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Directorate B

Trans-European Energy & Transport Networks

**MID-TERM EVALUATION OF
THE TEN-E PROGRAMME 2000-2006**

Contract n° TREN/5.7100/A/03-001

Final Report

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Table of contents

Executive summary	3
1. Introduction	7
1.1. The TEN-E programme and its context	7
1.2. Purpose and realisation of the evaluation	8
2. Methodology	9
2.1. Development of evaluation tools	9
2.2. Implementation and data collection	10
2.3. Data analysis	12
3. Evaluation results	13
3.1. Added value of the programme	14
3.2. Effectiveness of the programme	22
3.3. Utility of the programme	26
3.4. Efficiency of the programme	29
3.5. Conclusions and recommendations	38
Annexes	
I. Terms of reference	43
II. Interviews	55
III. Questionnaires	57
IV. Glossary of terms	72
Index of tables and figures	
Table 1 Distribution of the 74 TEN-E actions evaluated	10
Table 2 Rates of return of the completed questionnaires	11
Table 3 Results of the proposal selections	17
Table 4 Budget, contracts signed and real payments	18
Table 5 TEN-E priorities addressed by the electricity contracts	22
Table 6 TEN-E priorities addressed by the gas contracts	22
Table 7 How the studies have achieved their objectives	23
Table 8 Cumulative coverage of PCI by contracts	23
Figure 1 Results and follow-up of 71 studies	15
Figure 2 SWOT of the TEN-E programme	40

Executive summary

1. The present mid-term evaluation has two main objectives:

- * to evaluate the impact of studies and projects funded by the TEN-E Programme during the period under review;
- * to issue practical recommendations aimed at improving, when appropriate, the overall efficiency of the Programme.

2. The TEN-E programme started in 1995. The yearly budget available amounts to nearly 20 mio €. Only projects identified under the Guidelines for trans-European Energy Networks' decisions – i.e. Projects of Common Interest (PCI) - may be taken into consideration for financial support from the TEN-E budget line.

The programme generally co-finances studies – up to 50 % of their budget. In a limited number of cases (3 since 1998) it also co-finances investment projects – up to 10 % of their budget. The studies deal with the technical, environmental, economical, etc. feasibility of the investments.

3. Three main sources of data have been exploited to carry out this evaluation:

- * documents and reports provided by the TEN-E programme;
- * a written survey addressed to 34 gas and 50 electricity contracts and to 15 Member State Representatives, with response rates between 82 and 100 %;
- * 20 face-to-face and 9 phone interviews with the key stakeholders i.e. contractors and Member State representatives; and interviews of DG TREN staff involved in TEN-E activities.

The interviews have been useful in qualitatively complementing the basic but quantitatively representative information from the survey. The survey could have been made simpler and, in the future could be replaced by a kind of systematic and continuous monitoring of contractors during and after the contracts.

4. There is a large diversity of opinions on the added value and effects of TEN-E and on the appropriateness and format of its continuation. The diversity will probably increase even more with the enlargement of the Union to 10 new Member States with very strong needs of support concerning energy network development. It calls for diversifying the TEN-E support approaches according to particular needs.

5. 65 % of the completed studies recommend implementing the investment project concerned and 44 % are or will probably be followed by an investment. This also implies that in 35 % of the cases, the study has contributed to avoid investments, which could have represented misallocations of resources. This does not, however, mean that the studies play a critical role in the decision to invest: they contribute to building options, are an accelerator and a facilitator, but other factors do have a larger influence such as market perspectives, market uncertainties, emergence of competing projects, etc.

6. There are also additional effects of the participation in TEN-E such as the multinational collaboration, some improved consideration of the environmental impacts and the advantages obtained thanks to the European label. Overall, and despite some contractors' claims, we are of

opinion that TEN-E has not a strategic importance for them but the system seems to satisfy them in terms of number of studies supported and conditions of this support.

7. Even if the number of studies funded seems to satisfy the contractors, in view of the limited impact of part of the studies, the evaluators would be in favour of a diversified approach: one budgetary envelope would be reserved to the less mature or less strategic¹ studies. Another envelope would be reserved to the more mature or strategic studies that would benefit from a larger funding.
8. Considering the programme globally and the need for larger impact, it is our opinion that the programme should be able to select proposals with a higher probability to be followed-up by investments. To that end, a choice has to be made:
 - * either the rates of intervention are decreased for the more mature studies in order that on average the proposals submitted are strategic to the companies and really require a financial support, even if it is at 30 % (for studies);
 - * or there is a stricter selection process for the more mature actions, effectively requiring support because of the level of risk, or because of any other reason making it difficult to get them funded on strictly commercial criteria.
9. The studies are in line with two general objectives, i.e. the effective operation of the Internal Energy Market, and the reinforcement of the security of energy supply. Half of the studies do not aim at strengthening Economic and Social Cohesion and for the other half this is a minor objective. The evaluators consider that this should not be an objective for a programme expected to focus on energy market integration and security of supply, with very scarce means. Their opinion is also that the programme objectives are formulated in a rather general way so that it is difficult to be selective at the proposal stage and to carry out an efficient monitoring of studies achievements.

One third of the PCI is not covered by a contract and that might remain the case for some time. This raises the issue of the status of the list of PCIs: 'shopping list' or priority projects? In view of the scarce resources available to the programme, and the objective to really influence the network development, the evaluators consider that it would be more adequate to have a very limited list of projects of European interest whose implementation strongly requires EU funds.

10. TEN-E has some utility for the implementation of European energy policy, even if it could be substantially improved. This raises the question of the appropriateness of the TEN-E approach (support instrument used and degree of concentration of support) in view of the market and operators' structures: if the ultimate decisions to invest or not are mostly depending on profitability criteria partially related to national regulation, the evaluators wonder whether it is reasonable to expect that relatively small subsidies distributed over numerous actions effectively contribute to infrastructure investments with a long to very long pay back horizon?

The impacts on local development and employment exist but are indirect, as a function of the investments implemented. Environmental impacts seem to have been seriously considered for all projects, but TEN-E has not had any unique effect in this sense, compared to national regulations.

11. The evaluators are of opinion that the programme and project management could be more efficient. They are characterised by several weaknesses that indicate areas for improvement:
 - * monitoring by Member States and the Commission staff: systematic mid-term project reviews with technical economic experts, implementation of the monitoring indicators proposed and more sharing of monitoring and information gathering tasks with Member States could notably help in this;

¹ 'Strategic' for the applying companies.

- * degree of selectiveness in the proposal selection process, notably based on clear definitions and modus operandi of the criteria, notably those applied to the studies;
- * focus on the economic aspects of the investments in all the studies and applications;
- * updated and streamlined management notably by: setting clear objectives e.g. related to time management; use of a single management database, operating according to the diversity of users' needs;
- * increased flexibility in administrative management, up to a certain limit, in order to moderate the administrative workload: e.g. fewer constraints on the use of the budget allocated or on the time limits of the studies. This would also contribute to increase the ratio real payments/budget.

12. The evaluators' analysis of the strengths, weaknesses, opportunities and threats of the programme is summarised by the following figure.

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> * TEN-E is useful to many network operators, as subsidies that cannot be found elsewhere * Satisfaction of a majority of contractors * Some utility to the European energy policy 	<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> * More diversified support in order to generate more impact * Community support to become a critical mass for priority projects * Larger role in obtaining authorisations, thanks to an increased European Commission – Member States collaboration
<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> * Programme effectiveness: limited impacts, cohesion objective insufficiently pursued * Management and monitoring * Involvement of Member States * Inadequacy Budget - Objectives 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> * The weakness of impact becomes more visible * Diminishing interest for the programme if procedures get more complex

13. The mid-term evaluation recommendations are:

- 1) Operationally formulate objectives and priorities of the programme to be able to better assess whether a proposal or the achievements of a study are in line with them.
- 2) Increase the programme budget in order to take fully account of the needs of the 10 new Member States and of a new funding approach referred to in Recommendation 3).
- 3) Adopt a multiple approach — budgetary envelopes and rates of support according to types of actions – better addressing the diversity of needs.

- 4) Leave the socio-economic/cohesion objective outside the scope of TEN-E whose focus and 'brand' are the energy networks with emphasis on market integration and security of supply.
- 5) Focus TEN-E support on a limited list of projects of clear and high European interest whose implementation strongly requires EU funds.
- 6) Favour more impact either through decreased rates of intervention – to attract more strategic projects – or through a stricter selection process.
- 7) Continue to improve the transparency of the proposals evaluation process, in particular by precisely defining the selection criteria.
- 8) Associate more closely the Member States to the monitoring and information gathering tasks, collaborate with the Member States for obtaining authorisations.
- 9) Put more focus in the studies on the economic feasibility of the investments, eventually with the assistance from the EIB's economic expertise.
- 10) Update and streamline the programme and project management, including more flexibility in administrative management.

1. Introduction

1.1. The TEN-E programme and its context

In accordance with Articles 154, 155, 156 and 251 of the Treaty, and the 'Favourable context regulation' (96/391/EC), the European Community has established in 1996 guidelines on Trans-European Energy Networks covering objectives, priorities and line of actions including the identification of Projects of Common Interest (PCI). The Financial regulations have been amended in 1999. The Guidelines have been amended in 1997 and 1999, and in December 2001 the Commission has proposed a revision of the Guidelines. The European Parliament and the Council have adopted a decision regarding this revision on 26 June 2003 (Decision n° 1229/2003/EC). On 10 December 2003, the Commission has issued a new proposal of guidelines repealing the two previous decisions.

The present evaluation does not address the effects of Decision n°1229/2003/EC, as no proposal taking account of this decision has yet been submitted to TEN-E.

In this context, the **objectives of Community actions** for the development of TEN-E is to contribute to:

- * effective operation of the **Internal Market** in general, and of the Internal Energy Market in particular;
- * strengthening **Economic and Social Cohesion** by facilitating the development and reducing the isolation of the less-favoured regions of the Community;
- * reinforcing the **Security of Energy Supply**.

The TEN-E programme started in 1995. The yearly budget available amounts to nearly 20 mio € Only projects identified under the Guidelines for trans-European Energy Networks' decisions – i.e. Projects of Common Interest (PCI) - may be taken into consideration for financial support from the TEN-E budget line.

The programme generally co-finances studies – up to 50 % of their budget. In a limited number of cases (3 since 1998) it also co-finances investment projects – up to 10 % of their budget. The studies deal with the technical, environmental, economical, etc. feasibility of the investments.

The programme functions with two committees:

- * a political one, addressing issues relating to the guidelines;
- * a financial one, whose main responsibility relates to the use of the TEN-E budget line and funding of studies and projects.

1.2. Purpose and realisation of the evaluation

DG TREN of the European Commission has awarded Bureau van Dijk Management Consultants the assignment of a mid-term evaluation of the Trans-European Energy Networks (TEN-E) programme covering the period 1998-2003. The terms of reference of the evaluation are presented in Annex I.

The **present study** has two main objectives:

- * to evaluate the impact of studies and projects funded by the TEN-E Programme during the period under review;
- * to issue practical recommendations aimed at improving, when appropriate, the overall efficiency of the Programme.

The main evaluation questions were formulated in the terms of reference of the call for tenders for this evaluation. The evaluation results are presented in this report as answers to these questions.

Bureau van Dijk Management Consultants carried out the present mid-term evaluation between December 2003 and July 2004. The Bureau Van Dijk' staff – Mrs Gonzalo and Van Nieuwenhuysse, Mr Spaey - was reinforced by two experts on energy networks, Prof. P. Agrell and Dr. B. Saga.

The evaluation has been followed up by a Steering Committee composed of representatives of Directorates A (Budget and evaluation), B (TEN-E political and technical aspects, Financial cell) and C (Conventional energies – Electricity and Gas).

The evaluation team is particularly grateful to the Steering Committee, to the TEN-E staff and to Mr C. Helmuth of the assistance brought during the whole study, in particular the efforts made to achieve a high rate of response to the survey.

2. Methodology

The methodology adopted for this mid-term evaluation exercise is composed of three stages:

- * development of evaluation tools by Bureau van Dijk;
- * implementation and data collection by Bureau van Dijk and the two field experts;
- * data analysis by Bureau van Dijk.

2.1. Development of evaluation tools

From mid-December till February 2004, Bureau van Dijk developed the following evaluation tools:

- * Written questionnaires addressed to 34 gas and 50 electricity contracts and to 15 Member State Representatives: the questionnaires for contractors were composed of a Part A dealing with the study and its follow-up (1 questionnaire per contract) and a Part B dealing with the programme (1 questionnaire per contractor). The questionnaire for Member States mainly addresses the programme. The questionnaires are presented in Annex III.
- * The guidelines for the face-to-face and phone interviews with the key stakeholders: they aim at gathering information and reporting it in a way allowing aggregation and interpretation of information. Key stakeholders are the organisations that carried out the studies and the projects, representatives of Member States (members of Programme Committees) and the technical, financial and other staff of DG TREN.
- * The quantitative indicators, which were part of the questionnaires and the guidelines and aiming to obtain as much objectively verifiable data as possible.

The questionnaires were submitted for approval to the Steering Committee before being sent to the project coordinators and representatives of Member States.

The first stage also included the following preparatory work:

- * elaboration of the precise timetable for the study as well as the plan for data acquisition, taking due account of the exchanges during the Steering Committee kick-off meeting;
- * the management of the documents and information flows: programme documents and databases;
- * the preparation of the Commission's mail addressed to the contractors to present this mid-term evaluation exercise and introduce the consultant and experts in charge;
- * the signature of a "Secrecy agreement" by the experts involved in this mid-term evaluation.

2.2. Implementation and data collection

The data collection is based on the following **sources of information**:

- * Legal Acts and regulatory documents governing the setting up and the functioning of the TEN-E programme: Articles 154, 155, 156 and 251 of the Treaty establishing the European Community; Council Regulation (EC) n° 2236/95; Decision n°1254/96/EC; Decision n°1047/97/EC; Decision n°1741/1999/EC; Council Decision n° 96/391/EC ('Favourable context regulation'); etc.
- * Amendment of this regulation proposed by the Commission (COM (2002) 134 final of 12 March 2002 - 2001/0226 (COD) and COM (2003) 38 final of 24 January 2003 - 2001/0226 (COD)).
- * Decision n° 1229/2003/EC of the European Parliament and of the Council of 26 June 2003 laying down a series of guidelines for trans-European energy networks and repealing Decision n° 1254/96/EC.
- * The 1999 report on the evaluation of the TEN-E actions covering the period 1995-1998.
- * Trans-European Networks –Annual Reports for the years 1995 to 2001.
- * Trans-European Networks – Report on the functioning of the TEN financial regulation 1995-1997 (SEC(1998) 660).
- * European Energy Infrastructure, Fighting congestion and building links, ISBN 92-894-3302-7.
- * Projet de rapport de la Commission au Parlement européen, au Conseil, au Comité économique et social et au Comité des régions, sur la mise en œuvre des Orientations pour les Réseaux transeuropéens d'énergie au cours de la période 1996-2001 (14-12-2001).
- * Files available at DG TREN: application files submitted by beneficiaries, contracts, inception and progress reports, final reports (when available), Mission reports of the European Commission officers to contractors, etc.
- * Databases available at DG TREN containing information needed for monitoring the implementation of TEN-E actions: PMS, Access and Excel databases.
- * Documents of the 2003 Internet-based Consultation in view of the revision of the TEN-E Guidelines.
- * Questionnaires submitted both to beneficiaries (37 beneficiaries with 84 contracts) having participated in the Programme during the period 1998- 2003 and to Member States representatives: the questionnaires have contributed to collect information directly useful to the evaluation, through the survey launched by mid-February 2004 and completed by end April 2004. The following tables present the numbers of studies and projects analysed as well as the rates of return of completed questionnaires:

	Electricity	Gas	Total
Studies	39	32	71
Projects	2	1	3
1998	6	4	10
1999	11	9	20
2000	8	4	12
2001	4	5	9
2002	7	7	14
2003	5	4	9

Table 1: Distribution of the 74 TEN-E actions evaluated

	Electricity	Gas	Total
Part A	41 on 50 (82 %)	33 on 34 (97 %)	74 on 84 (88 %)
Part B	20 on 22 (91 %)	15 on 15 (100 %)	35 on 37 (95 %)
Member States			15 on 15 (100 %)

Table 2: Rates of return of the completed questionnaires

The high rates of return achieved are notably due to a persevering action of the TEN-E staff by the contractors and Member States representatives.

