

**TWINNING COVENANT**

REFERENCE NO. TR02-EY-01

FOR THE

**INSTITUTIONAL STRENGTHENING OF THE ENERGY MARKET  
REGULATOR**

BETWEEN

**THE ENERGY MARKET REGULATORY AUTHORITY OF TURKEY**

AND

**THE REGULATORY AUTHORITY FOR ELECTRICITY AND GAS OF ITALY**

*SECOND DRAFT*

*OCTOBER 2003*

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## LIST OF ABBREVIATIONS

<b>Abbreviation</b>	<b>Description</b>
AEEG	Autorità per l'Energia Elettrica e il Gas
CC	Candidate Country
CFCU	Central Finance and Contracts Unit
CBT	Cross Border Trade
ECR	European Commission Representation
EMRA	Energy Market Regulatory Authority
EUSG	Secretariat General for the EU Affairs
LNG	Liquefied Natural Gas
NAP	National Contact Point
MS	Member State
PAA	Pre-Accession Advisor
PAO	Programme Authorising Officer
PF	Project Fiche
PL	Project Leader
RIS	Regulatory Information System
STE	Short Term Expert
TEIAS	Turkish Electricity Transmission Company

## TWINNING COVENANT

REFERENCE NO. TR02-EY-01

Between the administrative authority of Turkey (hereinafter referred to as the "Candidate Country") represented by the National Contact Point , which entrusts the implementation of the Covenant for its part to Energy Market Regulatory Authority (EMRA), in person of its Head of Department of International Relations and Coordination with EU, Mr. Cahit Akıncı

on the one part,

And the administrative authority of Italy (hereinafter referred to as the "Member State") represented by the National Contact Point, which entrusts the implementation of the Covenant for its part to the Regulatory Authority for Electricity and Gas (hereinafter referred to as AEEG), in person of its Commissioner Mr. Sergio Garribba

on the other part

THE FOLLOWING COVENANT HAS BEEN AGREED:

### **TITLE I. Purpose and Objectives of the Twinning Operation: *Acquis communautaire* underpinning the project and practical result targeted**

#### **Article 1. Objective and guaranteed results**

##### ***i. Overall objective***

Overall objective is to improve the regulation of the energy market in compliance with the EU Acquis.

##### ***ii. Immediate objective***

The immediate objective is to increase knowledge and skills of EMRA personnel and overall EMRA's capacity to ensure proper implementation of the legislation in place in line with (i) the EU internal market and corresponding requirements for regulatory authorities, (ii) the best practices as applied in regulatory authorities in the EU Member States through know-how transfer and training. EMRA's organisation will be assessed and improved in order to achieve the administrative capacity required for the implementation of such legislation.

In order to achieve the overall objective, the project shall have the following results:

### **iii. Guaranteed results**

- (1) Current regulations are assessed with respect to the EU *acquis and* best EU regulatory practices. Recommendations are drafted and discussed for an effective regulation of competition oriented electricity and natural gas markets, integrated with those of other Member States and Candidate Countries, as a complementary part of Turkey's accession to the EU. Consensus on the recommendations is reached between the parties accordingly. Where necessary, current regulations are revised and new regulations are developed. Proposals to the relevant bodies are formulated where necessary for the implementation of the above.

These results will be achieved for all relevant regulations, in particular those regarding licensing, tariffs, import-export regulations, unbundling provisions, accounting guidelines, market rules, aimed at developing fully competitive electricity and gas markets and to ensure the protection of consumer rights with efficiently working monitoring mechanisms. .

- (2) Senior energy staff and assistant energy experts are separately trained in key energy regulatory issues so that EMRA's knowledge and skills are brought to the level required for the implementation of the EU *acquis*.
- (3) Internal organization of EMRA and practices of relations with stakeholders are reviewed for the purpose of more effective and efficient management. Recommendations are drafted, discussed and agreed.

### **Article 2. *Acquis communautaire***

See Annex D.

### **Article 3. Contents of the Twinning Project**

#### ***i. Background***

In response to the macroeconomic developments in Turkey in 2001, and with support from the IMF, the World Bank and other international institutions, such as the European Union, the Republic of Turkey has undertaken a sweeping programme of economic reforms and restructuring, which fully extends to the energy sector. Regulatory reforms have been recognised as a crucial support for economic recovery in Turkey.

Within the framework of such reform activities, Electricity Market Law and Natural Gas Market Law became effective and the autonomous Energy Market Regulatory Authority (EMRA) was established in 2001.

The decision making body of the Authority is its Board. It is composed of six members and the President who is both the Chairman of the Board and in charge of governing the Authority. Following the appointment of the Board in November 2001, core professional staff was appointed and the internal administrative procedures of EMRA, including audit, budget and personnel, have been drawn up. EMRA

is a young organisation, with a considerable size of 288 employees including 7 Board Members (281 staff was employed at EMRA by September 2003. In addition to 18 assistant energy experts, there are 88 energy experts, 32 group heads and 9 department heads). Its role is to supervise electricity and natural gas markets which have significant economic, social and environmental effects at national level.

At present, most functions, activities and procedures of EMRA around the liberalised gas and electricity markets are defined either by the Laws or the Regulations and Communiqués (See Annex E for the list of relevant laws, regulations and communiqués issued by EMRA). Regulations for which EMRA was responsible have been enforced in most areas, including tariffs, regulation of eligible customers, network codes, financial settlement provisions, import-export regulation, metering and licensing rules.

New regulations on reliability of supply, criteria for demand forecasts, balancing rules (in the electricity sector); gas release tenders are being prepared.

## **ii. Components of the Project**

The project consists of the following Components and Sub-Components:

### **Component 1: Know-how Transfer**

Component 1 includes the following Sub-Components (short titles given in bold):

**1.1 Kick-off seminar.** Public high level debate on “Liberalising the electricity and gas markets: comparative experiences for a Twinning project”.

**1.2. Market reforms.** Preparation and discussion of EMRA’s role concerning further evolution of market reforms towards greater competition and removal of obstacles to a functioning market, including issues such as level playing field in generation, access to network, different degree of market opening, protecting small and vulnerable customers’ rights, disclosure policies on fuels;

**1.3. Network tariffs.** Effective regulations and legally binding methodologies underlying the calculation of transmission and distribution tariffs, publicising policies and non-discriminatory application of methodologies;

**1.4. Licensing.** Authorisation including bidding procedures, criteria and specific requirements to obtain distribution licenses for gas and generation licence for electricity;

**1.5. Cross-border issues.** Cross-border trade for electricity and gas including congestion management and capacity allocation procedures, transparency and information provision, cross-border infrastructure capacity development, harmonised cross-border exchange tariffs, international agreements (e.g. Energy Charter Treaty);

**1.6. Renewable energy.** Regulatory framework for the utilisation and development of renewable energy sources and embedded generation in line with the EU policies including simplified authorisation procedures, price and quota regulation approaches, network access and green certificates;

**1.7. Security of supply.** Monitoring of security of supply including risk and crisis management, public service requirements, environment, energy efficiency, rational use of energy and demand side management, imports and reporting and consultation needs in liberalised electricity and gas markets.

Role of regulators, market-based mechanisms and approaches to stimulate capacity development by market players;

**1.8. Market monitoring.** Market monitoring, measurement, assessment and development of competitive activities and performance standards in the electricity and gas market, including reporting on market dominance, market concentration, predatory and anti-competitive behaviour and competition policies;

**1.9. Market opening.** Market opening, eligible customer concepts and aggregation policies and practices for non-eligible customers;

**1.10. Network codes and balancing.** Review of network codes and market-based mechanisms for network access, congestion management, balancing and settlement of electricity and gas markets under the condition of sufficient market liquidity, including terms and conditions and tariffs for the provision of balancing services;

**1.11. Consumer affairs.** Protection of consumer rights, in particular vulnerable consumers and settlement of dispute mechanisms and procedures, including approaches to circumvent the emergence of lengthy and time-consuming disputes, in line with EU Member States experience;

**1.12. Stranded costs.** Concepts, measures, applications and timeframe for stranded costs including those in small, isolated systems;

**1.13. Natural gas storage.** Specific regulatory issues relating to LNG storage and underground storage of natural gas;

**1.14. Inspective activity.** Technical control and inspection activities and issues of metering, theft and loss, execution of fines and auditing activities;

**1.15. Information system.** Best practices of Regulatory Information System (RIS) in EU countries, regulatory accounting standards, financial reporting and expropriation issues;

**1.16. Long term contracts.** Regulatory issues concerning the containment of the impact of long term contracts on competition.

**1.17. Closing seminar.** Public high level debate on “The Turkish electricity and gas market towards EU accession”.

## **Component 2: Training**

Component 2 consists of three Sub-Components:

### **2.1 Training for EMRA’s assistant energy experts**

Please refer to Training Table below for contents.

### **2.2 Training for EMRA’s senior staff**

Please refer to Training Table below for contents.

## 2.3 Study visits

### **Component 3: Corporate Governance and Identity.**

**This component is related with the** development of good governance, corporate identity, adoption and modification of organization structure, revising and streamlining working procedures and human resources development

#### ***iii. Strategy for the achievement of Guaranteed Result 1, outputs and benchmarks***

The Twinning project will move from the assessment of the compatibility of current regulations with the EU *Acquis* and best practices and suggest any improvement that may be needed.

Therefore, the Twinning Project will allow for the **review of current regulations and know-how transfer** in the area of EU internal energy market and regulatory practices (**Component 1** of the project).

