1). The entire memorandum dealt with a JI agreement, which, after signing, the Ministry of Environment felt was incompatible with a grant status.

TC2

The consultant performed all tasks envisaged in the ToR which dealt with the investment programme, under the set of objectives mentioned above for *TC2*.⁸ The consultant showed flexibility, initiative and willingness to undertake tasks beyond their obligations defined in the ToR. The Bank established an excellent relationship with the consultants' staff and management, as did the client.

TC3

The Bank and the consultant were not successful in the task of facilitating the implementation of the JI between the Ministry of Environment and the Swiss authorities (SECO). This had started as a grant and should have ended with the purchase of ERUs. In the end, SECO could not convert the Swiss grant into the purchase of ERUs.

In this difficult context, SECO could not disburse the grant to its maximum €7 million. The disbursement was stopped at an advanced stage of implementation of the grant programme. Since the programme was funding switches and electronic panels in the substations for proper monitoring and optimal distribution of the heating across the city, RADET did not acquire the entire amount of equipment of electronic panels.

The shortfall, in turn, significantly reduced the overall effectiveness of the installation of panel controls, as they should have been installed throughout the entire network of substations to be fully effective.⁹ As of November 2008, RADET was still pursuing the matter with the Ministry of Environment and SECO with the hope of finding the financing complement to purchase the missing equipment.

TC4 and TC6

The delay in project implementation triggered a prolongation of *TC4* into *TC6*.¹⁰ Despite this, the consultant delivered effective assistance for the preparation and the undertaking of procurement and for each step of project implementation.¹¹ Since the ToR of *TC4* did *not* fully reflect the TC objectives as spelt out in the financing

⁸ The consultant prepared a draft detailed priority investment programme outlining the investments that would be financed by the EBRD, SECO, the city and the company. In addition, the consultant verified and finalised the technical validity and cost estimates of the investments proposed by the consultants involved in previous studies, made a draft procurement plan for the investments, and developed an environment action plan (EAP).

⁹ Only €6.2 million were disbursed, and, as of November 2008, RADET reported that the SECO did not intend to further disburse since "the Joint Agreement did not materialise".

¹⁰ Due to difficult processes of project clearance in Bucharest between the mayor, his council and the prime minister, the client did not sign the loan agreement until April 2003. Since the project had been dormant for nearly one year, it took time for the newly appointed PIU to mobilise for the project implementation after signing. In light of the delays in getting the consultants in place, project implementation had slipped by more than one year. As a consequence, the consultancy contract was extended by 24 months.

¹¹ Regarding the preparation of procurement for investment, the consultant looked at the scope of the project including a review of rehabilitation works, a detailed technical specification of goods and services, the design of implementation solutions and the corresponding budget. In the area of project management, the consultant prepared the institutional arrangements for implementation as well as the project programme and corresponding risk matrix. For procurement and project implementation, the consultant prepared the initial stages of procurement, assisted in negotiations, and then assisted and reported on project implementation assistance to the client.

proposal, details for the commercialisation and restructuring of RADET were not specified. Therefore, the TC did not deliver any service of significance in this area.

Instead, a Swiss grant of €1 million was earmarked to finance a study that would propose a public private partnership (PPP) framework for RADET, including the establishment of a competitive tender for a new operator of RADET. The report was finalised and submitted to the city council, which approved it in November 2006. The meeting with the municipality confirmed, however, that while the subject of private sector involvement in RADET was discussed several times, RADET's current status as a "Régie" (that is, a full public sector entity) had never really been questioned by any local or national authority.

It must be concluded that the PPP study (at whatever advancement stage it was) did not affect RADET's management and governance, including current legal and managerial arrangements with the municipality. It appears to the evaluation mission, however, that all parties have reacted well to the public sector arrangement and that public procurement rules for the acquisition of equipment are so far well monitored by RADET through all stages.

TC5

The consultant delivered quality reports as well as numerous presentations that clearly helped develop the capacity of city departments in managing and planning the city finances.¹² For some time, the Bank had been concerned about the consultant having difficulties in convincing the departments in city hall of the benefits that this assignment would bring to them.