- * Interviews conducted with DG TREN staff, 20 selected beneficiaries (implying visits to Austria, Denmark, Finland, France, Germany, Greece, Italy, Spain, and United Kingdom) and 9 selected Member States representatives (implying visits to Austria, Belgium, Finland, France, Germany, Italy and United Kingdom). The organisations and people interviewed have been selected in agreement with the European Commission on the basis of criteria such as their experience with and involvement in TEN-E. All interview reports have been documented but like the completed questionnaires, they are not delivered for obvious confidentiality reasons.

Details on the interviews are provided in Annex II.

Our feedback on the data collection points to three aspects:

- * Interviews have very usefully complement the information gathered through the survey: they have allowed an effective understanding of figures and trends provided by representative samples of respondents.
- * The questionnaires were probably a bit too long and complicated, gathering much information that was not always fully exploitable.
- * TEN-E should develop by its contractors/beneficiaries a culture of regular reporting on the contracts and the programme. After all, this is becoming a standard practice and would avoid the too important efforts made to collect enough responses to the survey. Such a system would provide systematic and continuous monitoring of contractors during and after the contracts.

2.3. Data analysis

The analysis has led to findings allowing the overall assessment of the programme, including its strengths and weaknesses and the recommendations for the future.

These findings result notably from the information collected at programme level, at project level and from the stakeholders interviewed.

More particularly, the analysis has been made through the following steps:

- * quality assurance process applied to the written survey reports and to the interview reports. Bureau van Dijk staff reviewed the completed questionnaires and checked the relevance and consistence of the answers. In cases of missing or unclear information, the answers concerned were reviewed during the interviews. In case of obvious inconsistencies between answers within a questionnaire, corrections were made by Bureau van Dijk staff. Likewise Bureau van Dijk staff reviewed the interview reports, checked the relevance and consistence of the answers and when needed required additional information from the experts;
- * creation of an Excel database for the statistical analysis performed by Bureau van Dijk; a particular attention has been devoted to examining the differences between electricity and gas, and between the older (1998-1999) contracts and the more recent ones (2000-2003);
- * analysis of the reports from stakeholders interviews and of documents and databases related to the TEN-E programme.

All this information has allowed to properly analyse, report and make recommendations based on the main findings of this evaluation – added value, effectiveness, utility and efficiency of the programme – while drawing conclusions in terms of strengths, weaknesses, opportunities and threats.

The results of the evaluation are presented to directly provide answers to the main evaluation questions raised in the terms of reference of the study (see Annex I). When relevant, they are compared to the results of the 1999 evaluation.

3. Evaluation results

A few preliminary observations

First, it is worthwhile to remind the present context of liberalisation of energy markets, more specifically of the electricity ones, as this context do affect the impacts of TEN-E i.e. principally the link between the studies and the investments. Indeed, this context touches at the investment incentives, the investment decisions and the financing situation. Previously, TSOs usually invested for anticipated load growth based on national energy plans, they could make decisions based on long forecasts and secure internal funding, passing it on to national payers. Now, regulators are increasingly examining past and current investments for efficiency, lowering payoff for investments that are not optimally used or too costly (ex post). TEN-E has financed a good number of TSO studies that later have been considered too risky/infeasible for the individual TSO.

In analysing the data we have identified a certain number of differences between performances and impacts of electricity and gas contracts, or opinions of the contractors concerned. In those cases these differences are reported. We have not observed significant differences between the contracts completed in 1998-1999 and in 2000-2003, except differences linked to their vintage and thus to more complete achievements and impacts of the least recent ones. These differences are also reported hereafter.

We are of opinion that there is a positive and softening bias in a majority of answers to the questionnaires and in a majority of interviews; in the questionnaires the space for comments is not much used: most contractors are satisfied of the programme and its subsidies and might not be willing to change it. Some of them speak more openly about the limits of the programme and the potential areas for improvement. A minority of interviewees have provided very critical views on the programme as well as in some cases suggestions for an improved working. But these critical views and suggestions do not all go in one direction. While we note the satisfaction of the direct beneficiaries of the programme, the evaluation devotes attention to the extent to which the programme achieves its objectives in a sustainable way, and develops an independent judgement.

There is a large diversity of opinions on the added value and effects of TEN-E. This diversity is particularly obvious when reading the interview reports. It might be due to factors such as:

- * sector: electricity or gas,
- * geographical location: North or South,
- * size of operators own resources and financial structure: equity or debt financing,
- * national regulatory contexts.

It is thus not surprising that the stakeholders' views on the global utility of the programme and on the appropriateness and format of its continuation are differentiated. The diversity will probably increase even more with the enlargement of the Union to 10 new Member States with very strong needs of support concerning energy network development.

3.1. Added Value of the Programme

Have the actions funded by the EU made a significant contribution to the implementation of the TEN-E? (Direct or indirect contribution to the implementation of real projects)

When addressing the contribution of the studies to the implementation of real projects, we have to keep the following in mind:

- * The studies concerned are 'feasibility studies' which by definition do not necessarily recommend the implementation of the investments studied: the added value of a feasibility study in some cases lies in avoiding that important resources be misallocated.
- * In quantitative terms, the TEN-E feasibility studies receive an average Community contribution of 1,088 Mio € i.e. less than 1 % of the average value of the investments implied by the studies. Such a proportion can hardly have a decisive influence on the investment concerned.

On the 71 studies analysed, 17 were not expected to answer the question about their contribution to real projects as the major part of their study programme was still to be done. Most of them (i.e. 14) are 2002 and 2003 studies. Among the remaining 54 studies, 19 (35 %) do not recommend to implement the investment projects concerned. The main reasons mentioned for not implementing the projects are:

- * uncertainties regarding the future of the market (30 % of the reasons),
- * political and administrative constraints (30 % of the reasons).

The outcomes of the studies much less often seem to be the reasons for not implementing the projects:

- * the results of the study represent 6 % of these reasons,
- * the lack of viability of the project represents 12 %.

These figures are largely confirmed by the interviews.

Market conditions and political and administrative constraints thus are the main factors influencing the investment decisions. This evaluation result is important, as it confirms the main barriers to the development of the energy networks, and at the same time indicates the relatively limited influence of the TEN-E support. Uncertainty remains as to the extent to which the limited influence of TEN-E is due to the instrument 'feasibility study' or to the fact that the studies are in fact 'pre-feasibility' ones i.e. further studies are needed.

35 studies (65 %) recommend implementing the investment projects concerned. These investment projects are in different stages of implementation, as shown by the following figure.

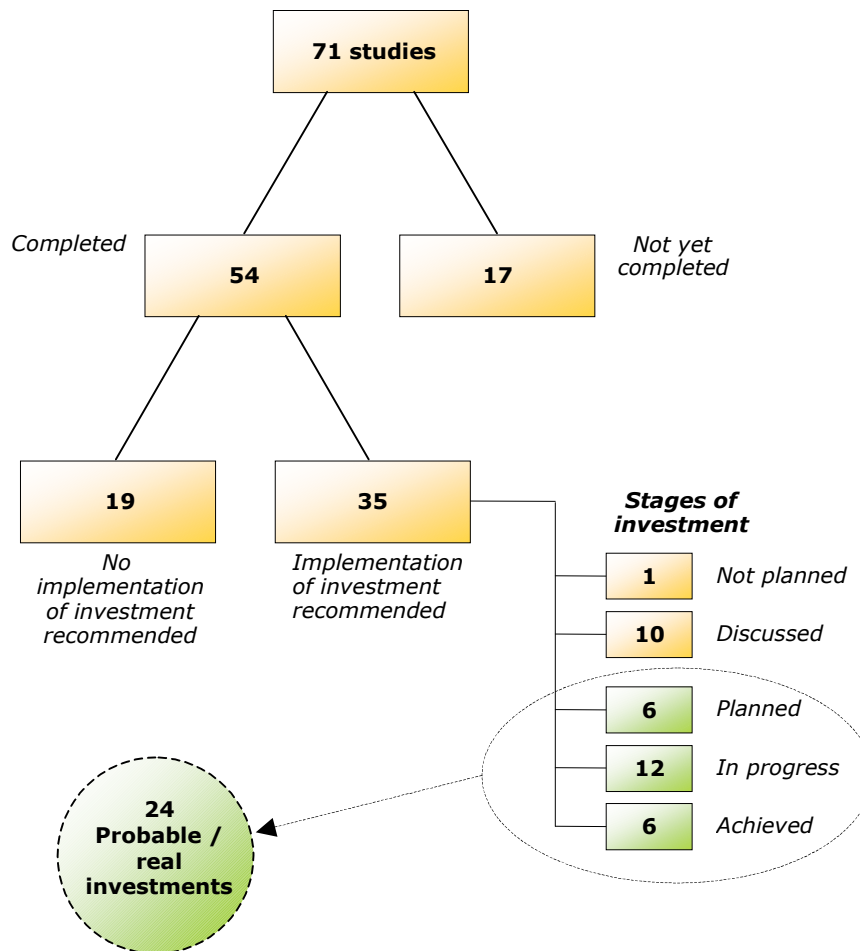


Figure 1: Results and follow-up of 71 studies

The ‘Discussed’ cases reveal two characteristics differentiating them from the other studies:

- * the average amounts of the investments concerned are 25 % higher,
- * the initiators of the TEN-E applications are mostly the companies alone (9 cases on 10) while for all studies the companies are sole initiators in 56 % of the cases².

Those two characteristics explain by themselves – at least partly – why the cases are discussed.

To estimate the number of probable to real decisions to invest we have cumulated the stages ‘Planned’, ‘In progress’ and ‘Achieved’: doing this indicates that for 24 studies on 54 completed ones (i.e. 44 %) an investment is already being realised or will probably be. The comparative figures are 56 % for the 1998-1999 contracts and 33 % for the 2000-2003 ones; 52 % for electricity and 36 % for gas; the lower % for gas might be explained by two factors: the closer association between investments and demands for authorizations (see on next page) and the fact that on average the gas studies are more recent than the electricity ones.

These results cannot be fully compared to the 1999 evaluation: indeed, the present evaluation analyses the stage of the follow-up investments, while the 1999 evaluation was considering the results of the studies in terms of feasibility of the investments considered. This is shown by the following paragraph extracted from the 1999 evaluation:

‘Based on the available statistics, it appears that more than 50% of studies co-financed during the period under review have concluded to the related projects feasibility. Some 20% do not meet

² In the other 44 %, the studies are initiated by the companies and the Member States.

favourable feasibility criteria. Eventually, 30% of the analysed projects should eventually require further investigations. This reveals the fact that projects submitted to the Commission are usually at the early stage of their development. In spite of this, a large part of proposed studies look promising’.

Some interviews confirm that the studies funded by TEN-E are in an early stage of the investment decision process, in what the two evaluations converge.

The decisions to invest are generally linked to demands for authorizations. On 20 demands for authorisation, 15 concern investments in the stages ‘Planned’, ‘In progress’ or ‘Achieved’, and 5 concern the stage ‘Discussed’. The link is particularly strong for the gas sector representing 13 demands on a total of 20.

The average size of these investments is 157 Mio € for electricity and 150 Mio € for gas.

Most of the respondents did not apply for external co-financing of the investment project: 6 respondents mention the EIB, 3 the FEDER, 1 the commercial banks and 1 the Electricity Supply Board in the Republic of Ireland. This was also a conclusion in the 1999 evaluation. One interviewee reported that they looked at the possibility of getting investment funds from FEDER but they did not satisfy their conditions stipulating that the project should create permanent employment, which is not the case for the project concerned.

The survey indicates that the most important effects of the studies on the investment projects are to accelerate the investment phase (35 % of the mentions), to obtain an administrative authorization (26 %) and to stimulate the collaboration (negotiation, co-operation, or consensus building) between the parties concerned (26 %).

The contractors mention much less often the facilitation of co-financing.

In terms of the different effects mentioned above, most of the gas contracts mention large effects. The electricity contracts mention more often weaker or no effects.

The interviews provide some nuances to this overall picture. While in the Northern countries TEN-E is frequently – but not exclusively - seen as a non necessary but welcome support, stakeholders from the South see more often – but not always - significant effects even if these effects are indirect: e.g. contributing to ease the negotiations with local/regional authorities.

The following examples, extracted from interviews, illustrate the importance of the programme:

‘The TEN-E funding is a very important leverage for the TSO to provoke regulatory settlements facing a concrete project. In the absence of TEN-E, many principal coordination issues would lie unresolved to the detriment of project risk, meaning that fewer projects would be undertaken. TEN-E has a unique role and there is no other funding that could easily replace it. Given the importance of the energy market, the idea behind TEN-E is then primordial. In the current situation, the national regulators block European integration through their regulation of the TSOs, and TEN-E is an important counter veiling power’.

In Italy and Spain, interviewees mention the added value of TEN-E in the negotiations with regional/local authorities:

- * the main value of the program lies in the European label and endorsement, signalling its importance for the European grid planning in the relationships with local and national governments. They have through a recent decentralization decree, veto power on infrastructure decisions, what has been the most apparent blockage to both transmission and generation investments in Italy;

- * the TEN-E endorsement, including the stated priority and its financial commitment to concretize the proposal, is a pivotal contribution in the inevitable bilateral and regional negotiations that all infrastructure projects entail.

In conclusion, 65 % of the completed studies recommend implementing the investment project concerned and 44 % are or will probably be followed by an investment. This also implies that in 35 % of the cases, the study has contributed to avoid investments, which could have represented misallocations of resources. This does not, however, mean that the studies play a critical role in the decision to invest: they contribute to building options, are an accelerator and a facilitator, but other factors do have a larger influence such as market perspectives, market uncertainties, emergence of competing projects, etc.

Is the number of studies funded appropriate, considering the needs of the different European policies and the operators' interests concerned?

To answer this question we proceed by analysing the numbers of proposals, the use of the budget and some questions raised to the contractors.

	1995 - 1997	1998 - 1999	2000-2003
Proposals submitted: total	109	59	117
Average per year	36	30	29
Not eligible	0	7	11
Eligible	109	52	106
Rejected	37 (34% ³)	8 (15%)	54 (51%)
Co-financed	72 (66%)	44 (85%)	52 (49%)

Table 3: Results of the proposal selections

The non-eligibility of the proposals is mainly due to the fact that they were not corresponding to a Project of Common Interest even if they were in accordance to the objectives and priorities of the TEN-E programme. In some cases, the report from the meeting of the TEN Financial Aid Committee clearly indicates that the “proposal, although ineligible at the moment of the evaluation, could be reconsidered in the future once the project has been included in the up-dated list of Projects of Common Interest.”

The figures presented in Table 3 above indicate that:

- * the selection process has become stricter since 2000 (and more particularly in the years 2002 and 2003). In consequence, the proportion of co-financed proposals decreases from 66 and 85% to 49%;
- * there is no dramatic increase of proposals submitted that would reflect not satisfied needs. It will be adequate to check in 2004 and the following years whether the 2003 increase of electricity proposals (+ 53 % compared to the average 2000-2002) is maintained;

112 Mio EUR were earmarked for the TEN-Energy Programme between 1995 and 1999. In the course of 1999, the Commission decided to proceed with a further extension of the TEN-E programme, and the allocated budget to TEN-E actions is 155 Mio € for the period 2000-2006.

³ All percentages of this table relate to the eligible proposals and not the submitted ones.

The following table compares the 1995-1997, 1998-1999 and 2000-2003 periods (situation at 31 December 2003).