The following steps will be implemented for each Sub-Component under Component 1 of the project:

- A. Kick-off seminar illustrating the Italian and where relevant other EU approaches;
- B. Analysis of the Turkish legal and regulatory framework;
- C. Analysis of the current situation of the electricity and gas industries (i.e. through data collection, meetings with stakeholders);
- D. Analysis of EMRA's objectives, organization and available regulatory resources in the field;
- E. Analysis and discussion of alternatives with EMRA's President, Board Members and staff;
- F. Drafting of guidelines for the improvement of Turkish electricity and gas regulation and for EMRA's activities, pointing at necessary data, resources and outlining the requested intermediate steps and procedures apart from the existing regulations and communiqués.
- G. Consensus with the relevant EMRA departments to be reached on the issues mentioned above
- H. Follow-up: monitoring of implementation and solution of issues emerging during the project.

The above mentioned steps will be carried out through advisory provided by the Pre-Accession Adviser (PAA) and Short Term Experts (STE) chosen from AEEG staff, other European energy regulators, higher education institutions, not-for-profit companies and independent experts, under the responsibility of the AEEG. Part of the work may consist of preparing case studies.

Steps A-G will be provided mainly during the first year of the Twinning Project.

Step H will take place during the second year of the advisory activity. It will be mainly concerned with the monitoring and discussion of the achieved results, the analysis of difficulties emerging in the implementation of recommendations and the need for changes as emerging from new *acquis communautaire* and Turkish policy requirements.

The outcome of these activities will allow the achievement of **Guaranteed Result 1**.



## ***Outputs and Benchmarks***

For each Sub-Component, the following reports will be made available as **benchmarks** for the achievement of **Guaranteed Result 1**:

- a. Summary of the Italian and (if relevant) other EU approaches, as seminar slides, after step A.
- b. Analysis of the Turkish situation and objectives (after steps B-D).
- c. Recommendations and proposals for Turkey, agreed with the relevant EMRA Department (after step E-G)
- d. Analysis of results achieved and outline of future work (after step H).

If consent is not reached on an issue for any reason, AEEG and EMRA experts may include their different views in the Recommendation Reports.

### ***iv. Strategy for the achievement of guaranteed result 2; outputs and benchmarks***

It is obvious that the more Turkey is aligned with the energy *acquis* the more the focus should be shifted on to administrative and institutional strengthening of EMRA. In so doing, it will be warranted that sufficient capacity is available to take account of the *acquis communautaire* in day-to-day regulatory work, and to carry out duties efficiently, beyond the duration of the Twinning project.

Therefore, a formal **EMRA staff training programme** will be developed and implemented (**Component 2** of the project) to allow for the achievement of **Guaranteed Result 2**.

The training activity will involve all assistant energy experts (18 assistant energy experts were employed at EMRA as of September 2003) and at least 80% of senior staff (currently 88 energy experts, 32 group heads, 9 department heads and 7 Board Members).

#### ***Sub-Component 2.1 Training for Assistant Energy Experts:***

Training activity for assistant energy experts will be developed with a view to setting up a permanent staff-training centre. Thus, the development of computer based training material and practical activities will be contracted out. Tuition services will also be hired for the development of practical application of the lectures, including the simulation of regulatory cases. The involvement of Turkish trainers will also be sought and EMRA's personnel as well as local institutions at EMRA's discretion can also make use of the training centre.

The course will include up to 200 hours of lectures and tutorials (See Training Table below). It will be split into several modules to avoid long disruption in the assistant energy experts' normal working activity. Computer based training material will allow students to revise and practise at their best available time.

Some students may be exempted from basic subjects depending on their background.

The audience could also be extended to staff of other related Turkish institutions at EMRA's discretion provided students have the requested basic knowledge.

#### ***Sub-Component 2.2 Training for Senior Staff:***

Some of the topics from **sub-component 2.1** will be developed through special sessions by the same lecturers. This will represent training activity for senior staff experts (**sub-component 2.2**). Where the sessions will be more concentrated and with a more practical orientation with respect to the junior training course. A total of 90 hours will be offered, with a possibility for staff to select issues of

their interest (see Training Table below). Prior to each training under above sub-components, related experts will submit a detailed work program. Such program shall be acceptable by EMRA.

The first round of sessions will be held during the same visits of **sub-component 2.2**. A second and third round of sessions will be held at a distance of several months, in order to allow for different groups of senior staff to attend. Each group of sessions will involve approximately 35 staff. However, some energy experts may be included in the junior program (**sub-component 2.2** of the project) at EMRA’s discretion.

Replicas may also be used to meet the emergence of new requests.

Senior staff sessions will also be open to Board Members.

Trainers will dedicate substantial time to answer specific questions from senior and Board Members.

**Training table**

	Topics	Trainers	Act. 2.2 (hours)	Act. 2.3 (hours)
A.	The role of regulators: independence, accountability, and ethical standards.	J. de Jong	8	6
B.	Energy production technologies	M. Rivier Abbad	8	-
C.	Basics of electric and gas network management and regulation	M. Rivier Abbad, Mauro Formaggio	12	8
D.	Energy resource economics	S. Furlan	12	-
E.	Basics of corporate accounting and finance	G. Rotta	18	10
F.	Economics of competition and regulation	A. Iozzi	16	12
G.	Pricing theory and practice for transmission and distribution utilities	I. Perez Arriaga, PAA	22	16
H.	Organization of domestic and international electricity and gas markets and cross border issues	I. Perez Arriaga, S. Furlan	16	10
I.	EU energy and customer protection law	E. Cross, V. Cioffo	18	10
J.	Security of supply and risk management	M. Rivier Abbad	12	8
K.	Quality of service issues	R. Malaman	12	6
L.	Communications issues	I. Galimberti	6	4
M.	Tutorials: development of practical situations for regulators	C. Vasquez	40	-
	Total		200	90

### ***2.3 Study Visits***

The senior staff training programme will be complemented by the organisation of study visits (**sub-component 2.3**).

Up to eight study visits by five EMRA senior staff (including a mission leader) to other European energy regulatory institutions will be organized during the project, starting in the third quarter. Where necessary, Board Members may also participate in the study tours.

Study visits will include not only visits to regulatory authorities but also to system and market operators, organized markets, and industrial facilities.

Through study visits EMRA senior staff will achieve a detailed knowledge about the organisation, workaday activities and specific activities of selected EU regulators, actual market organisation, institutions and public utility companies in EU Member States. Upon the request of EMRA, the number of participants under each study visit may be adjusted according to the workload. (See Annex H for the details of the Study Visits).

### ***Outputs and benchmarks***

For **sub-component 2.1** (Junior staff training):

Outline of teaching material, reading lists for lectures, practical examples and case studies included into magnetic media; completion and assessment of training path for up to 20 students. Assessment reports by trainers and tutors.

For **sub-component 2.2** (Senior staff training):

Senior staff will have filled short reports indicating their attendance and the main topics of the training, and feedbacks for future sessions. Assessment reports by trainers and tutors.

For **sub-component 2.3** (Study visits):

A mission report drafted by the EMRA visiting staff and coordinated and submitted by the mission leader will contain the concrete examples of common practices and facility operation explained to the Turkish participants to illustrate the regulation process. These reports will be published on the EMRA's intranet.

### ***v. Strategy for the achievement of guaranteed results 3, outputs and benchmarks***

The adoption of the *acquis* and best EU practices may require substantial changes to **Corporate Governance and Identity of EMRA**. Therefore, a special know-how transfer activity will be organised dealing with "Good governance, corporate identity, adaptation and modification of organisation structure, revising and streamlining working procedures and human resource development" (**Component 3**).

The organisation of this component will be similar to component 1, comprising the following steps:

- A. International workshop on EU approaches to energy regulatory organizations;
- B. Analysis of the Turkish legal and regulatory framework;

- C. Analysis of EMRA’s organization and practices and discussion of alternatives with EMRA President, Board Members and staff;
- D. Drafting of guidelines for improvement of EMRA’s organization and procedures apart from the existing regulations and communiqués.
- E. Consensus with the relevant EMRA departments to be reached on the issues mentioned above.
- F. Follow-up: monitoring of implementation and solution of issues emerging during the project.

***Outputs and benchmarks***

- 1. Study report: EU approaches to energy regulatory organizations (after step A).
- 2. Analysis of the Turkish situation and objectives (after steps B-C).
- 3. Recommendations and proposals for Turkey, agreed with the relevant EMRA Department (after steps D-E )
- 4. Analysis of implemented changes achieved and outline of future work (after step F)

**Summary table of guaranteed results, timing and components**

<b>Guaranteed result</b>	<b>Component 1</b>	<b>Component 2</b>	<b>Component 3</b>
1. Assessment and revision of regulations towards the EU <i>acquis</i>	1 <sup>st</sup> and 2 <sup>nd</sup> year		
2. EMRA staff training		1 <sup>st</sup> and 2 <sup>nd</sup> year	
3. Review of EMRA’s organization and procedures			1 <sup>st</sup> and 2 <sup>nd</sup> year

***Related activities outside the scope of the Twinning project***

A fully equipped and furnished training centre shall be set up at EMRA’s offices in Ankara. EMRA intends to use this facility to comply with its obligation to regularly train assistant energy experts and to upgrade the specific skills and qualifications of senior staff. More specifically, the staff-training centre shall be used to accomplish all the planned training activities under this Project and for further EMRA’s training programmes.

To this end EMRA has provided a suitably spacious room in which the training equipment and furniture will be installed. The training centre will consist of fifteen fully equipped, furnished and interconnected workstations. EMRA will continue to use the training centre also after the end of the project.

The training centre is supported by the EC within a supply contract, but it is outside the scope of the Twinning. In close contact with the CFCU, EMRA, the selected supplier and the PAA shall coordinate the activities regarding the settling up of the mentioned training centre.