As a result, the consultant was slow in finalising the financial model for the city. In the end, the consultant recognised the constraints under which the city was operating and, reciprocally, the city cooperated in providing the data for the model. At present, the model is operational and running. Its output is frequently used in communicating with potential lenders and international credit rating companies.

Overall, the objectives of the TC are rated as being *Achieved*.

4. Overall assessment

Under *TC1* and in the following years, the municipality strengthened its creditworthiness by improving its budgetary procedures and financial practices. The *TC2* assignment consolidated the findings of previous feasibility studies. The novelty of the JI project and the requirement of an adequate legal framework for its completion as a JI project in *TC3* revealed serious risk factors.

While this risk had to be essentially carried and mitigated by the parties directly involved (RADET, SECO and the Ministry of Environment), the consultant and the Bank allowed the JI parties to sign a memorandum which included some contradictions and obscurities that in the end impeached carbon trading and blocked

¹² The consultant prepared a CEP and timetable in line with these terms of reference for review by the city and the city council, gave the advice necessary to enable the city to implement the CEP, assisted the city in building monitoring and reporting capacity to ensure that the city could meet its financial reporting and covenant compliance obligations under the loan agreement.

the last tranche of disbursement of the grant. As a consequence, some new equipment is missing, and the renovated distribution network is not fully efficient.

Regarding the creditworthiness enhancement programme, the *TC5* played a major role in assisting the city in the preparation of quality reports to be addressed. *TC4* and *TC6* effectively supported project implementation.

At the corporate level, *TC1*, *TC2* and *TC4* to *TC6* had a significant impact on project design and implementation. The Bank enabled CGMB and RADET to package an economically sound and innovative priority investment programme, matching the borrowing capacity of RADET and the city and promoting energy efficiency.

At the sector level, the transition impact should have come from its technical support to the component in *TC3* that dealt with the commercialisation of RADET, tariff reform and potential introduction of a private operator. Very little happened in this area. Therefore, the project had to go ahead on this item without effective TC support on two major transition items: expansion of private ownership and frameworks for markets.¹³ Yet, the *TC5* component supporting the creditworthiness enhancement programme led to substantive reporting improvements. These had a positive effect on subsequent bond issues and therefore improved the city's access to capital markets.

The overall performance of the TC is rated as *Partly Successful*.

4.1 Rating compared with standard project completion report (PCR)

For three TC components, *TC1*, *TC2*, *TC5* the assessment clearly leads to a *Successful* ratings. For these components, the ratings are similar to the PCR ratings (see Table 2) since the OPER tends to confirm the findings of the PCR. The ratings differ for *TC3* and *TC4*, which are the components that supported the JI and the PPP study.¹⁴ Because of the importance of these components within the overall package as instruments to help achieve the transition impact objectives, the entire TC support for this district heating operation can only be rated as *Partly Successful*.¹⁵

¹³ The project implementation timeline for major transition at the sector level has slipped to 2007-08, reflecting the high risks to transition impact. In 2007 the consultants began work on internal restructuring of the company, tariff reform policy and preparation for private involvement. However, the recommendations are at a very early implementation stage. There has been some progress on tariff policies, but tariffs remain below cost levels.

¹⁴ The *TC6* component is not rated because it has not displayed any disbursement as of February 2009 and more generally its implementation is not advanced enough to warrant a rating.

¹⁵ Regarding the investment project itself, OCE continuously warned that the expected transition impact of the project was high but associated with a high risk, from inception in April 2002 to the last review of January 2007.

Table 2: Summary rating table for TC performance

	PCR (or progress report) Rating ⁱ	EvD evaluation team			Overall rating ⁱ
		Achievement of objectives	Transition impact ⁱⁱ	Bank handling ⁱⁱⁱ	
TC1 Creditworthiness (€49,691)	Highly Successful	Fully Achieved	Excellent	Excellent	Highly Successful
TC2 (PCR) Proj. preparation (€47,061)	Successful	Good	Good	Good	Successful
TC3 (PCR) Support to JI and PPP (€40,500)	Successful	Partly Achieved	Unsatisfactory	Unsatisfactory	Unsuccessful
TC4 (PR) Proj. Implement. (€700,000)	Successful	Fully Achieved	Satisfactory	Satisfactory	Partly Successful
TC5 (PR) Credit enhancement (€310,000)	Successful	Fully Achieved	Good	Good	Successful
All components	n.a.	Achieved	Satisfactory	Satisfactory	Partly Successful

Note: (i) Ratings are Highly Successful, Successful, Partly Successful and Unsuccessful (ii) Ratings are Excellent, Good, Satisfactory, Marginal, Unsatisfactory and Negative (iii) Ratings are Excellent, Good, Satisfactory, Marginal, Unsatisfactory and Highly Unsatisfactory.