	1995-1997	1998-1999	2000-2003
TEN-E available budget (M €)	57	55	92
TEN-E contracts signed (M €)	45,3	44,9	63,5
TEN-E contracts signed (Nbr)	72	42	49
Av. value of contracts signed (M €) ⁴	0,629	1,069	1,296
Value of contracts signed/available budget (%)	79	82	69
Real payments/contracts signed (%) (Finished contracts ⁵)	73	69	88
Real payments/available budget (%) (Finished contracts)	58	57	63

Table 4: Budget, contracts signed and real payments

If the figures for the period 2000-2003 for the real payments were confirmed in the future, a double evolution would appear:

- * on one hand, there would be an under-utilisation of the budget available, meaning some lack of contracts signed even if the average value of the contracts has significantly increased: this might be due to a more strict selection since 2000 and more particularly since 2002;
- * on the other hand, there would be an improvement in the project/programme financial management in the sense that the real payments get closer to the contracts signed (88 %), and the ratio Real payments/available budget grows from 57-58 % to 63 %, leaving however room for further improvements.

When asking whether in the future TEN-E should finance a smaller number of studies with a higher financial support, the respondents are overall not in favour:

- * 50 % of electricity contractors are not in favour, 30 % are in favour,
- * 50 % of the gas contractors are not in favour and another 43 % are,
- * 62 % of Member States representatives are not in favour, 31 % are in favour.

Overall the number of studies funded thus seems to satisfy the contractors. However, in view of the limited impact of part of the studies (refer to Fig. 1 page 15), the evaluators would be in favour of a diversified approach: one budgetary envelope would be reserved to the less mature or less strategic⁶ studies, that would be funded at 50 %. Another envelope would be reserved to the more mature or strategic studies that would be funded at 30 % with much larger budgets.

Are the rates of the intervention for the Community support appropriate? What would be the effects of higher versus lower rates on the actions supported and on their impact?

As a minimum rate of Community intervention for the studies, the contractors indicate figures between 15 and 50 %. The median amounts to 30 %.

⁴ Since 2002, the European Commission requests larger proposals i.e. exceeding 600 000 € of EU contribution.

⁵ The amounts of the finished contracts 2000-2003 represent 22 % of the amounts of the contracts signed for the same period.

⁶ 'Strategic' for the applying companies.

The minimum amounts of this intervention, as claimed by the contractors, range from 30 000 € to 200 000 €. But the most frequently mentioned (39 % of the mentions) minimum amount of this intervention is 100 000 €.

When asking the contractors their opinion about the fact that TEN-E could finance a smaller number of larger studies or projects but each having a higher financial support (see above), we can interpret that there is a slight majority preferring the status-quo in terms of number of studies and amounts of contribution.

As evaluator and considering the programme globally and the need for larger impact, we would state that there is a need for the programme to select study proposals with a higher probability to be followed-up by investments. To that end, a choice has to be made:

- * either the rates of intervention for studies are decreased in order that on average the proposals submitted are rather strategic to the companies and really require a financial support, even if it is at 30 %; the lower rate might be ‘compensated’ by a larger amount funded;
- * or there is a stricter selection process: the selection only retains the rather mature actions effectively requiring support because of the level of risk, or for any other reason making it difficult to fund them on strictly commercial criteria.

Concerning the investments, we consider that funding a larger proportion of the investment (e.g. 20 % instead of 10 %⁷), might induce more influence on the decision to invest, notably by reducing the risk.

Do Community interventions represent additional input of resources rather than a replacement of national/regional funds (additionality principle)?

93 % of the respondents indicate that they have co-funded the TEN studies with their own funds. External funds other than TEN-E have been used by 7 % of them.

83 % state also that they would not have obtained other funding to carry out the study. This means that the TEN-E funds represent an additional input of resources.

In addition the comments made by the respondents and interviewees show three aspects:

- * the study carried out in the TEN-E framework was not absolutely necessary to them: without the Community intervention the study would not have been carried out or would have been carried out later on, without serious damage to the concerned investment project;
- * as said roughly by one respondent: ‘No changes in the project; the share of TEN-E funding is too low to have an impact on the decisions concerning the development of the project’;
- * the TEN-E study is a positive adjuvant allowing completing the information, taking better account of environmental impacts, and finally improving the quality of the investment decision.

Are there important co-ordination advantages and tangible benefits from the involvement of the Community? E.g. European perspective, ‘label’ effect, closer coordination between public and private parties, etc.?

The effects of the participation in TEN-E primarily mentioned by the contractors are the multinational collaboration (41 % of the mentions), followed by an improved consideration of the environmental

⁷ Commission’ proposal for the priority projects.

impacts (29 % but 38 % for gas) and the advantages obtained thanks to the European label (29 % but 38 % for electricity). These advantages mostly concern the facilitation of the negotiations with national/local authorities, the easier relations with opponents to the projects and getting administrative authorisations.

The ‘improved consideration of the environmental impacts’ requires some comments: the interviews show that the TEN-E support has not systematically led to a better consideration of the environmental impacts that would have been the case without it; several contractors interviewed state that there is nearly no environmental impact as national regulations are more strict than EU ones (see further, 3.3 Utility of the Programme); however, the support has allowed the studies to better address the environmental aspects of the investments considered.

The predominance of the multinational collaboration effect is confirmed by the Member States questionnaires received: of 12 mentions of ‘other effects of the study’, 7 concern multinational collaboration, 3 the advantages of the European label and 1 the environmental impact.

This is also confirmed by several interviews.

When the contractors describe their own interest for TEN-E, they claim that the following events have increased it:

- * the 1996 directives for the common European energy market (69 % of contractors),
- * the 2003 update of the TEN-E Guidelines (58 % of contractors).

The contractors have divergent opinions on the consistency of the whole TEN-E timing⁸ with the local needs or constraints of the network development: 47 % find it consistent, 44 % not consistent and 9 % have no opinion. The gas contractors are more positive than the electricity ones: respectively 64 % and 35 % consider the timing consistent.

The contractors also claim a very high strategic importance of TEN-E for their own company. The following rating⁹ concerns the declared strategic importance of the allocation of the contracting companies’ resources to diverse activities:

- * the TEN-E studies: 79,
- * the TEN-E investment projects: 72,
- * maintenance/improvement of existing network: 69,
- * other network projects: 59.

The evaluators are of opinion that the ratings for TEN-E studies and TEN-E investment projects are somewhat exaggerated, especially for the gas sector¹⁰: they diverge from several contractors’ statements reported above that show the non-critical character of the TEN-E support for the participating companies. These high ratings are an example of the positive bias of the answers of beneficiaries when they are surveyed about a support scheme.

Is there a critical amount of TEN-E support, which makes it possible to create multiplier effects?

The analysis of the impacts of the studies shows that in general the studies do not directly contribute to facilitate the further co-financing of the investment by other sources. There is thus apparently no financial multiplier effect, even if, as told by an interviewee ‘good study reports make it easier to tell a good story to the investor’. One reason there is no multiplier effect is that few applicants seek other

⁸ From proposal submission till contract termination.

⁹ The maximum rating is 100.

¹⁰ For the electricity contractors, the maintenance/improvement of the existing network gets a slightly higher rate (76) than the TEN studies (74) and investments (68).

external sources. Many of the companies belong to large groups, which have their own ways of financing.

What are the stimulative effect and the added value of the Community interventions? To what extent are the funds actually required to launch the actions?

We address these questions by summarising our view on the added value of TEN-E. This view is quite well in line with the conclusions of the 1999 evaluation:

‘The beneficiaries’ motivation is mainly justified by subsidies. Most of them reckon that considered projects would have been probably initiated without TEN-E grants. However, financial support enabled to conduct further investigations that would not have been performed on a sole commercial basis: assessment of alternative routes, optimisation of gas storage capacities, mitigation of environmental impact, etc. In this respect, we may confirm that the financial support provided by TEN-E accelerates the completion of the projects.’

The present evaluation shows that TEN-E has effects on the investments in the network development: acceleration of the investment phase, obtaining an administrative authorization, stimulating the collaboration between the parties concerned. It permits also to avoid investments that could have represented misallocations of resources. This does not, however, mean that the studies play a critical role in the decision to invest: it is a link in the options building chain, it is an accelerator and a facilitator, but other factors do have a larger influence such as market perspectives or political/regulatory constraints.

There are also additional effects of the participation in TEN-E such as the multinational collaboration, some improved consideration of the environmental impacts and the advantages obtained thanks to the European label.

Overall, and despite some contractors’ claims, our opinion is that TEN-E has not a strategic importance for them but the system seems to satisfy them in terms of number of studies supported and conditions of this support.

3.2. Effectiveness of the Programme¹¹

Were the general and sectoral objectives defined reflected – and to what extent – in the studies financed by the TEN-E budget line?

The survey provides the following picture about the objectives and priorities pursued.

Effective operation of the Internal Market in general, and of the Internal Energy Market in particular is a major objective for 57 % of the studies and a secondary one for 36 % of them.

Strengthening Economic and Social Cohesion by facilitating the development and reducing the isolation of the less-favoured regions of the Community is essentially a secondary objective – 46 % of the studies – and not an objective at all for 44 % of them.

Reinforcing the security of energy supply is a major objective for 69 % of the studies and a secondary one for 29 % of them.

The electricity studies do more frequently aim at the effective operation of the Internal Energy Market while the gas studies have more frequently the security of energy supply as main objective.

The 2000-2003 studies are more often pursuing one objective than the 1998-1999 ones: Strengthening cohesion is not an objective for 49 % of the 2000-2003 studies, compared to 39 % of the 1998-1999 ones. Strengthening cohesion thus appears mainly as a minor objective or not an objective at all.

Together with several contractors interviewed, the evaluators question the appropriateness of setting such an objective to a programme with rather scarce resources – notably compared with the European regional development funds - and whose main focus are the energy networks.

Among the electricity priorities mentioned, 76 % address the development of interconnections between Member States or of internal connections, as shown by the table below.

Connection of isolated networks	6	11%
Development of interconnections between Member States	21	40%
Development of internal connections	19	36%
Development of interconnections with third countries	7	13%

Table 5: TEN-E priorities addressed by the electricity contracts

Among the gas priorities mentioned, 48 % concern the increase of the transmission capability followed by the reception and storage capacity (26 %) (See table below).

Introduction of natural gas into new regions	3	6%
Connection of isolated gas networks	9	20%
Increasing reception of LNG and storage capacity	12	26%
Increasing transmission capability	22	48%

Table 6: TEN-E priorities addressed by the gas contracts

Some priorities might thus have less priority than other ones: Connection of isolated networks, Development of interconnections with third countries, Introduction of natural gas into new regions. This might be partly explained by the fact that there are less proposals addressing those priorities. It

¹¹ Effectiveness refers to whether and to what degree the programme impacts contribute to achieving its specific and general objectives.

also points to the lower importance devoted to the ‘Strengthening cohesion’ objective, and again raises the question of the degree of appropriateness for TEN-E to pursue such objective and related priorities.

Study by study, what were the aims achieved (outputs and possibly impacts)? Can objectives be identified which were favoured or which were on the contrary neglected?

According to the respondents, most of the completed studies¹² have reached their objectives:

Totally achieved	35 i.e. 65 %
Mainly achieved	15 i.e. 28 %
Poorly achieved	3 i.e. 6 %
Not achieved	1 i.e. 2 %

Table 7: How the studies have achieved their objectives

The gas studies perform a bit better than the electricity ones: 100 % of totally and mainly achieved compared to 86 %.

Among the obstacles having prevented the studies from fully achieving the objectives, the most frequently mentioned are the environmental ones (26 %), the administrative obstacles (22 %), the legal/regulatory ones (17 %) and the conflicts of interest between the parties associated (17 %). Technical obstacles represent 4 %. The aggregate figure for administrative, legal/regulatory and political obstacles amounts to 48 %. This fully supports a recommendation for more involvement of the Member States authorities, including the regulators, in the implementation of the programme and the contracts.

The evaluators consider also that the objectives are formulated in a rather general form so that it is difficult to precisely assess a degree of contribution to them and it is rare for a study of not contributing at all. This high degree of generality makes it difficult to be selective at the proposal stage and to carry out an efficient monitoring of studies achievements.

Contribution of the TEN-E studies to the achievement of the general objectives and to the PCI

The table below shows the evolution in % of the cumulated proportion of Projects of Common Interest (PCI) covered by contracts:

%	1995 - 1997	1998 - 1999	2000-2003
Electricity	45	66	73
Gas	28	48	57
Total	37	57	64

Table 8: Cumulative coverage of PCI by contracts

The overall situation is that one third of the PCI are not covered by a TEN-E contract. This concerns more particularly the gas contracts, notably the following PCIs:

- * ‘Increasing transmission capacity (gas delivery pipelines) necessary to meet demand and diversification of supply sources and routes for natural gas’;
- * ‘Connection of isolated gas networks to the interconnected European networks, including the necessary improvement of the existing networks, and connection of separate natural gas networks’.

¹² Excluding thus the 17 studies for which the major part of their study programme was still to be done.

The increased coverage by TEN-E contracts in the period 2000-2003 is rather limited and could indicate that there is a hard core of PCI that might remain not covered for some time. Without judging at this stage whether this is a good thing or not, the evaluators have tried to identify the reasons to this situation:

One contractor interviewed explains: ‘The fact that the studies generally cover only two thirds of the PCIs might be due to the inflexibility in terms of the updating of the list. This inflexibility induces an inflation of the list. Because of the cumbersome procedure the Member States might tend to include projects on the list that are less relevant. In fact the Member States try to propose as many projects as they can to TEN-E. A different updating procedure (a quick update every year) would give less “inactive” projects’.

One shall also take account of the present context:

- * Even if there is not a general reluctance on the part of the companies to invest because of the uncertainty introduced by the liberalisation, it has become more difficult to embark on projects with long payback.
- * The diversity of national situations plays also: in electricity transmission, uncertainty of future cost recovery and/or regulatory requirements have limited the investment interest in at least the UK, Belgium, Germany. NIMBY¹³ problems and administrative inertia are likely to block investments in France, Spain, Italy and Greece. Highest amounts of investments without TEN-E are found in Scandinavia (Sweden, Denmark, Finland).

Anyway, we see here a double issue:

- * There is primarily a lack of systematic information that would justify:
 - A further in-depth study of the applications submitted to TEN-E: are the same PCI uncovered by applications and by contracts?
 - A process of expressions of interest by the companies, in order to check whether the Commission’s and companies’ interests converge or not.
 - A systematic collection of information on the investments really implemented; such task could be exerted e.g. by the European Regulators Group for Electricity and Gas (ERGEG) established by the Commission Decision of 11 November 2003.
- * There is obviously a difficulty to be more selective concerning the PCI: it is easier to add projects and have a large ‘shopping list’ than to withdraw part of them, what requires politically sensitive decisions. However selectiveness might be appropriate if one wishes that:
 - the scarce resources of TEN-E have a real impact which requires a concentration of effort on a couple of highly strategic projects;
 - the adhesion of the 10 new Member States does not provoke further dilution of the programme resources.

¹³ NIMBY stands for Not In My Back Yard.

In 2003, DG TREN carried out an Internet-based Consultation in view of the revision of TEN-E Guidelines. In the context of the present mid-term evaluation, and of the above-mentioned figures, it is useful to retain some of the summary replies provided and conclusions drawn¹⁴ from the Consultation:

- * 'Projects declared of "common European interest" should also be prioritized at national level. Furthermore, the effective realization of these projects should be monitored and supported more strongly, notably throughout the entire authorisation process'.
- * 'It is recommended to support projects with a long payback time or with higher risk'.
- * 'The impact assessment has revealed that the co-ordination of the TEN-E Policy needs to accomplish, in particular, the following three action lines for creating a real favourable context: (1) to create a strong link between the TEN-E Guidelines and the effective procedures for the implementation of the priority projects. (2) To streamline authorisation procedures for projects of high European interest, in particular when several Member States are involved. (3) To accelerate the volume of investments in energy infrastructure, in particular for projects of high European interest and improve the investment climate'.
- * 'The 'increased co-ordination' by the Commission entails three new instruments, namely the establishment of European consolidated planning for energy networks as well as safety and efficiency optimisation, the Declaration of European Interest for the selection of important projects and the Commission-designated co-ordinator for a given axis or project for finalising new infrastructure'.