In order to further strengthen EMRA's institutional capacity, another EU funded project titled as the Regulatory Information System (RIS) Project has been approved by the EC. This project of EMRA has been recently put under the scope of EU 2003 Financial Assistance Programming schedule and with the implementation of this project; the effective carrying out of EMRA regulatory duties and the collaboration between EMRA and the energy market actors will be supported. Under the Twinning Project related EMRA staff will be presented with the best EU Member State practices on RIS. (According to Sub-Component 1.15)

### ***Risk Analysis***

- Slippage in the timetable:

Problems may occur on both the Candidate Country and Member State sides. This could mean, delay in settling the technical and organizational framework for the project or fulfilling the indicators of achievement. Late accreditation of the CFCU and DIS, unavailability of short term experts with a consequence of delay and postponement of activities planned under the respective tasks of the project may distress the overall successful implementation of the project. Energy regulators in all countries, especially during the process of market opening that may last several years, are often affected by relatively unexpected difficulties, policy changes, "emergency" calls that may request delay and rearrangements, notably in the sending of staff abroad for cooperation projects. This has already occurred in the case of other Twinning projects where the AEEG participates as junior partner but has not jeopardised the full achievement of results.

- The recent Savings Circular issued by the Prime Ministry:

This Circular alters certain financial conditions. According to the procedures mentioned in this Circular, EMRA will have to get an authorization from the Ministry of Energy and Natural Resources in order to execute the financial aspects of the Twinning Project such as the purchase of the airline tickets.

- Change of AEEG's Commissioners

The terms of commissioners who have run the AEEG for nearly seven years since its establishment expires on November 10<sup>th</sup>, 2003. By law, they may not be reappointed. Further, a new bill already approved by one of two Houses of the Italian Parliament has increased the number of Commissioners, including the President, from three to five.

There is some uncertainty as to what extent new Commissioners may overthrow decisions taken by the current ones.

However, it may be noted that the Ministry of Productive Activities who is in charge of proposing new Commissioners, subject to the approval of Parliamentary Committees, has already actively expressed its supports for the Twinning project. Support for encouraging Turkey's path towards accession is shared by large part of the Italian Parliament, not only by the current Government majority.

Nevertheless, there is some uncertainty notably about how the appointment of new Commissioners may affect staff priorities within the AEEG.

### ***Risk management***

Problems of slippage of STE visits can usually be dealt with some flexibility on both parts, as the experience of other Twinning projects has demonstrated. This may usually cause some increases in travel costs to be covered by the project as each visit may have to be reduced. Contingency funds may cover such occurrences. Appropriate deals with airlines that are available through bulk bargaining may allow to minimize such cost increases.

Problems concerning the Savings Circular of the Prime Ministry have been currently solved by transfer of authority to EMRA for business trips abroad. However there is a possibility that further issues may arise stemming from this circular. EMRA will try to overcome such difficulties where necessary.

The unlikely case of opposition of new Commissioners may be easily faced if the Covenant has been endorsed by the Italian National Contact Point, which involves a commitment by the Italian Government towards the European Commission and the Candidate Country, and even more if the project has officially started. Therefore, it is safer to ensure final approval of the Covenant and possibly the project start (PAA in the Candidate Country) before November 10. Some changes in the organisation of the projects, which may be enforced by side letters, may be requested by the new Commissioners. There is however no reason to think that these hamper rather than reinforce AEEG's commitment.

### **Article 4. Conditionality**

The parties agree to sign and implement this Covenant upon notification of endorsement by the Commission in respect of the EU pre-accession contribution to the costs of the project in accordance with Article 7 and under the Financing Memorandum Programme No: TR0202 to TR 2002/002-555.05 signed on 14 February 2002.

## **TITLE II. Organisation and methods, timetable**

### **Article 5. Human resources**

#### **5.1 Turkish Side**

In reporting hierarchy, the project leader of the Turkish side is Mr. Cahit Akıncı, Head of International Relations and Coordination with EU Department of EMRA. Counter Pre-Accession Advisor is Ms. Burçin Pamuksuz, Group Head of the same Department. Ms. Çerağ Özay, Ms. Ferda Yıldırım, Mr. Sinan Sayar experts, and Mr. Fatih Bilgiç, energy expert, are Project Team Members, who also work in the same Department. Mr. Mehmet Yılmaz and Mr. Kutay Toruner will also take part in the project, especially in IT issues. In addition to the above a Twinning Committee has been established in order to

coordinate the activities under the project with relevant departments. The Committee is composed of one representative from each department. (Please see ANNEX G for the members of the Twinning Committee with the activities each will be responsible for) Above stated names and the names in ANNEX G related to the implementation of the Institutional Strengthening project has been designed according to the functions/positions and may be updated in case of transfer of the responsible person. The Turkish side will provide office space and supplies, computer, photocopying equipment, fax machine, telephone (with an international telephone line), access to the Internet for the PAA, his assistant and the short term experts.

## 5.2 Italian Side

For Italy, the project will be led by Professor Sergio Garribba.

The Project Leader will provide, jointly with the PAA, general support and guide to the project, supervising the development of the programmed activities and co-ordinating the relationships with other institutions involved in the project.

He will also select the short-term experts, jointly with the PAA, collaborating in the design of all advisory and training activities.

The specific tasks of the Project Leader include, at least, a visit of about two days to Turkey every two months to supervise the work development, and similar dedication to the project supervision from Italy.

The Project Leader will delegate the PAA to sign certificates and reports, as well as the side letters that do not entail substantial changes in the project budget.

The PAA will be Mr. Sergio Ascari.

The PAA will be appointed to the project on a full time basis for the first year of implementation and will reside in Ankara. Considering the holidays and leave rights during the year this amounts to an input of 10.5 man-months.

During the second year he will visit Turkey at request of EMRA, for up to six visits of 5 working days each. These visits amount to a further input of 1.5 man-months.

For the whole duration of the Twinning the PAA will be in charge of the general co-ordination of the activities, ensuring an adequate relationship between the Turkish and Italian Authorities and other regulatory authorities where necessary, especially for the study visits. In collaboration with the Project leader, he will monitor the general implementation of the project, collaborating in the selection of the short-term experts, the design of all training activities and the organisation of seminars and study tours. He will also act as team leader and acting coordinator of the project activities in Turkey.

The PAA will also provide advice and technical assistance to the EMRA President, coordinated through EMRA's Department of International Relations and EU Coordination, on clarifying, defining and helping implement those requirements of the EU internal energy market, which are relevant for EMRA to comply with the *acquis communautaire* in its regulatory practice. The PAA will ensure that best European regulatory know-how will be fed into the decision making process at EMRA.

A suitable mix of STE will be selected, including not only AEEG staff but also current and past consultants of the AEEG, academic and research experts on energy regulation, staff of other European regulatory authorities, technical experts and witnesses from industry and other stakeholders. Several experts will be provided or contracted by five mandated bodies. (see Article 10)

A preliminary and non-exhaustive list of STE and their qualifications is provided in Article 9. Total STE resources amount to 546 working days or 25.75 man-months (considering an average of 21.2 working days/month).

Upon the request of the Turkish PL and agreement of the Italian PL, if a STE were found unsatisfactory to fulfill the requirements for an activity, he/she would be replaced.

The PAA Assistant will be made available by EMRA and has been selected by the PAA. Four EMRA candidates, who filed after an internal call for the post was launched within EMRA. The PAA chose Ms. Senem Tanören, whose CV is included in Annex F.

### **5.3 The Project Steering Committee**

A Project Steering Committee will be established. It will be co-chaired by the Italian and Turkish Project Leaders and it will include the PAA, a representative of the AEEG in charge of ensuring the project coordination in Italy, a representative of the AEEG administration, a representative of the Italian Ministry of European Policies, EMRA's president, Group Head of EMRA's International Relations and Coordination with the EU Department who is also the counter-PAA, a representative of the EU representation to Turkey, a representative of the National Contact Point (EUSG), a representative of the CFCU.

The Project Steering Committee will meet in Ankara every three months.

### **5.4 Language**

The working language of the Twinning project and all its activities (seminars, workshops, study visits, reports, and internal communication) will be English. As an exception, in some cases interpretation into Turkish will be provided and STEs may speak Italian.

### **Article 6. Work schedule**

Activities are expected to start in November 2003 for duration of two years (8 quarters). Expected timing is given in quarters.

#### ***6.1 Know how transfer***

For each sub-component, STEs and the PAA will present approaches followed in Italy and where deemed necessary in other EU Member States. EMRA experts will present the Turkish approach and state of the art, outlining major issues within the current framework and organisation of the Turkish electricity and gas markets. They will also contribute to the arrangement of meetings with other EMRA experts, and where necessary, other government agencies, regulated companies and other stakeholders,



as well as data provision, as essential to achieve the clearest definition of the current situation in the field.

STEs and the PAA will then draft:

- **Benchmark report 1** (Summary of the Italian and - if relevant - other EU approaches).
- **Benchmark report 2** (Analysis of the Turkish situation and objectives).
- **Benchmark report 3** (Recommendations and proposals for Turkey), agreed with the EMRA responsible experts.

Where a follow-up is foreseen, STEs and the PAA will draft:

- **Benchmark report 4** (Analysis of results achieved and outline of future work), (please see each activity for timing).

### ***Sub-Components***

Please see Annex I for the table of sub-components given in details.

For each sub-component, budgeted costs consist of:

- STE fees, air tickets, per diems and travel costs
- Translation of working material from the national language of the STE. On average, an STE working for a week is likely to bring about specialised internal material, which is not yet translated into English, for about 20 pages, depending on the subject.