5. Transition impact and additionality

5.1 Impact at corporate level

The transition impact of the project comes from the support to the design and implementation of the investment programme. It appears in the form of positive transfers of skills and improvements in business standards.

- *Skills transfer (TC2 and TC4):* The commitment and the active participation from the client (RADET) in TC2 facilitated the learning of project preparation good practices.¹⁶ Despite delays in project implementation, the implementation support adviser under TC4 delivered timely assistance permitting the client to further develop its technical capacity in the management, monitoring and reporting of procurement.¹⁷

¹⁶ The commitment of the client was demonstrated by their willingness and effort to provide the data required. It was also evidenced by their responses to other investigative work done by the consultant. The client was also engaged in the drafting of the ToR and ultimately approved the final design and selection of the consultant.

¹⁷ Capacity building for project management covered the review of scope of rehabilitation works, the formulation of detailed technical specifications for goods and services, the design of implementation solutions, the investment budget as well as handling the initial stages of procurement, enhancing negotiations skills, and monitoring and reporting on project implementation.

- *Business standards improved through the implementation of CEP (TC5):* Bucharest was rated BB+ in the years following the adoption of the rating system but was then criticised for its relatively weak financial reporting. Nevertheless, the city was able to issue €500 million of Eurobonds in June 2005.

Regarding the quality of financial reporting by the city, compliance with financial reporting is still patchy, but the city has been able to send more detailed financial data to the Bank, indicating further progress in this area. Furthermore, a semi-annual reporting on the Eurobonds is under way.

5.2 Impact at sector and national levels

Neither the components of *TC4* and *TC6* that should have supported the project for the commercialisation of RADET, nor the PPP study from the Swiss grant (*TC3*) have so far facilitated any change within RADET. At least in terms of legal, governance or managerial structure towards privatisation, the introduction of a service contract and thereafter a management contract through an open tender would include:

- *Framework for markets (TC4 and TC6):* The TC did not provide any support on transition impact items that were essential to the success of the investment project. Complex topics like tariffs covering operating and investment costs and transparent tariff methodology would have warranted some dedicated form of technical assistance. The same comment applies to support to the municipality in its intention to move from general heating subsidies to direct subsidies targeting poor households.¹⁸
- *Private ownership (Swiss grant in TC3, TC4 and TC6):* The technical assistance under the €1 million portion of the Swiss grant was to help establish a new operating contract with RADET's existing management. This objective is not yet achieved. No operating contract with the management of RADET is in force. The company still operates on the basis of implicit governance rules and, while apparently well managed for the time being, potentially remains subject to political influences and vulnerable to shortage of public funding.

However, there are some *demonstration effects* at sector level from *TC5* where the creditworthiness enhancement of the municipality triggered by the Bank non-sovereign loan also facilitated more broadly sub-sovereign lending to the municipality, including possible syndications. The city of Bucharest is now rated by Standard & Poor's (S&P).

The overall transition impact generated by the TC is rated as *Satisfactory*.

5.3 Additionality

The investment project had made it clear that institution building of RADET would go beyond straight project support. It was aimed at further commercialisation of

¹⁸ The municipal subsidies are expected to persist for a period of time after EU accession, but it is hoped that a targeting mechanism will avoid the pitfalls of operating subsidies. The reform of the subsidy system is part of tariff policy reform and internal restructuring plan. The tariff methodology was approved in February 2005 but the municipality has not taken any implementation action yet.

RADET and the establishment management contract. The TC did not clearly reveal its support to the same extent, omitting in the ToR of TC4 to fully reflect the programme envisaged in the request for funds. The additionality of the TC in terms of design and functioning is not as complete as it should be and is, therefore, rated as *Verified at Large*.