These replies and conclusions are overall in line with the conclusions of the present evaluation, stressing notably:

- * the strategic importance of a closer cooperation between the Community and national levels in the prioritizing, authorisation and monitoring of projects;
- * the necessary focus on less directly profitable projects, that have nevertheless a strategic importance in terms of security of supply or functioning of the internal energy market;

But the replies and conclusions do not address a pre-requisite or necessary implication: a stricter selection of projects to be supported in practice means that each and every Member State cannot always be satisfied.

If in addition to the above, we take account of the limited impact of the studies on the investments, it is fair to state that the programme effectiveness is not fully satisfactory: neither in terms of objectives pursued nor in terms of impacts on the network development. This might in particular be due to the following conjunction of factors:

- * the programme pursues notably long term political and social objectives,
- * it has rather scarce resources,
- * it is insufficiently selective,
- * for the realisation of the objectives, it is mainly depending on companies operating on the basis of commercial and profitability criteria and on regulators for the final investment clearance, operating mainly on the basis of national criteria.

¹⁴ See Extended Impact Assessment [COM (2003) 742 final] pp. 29 to 33.

3.3. Utility of the Programme

What has been the contribution of the studies and projects in view of the European energy policy objectives?

In this section we present separately the views of the contractors and Member State representatives, having distinct positions vis-à-vis the subject matter.

The contractors' points of view

The contractors interviewed explain easily how their projects contribute to the European energy policy, be it through interconnections or increased security of supply.

In their large majority, the contractors consider the list of Projects of Common Interest as relevant regarding in particular:

- * the coverage of the company's own needs, for 77 % of them; the judgement concerns thus the fact that the company projects are eligible and not at all the overall relevance of the list;
- * the good complementarities of the list with national or regional actions, for 76 % of them. The electricity contractors have a more positive view on these complementarities than the gas ones: 84 and 64 % respectively.

Concerning the TEN-E and Policy Guidelines contribution to steering and guiding the development of the European energy infrastructure, 60 % consider it as adequate, 17 % as not adequate and 23 % have no opinion.

Examples of reasons why the contribution has been judged 'not adequate' are:

- * 'It solves only partly difficulties related to the authorisation procedures that, at least in Italy, are the major problem';
- * 'More incisive involvement of the Community in the development of the priority interconnection projects would fasten their development by means of providing the necessary support to overcome the entrance barriers and by supporting the harmonisation of the different Member State procedures and laws'.

Some contractors have also made observations on the relevance of the list:

- * 'The list is therefore relevant and can be so, provided TEN-E refocuses its priorities in gas on the two operational criteria for projects of European policy importance but which would not be financed in merchant/national regulation settings:
 - 1° Assure the development of natural gas networks in the *new EU Member States*.
 - 2° Assure gas network *interconnection* (e.g. MedGas ring)'.
- * 'Unclear criteria behind the establishment of the list (and the multitude of partially conflicting lists) are alarming from a European viewpoint. Not even the list of priority projects reflects necessarily the criteria for market integration and security of supply, since it focuses entirely on interconnections.'
- * 'The focus should be on major interconnection projects that would not be realised without Community support.'

The evaluators share the view that there is a need to focus on projects of high European interest that would not be implemented on private and/or national grounds and that necessarily require Community support.

The Member States representatives' points of view

Among the objectives pursued by applying to TEN-E, the most frequently mentioned one is the Security of supply (26% of the mentions), followed by the Development of national or regional energy market (18%), the Access to competitive energy sources (16%), the Energy sources diversification (16%) and the Access to EU financial resources (16%).

11 representatives of 13 consider that the TEN-E actions have the right objectives and priorities. 10 of 13 consider however that there is room for improvements such as:

- * review the support (incentives for investment) given to construction of overhead lines and substations;
- * support priority projects of European Interest, in particular for Trans-European energy networks;
- * more flexibility is necessary at this time to introduce changes in the list of priority projects;
- * more flexibility in the choice of projects is needed;
- * the actions should be more focused on politically important projects (for example infrastructure to connect EU networks together) that are not necessarily profitable to the network owner but are important to energy customers and to diversify the supply. At present there are no efficient tools to influence the investment decisions in such cases as the network owners are private or partly privately owned companies and the decisions are made in different countries and companies.

9 representatives of 13 consider as adequate the role played by TEN-E and the Policy Guidelines in particular, in steering and guiding the development of the European energy infrastructure. 3 consider it as not adequate. The reasons mentioned are:

- * 'the national privately/publicly owned companies make the investment decisions. The ownership structures, the mainly national character of the transmission companies and the nation-level regulations are at the moment the main barriers to effective and well functioning European transmission systems and markets';
- * 'TEN-E does not seem to have a strong impact on the development of European energy infrastructure. The instrument is too weak'.

As a conclusion, the evaluators state that TEN-E has some utility for the implementation of European energy policy, even if it could be substantially improved. This raises the question of the appropriateness of the TEN-E approach (support instrument used and degree of concentration of support) in view of the market and operators' structures: if the ultimate decisions to invest or not are mostly depending on profitability criteria partially related to national regulation, is it reasonable to expect that relatively small subsidies distributed over numerous actions effectively contribute to infrastructure investments with a long to very long pay back horizon?

What has been the contribution of the studies and projects in view of the objectives relating to economic and social development (in addition to the European energy policy objectives)?

Several interviewees mention no impact, arguing that TEN-E with its modest resources should more focus on energy related objectives, and leave economic and social development related objectives to programmes and schemes dedicated to that end.

Besides those views, other interviewees mention impacts and, in some rare cases, are able to estimate the size of some of them.

Development impacts

Before the project is operational, the construction and pre-construction stages represent injection of resources into the local economy. Interconnections or connections of isolated areas (e.g. Andalusia) have had effects on local development and employment, through putting at disposal more or cheaper energy for industrial/commercial purposes.

Employment effect

Investment in energy transportation infrastructure is inherently very capital intensive and therefore have minimal employment effects in the operational phase. During the investment phase typically 20-30% of the investment amount consist of labour cost. The investment in a gas interconnector between two countries illustrates this: of the total investment amount of 700 mio. € about 140 mio.€ were labour cost which generated a total of about 1400 man years during the construction period. The investment, however, only created 10 permanent jobs. One of the reasons this number is so low is that the pipeline is remotely controlled.

Environmental impact

Environmental impacts seem to have been seriously considered for all projects, but TEN-E has not had any unique effect in this sense. National regulations in many countries are already much stricter than the European rules. In part of the studies, TEN-E has sharpened or extended the focus on such impact, e.g. by focusing more on CO2 reductions than would have been the case without TEN-E support.

We have anyway to be cautious when mentioning impacts of TEN-E that are beyond its core objectives¹⁵: even if energy networks are enablers to economic growth and stability, indirect effects from infrastructure investments are highly sensitive to other private and public actions, such as industry investments, public institutions and service and labor market reactions.

¹⁵ This is true for any programme.

3.4. Efficiency of the Programme

A team of 6 professionals and 2 administrative assistants currently manages the TEN-E actions. The overall administration and monitoring tasks of the programme are spread over different entities:

- * unit B2: in charge of Policy and Financial Guidelines: 2 professionals (full time),
- * unit B3: All other issues: 3 professionals (2 full time, 1 part time) and 2 administrative assistants (part time),
- * for the financial issues, there is also one person from the financial cell of Directorate B.

The management of the programme and of the actions has been affected by the 2000-2001 merger of the former Directorates General in charge respectively of energy and transport: dissemination of former responsible persons in different units, absence of technical officer during a couple of months, etc.

Is the effort and time spent by applicants in drafting applications reasonable?

In the survey, the question was only raised in the context of a comparison between TEN-E and other funding mechanisms. But there are only 9 contractors having made such comparison so that the answers are all but representative and are not presented in this report.

Another way to address the issue is to consider that 76% of the contractors judge the whole application process as satisfactory. We can thus state that the effort and time spent by applicants in drafting applications should generally be considered reasonable, notably in view of the relatively high rate of proposal selection (44 % in 2000-2003) and the amounts of EU contribution (average of 1,220 Mio € in 2000-2003).

Are current procedures and documents for application, evaluation, decision-making, contract preparation, payments, monitoring and follow-up adequate?

How could procedures within the European Commission be improved to reduce time spent on procedural aspects and enhance the economic analysis and follow-up of supported contracts (reduce bureaucracy and increase the economic monitoring)? Is there scope for inclusion of cost-effectiveness information?

Contractors and Member State representatives' points of view

The contractors are generally satisfied with the *application process*, as said above: 76 % of satisfied versus 24 % of not satisfied. However the proportion of 'satisfied' in terms of the evolution of the procedures over years decreases to 60 %. The lowest rates of satisfied contractors – 64 and 61 % - concern the time between opening and closing dates of the calls – judged too short - and between application and contract signature – judged too long. This indicates some 'time management' issue. The areas for improvements mentioned by contractors refer mainly to:

- * the process and forms have become more and more complicated and time consuming to answer. 'Change back to a more "pragmatic" attitude';
- * 'shorten the time between application and decision. Be open to receiving and deciding on applications throughout the year'.

Even if some improvements can be brought, we have to keep in mind that the time for decision is subject to well-established EU procedural constraints.

64 % of Member States representatives are satisfied with the application process.

The global proportion of satisfied contractors is a bit lower for the *execution of the study* – 70 % - than for the application. The lowest rates of satisfaction concern notably:

- * the time between invoice and payment: 42 % satisfied,
- * the workload required by administrative procedures: 55 % satisfied,
- * the appropriateness of the allowed overhead rate: 53 % satisfied.

The proportion of contractors satisfied with the evolution of the procedures over years amounts to 63 %.

The percentage of satisfaction of Member States representatives with the programme functioning amounts to 86 %. This figure excludes the frequent ‘no opinion’ mentions. This high rate could also be explained by the fact that Member States representatives are less directly involved than the contractors.

The issue of the differences between estimates and real costs seems to be intrinsic to the TEN-E studies. As one contractor said, ‘the development of the grid depends mainly on external conditions (authorization procedures, environmental and social acceptance). In this framework it is difficult to improve the forecasts; it is necessary to keep some flexibility during the study’. This is also true for technical reasons: in case of drillings the real costs can be much larger than the anticipated cost estimate or on the contrary, it can be much smaller, depending on the results of the drilling itself.

43 % of the contractors are against a system of standard costs or rates, 40 % are favourable and 17 % have no opinion. Those who are against most frequently use arguments concerning the differences between countries, between studies, etc. One contractor specifies ‘if there is a shortage of drilling crews we may have to pay twice as much as we did the year before. This is a reason why standard costs are not a solution to this problem’.

Among those who are in favour, most specify conditions such as:

- * ‘for specified standardized tasks it could be of help; in specialized tasks such as geological surveys a standardisation is not possible’;
- * ‘yes, but each study has its own particularities that often make ratios not relevant’;
- * ‘the answer is yes if and only if standards are evaluated on real professional basis and competence’;
- * ‘standard cost/rates cannot be generally applied, but there are some areas where they would be useful. A standard travel and accommodation rate could be applied. Also I would welcome the use of standard man-hour rates where the national regulator in the country concerned has approved the use of these by the TSO’.

The contractors are generally in favour of a more active role of the Technical Officer, but their concrete views of this more active role go in all possible directions, such as:

- * a more rapid administration of the contract,
- * a better understanding of the nature and complexities of the studies,
- * more feedback on reports submitted,
- * more flexibility of the contract in function of the real evolution of the study,
- * etc.

Evaluators' opinion

The evaluators base their opinion partly on the contractors and Member States representatives' views and partly on their own look at 20 project files and on interviews of TEN-E staff (see Annex II).

Standard costs/rates

We have some doubts as to the utility to use a system of standard costs/rates in TEN-E. At first glance such a system would facilitate the administration of the proposals and contracts, but might very rapidly generate larger problems than those it is expected to solve, i.e. an increased inability of the contractual terms to take into consideration the reality of the study tasks and some unforeseeable events.

Proposals' evaluation

Generally speaking, the evaluation form and the report on the annual meeting of the TEN-E financial Aid Committee (energy section) (1998-2001 contracts) do not give much detail on the evaluation procedures and are not very transparent. General considerations are provided for justifying the decision of the Committee but no selection/eligibility criteria are clearly indicated.

The evaluation form presents the results of the evaluation regarding 9 eligibility criteria and 5 evaluation criteria¹⁶. There are also general comments on the proposal as well as very brief conclusions. The form does not give indications on the identity of the evaluators, except in 2002 and 2003. Since 2002, four criteria have been added regarding the selection of the proposals while the evaluation criteria have been refined.

For the contracts funded in 2002, the files include a report on the annual meeting of the evaluation Committee. This report gives more details: names of the evaluators, evaluation criteria mentioned for each proposal, summary table per proposal with the comments of the evaluators, and the quotes given by each evaluator according to the 3 evaluation criteria. Such report has not been found for the contracts funded from 1998 to 2001 but well for 2003.

For the years 2002 and 2003, the evaluation procedures are more transparent as there are various documents explaining the various steps of the evaluation procedure from the reception of the proposal until the decision of the TEN-E Financial Aid Committee. There are notably Practical guidelines related to the granting and the management of the subsidies with a section on the grounds for exclusion and eligibility and selection criteria. This section presents the criteria used but without extensive explanation on their *modus operandi*.

There might be a progress in terms of the quality of proposals between 1999 and 2001: e.g. on a couple of contracts we have identified an improved consistency between the tasks, the planning and the budget.

In general, we have not systematically identified in the files specific documents related to the preparation of contracts.

Overall the selection of proposals has improved, notably in terms of transparency of criteria and procedures. Further progress is however needed if, as suggested elsewhere in this report, TEN-E should move towards being more selective in terms of priority projects and proposals selection.

¹⁶ 5 criteria for studies and 10 for projects.

As evaluators, we propose the following guidance concerning a more effective usage of the criteria for the selection of studies:

- * the degree of contribution to the Community objectives and priorities (refer to Council Regulation 2236/95, article 6) could be quoted on a scale with 5 positions instead of 3 presently, to allow a more refined ranking of the proposals;
- * one could assess the strategic character, for the proposer, of the investment concerned by asking the applicant to explain how critical the project is for the company, and to link this explanation to the maturity assessment mentioned hereafter;
- * the degree of maturity of the study proposal could be assessed on the following ground: how is the study proposed to TEN-E positioned in the whole process of preparing the investment concerned? In terms of timing, tasks performed before the study and after it, amounts expended and planned respectively for these previous and subsequent tasks;
- * the validity of the methodology to be used could be judged by assessing the degree of consistency between the tasks, the planning and the budget proposed.

Contract monitoring

The evaluators have been very surprised by the number of visas required by time extensions and budget amendments. Cumulating the numerous contracts, these visas involve a lot of bureaucratic work, including many levels of DG TREN, including the highest ones. We are of opinion that the time of the European Commission officers could advantageously be used for other tasks.

The flexibility to amend the allocation of the budget¹⁷ of the studies should be increased, considering that the costs incurred during a study are very often overestimated or underestimated. The commitment and decommitment sheets show that these deviations are part of the normal conditions of the TEN-E studies.

There is also a link between the lack of contractual and budgetary flexibility, and the way costs are estimated, as illustrated by a contractor interviewed:

‘In our case the actual costs were usually lower than initially estimated. The reason for this is that the company makes provisions for things that might happen to ensure that enough money will be approved. E.g. provision for possible costs of much longer authorisation processes than occurred in reality. This approach seems to be necessary because of the system inflexibility: it would be very difficult to obtain additional funds if these were necessary’.

The number of visas required (i.e. the number of persons involved) and the lack of flexibility of the rules – especially the financial ones – might develop a growing distance between the European Commission world and the world of the studies and contractors: this world cannot be reduced to a perfectly monitorable context, like implicitly suggested by the standard costs/rates approach. Even if our evaluation has identified areas for improvement of the management, we consider that TEN-E do their work properly and no case of mismanagement or fraud has been identified, that could eventually justify the number of visas and the lack of flexibility mentioned above.

The evaluators state thus that more flexibility, up to an established limit, would on one hand permit to reduce the administrative workload of the Commission and, on the other hand it would allow the contractors to better cover the real costs of the studies. This flexibility could notably concern the transfer of resources from one cost category to another, within the same contract.

¹⁷ Without changing the budgetary amount allocated.