### ***Outputs / benchmarks***

For each sub-component, four reports will be prepared:

1. Summary of the Italian and other EU approaches (seminar slides), after step A.
2. Analysis of the Turkish situation and objectives (after steps B-D)
3. Recommendations and proposals for Turkey (after step E-F)
4. Analysis of results achieved and outline of future work (after step G, if applicable).

## ***6.2. EMRA staff training programme***

### ***6.2.1 Training for EMRA's assistant energy experts:***

**Training for EMRA's assistant energy experts**, primarily on the EU internal energy market and management issues will start from the analysis of knowledge skill needs and outline of training path for junior and senior staff (PAA activity).

The course will include 200 hours of lectures and tutorials over 40 working days and it will be split into several modules to avoid long disruption in the assistant energy experts' normal working activity. Computer based training material will allow students to revise and practise at their best available time.

Tutorial will bring theory into practice by examining practical case, with active student involvement.

Some students may be exempted from basic subjects depending on their background.

Senior staff (energy experts) may participate in selected topics at EMRA' discretion.

The audience could also be extended to staff of other Turkish institutions at EMRA's discretion provided students have the requested basic knowledge.

Topics, instructors, timing and results are given in the Annex I

Given its specialised nature, the development of training curriculum and manual and of computer-aided practical programmes and case studies, aimed at self-instruction and assessment of results achieved, will be contracted to academics and educational institutions and companies. The following services will be contracted:

- A. Electricity network management and market organisation
- B. Gas network management and market organisation
- C. Energy resource economics
- D. Corporate accounting and finance
- E. Economics of regulation and competition
- F. Utilities pricing (electricity)
- G. Utilities pricing (gas)
- H. EU energy law

Each contract will be worth a maximum of 15 working days to be priced at a maximum of 515 Euros/day, in line with Project unit costs for a junior expert from mandated bodies.

### ***6.2.2 Training for EMRA's senior staff:***

The same lecturers will develop most of the topics of training for assistant energy experts mentioned under 6.2.1 through special **sessions for EMRA's senior energy staff** on key regulatory issues, notably those with implications on the EU internal energy market, EU regulatory practices and management issues. Sessions will be more concentrated and with a practical orientation with respect to the junior training course. A total of 90 hours will be offered, with a possibility for staff to select issues of their interest. (see Training Table under Article 3, last column).

The first round of sessions will be held during the same visits of sub-component 2.1. A second and third round of sessions will be held, at a distance of several months, in order to allow for different groups of senior staff to attend. Replicas may also be used to meet the emergence of new requests.

Sessions will also be open to Board members. Trainers will dedicate substantial time to answer specific questions from senior and Board members.

Topics, instructors, timing and results are given in Annex I.

### ***Outputs / benchmarks***

Development of computer based training materials and practical programs as for sub-component 2.2. Short reports filled by the senior staff, indicating their attendance and the main topics of the training, and feedbacks for future sessions.

#### ***6.2.3 Study visits:***

**Study visits** will complement both the know-how transfer and training component of the Twinning project, thus contributing to the achievement of guaranteed results 1 and 2. They will allow EMRA staff to get direct knowledge of regulatory experiences in several EU member states, in order to compare a different perspective from what is provided by the PAA and STEs during their visits to Turkey. Moreover, EMRA staff will visit not only regulatory authorities but also market institutions, system operators, market players, in order to achieve a lively knowledge of how the regulatory interplay develops in liberalized and liberalizing energy markets.

Countries have been chosen among the most advanced liberalization experiences (U.K., Sweden) and intermediate ones (Italy, Spain, Belgium, the Netherlands) so that EMRA staff can observe the main features of the regulatory interplay at different stages of the liberalization process.

The Belgian visit will also allow contacts with the Council of European Energy Regulators and the relevant EC offices (DG TREN).

Given that Italy is the Twinning partner, three more specialized visits are planned to this country.

Each visit will be attended by approximately five EMRA representatives including a mission leader. The PAA or his Assistant will also participate to visits in order to facilitate logistic aspects coordination, or interpretation where needed. For two Italy visits the PAA participation will be linked to monthly travel and will not involve travel costs.

The following institutions will be visited, addressing the following main topics: Please refer to Annex H for details.

- **CNE** (Spain): electricity, gas and market opening
- **AEEG** (Italy) (3 visits: electricity, gas, customer protection, regulatory information system)
- **OFGEM** (U.K.): gas, organization of competitive markets, electricity
- **DTE** (The Netherlands): gas, competition issues, electricity (esp. tariffs)
- **STEM** (Sweden): electricity
- **CEER and CREG** (Belgium): international organization and cross border trade

Input: Organisation of visits by visited regulatory and other institutions and companies.

Timing: quarters 3-8

## ***Output/benchmarks***

A mission report coordinated by the mission leader and drafted by the EMRA staff attending study tours will contain the concrete examples of common practices and facility operation explained to the Turkish participants to illustrate the regulation process. These reports will be published on the EMRA's intranet.

Detailed knowledge about the organisation, workaday activities and specific activities of selected EU regulators. Support to the operational establishment and functioning of the EMRA by increasing its knowledge of actual market organisation, institutions and public utility companies in EU Member States.

A report drafted by the EMRA will contain the concrete examples of common practices and facility operation explained to the Turkish participants to illustrate the regulation process.

The experts assigned for each activity will be responsible for the coordination of the activity with PAA and mutually determining the details of the content of the activity. These experts will also be determining the lists of the participants for each training issue according to their backgrounds.

### ***6.3. Development of good governance, corporate identity, adoption and modification of organization structure, revising and streamlining working procedures and human resource development.***

STEs and the PAA will analyse the current EMRA organisation with respect to its duties and objectives. The following report will be drafted:

- **Benchmark report 1** (Analysis of the Turkish situation and objectives).

Given the relatively young age and continuing evolution of European energy regulators, it is necessary to update information on its organization models. This will be achieved by means of an international workshop to be held at EMRA's headquarters with invited organisation experts from energy regulators of France, Great Britain, Italy, The Netherlands, and Spain. The workshop presentation will represent:

- **Benchmark report 2** (Corporate governance, organisation structure and human resource development in the energy regulators of five EU Member States)

Based on the results of benchmark reports 1 and 2, STEs and the PAA will then prepare:

- **Benchmark report 3** (Recommendations and proposals for Turkey), agreed with the EMRA responsible experts.

In the final quarter, STEs and the PAA will eventually draft:

- **Benchmark report 4** (Analysis of results achieved and outline of future work)

### **TITLE III. Breakdown of costs and recipients of funds requested from the EU programme**

#### **Article 7. Breakdown of activities and costs**

(see separate Excel file)

#### **Article 8. Recipients of funds granted by the EU programme**

The EU contribution to the costs of the input provided under the responsibility of the Member State in fulfilment of this Covenant is a maximum of € 984.000 under the Financing Memorandum Programme No: TR 2002/002-555.01 to TR 2002/002-555.05 signed on 31 January 2003. This amount does not include the cost of equipment with a unit price above €5 000, which is entered in the cost breakdown for indicative purposes only.

##### *Disbursement of funds*

Disbursement of funds is governed by the procedures laid down in Annex B of this Covenant.

Disbursement of funds, except private sector inputs contracted directly by the CFCU, will be made to the following account by the CFCU of the Candidate Country:

Body: Autorità per l'energia elettrica e il gas

Account # 4509-20

IBAN IT97 M030 6909 4000 0000 0450 920

Banca IntesaBci S.p.A.

Filiale 2100 – Milano Sede – Tesoreria Enti

Via Verdi 8

20121 Milano, Italy

Payments for private sector inputs contracted directly by the CFCU will be made to the relevant contractors in accordance with standard procedure.

##### **Option to be agreed with the CFCU and maintained throughout the implementation of the covenant:**

The costs for the reimbursement for the salary of the PAA including non-wage costs and the 6% allowance will be paid to the payroll administration. Bank account details of the payroll administration are given above.

The allowances and reimbursement of costs due to the PAA (rent, per diem/subsistence allowances, monthly travel, initial and final travel, health insurance) will be paid directly to him on the following bank account:

Account # 19801-42

IBAN IT97 M030 6909 4000 0000 01980142

Banca IntesaBci S.p.A.