5.4 Environment

The implementation schedule of the EAP was agreed by the GCMB and the Bank prior to loan effectiveness. Environmental benefits were expected to result from increased combustion efficiency in the form of reduction of emissions from heating plants and a corresponding improvement in local air quality. In this respect, the district heating investments had a significant impact.

The energy used within the project perimeter has been produced in cogeneration schemes. The fuel share corresponds to 40 per cent for gas and 60 per cent for black oil. Annual reductions resulting from this new cogeneration system are substantial.¹⁹ The Bank financed investments also had a positive visual impact due to the compact and modular equipment installed. Operations are characterised by a lower noise level in comparison with the previous situation and by increased safety and security.²⁰

In addition, while the TC supported further environmental progress by promoting the commercial viability of carbon trade, it failed to help generate carbon trading in this instance. The TC intended to increase awareness to adherence to the terms of the UNFCCC in carbon trading but again failed to do so by letting two parties, SECO and the Romanian Ministry of Environment, agree on terms that potentially could not be supported by the Convention. This was due to a grant (and not a trading agreement) that was initially included in the agreement.

6. Bank handling

The quality of Bank handling has been very good for most of the TC components (*TC1*, *TC2* and *TC4* to *TC6*), and it is reflected in the success of these components. Regarding *TC3*, the support for the JI and the PPP, Switzerland (SECO) has taken an active part in the preparations of the JI assignment, which was associated with the €7 million grant co-financing.

The Bank and the consultant have made genuine efforts in their contacts with the Romanian client to ensure that adequate mention would be made of the Swiss commitment and contributions. They appeared to have failed, however, to prevent a growing misunderstanding between RADET, the Romanian Ministry of Environment and SECO that ultimately led to the absence of a carbon trading agreement and only a partial disbursement of the €7 million grant.

¹⁹ Estimated annual emissions reductions are: (a) 1,713 kg of sulphur dioxide (SO₂); (b) 175,836 kg of nitrogen oxide (NO_x); (c) 16,736 kg of carbon monoxide (CO); and (d) 4 kg of particles.

²⁰ In addition, during the physical implementation of the project, noise, vibration and dust were held at minimum levels. Waste materials like construction material and metal scrap were recovered and recycled when possible. Waste management and disposal was carried out according to regulations, not endangering either human health or the environment. No hazardous waste was created.

While the undisbursed part of the grant, in the order of €800,000 might be considered as relatively small, the shortfall of funds was enough to arrest the purchase of additional substation controls that were necessary to make the entire set of controls fully efficient. Bank handling for the TC components taken together is rated as *Satisfactory*.

7. Key issues and lessons learned

7.1 TC support to enterprise and sector reforms

7.1.1 Issue: Commercialisation of RADET in TC4 (and the Swiss grant in TC3)

The expected transition impact from the investment project *and the related TC* focused on commercialising RADET by:

- tariff reforms²¹
- introduction of a service contract
- full management contract for RADET.²²

Risks to transition impact were largely related to the commercialisation components of the investment project and the corresponding TC. *TC4* and the Swiss grant were to support the introduction of private sector participation. Based on past experience, risks associated with implementation of tariff reform and performance-based service contracts were high, even when transcribed as loan covenants. However, objectives to help improve RADET's management and organisational structure were part of the TC donor request but were not reflected in the consultant ToR in *TC4*.

The task was only picked up in the PPP study under the Swiss grant (*TC3*). The latter initiative, which was presented as a stand alone TC whose outcome could be disconnected from the overall objectives of the investment project, did feed many discussions within the municipality. However, it was not strong enough to trigger any impact on further participation of the private sector in RADET's management and governance.

Lesson: Fully align investment covenants with outcomes supported by the associated TC

The risks associated with reform outcomes, investment and TC support, signals that there is a potential deficit in the client's capability to fulfil reform requirements. This can result from institutional constraints within the client company or from external policy constraints or both. Expected outcomes in TC, which are clearly specified and tightly linked to covenants in the related project, should help clarify the reform objectives and the steps to achieve them, and ensure that implementation follows.

²¹ Including targeting subsidies to low income families.