The monitoring and follow-up of contracts is carried out with the following instruments:

- * periodical reports - executive summaries, interim reports, final reports - submitted by the contractor to the European Commission and the European Commission evaluation in the format of a “technical appraisal report”. If any problem appears during the project life, there are discussions (by email or phone mainly) between the technical officer and the contractor concerned in order to find a solution. As a matter of fact, the nature of the contracts funded through TEN-E (mostly feasibility studies) implies that the studies are very similar and that problems are not faced very frequently;
- * site visits/audits: mainly for big players involved in 3-4 contracts funded by the programme such as TOTAL, Enagas, Gaz de France, etc. These visits are reviews allowing assessment of contractor capability and progress.

The evaluators consider that such meetings could possibly become systematic, for all contracts.

Officially, Member States have a role to play in monitoring activities but it seems that in practice they are not very active at that level, even if the Commission requires an ‘appraisal report’ (e.g. a letter) from the Member State before the Commission proceeds to the final payment. So in practice the monitoring is carried out mainly by the European Commission.

The 1999 evaluation already stated the following:

‘This is probably one of the weaknesses of the overall programme. Both site visits and questionnaires confirm that Member State administrations do not interfere in the management process of contracts co-financed by TEN-E. Controls are thus weak or even inexistent.’

The last revision of the Guidelines (proposal of 10/12/2003) should partly contribute to address this issue by mandating the regulators to report annually on the implementation of the priority projects.

Use of databases

The proposals and contracts management involves the use of three databases by the TEN-E team:

- * an Access database gathering information on the proposals and contracts,
- * the TREN PMS database storing the proposals and contracts (financial issues), the management reports, data and statistics,
- * Excel sheets used by the Technical officers in their daily project management.

Whatever the good reasons for this situation of database diversity, the evaluators consider that it might reveal a management issue: indeed one could normally expect that a single database be designed according to the needs of the different services involved in the technical, administrative and financial management of the contracts, and be effectively used by all of them.

Could a typology of TEN-E studies and related problems be devised - and thus an 'early warning system' - so as to suggest in advance when particular implementation difficulty may arise? Which indicators could be used to assess the success of finalised or ongoing studies? Is there scope for greater use of standard ex-ante indicators?

Economic analysis of the investments

The following statement is extracted from the 1999 evaluation. It remains valid for the 1998 to 2002 contracts in illustrating the relative low degree to which economic issues are dealt with in the studies:

'Until now, except in two cases, all actions co-financed by TEN-E have been concentrated on studies. The scope of studies varies, ranging from pre-feasibility to engineering aspects. However, co-financed projects are usually characterised by a strong technical focus. Aspects related to financial and economic evaluations are less detailed. Article 6 §2 of the Regulation 2236/95 stipulates that 'Community aid shall be assigned to projects that are potentially economically viable and for which the financial profitability at the time of application is deemed insufficient'. These two criteria could be better reflected in the activities and outputs of the studies.'

Having consulted a couple of final study reports, we share the view that the studies should more frequently assess the costs and benefits of the investments concerned. However this will not 'guarantee' that more investments will be implemented as:

- * the decision will remain in the hands of those providing the funds;
- * the decision is a function of several parameters, not reducible to a direct cost/benefit ratio: in some cases a project might indeed be superseded by another one, for financial or strategic reasons.

Monitoring

The monitoring of the studies is an area for improvement. We propose that it could be made of the following components:

- * indicators to monitor the contracts and their follow-up: these indicators are extensively presented below;
- * a systematization to all studies of mid-term and ex-post reviews with technical-economic experts, taking account of the concrete and diversified situations of the studies.

The 'economic monitoring' might also not easily substitute for the administrative monitoring: studies are indeed confronted with real situations that are not necessarily foreseeable. Thus the economics of the investment projects covered by the studies will most of the time differ from the estimations made in proposals.

Indicators

Could the scores given at the selection stage be good indicators of success or failure? Looking at the selection stage indicators, we find not always precise definitions and guidelines for scoring. This throws some doubts about their potential for being used in an unambiguous way and therefore for being good predictors of the future performances and impacts.

The scope of these indicators is also rather general, at least without further information on their definitions. And it is well known that e.g. the more general the scope of an indicator, the more difficult it is to use it in an unambiguous way.

We propose below a couple of indicators. Part of them concerns the monitoring of the studies up until their completion. Another part deals with their follow-up. The use of the indicators for the monitoring of the studies requires intelligence and flexibility. Indeed, many studies are faced with ‘events’ out of their ‘control’: unexpected results from drillings, market or regulatory changes, strategic decisions of the companies, environmental and administrative obstacles, etc. Even the best proposal will not be able to anticipate these events that will nevertheless affect the study completion and its eventual follow-up.

Indicators for monitoring the study completion:

The aim is to assess whether the study progresses well and according to the objectives, provides intermediate and final deliverables with the required quality, respects the timing and remains within the budget foreseen. The following indicators would be involved:

- * Ex-ante roadmap with a timing (monthly or three monthly) of the different tasks and of the intermediate and final deliverables; the ex-ante roadmap is designed by the contractor before starting the study, and eventually it is part of the proposal.
- * Actual progress path: every three months, the contractor positions the progress of the study in function of the ex-ante roadmap: e.g. by assigning a % of realisation of the objective; this percentage has to be realistic because it will be confirmed or not by the delivery of intermediate reports.
- * Ex-ante budget consumption: this is the planned progress of budget consumption, taking account of the ex-ante roadmap (progress of the tasks); the contractor also designs the ex-ante budget consumption before starting the study.
- * The actual consumption path: each three months, the contractor positions the progress of the consumption in function of the ex-ante consumption scheme. This can concern the global budget only or also the main sub-categories such as performance of the contractor personnel, sub-contractors budget, etc.

The indicators on actual progress and budget consumption have to be filled at the end of each three or six monthly¹⁸ period.

Different types of deviations might exist:

- * between actual and ex-ante roadmap,
- * between actual and ex-ante consumption,
- * between actual progress of tasks and actual budget consumption.

Deviations are not as such a problem: they reflect the ‘real world’. However they constitute an alert for the contractors and program staff and require explanation and/or corrective actions. Some deviations might be fully justified, e.g. by unexpected but real difficulties encountered. Others might request corrective actions from the contractors and/or the Commission.

¹⁸ The three monthly period has the advantage to provide a tight monitoring; however contractors might claim it is too frequent. Six-monthly involves that any corrective action might come rather late in a contract of 1 to 2 years duration.

Monitoring the study follow-up:

The contractors should yearly provide information on the study follow-up, during the 3 to 5 years after the study completion. Basically, the information to be collected concerns:

- * the nature of the follow-up: a decision to invest, a pending decision to invest, a further study or nothing at all;
- * in case of decision to invest, the stage of the investment - planned, in construction or operational – and the amount and ways of funding concerned;
- * in case of investment that is in construction or operational, an estimate of the impacts: employment, regional development, etc.

This information provision should be foreseen in the contracts. But as it implies extra work after the end of the contract, the workload involved should be restricted to a minimum. We suggest a very simple and short questionnaire (max. 1 A4 page) to be filled in directly by the (former) contractors on the TEN-E web site.

What steps could be taken to ensure that the Commission and the Member States take account of the criteria and priorities set out in relevant legislation and policy documents, when selecting TEN-E studies for EU support? The project investment co-financing: are the criteria adequate?

According to Council Regulation 2236/95, article 6, the projects are assisted according to their degree of contribution to the objectives (see Article 154 of the Treaty) and to the other objectives and priorities defined in the guidelines referred to in Article 155 1 of the Treaty.

This article stipulates also that Community aid shall be assigned to projects:

- * that are potentially economically viable and,
- * for which the financial profitability at the time of application is deemed insufficient.

The decision to grant Community assistance should also take account of:

- * the maturity of the project,
- * the stimulative effect of Community intervention on public and private finance,
- * the soundness of the financial package,
- * direct or indirect effects, in particular on employment,
- * the environmental consequences.

In particular in the case of cross-border projects, coordination of the timing of different parts of the project shall also be taken into account.

Our evaluators' view is that the use of the selection criteria for studies and projects raise notably the following issues:

- * as said earlier, there is a need to have operational definitions of at least part of these criteria¹⁹ in order that they could be applied unambiguously;
- * there might be some difficulties when it is required from studies and projects to pursue rather distinct or even in some cases unconnected objectives such as effects on employment, strengthening socio-economic cohesion, security of supply, integration of renewable sources,

¹⁹ Definitions of some criteria already exist as shown e.g. by Annex III of the 2003 Application form.

profitability, etc. This has already been addressed earlier in this report, under point 3.2 Effectiveness of the programme;

- * among the criteria of the PCI, the 'potential economic viability' devotes some attention. Article 6, §8 of Decision 1254/96/EC states that the analysis of this viability shall be based upon a cost-benefit analysis, which shall take account of benefits in relation to environmental aspects, security of supply and economic and social cohesion.

This view of the cost-benefit analysis, and of the benefits in particular, fits for investments operated by public entities or largely subsidied by them. It does not fit with the process of investment by privately own operators for whom the benefits must be large enough to cover the risks and reward the capital invested. This mismatch between the Guidelines criteria and the reality of the private investment decisions is still larger in the deregulation context, making the mid-term perspectives uncertain and thus increasing the level of risk associated. TEN-E could advantageously be assisted for economic screening (proposals) and monitoring (contracts), e.g. by EIB.

- * the risk of opportunistic or uncoordinated studies not leading to useful investments could also be addressed, as suggested in the interviews, by side-commitments by relevant authorities and agencies in the Member States to authorize the investment should it be recommended by the study. These commitments would in principle remain valid over time to the extent that the conditions remain unchanged.

3.5. Conclusions and recommendations

Our first conclusion refers to the large diversity of opinions on the effects of TEN-E and on what should be changed for the future. So e.g. the simple question ‘What is the specific contribution of TEN-E?’ has to be changed in ‘What **are** the specific contributions of TEN-E?’.

The diversity of opinions of contractors reflects a diversity of situations that will still increase with the passage to EU 25. This calls even more for a diversity of interventions of the programme: multiple approaches should be possible, with financial envelopes for each: e.g. for studies supported at 50 % (smaller ones, rather early stage), for studies supported at 30 % (larger ones, more mature) and for investments supported at 20 %. Needless to say, we do not see the possibility to address the EU 25 energy networks needs without a budget increase.

Added value of TEN-E

TEN-E is useful to contractors, but it is generally not critical to them; when it influences the investment decision, it is in an indirect way and not as a main decisive factor.

It is useful in a rather unique way as there are no real alternative sources to fund technical feasibility studies, part of them being not yet very mature. It is an additional input of resources contributing to improve the basis for decisions to invest in network development and avoiding misallocations; it also accelerates the investments, facilitates the obtaining of administrative authorisations, stimulates collaboration – notably multinational - between the parties concerned by the investment and draws attention to the priorities of network development.

TEN-E is however not critical to contractors as:

- * without the Community intervention the study would not have been carried out or would have been carried out later on, or in a less extensive way, without serious damage to the concerned investment project;
- * the studies submitted as proposals to the TEN-E have less impact on the investment decisions than e.g. the market trends, the political/regulatory context or the companies’ strategy. One may say that the studies supported by TEN-E are a necessary but not sufficient condition for an investment decision to be taken.

Effectiveness of TEN-E

The studies are in line with two general objectives of the programme out of three, i.e. the effective operation of the Internal Market in general, and of the Internal Energy Market in particular, and the reinforcement of the security of energy supply. Half of the studies do not aim at strengthening Economic and Social Cohesion and for the other half this is a minor objective. This should not be an objective for a programme expected to focus on energy market integration and security of supply, with very scarce means.

The evaluators consider also that the objectives of the programme are formulated in a rather general way so that it is difficult to precisely assess the degree of contribution to them but it is rare for a study not to contribute to these objectives at all. This high degree of generality makes it difficult to be selective at the proposal stage and to carry out an efficient monitoring of studies achievements.

One third of the PCI is not covered by a contract and that might remain the case for some time. This raises the issue of the adequacy of the list of PCIs. We share some stakeholders’ views that this list is a ‘mise en commun’ of projects of particular/individual interests. In view of the scarce resources

available to the programme, and the objective to really influence the network development, it would be more adequate to have a very limited list of projects of European interest whose implementation strongly requires EU funds.

If in addition to the above, we take account of the limited impact of the studies on the investments, it is fair to state that the programme effectiveness is not fully satisfactory: neither in terms of objectives pursued nor in terms of impacts on the network development. This might in particular be due to the following conjunction of factors:

- * the programme pursues notably long term political and social objectives,
- * it has rather scarce resources,
- * for the realisation of these objectives, it is mainly depending on companies operating on the basis of commercial and profitability criteria and on regulators for the final investment clearance, operating mainly on the basis of national criteria.

Utility of TEN-E

We have seen that a majority of contractors consider the programme as directly useful to them, being the (nearly) unique source to fund the type of studies concerned. A limited number of contractors are of an opposite opinion.

The impacts on local development and employment exist but are indirect, as a function of the investments implemented. The environmental impacts are negligible.

But the utility has also to be assessed in relation to the principal objective of the programme i.e. the development of the trans-European networks.

If the objective is really to influence or direct the development of European energy networks, the evaluators wonder whether:

- * the amounts currently involved are sufficient? They represent less than 1 % of the investments concerned;
- * the tool – the studies – is appropriate as the (nearly) sole support instrument? If at the end of the day only the investment matters, the studies appear as having less influence on them than certain other factors; the studies may be considered as a risk reducing device but in some cases the risk reduction is not sufficient for an investment decision to be taken. Supporting more frequently more mature studies might exert a larger influence on the investments;
- * the Commission and Member States are sufficiently incisive and collaborative in orienting and supporting the priority projects? There should be much more focus on a limited number of projects on which collaboration of the European Commission and the Member States could create a critical mass effect, notably concerning the obtaining of authorisations and the clearance from regulators.

Efficiency of TEN-E

The programme and project management could be more efficient. They are characterised by several weaknesses that indicate areas for improvement:

- * monitoring by the Member States and the Commission staff: systematic mid-term contract reviews with technical economic experts, implementation of the monitoring indicators proposed, and more sharing of monitoring and information gathering tasks with Member States could notably help in this;
- * degree of selectiveness in the proposal selection process, notably based on a clear *modus operandi* of the criteria, in particular those applied to the studies;
- * more focus on the economic aspects of the investments in the studies, eventually with EIB assistance for economic monitoring;
- * updated and streamlined management notably by: setting clear objectives e.g. related to time management; use of a single management database operating according to the diversity of the users' needs;
- * increased flexibility in administrative management, up to a certain limit, in order to moderate the administrative workload: e.g. fewer constraints on the use of budget allocated or on the time limits of the studies. This would also contribute to an increase in the ratio real payments/budget.

The SWOT²⁰ analysis of the TEN-E Programme is summarised in the following table:

<p>Strengths</p> <ul style="list-style-type: none"> * TEN-E is useful to many network operators, as subsidies that cannot be found elsewhere * Satisfaction of a majority of contractors * Some utility to the European energy policy 	<p>Opportunities</p> <ul style="list-style-type: none"> * More diversified support in order to generate more impact * Community support to become a critical mass for priority projects * Larger role in obtaining authorisations, thanks to increased European Commission- Member States collaboration
<p>Weaknesses</p> <ul style="list-style-type: none"> * Programme effectiveness: limited impacts, cohesion objective insufficiently pursued * Management and monitoring * Involvement of Member States * Inadequacy Budget - Objectives 	<p>Threats</p> <ul style="list-style-type: none"> * The weakness of impact becomes more visible * Diminishing interest for the programme if procedures get more complex

Figure 2: SWOT of the TEN-E programme

²⁰ SWOT stands for strengths, weaknesses, opportunities and threats.