Filiale 592

Via Montenapoleone 27

20121 Milano, Italy

## TITLE IV. List of staff, CVs, bodies involved

### Article 9. Staff list and CVs

#### List of Staff

Name of expert	Present position	Years of experience	Age	Nationality	Educational background	Specialist knowledge	Languages and fluency (VG, good, weak)
Garrimba, Sergio	Commissioner	30	64	Italian	PhD., in Nuclear Engineering, Management Science	Energy regulation, competition promotion, energy technology policy	Very good
Ascari, Sergio	Officer	20	45	Italian	MSc in Economics	Energy regulation, Environmental policy	Very good
Bernardini, Oliviero	Director	38	62	Italian	Ph.D. in Chemical Physics	Energy regulation market and system analysis information system	Very good
Boschi, Federico	Consultant	6	39	Italian	Degree in Economics	Electricity purchases and the relationship with the distributors	Very good
Buccirossi, Paolo	Consultant	11	38	Italian	Ph. D., Economics	Competition and antitrust issues	Good
Carnevalini, Rosita	Officer	12	37	Italian	Degree in Economics	Energy economics, Gas system regulation	Very good
Cavaliere, Alberto	Professor, consultant	15	44	Italian	Ph D. in Economics	Industrial organisation, energy economics	Very good
Cervigni, Guido	Officer	9	34	Italian	Ph.D. in Economics	Energy economics	Very good
Cioffo, Vincenzo	Officer	9	37	Italian	Degree in Economics, Postgraduate Diploma in Law	Regulatory law	Good
Cross, Eugene	Research Director	18	42	Dutch	LL.M, Master of Finance,, Juris Doctor	Energy law	Very good

D'Apote, Sylvie	Officer	12	37	Italian/French	M. Sc in Environmental Technology, Degree in Economics and Statistics	Gas Regulation, Technology Development, Latin America	Very Good
Delpero, Marco	Officer, head of unit	9	38	Italian	Degree in Economics	Accounting, corporate finance, electricity tariffs	
De Jong, Jacques	Senior advisor	25	56	Dutch	Drs. Economics	Energy regulation	Good
Formaggio, Mauro	Officer, head of unit	25	53	Italian	Degree in Electronic Engineering	Electricity technical regulation	Very good
Fumagalli Elena	Researcher, Consultant	6	32	Italian	Degree in Nuclear Engineering	Electricity technical regulation	Very good
Furlan, Sandro	Lecturer, consultant	17	43	Italian	Ph.D. in Economics	Energy studies	Very good
Galieti, Andrea	Officer	5	30	Italian	Degree in Economica	Gas economic regulation, unbundling	Very good
Galimberti, Ilaria	Officer	12	43	Italian	Ph.D. in Science policy	International and institutional relations, energy market liberalisation, electricity market institutions	Very good
Leonardi, Matteo	Officer	3	29	Italian	Degree in Economic History	Energy Policy - Environmental Technology	Very good
Lo Schiavo, Luca	Director	15	41	Italian	M.Sc	Consumer and service quality	Good
Mazzanti, Maria Rita	Legal advisor	15	40	Italian	Postgraduate specialization	Energy market regulation, Environmental policy, Competition policy	Very good
Malaman, Roberto	Director	15	44	Italian	Visiting fellow	Environmental economics and policy, Consumer Affairs	Very good
Paniccia, Ivana	Officer, Head of Unit	14	39	Italian	Ph.D. in Economics	Energy regulation, market regulation, industrial economics and system analysis information system	Very good
Pavan, Marcella	Officer	10	39	Italian	M.Sc in Environmental Economics	Environmental economics, demand side management	Very good
Perez Arriaga, Ignacio	Professor	30	54	Spanish	PhD., Industrial and Electrical Engineering	Electricity networks, markets and tariffs	Very good



Ramponi, Stefano	Head of unit	12	37	Italian	Degree in Electrical Engineering, MBA	Electric networks, inspective activities	Good
Rivier Abbad, Michel	Research Director	15	40	Spanish	PH.D in Electrical Engineering	Electricity systems	Very good
Rotta, Giuliana	Officer	5	28	Italian	Degree in Economics	Gas tariffs, Accounting and financial issues	Good
Utili, Gabriella	Officer	19	49	Italian		Customer affairs	Very good
Vasques, Carlos	Research Assistant	8	34	Spanish	Ph. D. in Industrial Engineering	Electricity systems	Very good
Vazio Daniela	Researcher	5	36	Italian	Degree, economics	Electricity and Gas tariff regulation	Good

## CVs

Please see Annex F.

### **Article 10. Member State bodies involved in the Twinning Project**

#### **10.1 Administrations, and bodies already mandated by the Commission**

Names and addresses, telephone/fax numbers, e-mail.....

DTE, Dienst uitvoering en toezicht Energie, Wijnhaven 24, 2511 GA The Hague,  
The Netherlands.

Tel: +31 70-330 35 00

Fax: +31 70-330 33 70

E-mail: info@nmanet.nl

#### **10.2 Non-administrative bodies not yet mandated by the Commission:**

Information to be provided in support of a request for a mandate:

**Name, *CEIS, Centro interdipartimentale di studi internazionali sull'economia e lo sviluppo, Università degli studi di Roma 2 – Tor Vergata***

**Address *Via Columbia 2, 00133 Roma***

**Legal status *non profitmaking***

**Holders of capital (or of assets, if the body does not have legal capital) *Ministry of University and Scientific Research (100%)***

**Field of activity and competencies concerning the *acquis communautaire Industrial economic and corporate finance issues***

**Supervisory public authority (degree of supervision / control, representation of functions and powers) *Ministry of University and Scientific research***

**Name, *Agenzia per il controllo e la qualità dei servizi pubblici locali del Comune di Roma***

**Address *Via Cola di Rienzo 217, Roma***

**Legal status *non profitmaking***

**Holders of capital (or of assets, if the body does not have legal capital) *Municipality of Rome (100%)***

**Field of activity and competencies concerning the *acquis communautaire Licensing of public utilities; Market monitoring and competition issues***

**Supervisory public authority (degree of supervision / control, representation of functions and powers) *Municipality of Rome***

**Name, *CINECA, Consorzio Interuniversitario per il Calcolo Automatico dell'Italia Nord Orientale***

**Address** *Via Magnanelli 6/3 - 40033 Casalecchio di Reno (Bologna) - Italy*

**Legal status** *non profitmaking*

**Holders of capital (or of assets, if the body does not have legal capital)** *Consortium of 21 Italian Universities*

**Field of activity and competencies concerning the *acquis communautaire*** *Information systems development*

**Supervisory public authority (degree of supervision / control, representation of functions and powers)** *Ministry of Higher Education and Scientific Research of the Italian Republic*

**Name,** *Pontificia Universidad Comillas de Madrid*

**Address** *Alberto Aguilera 23, 28015 Madrid, Spain*

**Legal status** *non profitmaking*

**Holders of capital (or of assets, if the body does not have legal capital)** *Santa Sede*

**Field of activity and competencies concerning the *acquis communautaire*** *Energy market organisation, electricity pricing*

**Supervisory public authority (degree of supervision / control, representation of functions and powers)** *Estado Español, Compañía de Jesus*

## **Article 11. Communication and Addresses**

**11.1** All communications relating to this Covenant shall be made in writing to the following addresses:

For the Candidate Country:

Project Leader: Mr Cahit Akinci

Position: Head of Department

Address: Energy Market Regulatory Authority

Ziyabey Cad. No: 19 Balgat\_06520

Ankara, Turkey

Tel: +90 312 287 16 99

Fax: +90 312 287 88 09

E-mail: [cakinci@epdk.org.tr](mailto:cakinci@epdk.org.tr)

Signature

For the Member State:

Project Leader: Mr Sergio Garribba

Position: Commissioner

Address: Autorità per l'energia elettrica e il gas, Piazza Cavour 5, 20121 Milano, Italy

Tel: +39 02 655 65 203

Fax: +39 02 655 65 266

E-mail: [sgarribba@autorita.energia.it](mailto:sgarribba@autorita.energia.it)

Signature

Delegate of the Ministry for European Policies:

Mr. Pietro Maria Paolucci

Position: Manager

Address: Italian Presidency of the Council of Ministries, Department of European Policies, Office IV – Service II, Piazza Nicosia 20, 00186 Roma, Italy

Tel: +39 06 6779 5325

E-mail: [pi.paolucci@palazzochigi.it](mailto:pi.paolucci@palazzochigi.it)

Signature

For the European Commission, in relation to its financial commitment:

Mr / Ms \_\_\_\_\_

EC Representation address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Tel/Fax, e-mail \_\_\_\_\_

**11.2** Invoices and other communications concerning payments shall be sent to:

Central Finance and Contracts Unit (CFCU)

F.a.o. Mr. Nuri Ercan Tortop – Programme Authorising Officer (PAO)

Ehlibeyt Mah. 6 Sk. N:18/8

Eksioglu Is Merkezi

06520 Balgat/Ankara

Turkey

Tel: +90 312 285 46 20

Fax: +90 312 285 96 24

Email: [Ercan.tortop@cfcu.gov.tr](mailto:Ercan.tortop@cfcu.gov.tr)

## **Article 12. Duration**

This Covenant shall take effect at the date of notification of its endorsement by the EC Representation and the CFCU, after final signature by both parties. It will remain in effect for 24 months and the deadline for disbursement is November 2005. Activities will be completed by September 2005.

### **Article 13. Annexes**

The following annexes are an integral part of this Covenant:

Annex A – General provisions

Annex B – Budget Execution and Payment Procedures for the EU contribution

Annex C – Reporting

Annex D – Acquis Communautaire

Annex E – List of Relevant Laws, Regulations and Communiqués

Annex F – CVs

Annex G – Table of Turkish Experts to be involved in the Project.

Annex H – Study Visits

Annex I – Article 6

This Covenant does not constitute a Treaty under public international law between Turkey and Italy.

Read and approved for the administrative authority of the Candidate Country:

By: (Secretariat General for European Union Affairs)

At:

Date:

Read and approved for the administrative authority of the Member State:

By: (National Contact Point, Ministry of Foreign Affairs)

At: Rome

Date:

Read and approved for the implementing organisation of the Candidate Country:

By: Yusuf Günay, President

At: Ankara

Date:

Read and approved for the implementing organisation of the Member State:

By: Angelo Ferrari, Director General, Autorità per l'energia elettrica e il gas

At: Milan

Date:

Read and approved for the implementing organisation of the Member State:

By: Giancarlo Somma, Head of Department of European Policies, Presidency of the Council of Ministries

At: Rome

Date:

Endorsed for the European Commission:

By:

At:

Date:

Endorsed for the Central Finance and Contracts Unit (CFCU):

By:

At:

Date:

## **ANNEX A TO THE TWINNING COVENANT: GENERAL PROVISIONS**

### **Article 1. Responsibilities**

The implementation of the Covenant is the sole responsibility of its signatories from the Candidate Country and Member State.