²² The objectives of this assignment spelled out in the TCR for TC 4 were, among other things, to "improve management and the organisational structure of RADET".

7.1.2 Issue: Timing of TC support in TC5 for the creditworthiness enhancement of the Municipality

The TC supported sub-sovereign lending and the demonstration effects that this might have. Risks to transition impact were largely related to the implementation of envisaged reforms. The TC was slow to materialise. It was envisaged that the assignment would start in 2004 but it was delayed by six months. By that time several of the consultant tasks were seen as less relevant, and the consulting firm was reluctant to amend the contract accordingly.

Lesson: Tailor TC to project implementation timing constraints

When the design and purpose of a TC component is closely related to the execution of a timed institutional covenant, the timing and content of the component itself must carefully follow the implementation of the project and adapt to changes in order to avoid inefficiencies in the use of financial or human resources.

7.2 Issue: Motivating counterparts when collaboration seems to weaken (TC5)

The consultant was selected by the city and began work in March 2005. While he understood the rationale of the assignment and the city reported an excellent working relationship, the consultant was slow in finalising an updated financial model. The consultant stated that this was because the various city departments were not cooperative enough and did not provide data on time.²³ On the other hand, the city felt that the consultant was reluctant to recognise some of the constraints under which the administration was operating.

Lesson: The Bank should be in the front line to help maintain momentum in project implementation

When preparing a TC, the Bank staff (not the consultant) should be *the first one* to be aware of the more difficult aspects of working and motivating a counterpart in the public sector, to buy into the benefits of this assignment. The Bank should be more proactive in preparing the ground for a successful collaboration between the consultant and the client.

7.3 Issue: Evaluating the right length of a TC contract attached to project implementation

The request for *TC6* was an extension of the original *TC4* assignment and was required to allow the consultant's work to continue and to fully implement the investment project. The project had experienced delays in implementation, which were beyond the consultant's control.

The consultant had been providing inputs as required and certified by the client. Delays in implementation resulted from:

²³ There have been delays in finalising the city's financial model due to lack of inputs from other departments

- technical issues²⁴
- tendering and related complaints
- project management changes within RADET
- revised refurbishment priorities in substations.

Several key contracts remained to be placed, including the balancing valves, which was the largest contract under the project.

Lesson: Make sure continuity is provided when a TC contract ends and more assistance is still needed

When a TC is so closely linked with the design and execution of procurement for the investment project, the needs must be as realistic as possible from the outset. This includes contingencies to avoid a rupture in the middle of the execution or renegotiating new contracts in order to continue work.

7.4 Issue: The extent to which the Bank should act as a facilitator when third parties are contracting (TC3)

€6 million from the Swiss grant was to finance electronic panels for substation controls. SECO signed the grant agreement at the same time the EBRD loan was signed. SECO also referred to this agreement in the JI protocol with the Romanian government. This was done with the intention of later converting the grant into purchasing ERUs attached to the project (should the latter materialise).

When the Ministry of Environment and SECO signed the memorandum of understanding, neither party appeared to fully realise the legal inconsistency that would result from converting the grant into a purchase of ERUs later on. While the Bank was not party to this agreement, they had a direct interest in successful carbon trading since it supported the initiative. The nature of the *TC3* assignment required the client (RADET) to interact with the Ministry of Environment and, through it, with the Swiss authorities (SECO), since the project was prepared under a JI mechanism based on a bilateral agreement. This interaction did not work to remedy the flaw burdening the initial agreement.

The Bank appears ex-post to have been not much more than an observer of the event. It is the view of the EvD mission that the Bank could have at least tried to act more openly and intensively as a broker between the contracting parties. As of November 2008, the two parties (three when including RADET) were still struggling to find a solution without sustained help from the Bank.

Lesson: Be more proactive to ensure the success of TC implementation, especially when the process is new to those involved

While the Bank and the consultant have made genuine efforts in their contacts with the Romanian client to ensure that adequate mention be made of the Swiss commitment and contributions, they did not prevent a growing misunderstanding

²⁴ For example: pump specifications and inspection.

between RADET, the Romanian Ministry of Environment and SECO. In this case, the prevention work could have consisted of helping detecting contradictions and obscurities in the statement of the original agreement between the Ministry of Environment and SECO.