Recommendations

The mid-term evaluation recommendations are:

1. Operationally formulate objectives and priorities of the programme to be able to better assess whether a proposal or the achievements of a study are in line with them.
2. Increase the programme budget in order to take fully account of the needs of the 10 new Member States and of a new funding approach referred to in Recommendation 3.
3. Adopt a multiple approach – budgetary envelopes and rates of support according to types of actions – better addressing the diversity of needs.
4. Leave the socio-economic/cohesion objective outside the scope of TEN-E whose focus and ‘brand’ are the energy networks with emphasis on market integration and security of supply.
5. Focus TEN-E support on a limited list of projects of clear and high European interest whose implementation strongly requires EU funds.
6. Favour more impact either through decreased rates of intervention – to attract more strategic projects – or through a stricter selection process.
7. Continue to improve the transparency of the proposals evaluation process, in particular by precisely defining the selection criteria.
8. Associate more closely the Member States to the monitoring and information-gathering tasks, collaborate with the Member States for obtaining authorisations.
9. Put more focus in the studies on the economic feasibility of the investments, eventually with the assistance from the EIB’s economic expertise.
10. Update and streamline the programme and project management, including more flexibility in administrative management.

Annexes

I. Terms of references

II. Interviews

III. Questionnaires

IV. Glossary of terms

I. TERMS OF REFERENCES

Invitation to tender No. TREN/B3/04-2003 concerning

Mid-term evaluation of the TEN-E Programme

1. Introduction

The Directorate-General for Energy and Transport (DG TREN) and in particular the Unit responsible for the Trans-European Energy Networks (TEN-E) Programme (hereafter referred to as “the Programme”), plans an external mid-term evaluation of the Programme undertaken by independent experts. The main objective is to analyse the overall implementation, achievements and impact of the actions co-financed by the Programme with respect to its specific objectives, their environmental impact, the efficiency, effectiveness and relevance of the funding, conclusions and recommendations for potential improvements, including administrative and management aspects. The study will be particularly based upon the actions initiated in the years 2000-2003 but also take into account earlier ones.

1.1. Legal basis of the actions to be evaluated

Article 154 (ex Article 129b) of the Treaty establishing the European Community sets out the Community Objectives in the areas of transport, telecommunications and energy networks. Articles 155 and 156 (ex Articles 129c and 129d) refer to the practical means for implementing these objectives.

Council Regulation 2236/95/EC²¹ of 18 September 1995 as amended by the Regulation (EC) No 1655/1999 of the European Parliament and of the Council of 19 July 1999²² lays down general rules for the granting of Community financial aid in the field of trans-European Networks. It governs the allocation of financial support for the TEN budget lines to network projects in the three above-mentioned areas. A further amendment of this regulation has been proposed by the Commission (COM(2002) 134 final of 12 March 2002 - 2001/0226 (COD) and COM(2003) 38 final of 24 January 2003 - 2001/0226 (COD)).

Decision 1254/96/EC²³ of the European Parliament and of the Council of 5 June 1996 lays down a series of guidelines for trans-European Energy Networks. This Decision has been amended by the Decisions of the European Parliament and of the Council 1047/97/EC²⁴ of 29 May 1997 and 1741/1999/EC²⁵ of 29 July 1999. These decisions identify the objectives, the priorities and the TEN projects for the energy sector. Only projects identified under the above-mentioned « Guidelines » decisions may be taken in consideration for financial support from the TEN budget line. A decision about a revision of the « Guidelines » proposed by the Commission in its Communication to the European Parliament and the Council on the European Energy Infrastructure COM(2001) 775 final of 20 December 2001 - 2001/0311 (COD) is expected to be taken in the course of the year 2003.

Council Decision 391/96/EC²⁶ of 28 March 1996 lays down a series of measures aimed at creating a more favourable context for the development of trans-European Networks in the energy sector. The

²¹ Official Journal L 228 of 23.9.1995

²² Official Journal L 197 of 29.7.1999

²³ Official Journal L 161 of 19.6.1996

²⁴ Official Journal L 152 of 11.6.1997

²⁵ Official Journal L 207 of 6.8.1999

²⁶ Official Journal L 161 of 29.6.1996

measures provided for under the decision include the promotion of technical co-operation, facilitation of authorisation procedures and mobilisation of the Community financial intervention mechanisms.

1.2. Motivation for the planned evaluation

The recitals of Regulation 2236/95/EC as amended by the Regulation (EC) No 1655/1999 of the European Parliament and of the Council of 19 July 1999 recall that provisions should be made for suitable methods of evaluation, follow-up and control of Community aid. The Regulation also sets out basic rules in its Article 15 about follow-up and evaluation reports concerning trans-European Networks.

Appraisal, monitoring and evaluation

- 1. The Member States and the Commission shall ensure that the implementation of projects under this Regulation is subject to effective monitoring and evaluation. Projects may be adapted according to monitoring and evaluation results.*
- 2. In order to ensure that Community aid is used efficiently, the Commission and the Member States concerned shall systematically monitor progress with projects, where appropriate with the cooperation of the European Investment Bank or other appropriate bodies.*
- 3. On receipt of an application for aid, and before approving it, the Commission shall carry out an appraisal in order to assess the project's conformity with the conditions and criteria laid down in Articles 5 and 6. Where necessary, the Commission shall invite the European Investment Bank or other appropriate bodies to contribute to this appraisal.*
- 4. The Commission and the Member States shall assess the manner in which the projects and the programmes have been carried out and evaluate the impact of their implementation, in order to assess whether the original objectives can be, or have been, achieved. This evaluation shall, inter alia, cover the impact of projects on the environment, regard being had to the Community laws in force. The Commission may, after consultation of the Member State concerned, also require the beneficiary to provide a specific evaluation on projects or groups of projects supported under this Regulation, or to provide it with the information and the assistance required to evaluate such projects.*
- 5. Monitoring shall be carried out, where appropriate, by reference to physical and financial indicators. The indicators shall relate to the specific character of the projects and its objectives. They shall be arranged in such a way as to show:*
 - the stage of the project reached in relation to the plan and the operational objectives originally laid down,*
 - the progress achieved on the management side and any related problems.*
- 6. In vetting individual applications for assistance, the Commission shall take into account the findings of appraisals and evaluations made in accordance with this Article.*
- 7. Procedures for evaluation and monitoring, as provided in paragraphs 4 and 5, shall be established in the Decisions approving the projects and/or in the contractual provisions relating to the financial aid.*

Article 16 of Regulation 2236/95/EC as amended by the Regulation (EC) No 1655/1999 of the European Parliament and of the Council of 19 July 1999 states among other specifications:

Information and publicity

The Commission shall submit an annual report on the activities carried out under this Regulation to the European Parliament, the Council, the Economic and Social Committee and to the Committee of Regions for their appraisal. This report shall contain an evaluation of the results achieved with Community aid in different fields of application, in terms of original objectives as well as a chapter on the substance and implementation of current multi-annual programmes, especially an account of the revisions provided in article 5a.²⁷

So far, the following annual reports have been released:

Trans-European Networks – Annual Reports for:	Reference
1995	COM (1995) 571
1996	COM (1996) 645
1997	COM (1998) 391
1998	COM(1999) 410
1999	COM(2000) 591
2000	COM(2002) 344

In addition, a report on the functioning of the financial regulation has been released:

Trans-European Networks – Report on the functioning of the TEN financial regulation 1995-1997 issued on April 7th 1998 under reference SEC(1998) 660.

Decision 1254/96/EC states in its article 10:

Every two years the Commission shall draw up a report on the implementation of this Decision, which it shall submit to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions.

One report has been released. It is part of the Communication of the Commission to the European Parliament and the Council on the European Energy Infrastructure COM(2001) 775 final of 20 December 2001 - 2001/0311 (COD).

Previous mid-term evaluation: A mid-term evaluation covering the period 1995-1998 was carried out in 1999.

Sound and efficient management: The planned evaluation complies with the decisions regarding trans-European Networks but also meets the standards of good practice defined by SEM 2000.

²⁷ Note: Commission support to trans-European networks for energy is not based upon Community indicative multiannual programmes defined in article 5a.

1.3. Description of the programme to be evaluated:

Financial support for trans-European Energy Networks (TEN-E) in accordance with the TEN-E “Guidelines” and financial regulations

Scope

The TEN-E programme concerns the main transportation networks for electricity and natural gas:

- * Electricity Networks
 - high voltage lines,
 - submarine links,
 - essential equipment and installations, including protection, monitoring and control systems.

- * Natural Gas Networks
 - high pressure gas pipelines,
 - underground storage facilities,
 - reception, storage and regasification facilities for liquefied natural gas (LNG), gas carriers,
 - essential equipment and installations, including protection, monitoring and control systems.

The TEN-E programme does not cover distribution networks.

Objectives

The aim of Community action for the development of TEN-E is to contribute to:

- * effective operation in the Internal Market in general, and of the Internal Energy Market in particular;
- * strengthening Economic and Social Cohesion by facilitating the development and reducing the isolation of the less-favoured regions of the Community;
- * reinforcing the security of energy supply.

Priorities

Community action for the development of TEN-E addresses the following priorities:

- * for Electricity Networks:
 - connection of isolated networks to European interconnected networks;
 - development of interconnections between Member States;
 - development of internal connections necessary to make the best use of the interconnections between Member States;
 - development of interconnections with third countries in Europe and the Mediterranean region helping to improve the reliability, security and supply of Community electricity networks.

- * for Gas Networks:
 - introduction of natural gas into new regions;
 - connection of isolated gas networks to the interconnected European networks, including the necessary improvements of the existing networks, and connection of separated natural gas networks;

- increasing reception of liquefied natural gas (LNG) and storage capacity necessary to satisfy demand, and diversification of supply sources and routes for natural gas;
- increasing transmission capacity (gas delivery pipelines) necessary to meet demand and diversification of supply sources and routes for natural gas.

Financial instruments

Object of the evaluation: the TEN-E Networks budget line (see Council regulation 2236/95/EC and its amendment)

Nota bene: There are several European Community financial instruments which may come into play where appropriate and in accordance with the specific rules governing each of them. The « Guidelines » define priorities but are not mandatory for these instruments:

- the Structural Funds,
- the Phare, Tacis, Meda and Cards programmes,
- European Investment Bank loans,
- European Investment Fund loan guarantees.

Rules for granting financial support from the TEN-E budget line (in conformity with the Council Regulation 2236/95/EC and its amendment)

The resources of the TEN-E budget line represent a total of 112 M€ for the period 1995-1999 and a planned total of 115 M€ for the period 2000-2006. An amount of 90.2 M€ has been committed until end 1999 and 45.0 M€ from 2000 to 2002 mainly for co-financing of studies. An additional amount is expected to be committed during 2003.

The TEN-E budget line generally allows co-financing of studies and may support projects by means of interest-rate subsidies, contributions to fees for guarantees for loans, direct grants to projects in duly justified cases, and risk-capital participation.

Aid to feasibility studies is limited in general to 50% of the cost, the maximum period of interest-rate subsidy shall not generally exceed 5 years, and the total amount of financial support from the TEN budget line shall not exceed 10% of the total cost of a project.

2. Purpose of this procurement contract

2.1. Aim of the planned evaluation

The planned evaluation particularly aims to put forward a **value judgement on the actions (mainly studies) co-financed by the trans-European Energy Networks budget line** in order to:

- * identify their impact with respect to the specific objectives of the programme;
- * draw conclusions on the effectiveness and efficiency of these activities and to be in a position to integrate indicators into the monitoring of current and future actions;
- * allow the Commission to judge the suitability of an extension and a future recurrence of similar activities;
- * take action, if necessary, to improve the added value of trans-European Energy Networks financial assistance.

The evaluation will be used by the Directorate-General for Energy and Transport of the European Commission to improve the monitoring of studies and in order to direct its choices at the time of selection or when launching similar actions in the future. It will be communicated to the Committees dealing with trans-European Energy Networks.

This evaluation report will be taken into consideration when producing reports which the Commission has to submit to the European Parliament, to the Council, to the Social and Economic Committee and to the Committee of the Regions.

2.2. Scope of the evaluation

Evaluation of the TEN-E Programme (TEN-E budget line)

For the period 2000-2002, the Commission received 80 proposals (47 for electricity and 33 for natural gas) of which:

- * 66 were requests for co-financing of studies of which 38 were accepted; for 1 of the 38 no contract was eventually concluded;
- * 14 were requests for co-financing of projects none of which was accepted;
- * 27 have been completed or are expected to be completed in the course of 2003.

Additional proposals are expected to be received and accepted during 2003.

For the period 1995-1999, the Commission received 168 proposals (112 for electricity and 56 for natural gas) of which:

- * 158 were requests for co-financing of studies of which 116 were accepted; for 4 of the 116 no contract was eventually concluded;
- * 10 were requests for co-financing of projects of which 2 were accepted;
- * 108 have been completed or are expected to be completed in the course of 2003.

The evaluation will mainly take into account all applications and all actions, on-going or terminated, which were accepted in the period after 2000-2002 (in total 38) and in the period 1998-1999 (in total 42).

In some cases where longer term aspects are evaluated also the actions supported in the period 1995-1997 shall be considered.

It shall also take also into consideration the information which, at the time of the evaluation, will be available about the applications received and actions supported in 2003.

Evaluation of the operational context

For actions related to the measures stipulated by the « Guidelines », focus on the action taken (or needed) on the following issues:

- * updating of the list of TEN-E projects;
- * further specifying of the TEN-E projects;
- * mobilising all those concerned (public authorities, energy companies, financial institutions and others) in order to achieve the aims of maintaining the interoperability and further developing the infrastructure of the TEN-E Networks.

For actions related to the «Favourable context » decision, focus on the action taken (or needed) on the following issues:

- * promoting technical co-operation among operators;
- * easing authorisation procedures at Member States level;
- * coordination and synergies with other community financial instruments.

2.3. Main evaluation questions

The analysis shall be undertaken separately for the actions supported since 2000, those supported in 1998 and 1999, and, where applicable, in the earlier phase, in order to identify differences, possible trends and longer-term effects of the Programme. In the analysis the amendments of the « Guidelines » and « Financial Regulations » adopted in 1999 (see section 1.1) should be taken into account. It should also include an assessment as to what extent the studies supported more recently anticipate the revision of the « Guidelines » proposed by the Commission in December 2001.

The most important questions are:

- * To what extent has the Community intervention contributed to launching studies and projects on schedule and accelerating the implementation and development of the network? This analysis shall be based on the full period of the Programme. In particular:
 - Have the actions funded by the EU made a significant contribution to the implementation of the TEN-E? Have they resulted in real projects?
 - Is the number of the studies funded appropriate?
 - Are the rates of the intervention for the Community support appropriate?

- Is it possible to demonstrate that Community interventions represent additional input of resources rather than a replacement of national and regional funds (additionality principle)? In addition to the question of economic additionality, are there important co-ordination advantages and tangible benefits from the involvement of the Community?
- What are the stimulative effect and the added value of the Community interventions? To what extent are the funds actually required to launch the actions?

Impact of the studies and projects against the objectives of TEN-E:

The evaluation will have to determine whether the general and sectoral objectives defined were reflected – and to what extent – in the studies financed by the TEN-E budget line. Study by study, what were the aims pursued and to what extent were they achieved? What were the studies contributing to each objective of the programme, and in view of the number and the importance of the financed studies, can objectives be identified which were favoured or which were on the contrary neglected?

- * The contribution of the studies and projects in view of the European energy policy objectives and in view of the objectives relating to economic and social development.

The evaluation will have to provide conclusions related to the role TEN-E at the European level and their contribution to the following objectives:

- security of supply,
 - competitiveness,
 - socio-economic effects such as cross-border co-operation, socio-economic cohesion, regional development, employment creation,
 - co-operation with third countries.
- * Furthermore, the quantitative level of the intervention under TEN-E should be examined: is it possible to identify a critical amount of EU-support which makes it possible to create multiplier effects?
 - * The evaluation will also have to consider the project investment co-financing. Are the criteria adequate?
 - * Programme efficiency: to what extent have the objectives been pursued in a cost-effective manner? This concerns both the Programme management and the measures used for the programme implementation.
 - Is the effort and time spent by applicants in drafting applications reasonable?
 - Are current procedures and documents for application, evaluation, decision making, contract preparation, payments, monitoring and follow-up adequate? In particular, are they adequate to minimise the risk of misallocation of funds, poor value for money and fraud? Is the evaluation of estimates of resources and costs appropriate? Is there scope to introduce standard rates or costs (e.g. per country and type of work)?
 - With or without substantial changes to the legislative basis for TEN-E intervention, how could procedures within the European Commission be improved to reduce time spent on procedural aspects and enhance the economic analysis and follow-up of supported projects?
 - Could a typology of TEN-E studies and related problems be devised, and thus an « early warning system », so as to suggest in advance when particular implementation of financial management may arise (e.g. from environmental or technical delays, from insufficient project

maturity to absorb EU funds on schedule, or from non-additionality of certain types of projects or studies which do not need EU support to go ahead)?