The Commission shall in no case, and under no circumstances, be held liable for claims arising out of the Covenant relating to damages caused to property or staff of any nationality. No request for indemnity or reinstatement relating to such claims may be addressed to the Commission.

The responsibility of the Commission is limited to the provision of funds, in accordance with the detailed budget contained in Article 7 of the Covenant. The Commission's sole aim in endorsing the Covenant is to clarify the purpose of the project and the conditions of use of the funds granted. The Candidate Country and the Member State will allow the Commission and the European Court of Audit every facility to verify the correct use of these funds.

### **Article 2. Changes to the Covenant**

#### *2.1 Indicative and mandatory clauses*

The Covenant contains indicative and mandatory clauses

The clauses of Articles 1, 2, 4, 10, 12 and 13 are mandatory.

The clauses of articles 3 and 6 are mandatory in their definition of the target results and the benchmarks to be achieved, indicative regarding the means used for implementation, the time schedule and dates, and the identity of the Member States' experts present in the candidate country.

The clauses of articles 5 and 9 are mandatory regarding the identity of the Member State and Candidate Country Project Leaders and the Pre-Accession Advisors (PAAs) and their Candidate Country counterparts, indicative for the remainder. The procedure for changes to article 7 is defined in Annex B of the covenant. Article 8 is mandatory regarding the total contribution from the EU programme to the project costs, indicative for the rest.

Article 11 is indicative.

#### *2.2 Non-budgetary changes to the Covenant*

Changes to the budget of the Covenant are governed by the rules laid down in Annex B of the Covenant.

Changes to the Covenant which do not affect its budget may be called for during its implementation. These changes are made upon a joint decision of the two signatories to the Covenant.

If the change sought concerns indicative clauses, it is decided autonomously and jointly by the Member State (MS) and Candidate Country (CC) Project Leaders. They draw up the revised indicative clause in the form of a side letter to the Covenant, which lays down what is changed. The side letter is notified to the Commission (Representation) and the Central Finance and Contracts Unit (CFCU). The Covenant is considered to have been changed on the date of the latest notification. A side letter can only be used to change indicative clauses of the covenant and is not an addendum in legal terms.

If the change concerns a mandatory clause, it takes the form of a formal addendum to the Covenant, which must be presented for prior approval by the Commission and the CFCU, failing which the financing granted under EU funding would be called into question.

The addendum, drafted and signed by the signatories to the Covenant, is submitted by one of them to the Commission Representation for endorsement. The signatories can delegate authority to the Project Leaders to sign any addenda on their behalf.

The Commission Representation is entitled to accept or refuse addenda on behalf of the Commission. It must, however, request formal approval from headquarters before accepting addenda which would have one of the following effects:

- changing the guaranteed result targeted by the Covenant,
- replacing the Member State administration or mandated body initially responsible for the Covenant,
- removing or adding a partner Member State,
- replacing the Member State Project Leader,
- replacing a Pre-Accession Advisor,
- interrupting or ending the Covenant before completion.

If the Commission agrees, the Representation requests the written approval of the CFCU and sends both Project Leaders the text of their addendum bearing the signed endorsement of the CFCU and the Representation. The addendum is considered to have been endorsed on the date of this notification.

### **Article 3. Termination**

Either Party (Candidate Country or Member State) may terminate the Covenant at any time by giving three months' notice in writing to the other party, after having informed the Commission thereof.

The failure of a party to fulfil any of its obligations under the Covenant entitles the other party to terminate the Covenant with immediate effect upon written notice stating the grounds for such action, after having informed the Commission thereof. If such a failure occurs, or for any other duly substantiated external reason, the Commission may also halt funding of the project by giving three months' notice in writing to the Candidate Country and lead Member State.

Should the Covenant be terminated for any reason, no payments shall be due to the Member State except for costs actually incurred or irrevocably committed (including staff contract obligations) up to and including the date of termination.

### **Article 4. Project management and implementation**

The Member State and the Candidate Country shall be responsible for their respective experts and the tasks assigned to each party in Titles II, III and IV of the Covenant. The Candidate Country will ensure co-ordination with any other relevant multilateral or national body with significant activity or expertise in the areas covered by the project.

### **Article 5. Personnel**

The Member State staff and experts assigned to implement the activities detailed in Articles 5 and 6 of the Covenant shall be appropriately experienced in the implementation and enforcement of the acquis communautaire and have the necessary skills to undertake the required tasks. They shall be remunerated in accordance with Article 7 of the Covenant (budget) and with the Framework Agreement between the relevant Member State(s) and the Commission, if applicable.



If the PAA does not comply with the obligations laid down in Annex 6 of the Framework Agreement, or for any other duly substantiated reason, the candidate country and the Member State may by mutual accord terminate a long-term secondment at any time. The termination of a secondment, whether or not there is a substitute for the PAA in question, may give rise to a review by the Commission of the funding for all or part of the Covenant. Termination of secondments thus requires an addendum to the covenant, to be submitted to the Commission (Steering Committee) for prior approval.

If a PAA is not fulfilling his obligations according to Annex 6 to satisfaction, or for any other duly substantiated reason, the Commission may, at its own initiative or at that of the Candidate Country or the Member State alone, propose a review of the funding of the Covenant. In such cases the Commission proposes to the signatories a review of the Covenant as a condition for the continuation of all or part of its funding.

#### **Article 6. Framework Agreement**

The status and remuneration of civil servants and comparable staff from Member States involved in the implementation of the Covenant will be in accordance with the Framework Agreements signed by the Commission and Member States.

#### **Article 7. Procurement of goods and services**

The procurement of goods and services from the private sector under the Covenant will be governed by the provisions of the Practical Guide to EU external and contact procedures, taking into account the specific rules laid down in Annex B to the Covenant. Derogations require prior approval from the Commission.

#### **Article 8. Reimbursement of advances**

The Member State signing the Covenant, in its own name and on behalf of any other Member States (administrative authorities) which may be involved in a consortium of which it is the leader, undertakes to reimburse the Commission for any advances made by the latter, including advances granted to PAAs and their home administrations, the use of which is not properly evidenced by subsequent invoices accepted by the Commission.

#### **Article 9. Confidentiality and Copyright**

The parties shall maintain professional secrecy.

All Member State experts and in particular the PAA, will exercise the greatest discretion with regard to all facts and information coming to their knowledge in the course of or in connection with the performance of their duties, or pertaining to their work with the host administration in the Candidate Country or the EU. They will not in any form whatsoever disclose, publish or cause to be published any document or information not already made public without obtaining permission from both the Candidate Country and the Commission. Permission will be refused only where the proposed publication is liable to prejudice the interests of the host Candidate Country or the EU. They will continue to be bound by this obligation after their involvement in the project has terminated. These provisions shall apply to all sub-contractors for whom the Member State assumes liability.

## **Article 10. Reporting**

The Member State shall furnish the European Commission with regular quarterly reports, with the endorsement of the Candidate Country and its additional comments, if any. Reports shall be sent to the addresses specified in Article 11 of the Covenant.

The first, third and subsequent odd-numbered quarterly reports may be restricted to a simple account of implementation, making direct reference to the work schedule and the benchmarks defined in Article 6 of the Covenant.

The second, fourth and subsequent even-numbered quarterly reports must, in addition to the above, contain a general analysis of: overall implementation of the project; the main difficulties encountered; compliance with overall objectives as defined in Title I of the Covenant; and any necessary reallocation of the available means in order to achieve the target result despite these difficulties.

If serious implementation difficulties arise between two quarterly reports, the Candidate Country or the Commission may ask for a special report to be drafted.

On completion of the project, the Member State shall prepare a final report on the project and a critical study of any major problems which may have arisen during the implementation of the Covenant. The final report shall be endorsed by the Candidate Country and contain its additional comments, if any.

Annex C provides templates of reporting formats.

Following the same schedule as for project reporting, i.e. every three months starting as of the date of endorsement notification by the EC Representation, the MS Twinning partner submits detailed financial reports to the CFCU.

They must document:

1. Project journal, i.e. all expenditure for the project in chronological order
2. Actual expenditure in relation to budgeted expenditure, following the numbered activities and sections of the budget in Title III Article 7 of the Twinning covenant.

The final financial report must be accompanied by an audit certificate from a recognised, independent auditor. The auditor must certify that all the transactions invoiced by the MS Twinning partner in the course of the covenant were duly justified in accordance with the established rules and arose solely as a result of the covenant.

## **Article 11. Monitoring**

In order to monitor the use of the funds which it provides, the European Commission will assess each twinning project once a year to review results and achievements against those set out in the Financing Memorandum in the Covenant. Assessors specially recruited by the Commission for their knowledge and experience in both the technical and administrative aspect of projects will carry out the exercise, in accordance with a Work Plan which will cover all ongoing projects in a country, and will present a report at the end of each exercise. The report will relate the facts as observed by the assessor and draw conclusions based on these facts, putting forward concrete and practical recommendations aimed at improving performance to ensure the objectives are reached. This report will be submitted to the Joint Monitoring Committee established under the Financing Memorandum through its sub-Committee, which will ensure that recommendations are followed-up.

## **Article 12. Inspection and Audit**

In order to verify the conditions of use of the funds which it provides, the Commission shall have the right to send its own agents or duly authorised representatives to carry out any audit that it considers necessary to monitor the implementation of the project. Such audits may be performed in either the Member State or the Candidate Country concerned.