- * In conclusion, what is the specific contribution of TEN-E, to what extent can this intervention be considered of higher value than the other types of financing for this type of activity, what would the consequences of the non-existence of TEN-E be and what European added value does TEN-E provide?

The evaluation must also answer the following questions:

- * What are the environmental impacts of the studies and projects co-financed by the TEN-E Programme?
- * Is there scope for greater use of standard ex-ante indicators, or for inclusion of cost-effectiveness information? The evaluation is also expected to provide a choice of indicators allowing to evaluate and monitor finalised or ongoing studies; it is important that these indicators will also be applicable to judge the future studies in a continual way. Which indicators could be used to assess the success of finalised or ongoing studies?
- * What steps could be taken to ensure that the Commission and the Member States take account of the criteria and priorities set out in relevant legislation and policy documents, when selecting TEN-E studies for EU support? Are there contradictions or areas of confusion within these criteria and priorities which should be resolved to aid this process?
- * The study shall compare its own results and findings with those of the evaluation of the Programme undertaken in the year 1999 for the period 1995-1998. What are the lessons to be drawn from this comparison?

2.4. Information available for this evaluation

At the Commission premises, all relevant materials and information relating to the Programme and the actions supported will be available at the date the contract comes into force, including:

- * The documents and reports referred to in sections 1.1 and 1.2.
- * Publication « Trans-European Energy Networks – policy and actions of the European Community – information document – September 1997 (red cover – ISBN 92-828-1386-X).
- * Commission Recommendation 1999/28/CE of 14 December 1998²⁸ concerning the improvement of authorisation procedures for trans-European Energy Networks.
- * Green paper, Towards a European strategy for the security of energy supply, COM (2000) 769 Final, dated 29.11.2000.
- * European Energy Infrastructure, Fighting congestion and building links, ISBN 92-894-3302-7.
- * The final report of the evaluation of the actions of the programme TEN-E in the period 1995-1998.
- * Administrative and technical dossiers concerning the monitoring of the studies by their technical and financial responsables, including intermediate and final reports of the studies.
- * DG TREN's central database PMS, and a local data base on TEN-E actions (MS-Access).

²⁸ Official Journal L8 14.1.1999

Dossiers and reports of projects must be consulted in the Commission premises; some reports, if available in more copies, may be borrowed by evaluators.

2.5. Methodology for the gathering of the data and their treatment

In view of the diversity of the studies financed by TEN-E budget line and especially in view of the variety of their nature and of their approaches, no methodology is imposed as regards the gathering of the data and of its treatment. It is probable that it is necessary to adopt a series of different criteria according to the type of study and the sector of intervention.

However, the methods of evaluation should use quantified, objectively verifiable data whenever possible. Where relying on information gained from interviews and reports, the evaluators should document the sources and show that views have been critically assessed.

The evaluation will require to consult:

- * the technical, financial and other staff of DG TREN dealing with TEN-E,
- * other Commission officials,
- * the organisations which carried out the studies and the projects,
- * representatives of the Member States (Programme Committee),
- * possibly other European Institutions.

It is estimated that approximately 10-12 missions to different Member States will be required for interviews, in addition to other possible data collection methods. Each mission may include visits to more than one organisation.

Attention is drawn to the dangers of having too limited samples for certain lines of studies

The main activities proposed to be carried out must be clearly distinguished. A schedule must be provided and for each main activity the man-power required must be stated.

2.6. Management aspects, language

The evaluation will be done in close co-operation with a steering committee composed of representatives of the Commission Services dealing with TEN-E and officials of other Commission services. This group will be responsible for the monitoring of the progress of the work of the contractor. It will also co-ordinate the provision of data and dossiers and contacts between the contractor and administrative personnel of the DG TREN.

The work will have to be undertaken in both English and French. The tenderer must therefore demonstrate the capacity to comply with this important requirement. Any correspondence with the Commission and any document or report produced during the study shall be in English.

3. Time table, reports to be submitted, presentation of results

The work shall start from the signature of the contract for a duration of max. 9 months.

- a) Shortly after the entry into force of the contract a kick-off meeting will be held in Brussels in order to discuss and settle all the details of the study to be undertaken. Within two weeks after the kick-off meeting the contractor shall submit a proposed time table and plan for the data acquisition to the Commission for approval.
- b) Two months after the entry into force of the contract a summary of the findings and initial conclusions will be sent to the Commission together with a proposed structure of the Final Report.
- c) Four months after the entry into force of the contract an interim report, not subject to a payment, shall be submitted to the Commission. This report should use the structure of the final report.
- d) Six months after the entry into force of the contract the draft Final Report shall be submitted to the Commission.

For each of the stages a)-d) the contractor shall visit the offices of the Commission in Brussels in order to present the documents and to discuss the work accomplished, should this be deemed necessary by the Commission. The contractor will have to take fully into consideration any request for changes to documents or reports made by the Commission, provided that the original contract for the work to be undertaken is respected. The contractor shall prepare and submit within one week draft Summaries of such meetings and finalise them in the light of the Commission's comments within a week after their receipt.

In addition to the presentation to the Commission, the contractor may be required to present the final version of the Final Report or its draft to the TEN-E Programme Committee.

Three (on request of the Commission up to ten) copies of the documents and reports described in a) to d) shall be sent to the Commission as hard copy. In addition, they shall be made available in electronic format suitable for reproduction and compatible with software used by the Commission (for example as PDF, WORD, EXCEL, POWER POINT files).

Within one week after the approval of the Final Report by the Commission 50 hard copies, including Annexes, shall be submitted.

The structure of the Final Report shall follow the broad guidelines which may be adapted with the agreement of the Commission:

* ***Title page:***

- title and nature of evaluation,
- title of programme, generation, duration,
- identification of author, date of submission, commissioning service.

* ***Table of contents:***

- main headings and sub-headings,
- index of tables, figures and graphs.

* ***Executive summary:***

- an overview of the entire report in no more than five pages,
- a discussion of the strengths and weakness of the chosen evaluation design.

* ***Introduction:***

- description of the programme in terms of needs, objectives, delivery systems etc.,
- the context in which the programme operates,
- purpose of the evaluation in terms of scope and main evaluation questions,
- description of other similar studies which have been done.

* ***Methodology:***

- design,
- implementation and collection of data,
- analysis of data.

* ***Evaluation results:***

- findings,
- conclusions,
- recommendations.

* ***Annexes:***

- terms of reference,
- additional tables,
- references and sources,
- glossary of terms.

II. INTERVIEWS

DG TREN & TEN-E staff	Interview by	Type	Date
Mr Gonzales Finat	D. Spaey	Face-to-face	15/01/2004
Mr K. Rudishauser	D. Spaey	Face-to-face	19/01/2004
Mr C. Helmrath	D. Spaey	Face-to-face	23/12/2003
Mr M. Supponen	D. Spaey, L. Van Nieuwenhuysse	Face-to-face	06/01/2004
Mr A. Sotiriou	D. Spaey, L. Van Nieuwenhuysse	Face-to-face	06/01/2004
Mr E. Bjorklund	D. Spaey, L. Van Nieuwenhuysse	Face-to-face	09/01/2004
Mr Galanis	D. Spaey, L. Van Nieuwenhuysse	Face-to-face	09/01/2004
Mr D. Psychogios	D. Spaey,	Face-to-face	13/01/2004

Electricity operators	Contact persons	Interview by	Type	Date
REE, Spain	Mr Juan José Prieto Maestro	Agrell	Face-to-face	25/3/2004
RTE, France	Mrs Claire Fourment	Saga	Face-to-face	26/3/2004
GRTN, Italy	Mr Massimo Rebolini	Agrell	Face-to-face	29/3/2004
NGT, UK	Mr Sean Kelly	Agrell	Face-to-face	22/3/2004
EON, Germany	Dr. Matthias Luther	Agrell	Face-to-face	19/4/2004
Fingrid, Finland	MM Pertti Kuronen and Sami Kuitinen	Saga	Face-to-face	29/3/2004
CIE Spa, Italy	Mr Fabrizio Vandoni	Agrell	Phone	29/4/2004
NEA, The Netherlands	Mr B A Kleinbloesem	Agrell	Phone	29/4/2004
ESB National Grid, Ireland	Mr Paul Smith	Agrell	Phone	30/4/2004
DEI, Greece	Mr Albert Maissis	Agrell	Phone	30/4/2004

Gas operators	Contact persons	Interview by:	Type	Date
OMV, Austria	Mr Johann Gallistl	Saga	Face-to-face	12/3/2004
RAG, Austria	Mr Johann Petraschka	Saga	Face-to-face	12/3/2004
DEPA, Greece	Mr Dimitrios Kardomateas	Saga	Face-to-face	16/4/2004
Enagas, Spain	Mr Javier Alcaide Guindo	Agrell	Face-to-face	25/3/2004
GSO, France	Mr Francis Hondareyte	Saga	Face-to-face	26/3/2004
DONG, Denmark	Mr Jess Bert Jensen	Saga	Face-to-face	11/03/2004
Pohjolan Voima, Finland	Mr Jorma Isotalo	Saga	Face-to-face	29/3/2004
Transgas SA, Portugal	Mrs Ana Paula Milhano Pintao de Miranda Relvas	Saga	Phone	30/4/2004
Bord Gais Eireann, Ireland	Mr Michael O'Sullivan	Saga	Phone	23/4/2004
TSGF, France	Mr Eric Freycenon	Saga	Phone	24/4/2004

Member States	Organisation	Contact persons	Interview by:	Type	Date
Belgium	Ministry of Economic Affairs	Mr Alain Minet	Agrell	Face-to-face	26/4/2004
Germany	Ministry of Economics and Labour	Ms Dagmar Weinberg	Agrell	Face-to-face	20/4/2004
Spain	Permanent Representation of Spain to EU	Mr Luis Rico,	Agrell	Face-to-face	18/3/2004
France	Ministère de l'économie, des Finances et de l'Industrie	Mr Jean-Pierre Holuigue	Saga	Face-to-face	26/3/2004
Italy	Ministry of Productive Works	Mr Dario Chello	Agrell	Face-to-face	29/3/2004
United Kingdom	International Energy Unit DTI Energy Market Unit DTI	Mr Peter Gysin Mr Nick Trowell	Agrell	Face-to-face	22/3/2004
Austria	Ministry for Economics and Labour	Mr P. Dickinger, Mrs A. Siebenhandl	Saga	Face-to-face	12/3/2004
Sweden	Ministry of Industry, Employment and Communications	Mrs Ewa Beckman	Agrell	Phone	9/6/2004
Finland	Ministry of Trade and Industry	Mr Jouko Varjonen	Saga	Face-to-face	29/3/2004

III. QUESTIONNAIRES

We present hereafter the different questionnaires used in the survey i.e.:

- * the questionnaire to contractors, comprising a Part A concerning the studies, and a Part B dealing with the contractors' views on TEN-E programme;
- * the questionnaire to Member States, dealing with the representatives' views on the programme.

Mid-term evaluation of the TEN-E programme: questionnaire to contractors

PART A: THE STUDY

Introductory note

Part A concerns the studies carried out: it addresses the objectives and priorities concerned, the achievements, the follow-up and impacts, and a few characteristics of the study, notably its funding. Please fill in Part A for each study mentioned in the email addressed to you by Bureau van Dijk. If the major part of the study programme is still to be done (results not mature enough), do not answer questions 3 to 6.

Contract number:

Title:

Company name:

Name and function of the person having responded to the questionnaire:

Role of this person in relation to the TEN-E project:

1. TEN-E OBJECTIVE(S) SUPPORTED BY THE STUDY

By considering the investment project concerned by the study, please select the TEN-E objective(s) supported by this project, as main objective, secondary objective, or not an objective:

- * Effective operation of the Internal Market in general, and of the Internal Energy Market in particular:
- * Strengthening Economic and Social Cohesion by facilitating the development and reducing the isolation of the less-favoured regions of the Community:
- * Reinforcing the security of energy supply:

Please feel free to comment on your answers:

2. TEN-E PRIORITIES SUPPORTED BY THE STUDY

By considering the investment project concerned by the study, please select the TEN-E priorities supported by this project:

* *Electricity Networks*

- Connection of isolated networks to European interconnected networks
- Development of interconnections between Member States
- Development of internal connections necessary to make the best use of the interconnections between Member States
- Development of interconnections with third countries in Europe and the Mediterranean region helping to improve the reliability, security and supply of Community electricity networks.

* *Gas Networks*

- Introduction of natural gas into new regions
- Connection of isolated gas networks to the interconnected European networks, including the necessary improvements of the existing networks, and connection of separated natural gas networks
- Increasing reception of liquefied natural gas (LNG) and storage capacity necessary to satisfy demand, and diversification of supply sources and routes for natural gas
- Increasing transmission capacity (gas delivery pipelines) necessary to meet demand and diversification of supply sources and routes for natural gas.

Please feel free to comment on your answers:

3. ACHIEVEMENT OF THE OBJECTIVES OF THE STUDY

Assess the extent to which the study was successful in achieving the objectives (mainly technical) as set in its Technical Annex. Were initial objectives:

In case of no or poor achievement, mention the nature of the obstacles met:

- Technical
- Environmental
- Administrative
- Political
- Legal/regulatory
- Conflict of interest between associated parties
- Lack of motivation or initiative of interested parties
- Other

If you checked "Other", please specify:

Please feel free to comment on your answers:

In case the study contract has been cancelled, go directly to Question 7.

4. CONCLUSION OF THE STUDY AND FOLLOW-UP

Did the study recommend:

* To implement the investment project:

In case of "Yes" answer:

- What is the stage of implementation:
- Did you apply for authorizations?
- Size of investment (€):

- Did you apply to the following sources of funds for co-financing of the investment project?
 - . EIB:
 - . EIF:
 - . FEDER:
 - . Other:
If you have checked "Other", please specify:

Please feel free to comment on your answers:

* Not to implement the investment project:

In case of "Yes" answer:

- What were the reasons for not implementing the investment project:
 - Negative or non-convincing results of the study
 - Lack of commercial viability
 - Uncertainties regarding the future development of the market
 - Political constraints
 - Administrative constraints
 - Environmental constraints
 - Other
If you checked "Other", please specify:

- If the decision of not implementing the investment is only temporary, please shortly explain the reasons why:
- Did you decide to proceed to further study ?

If "Yes", what is the stage of realization?

Please feel free to comment on your answers:

5. IMPACT OF THE STUDY ON THE IMPLEMENTATION OF THE INVESTMENT PROJECT

Assess the extent to which the study contributed to any of the following impacts:

- * Obtain an administrative authorization:
- * Accelerate the investment phase:
- * Facilitate the further co-financing of the investment project by EIB, etc.:
- * Stimulate the collaboration (negotiation, co-operation or consensus building) between the related parties concerned by the investment project:
- * Further the investment project in other ways:

If you checked the impact "Further the investment project in other ways", please specify:

As far as possible, quantify any impact mentioned, as follows:

- * Number of authorisations obtained:
- * Gains in time (months) towards the investment phase:
- * Funds obtained (in €):
- * Source(s) of funds:

Source 1	
Source 2	
Source 3	
Source 4	
Source 5	

- * Number of person-days saved e.g. in demands of authorizations:
- * Increased benefit-cost ratio:

Please feel free to comment on your answers:

6. ANY OTHER EFFECTS OF THE STUDY

Did you record any other effects of the study²⁹ such as:

- Multinational collaborations
- Advantages obtained from the European label
- Improved taking into account of the environmental impacts
- Other

- * If you checked "Advantages obtained from the European label", please specify which ones:
- * If you checked "Other", please specify:

²⁹ Other than effects related to the investment project.