To this end, the Member State and the Candidate Country shall:

- (i) keep financial and accounting documents concerning the activities financed by the European Commission under the Covenant;
- (ii) ensure that the aforementioned agents or representatives of the Commission have the right to inspect all documentation and accounts pertaining to items financed under the Covenant, including statements of accounts where work is carried out by other parties;
- (iii) assist the European Court of Auditors to carry out audits relating to the utilisation of the funds made available.

For the CFCU of the Candidate Country, the national financial control responsibilities laid down in the Memoranda of Understanding on the National Fund and on the CFCU shall apply, in accordance with the implementation arrangements laid down in the Financing Memorandum on the country programme of which the project is a part. The relevant financial and accounting documents shall be maintained for a period of five years following closure of the above-mentioned country programme.

## **Article 13. Settlement of disputes**

Any dispute relating to the present Covenant which cannot be settled amicably between the two parties shall be referred to arbitration. A Committee for Arbitration shall be established, comprising one member appointed by each party and a chairman designated by both of them. If the two arbiters cannot agree upon the choice of the chairman within one month of their appointment, either party can request the President of the Court of Justice of the European Communities, in writing, to select the chairman. The decision of the Committee for Arbitration shall be binding on both parties without recourse to appeal. The Committee for Arbitration shall decide *ex aequo et bono*.

## **Article 14. Applicable law**

The present Covenant shall be subject to the law of the Member State (single signatory or lead partner) which has signed it.

## **ANNEX B TO THE TWINNING COVENANT: BUDGET EXECUTION AND PAYMENT PROCEDURES APPLICABLE TO THE CANDIDATE COUNTRY'S CENTRAL FINANCING AND CONTRACTING UNIT**

### **1. GENERAL PRINCIPLES**

All costs incurred by the MS Twinning partner and its staff (reimbursement of salary for PAA, allowances and reimbursement of costs to the PAA and all other project costs, formerly categories I, II and III) and detailed in the breakdown of costs, Article 7 of Title III, are in principle cumulated into **one single category** and reimbursed by the EU programme to the MS. (not including any services contracted by the CFCU from the private sector)

By mutual agreement between the MS Twinning partner and the CFCU, former Categories I (reimbursement of PAA salary) and/or II (allowances and reimbursement of costs for the PAA) may be separated out for direct payment.

For private sector inputs the appropriate contracting authority will make payments. If the contracting authority is the MS body responsible for the implementation of the project (subject to a ceiling of 5.000€ per item for goods and 10.000€ per item for services), reimbursement will take place in the framework of the settlement of quarterly invoices. For all other private sector inputs the CFCU is contracting authority. However, the parties may agree to assign all private sectors contracting to the CFCU or equivalent contracting authority, subject to prior approval of the respective EC Representation.

All payments are subject to presentation of either a request for an advance or an invoice.

Requests for an advance and invoices must bear the original signature of the Member State (MS) Project Leader, designated in Article 11.1 of the Covenant.

Payments funded by EU programmes are made in Euros. Costs incurred in other currencies must be converted at the rate published by the European Central Bank in the “C” series of the Official Journal applicable **on the first day of the month in which the cost was incurred**. There will be no compensation for exchange rate fluctuations which may arise between the date when the cost was incurred and its payment by the CFCU. The CFCU covers the costs of its own banking charges; the recipient bears the costs of its banking charges.

The **payment agent** for Twinning projects is the **CFCU** (or its equivalent in the beneficiary country) any reference to CFCU should be understood to mean such payment agent.

Unless otherwise provided, payments shall be made within 60 days of receipt of the request for payment. Payment may be deferred if the services covered by the payment are contested. The 60-day payment period does not include any delays occurring as a result of banking procedures.

□ If the time-limit for payments is exceeded, the signatory Member State shall be entitled to interest calculated pro rata on the basis of the number of calendar days by which payment is delayed, at the interest rate applied by the European Central Bank, as published in the Official Journal of the European Communities for the month in which the payment is made, increased by 1%. This indemnity is exclusive.

## **2. STRUCTURE OF THE PAYMENT PROCEDURE**

**Advance:** Upon receipt of notification of endorsement of the Twinning Covenant by the Commission, the MS body responsible for the implementation of the project may request an advance proportionate to 9 months of the project costs from the CFCU.

**Interim payments:** Every three months from the date of notification of endorsement, the MS Project Leader submits to the CFCU a financial report detailing all budgeted costs incurred during the past three months. If the MS Twinning partner can demonstrate more than 50% of the cumulated advances has been consumed, an interim payment equivalent to 4 months pro rata costs of the project may be requested. Prior to final payment/settlement, the accumulated payment of the initial advance and the successive quarterly invoices may not exceed 80% of the total sum allocated to the project by the budget of the covenant endorsed by the Commission.

**Final payment:** Upon completion, and subject to the approval by the CC beneficiary and EC Representation of the final project report demonstrating that the targeted result of the twinning project has been achieved, the MS project Leader sends a final invoice to the CFCU, together with the final global financial report. Where over 80% of the initial budget has been spent, the balance will be in favour of the MS Twinning partner. . If the final accepted invoice indicates total expenditure below 80% of the budget, the CFCU requests reimbursement of the unused advance from the Member State body responsible for the implementation of the twinning covenant (Annex A, article 8). The Member State body responsible for the implementation of the Twinning project is also liable for reimbursement of any advances paid in respect of the PAAs, which remain unused according to invoices accepted by the CFCU.

**The final financial report must be accompanied by an audit certificate from a recognized, independent auditor. The auditor must certify that all the transactions invoiced by the MS Twinning partner in the course of the covenant were duly justified in accordance with the established rules and arose solely as a result of the covenant.**

If the MS implementing organisation cannot itself provide an audit certificate in support of the final invoice, an audit valid under the law of the MS shall be commissioned and its cost included within the actual costs invoiced (see chap. 5.11)

### **3. DOCUMENTATION IN SUPPORT OF INVOICES**

#### **3.1. Endorsement by the beneficiary of services rendered**

On the basis of detailed invoices in accordance with the breakdown of costs (Title III, Article 7) of the covenant the MS Project Leader is responsible for soliciting an endorsement of services rendered from the beneficiary. For the sake of expediency, this task may be facilitated by the Pre-Accession Advisor.

#### **3.2. Receipts and invoices for services**

The MS Twinning partner is obliged to keep full accurate and systematic record and accounts in respect of the activities implemented under the Twinning Covenant. They shall be in such form and detail that it is possible to establish accurately the number of days worked in the CC, as well as all actual incidental expenditure budgeted and associated with the implementation of the Twinning covenant.

Such records must be kept for a 5-year period after the last payment made under the covenant. These documents comprise any documentation concerning income and expenditure and any inventory, necessary for the checking of supporting documents, in particular mission/timesheets, transport tickets, pay slips for experts and other invoices. Failure to maintain such records constitute a breach of obligations and will result in the termination of EU funding or request for refund of part or all funds to the Commission.

Without prejudice to the rights and obligations of the European Court of Audit, OLAF, the relevant Commission services, representatives of the CFCU or other authorized institutions of the beneficiary country shall be permitted to inspect or audit, at any reasonable time, the records and accounts relating to the implementation of the Twinning Covenant and to make copies thereof both during and after its implementation. The quantity of documentation requested should be based on a judgment of the risk and potential scale of error associated with the items in question.

**Please note that, contrary to previous requirements, no original documentary evidence shall be submitted to the CFCU. The audit certificate dispenses MS implementing bodies from submitting any documentary evidence according to EC Financial Regulation. CC national legislation may require them to submit certified copies.**

### **4. PRIVATE SECTOR INPUTS: TENDERING, PROCUREMENT AND CONTRACTING**

Private sector inputs are subject to the procedures laid down in the Practical Guide for Phare, ISPA and Sapard (PRAG) (web address <http://europe.eu.int/comm/europeaid/index>).

## **Supply of goods**

up to 5.000€ per item: direct purchase.

Examples: small equipment to enable the smooth implementation of the project (e.g. small laboratory consumables of measuring equipment.)

Procedure: no contract, reported in the framework of quarterly financial report

over 5.000€ per item not financed by the Twinning budget. Mentioned in the breakdown of cost only to signify the commitment of the CC that the relevant equipment will be available at that time of the work programme for the project.

Examples: equipment to measure air quality control, veterinary control materials. The procedure for the procurement of the equipment is determined by the source of its funding. If it is investment funds from the EU national programme envelope, the CFCU is entirely responsible for tendering and contracting according to the rules laid down in the PRAG.

## **Supply of services**

up to 10.000€ per item: direct agreement. (Exceptional derogation from PRAG!)

Examples: travel costs, translation and interpretation services, software, training material, expert private sector inputs to training.

Procedure: MS Project Leader responsible for procurement and contracting. Reported in the quarterly financial reports.

10.000 – 200.000€ per item, Contracted by CFCU (see PRAG):

(1) Framework Contracts

(2) Simplified procedure

Examples: translation and interpretation services, software, training material, expert private sector inputs to training.

Amounts for private sector inputs with a unit cost above the ceiling of 10.000€ for supply of services are contracted separately by the CFCU and will be included in the detailed breakdown of costs in the Twinning Covenant with an annotation making clear that they will be contracted by the CFCU.

Amounts for private sector inputs with a unit cost above the ceiling of 5.000€ for supply of goods may figure indicatively in the breakdown of costs, but are not included in the overall sum in the Covenant and are contracted separately by the CFCU.

## **Ceiling price**

The ceiling on prices of goods and services applies to indivisible units (an item or individual instance of service provision). Even if the total amount of an order for services exceeds €10 000.- it may be contracted and paid by the Project Leader directly if each individual service ordered costs less than € 10 000.