Please feel free to comment on your answers:

7. FUNDING OF THE STUDY

In addition to the TEN-E financing, what other financial source(s) have you used for the funding of the study?

- Own funds
- External funds

In case you ticked "External funds", please indicate the source(s) of the external funds (EIB, EIF, national/regional funds, etc.).

Source 1	
Source 2	
Source 3	
Source 4	
Source 5	

Please feel free to comment on your answers:

8. SCENARIO WITHOUT THE TEN-E FUNDING

Without the TEN-E funding:

- * What would have been the effect on the project output(s) and impact(s)? Please explain:
- * Would you have obtained other funding to replace TEN-E?

In case you ticked "Yes", please indicate the source(s) of the funds.

Source 1	
Source 2	
Source 3	
Source 4	
Source 5	

9. INITIATOR OF THE TEN-E APPLICATION

Does the initiative to apply for TEN-E funding come from your company or from the Member State?

Please feel free to comment on your answers:

10. DEMAND FOR AMENDMENT

Did you demand an amendment of the study contract?

- * In case of "Yes" answer, what were the main reasons of this demand:

- Time extension
- Re-allocation of funds between cost categories
- Re-orientation of objectives/work program
- Other

If you checked "Other", please specify:

* Has the Commission accepted the request?

Please feel free to comment on your answers:

We thank you very much for your cooperation and very valuable inputs

Mid-term evaluation of the TEN-E programme: questionnaire to contractors

PART B: THE TEN-E PROGRAMME

Introductory note

Part B concerns the TEN-E programme: comparison with other financing mechanisms, relevance of the list of Projects of Common Interest, your interest in TEN-E, functioning of TEN-E, and suggestions to improve this Community intervention.

Whatever the number of TEN-E contracts between your company and the Commission, please fill in Part B only once.

Company name:

Name and function of the person having responded to the questionnaire:

Role of this person in relation to the TEN-E project:

1. TEN-E FUNDING COMPARED TO OTHER EU FINANCING MECHANISMS AND NATIONAL OR REGIONAL FUNDS

1.1 Did you perform other studies using other EU financing mechanisms and national or regional funds?

If "No", go directly to question 2. If "Yes", specify the financing mechanisms concerned:

- Structural funds (FEDER)
- Cohesion funds
- EIB loans
- EIF loan guarantee
- Other

If you checked "Other", please specify:

Please feel free to comment on your answers:

1.2 With regard to any of the funding mechanism you have experienced, please compare the TEN-E financing and rate it as performing better, performing similarly, performing worse, no opinion or not applicable for the following aspects:

- * Transparency of the selection process:
- * Time between the submission of the application and the signature of the contract:
- * Financial support (mainly amount of funding):
- * Non financial support (managerial, administrative, etc.) during the study:
- * Freedom of action for the company in managing the study:
- * Reporting obligations:

Please feel free to comment on your answers:

1.3 Compared to other sources of funding, would you rate the effort and time spent in drafting proposals for TEN-E as:

Specify the source(s) of funding used for comparison.

Source 1	
Source 2	
Source 3	
Source 4	
Source 5	

Please feel free to comment on your answers:

2. RELEVANCE OF THE LIST OF PROJECTS OF COMMON INTEREST

Assess the relevance of the list of Projects of Common Interest as good, partly good, bad or no opinion, regarding:

- * The extent to which it covers company needs:
In case you rated "Partly good" or "Bad", please specify which of your need(s) do you think is not covered by the list?
- * Its complementarity with national or regional actions:
In case you rated "Partly good" or "Bad", please comment on the possible redundancy of the list with national or regional actions or the remaining gap between national actions and European actions:

3. YOUR INTEREST IN TEN-E

3.1 Did or do the following elements of context affect your interest in TEN-E:

- * The 2000 merger of the former DGs in charge respectively of energy and transport:
- * The 1996 directives for the common European energy market:
- * The 2003 update of the TEN-E Guidelines:
- * Growing opposition to network extensions:

Please feel free to comment on your answers:

3.2 How would you rank the strategic importance for your company of the allocation of own resources to each of the following:

- * TEN-E studies:
- * TEN-E investment projects:
- * Other network projects:
- * Maintenance/improvement of existing network:
- * Other expenses:
If you checked "Other expenses" please specify:

Please feel free to comment on your answers:

3.3 Is the whole timing of TEN-E, from proposal submission till contract termination, consistent with the local needs or constraints of the network development?

If the answer is "Yes" or "No", please provide explanation:

3.4 How much do you trust the respect of confidentiality when submitting a proposal to TEN-E?

Please feel free to comment on your answers:

4. FUNCTIONING OF TEN-E DURING THE APPLICATION PHASE

* How would you evaluate the following aspects of the application process:

- The way you received information about TEN-E calls:
- Completeness and relevance of the application form and its appended documentation:
- Clarity of the selection process (criteria, stages, timetable):
- Adequacy of the submission timing (between opening and closing of the calls):
- Support provided by the TEN-E staff during the application phase:
- Adequacy of the time between the submission of the application and the signature of the contract:

* In case you have received TEN-E funds for several studies, how do you assess the evolution over time of the application process?

* Any suggestion for improvement of the application phase?:

5. FUNCTIONING OF TEN-E DURING THE EXECUTION OF THE STUDY

* How would you evaluate the following aspects of the execution of the study:

- Support given by TEN-E services to facilitate the execution of the study:
- Time between invoice and payment:
- Workload required by administrative procedures:
- Compatibility between your company accounting rules and those of the Commission:
- Clarity of TEN-E requirements for reporting:
- Usefulness of the intermediate progress report:
- Flexibility to adapt the study concerning contents, financial aspects, etc.:
- Appropriateness of the allowed overhead rate:
- Effectiveness of TEN-E monitoring:
- Effectiveness of Member States monitoring:

* In case you have received TEN-E funds for several studies, how do you assess the evolution over time of the conditions of execution of the study?

* Any suggestion for improvement of the execution phase?

IMPROVING THE COMMUNITY INTERVENTION

6. Is there a minimum rate of co-financing by TEN-E or a minimum amount under which you would not be interested to apply for a TEN-E study?

* Rate to be specified in % (>0 and <= 50%):

* Amount in EUR:

Please feel free to comment on your answers:

7. How would you assess the role played by TEN-E and the Policy Guidelines in particular, in steering and guiding the development of the European energy infrastructure?

In case you answered "Adequate" or "Not adequate", please motivate your answer:

8. TEN-E could finance a smaller number of larger studies or projects but each having a higher financial support. Are you in favour of such an evolution?

Additional question in case of "Yes" answer:

* What would be the optimal total budget (amount in EUR)?

* What would be the optimal TEN-E contribution (amount in EUR)?

Please feel free to comment on your answers:

9. How would you assess any future TEN-E shift to fund the most expensive studies (field studies required to decide an investment), preferably to the cheapest ones (desk studies)?

In case you answered "Adequate" or "Not adequate", please motivate your answer:

10. Differences might exist between estimates made by applicants to TEN-E studies and the actual costs they incurred during the study. Do you have any suggestion to help applicants in making estimates as realistic as possible?

11. In the process of proposals evaluation/selection, the Commission could use in the future standard costs/rates (for specified tasks). Would you be in favour of such approach?

In case of "Yes" or "No" answer, please motivate your answer:

12. In the monitoring of the execution of the contract, the Technical Officer in charge could in the future have a more active role: more frequent visits to the contractors, technical feedback on reports, etc. Would you be in favour of such approach?

In case of "Yes" or "No" answer, please motivate your answer:

13. How would you assess possible other kinds of help brought by TEN-E to overcome obstacles such as opposition to network extensions, difficulties in obtaining authorizations, etc.?

In case you answered "Adequate" or "Not adequate", please motivate your answer:

14. If you have any additional comments or suggestions to make, please use the following free text area:

We thank you very much for your cooperation and very valuable inputs

Mid-term evaluation of the TEN-E programme: questionnaire to Member States

Member State:

Name and function of the person having responded to the questionnaire:

Role of this person in relation to the TEN-E programme:

1. YOUR OVERALL VIEW OF THE TEN-E ACTIONS' OBJECTIVES

Your country has applied for TEN-E funding. Could you please briefly state what were your main objectives?

- Security of supply
- Access to competitive energy sources
- Energy sources diversification
- Development of national or regional energy market
- Access to EU financial resources
- Thanks to EU political support, facilitate inter-State negotiation (inside or outside EU)

Do the TEN-E actions have the right objectives and priorities?

Do you see scope for improvements?

In case of "Yes" answer, what should be changed or improved?

Please feel free to comment on your answers:

2. INITIATOR OF THE TEN-E APPLICATION

Do the initiatives to apply for TEN-E funding usually come from the companies or from the Member State?

Please feel free to comment on your answers:

How do you inform the companies and organizations concerned by TEN-E, notably the calls?

3. IMPACT OF THE STUDIES ON THE IMPLEMENTATION OF THE INVESTMENT PROJECTS

Are you informed about the impacts of the TEN-E studies on the implementation of the investment projects?

In case of "Yes" answer and for the studies carried out in your country, please identify the **three impacts** most frequently obtained:

- Obtain an administrative authorization

- Accelerate the investment phase
- Facilitate the further co-financing of the investment project by EIB, etc.
- Stimulate the collaboration (negotiation, co-operation or consensus building) between the related parties concerned by the investment project
- Further the investment project in other ways

If you checked the impact "Further the investment project in other ways", please specify:

Please feel free to comment on your answers:

4. ANY OTHER EFFECTS OF THE STUDY

Are you informed about any other effects of the studies³⁰ such as:

- Multinational collaborations
- Advantages obtained from the European label

If "Yes", please specify which ones

Advantage 1	
Advantage 2	
Advantage 3	
Advantage 4	
Advantage 5	

- Improved taking into account of the environmental impacts
- Other

If you checked "Other", please specify:

Please feel free to comment on your answers:

5. GLOBAL FUNCTIONING OF THE TEN-E PROGRAMME

5.1 Is the whole timing of TEN-E, from proposal submission till contract termination, consistent with the local needs or constraints of the network development?

If the answer is "Yes" or "No", please provide explanation:

5.2 Is the current time frame available for updating of the Projects/studies of Common Interest appropriate?

If the answer is "No", please provide explanation:

5.3 Did your Member State Authorities put in place mechanisms with a view of checking contract management and implementation by the beneficiaries?

³⁰ Other than effects related to the investment projects.

If the answer is "Yes", please provide explanation:

6. FUNCTIONING OF TEN-E DURING THE APPLICATION PHASE

- * How would you evaluate the following aspects of the application process:
 - Completeness and relevance of the application form and its appended documentation:
 - Effort and time spent in drafting proposals:
 - Clarity of the selection process (criteria, stages, timetable):
 - Adequacy of the submission timing (between opening and closing of the calls):
 - Support provided by the TEN-E staff during the application phase:
 - Adequacy of the time between the submission of the application and the signature of the contract:

- * How do you assess the evolution over time of the application process?

- * Any suggestion for improvement of the application phase?

7. FUNCTIONING OF TEN-E DURING THE EXECUTION OF THE STUDY

- * How would you evaluate the following aspects of the execution of the study:
 - Support given by TEN-E services to facilitate the execution of the study:
 - Time between invoice and payment:
 - Workload required by administrative procedures:
 - Compatibility between the company accounting rules and those of the Commission:
 - Clarity of TEN-E requirements for reporting:
 - Usefulness of the intermediate progress report:
 - Flexibility to adapt the study concerning contents, financial aspects, etc.:
 - Relevance of check carried out by TEN-E services:
 - Appropriateness of the allowed overhead rate:
 - Effectiveness of TEN-E monitoring:
 - Effectiveness of Member States monitoring :

- * How do you assess the evolution over time of the conditions of execution of the study?

- * Any suggestion for improvement of the execution phase?

IMPROVING THE COMMUNITY INTERVENTION

8. How would you assess the role played by TEN-E and the Policy Guidelines in particular, in steering and guiding the development of the European energy infrastructure?

In case of "Adequate" or "Not adequate" answer, please motivate your answer:

9. TEN-E could finance a smaller number of larger studies or projects but each having a higher financial support. Are you in favour of such an evolution?

In case of "Yes" answer:

- * what would be the optimal total budget (amount in EUR)?
- * what would be the optimal TEN-E contribution (amount in EUR)?

Please feel free to comment on your answers:

10. How would you assess any future TEN-E shift to fund the most expensive studies (field studies required to decide an investment), preferably to the cheapest ones (desk studies)?

In case of "Adequate" or "Not adequate" answer, please motivate your answer:

11. Differences might exist between estimates made by applicants to TEN-E studies and the actual costs they incurred during the study. Do you have any suggestion to help applicants in making estimates as realistic as possible?

12. In the process of proposals evaluation/selection, the Commission could use in the future standard costs/rates (for specified tasks). Would you be in favour of such approach?

In case of "Yes" or "No" answer, please motivate your answer:

13. In the monitoring of the execution of the contract, the Technical Officer in charge could in the future have a more active role: more frequent visits to the contractors, technical feedback on reports, etc. Would you be in favour of such approach?

In case of "Yes" or "No" answer, please motivate your answer:

14. How would you assess possible other kinds of help brought by TEN-E to overcome obstacles such as opposition to network extensions, difficulties in obtaining authorizations, etc.?

In case of "Adequate" or "Not adequate" answer, please motivate your answer:

15. If you have additional comments or suggestions to make, please use the following free text area:

We thank you very much for your cooperation and very valuable inputs

IV. GLOSSARY OF TERMS

This glossary gathers terms specific to TEN-E as well as terms proper to the evaluation language. These last terms are defined in conformity to the recognised standards of evaluation practice³¹.

Actions: the TEN-E supported actions are either studies or projects. The studies deal with the technical, economical, environmental, etc. feasibility of the projects. The projects are investments in network extension, interconnection, etc.

Attribution issue: is an issue relating impacts to the influence of different factors, among which a particular contract (e.g. a TEN-E one), and thus establishing causal relationships. It addresses also the intensity of these relationships as well as their likelihood.

DG TREN: European Commission's Directorate General in charge of Energy and Transport.

Effectiveness: refers to whether and to what degree the programme impacts contribute to achieving its specific and general objectives.

Efficiency: assessment relating the programme outputs (their importance in terms of utility, value, etc.) to the inputs (in terms of resources used): how economically have the various inputs been converted into outputs?

EIB: the European Investment Bank is the European Union's financing institution whose task is to contribute towards the integration, balanced development and economic and social cohesion of the Member Countries. To this end, it raises on the markets substantial volumes of funds that it directs on the most favourable terms towards financing capital projects according with the objectives of the Union. Outside the Union the EIB implements the financial components of agreements concluded under European development aid and cooperation policies.

Factors of impact: are elements contributing to the existence of impacts; these elements might have a macro character (external conditions such as activities, policies, and regulations) or a micro one (a change of strategy of the investing company).

Impact: refers to the economic and social changes brought about by the programme or by one of its projects/studies. Impacts can be divided into results – the initial impacts – and outcomes – the longer-term impacts.

Outputs: outputs are the goods and services funded and directly produced by the programme/the study. The interest of the outputs for an impact assessment lies in the extent to which they are used and generate impacts.

Project of Common Interest (PCI): set of projects such as electrical and gas interconnections, capacity extensions, etc. defined by the Commission and the Member States and forming the Guidelines for

³¹ They are directly inspired from 'Evaluating EU expenditure programmes – A guide to intermediate and ex-post evaluation', European Commission, DG Budget, 1997 and updates, from the MEANS Collection 'Evaluating socio-economic programmes', European Commission, DG Regional Policy, 1999, and from Bureau van Dijk's own practice.

trans-European energy networks. The PCI are distributed in the 8 domains of priorities of the programme.

TEN-E: the Trans-European Networks – Energy programme provides financial support to studies and investment projects with a view to implementing the European Union policy of development of energy infrastructures.

TSO: the Transmission System Operators are responsible for the bulk transmission of electric power on the main high voltage electric networks. In the European Union internal electricity market TSOs are entities operating independently from the other electricity market players.

Utility: refers to the fact that the impacts obtained by a programme correspond to society's needs and to the socio-economic problems addressed.