## **5. CHANGES TO THE BUDGET OF THE COVENANT**

### **5.1. General rules**

There should be no change to the guaranteed results defined in the Twinning covenant, but the means of achieving these may be adapted to circumstances, with the activities initially planned being replaced by others.

Any change to the budget must observe the following general rules:

*5.1.1. the overall budget for a Twinning project cannot be increased, and so an activity must be reduced or cancelled first in order to finance a new one;*

*5.1.2. any cost billed under the heading of the activity must be eligible for financing according to the Twinning rules (which excludes funding of CC experts or operational costs of beneficiary administration), and the unit costs (fees, daily allowances, etc) must respect the rates set by the Commission; no redeployment of the budget may be intended to increase the initial unit costs;*

*5.1.3. each Twinning project must include a Pre-Accession Advisor, resident in the CC for a minimum of 12 consecutive months. Transfers of budgetary resources may not jeopardise this requirement.*

*5.1.4. procurement of private sector services and use of the contingency funds must comply with the established rules.*

*5.1.5. introduction of a new activity must be justified by showing that it will be of real use in achieving the guaranteed results targeted by the Twinning covenant; the mere availability of funds (following cancellation of activities originally foreseen) is not sufficient to justify the financing of new activities.*



## 5.2. Procedures

Two procedures shall apply to the budget reallocations listed below. In all cases, the appropriate procedure must be completed and the budget officially reallocated before the newly devised activity can be implemented. **No activity implemented before being officially entered in the budget may be financed by the EU programme.** The notifications must be made by a secure means of communication, so that dispatch can be proven in the event of dispute.

*5.2.1. Reallocation of appropriations by project leaders (MS and CC), without prior approval by the Commission and the CFCU*  Within and between activities (if they are within the same budget section, the MS Project Leader may act on his own authority)

between budget sections for a cumulated amount of up to 10% of the total budget for the Twinning project

### Practical application

The Project Leaders draw up the budget reallocation in the form of a side letter to the covenant, which lays down what is removed and what is added. This side letter to the covenant is notified to the Commission (Representation) and the CFCU. The budget is considered to have been reallocated on the date of the latest notification. When the budget reallocation amounts simply to a transfer of appropriations within the same budget section, the transfer decision may be signed by the project leader of the MS alone, who notifies the project leader of the CC at the same time as the Commission and the CFCU.

Such a budget reallocation is not an "addendum" in legal terms, since the breakdown of appropriations between parts of the same activity in the same budget section is given only as an indication.

*5.2.2. Reallocation of appropriations by the project leaders requiring prior approval by the Commission and the CFCU*

between budget sections beyond a cumulated amount of 10% of the total budget of the Twinning project.

The addendum signed by both parties is sent to the EC Representation. The Representation is authorized to endorse addenda on behalf of the Commission, except in cases where the addendum would have one of the following effects, in which case prior approval from headquarters has to be sought:

changing the guaranteed result targeted by the Covenant,

- replacing the MS administration or mandated body MS initially responsible for the Covenant,
- removing or adding a partner MS,
- replacing the MS project leader,
- replacing a PAA,
- interrupting or ending the Covenant before completion.

If the Commission agrees, the Representation requests the written approval of the CFCU and sends both project leaders the text of their request bearing the signed endorsement of the CFCU and the Representation. The budget is considered to have been amended on the date of this notification.

## **ANNEX C TO THE TWINNING COVENANT: REPORTING**

In accordance with Article 10 of Annex A, reports will be drafted in accordance with the following formats (templates). The first, third and subsequent odd-numbered reports may be limited to points 1-4 and 6.

### **QUARTERLY REPORTS**

#### **1. Identification**

- Twinning Project No. TR02-EY-01
- Report No. (serial number of the report in the sequence for this project)
- Period covered by the report
- Submitted by: Mr. Sergio GARRIBBA and Mr. Cahit AKINCI

#### **2. Background**

Reference to the grounds justifying the twinning in relation to the *acquis*.

#### **3. Twinning activities during the reporting period**

Description of the activities carried out under the twinning project during the period under consideration (PAA, components of the package etc.), with direct reference to the benchmarks and timetable set out in the Covenant.

#### **4. Financial Statement**

Report on financial situation; costs incurred and funds remaining in each budget category.

#### **5. Assessment of activities**

- Overall evaluation of the progress achieved during the period under consideration
- Judgment on likelihood of completing project within timescale and budget
- Highlighting of any activities not in the original plan or activities cancelled
- Update on general environment, including any risks for project implementation

#### **6. Conclusion**

Conclusion and comments on progress during the reporting period in relation to delivering the "guaranteed result".

# FINAL REPORT

## 1. Identification

- Twinning Project No. (number/reference given to the twinning project)
- Final Report
- Submitted by: name of the Member State Project Leader

## 2. Executive summary

Executive summary of the whole twinning project, with reference to achievement of the expected result.

## 3. Background

Description of the background which led to the establishment of a twinning project, with reference to the *acquis communautaire* involved.

Description of the prevailing environment during the implementation of the twinning operation, showing factors which could have had a direct impact on the project, included unexpected difficulties.

## 4. Summary of the twinning activities during the reporting period

Summary of the activities carried out under the twinning project (PAA, components of the package etc.) and main comments on these activities.

## 5. Evaluation of the twinning project

Overall evaluation of the twinning project, reflecting the main achievements and weaknesses.

## 6. Conclusion and Recommendations

Was the expected result achieved? If not, why not?

In either case, the final report will formulate recommendations for the future.

## ANNEX D TO THE TWINNING COVENANT: ACQUIS COMMUNAUTAIRE

- ❖ Council Directive 90/547/EEC of 29 October 1990 on the transit of electricity through transmission grids
- ❖ Council Directive 91/296/EEC of 31 May 1991 on the transit of natural gas through grids
- ❖ Commission Directive 95/49/EC of 26 September 1995 updating the list of entities covered by Directive 91/296/EEC on the transit of natural gas through grids
- ❖ 96/391/EC :Council Decision of 28 March 1996 laying down a series of measures aimed at creating a more favourable context for the development of trans-European networks in the energy sector
- ❖ 736/96/EC Council Regulation of 22 April 1996 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors
- ❖ Decision no.1254/96/EC of the European Parliament and of the Council of 5 June 1996 laying down a series of guidelines for trans European energy networks
- ❖ Commission Regulation No 2386/96 of 16 December 1996 applying Council regulation No 736/96 of 22 April 1996 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sector
- ❖ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity (OJ L 027 30.01.1997 p.20)
- ❖ Decision No.1047/97/EC of the European Parliament and of the Council of 29 May 1997 amending Decision No.1254/96/EC laying down a series of guidelines for trans European energy networks
- ❖ Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations
- ❖ Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market in natural gas (OJL/204, 21.0, p.1)
- ❖ Directive 98/48/EC of the European Parliament and of Council of 20 July 1998 amending Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations
- ❖ 1999/791/EC: Commission Decision of 8 July 1999 concerning the application of the United Kingdom of Great Britain and Northern Ireland for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/1) (OJ L 319 11.12.1999 p.1)
- ❖ 1999/792/EC: Commission Decision of 8 July 1999 concerning the application of France for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/2) (OJ L 319 11.12 1999 p.6)
- ❖ 1999/793/EC: Commission Decision of 8 July 1999 concerning the application of Luxembourg for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/3) (OJ L 319 11.12 1999 p.12)
- ❖ 1999/794/EC: Commission Decision of 8 July 1999 concerning the German application for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/4) (OJ L 319 11.12 1999 p.18)

- ❖ 1999/795/EC: Commission Decision of 8 July 1999 concerning the Austrian application for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/5) (OJ L 319 11.12 1999 p.30)
- ❖ 1999/796/EC: Commission Decision of 8 July 1999 concerning the application of the Netherlands for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/6) (OJ L 319 11.12 1999 p.34)
- ❖ 1999/796/EC: Commission Decision of 8 July 1999 concerning the application of the Spanish Government for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/7) (OJ L 319 11.12 1999 p.41)
- ❖ 1999/796/EC: Commission Decision of 8 July 1999 concerning the Danish application for a transitional regime under Article 24 of Directive 96/92/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (notified under document number C(1999) 1551/8) (OJ L 319 11.12 1999 p.41)
- ❖ Decision No.1720/1999/EC of the European Parliament and of the Council of 12 July 1999 adopting a series of actions and measures in order to ensure interoperability of and access to trans-European networks for the electronic interchange of data between administrations (IDA)
- ❖ Directive 2000/55/EC of the European Parliament and of the Council of 18 September 2000 on energy efficiency requirements for ballasts for fluorescent lighting (OJ L 279 01.11.2000 p.33)
- ❖ Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market
- ❖ Green Paper, Final Report, Communication from the Commission to the Council and the European Parliament. Final Report on the Green Paper “Towards a European Strategy for the security of energy supply” 26.6.2002, COM (2002) 312 final
- ❖ Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC.
- ❖ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)
- ❖ Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.
- ❖ Conclusions of all sessions of the European Electricity Regulatory Forum (Florence Forum)
- ❖ Conclusions of all sessions of the European Gas Regulatory Forum (Madrid Forum)
- ❖ Conclusions of all sessions of the South East Europe Electricity Regulatory Forum (Athens Forum)
- ❖ Presidency conclusions of the Lisbon European Council, 23 and 24 march 2000

## **ANNEX E TO THE TWINNING COVENANT: LIST OF RELEVANT LAWS, REGULATIONS and COMMUNIQUES**

### **Electricity Market:**

- Electricity Market Law,
- Electricity Market Licensing Regulation
- Distribution Code
- Grid Code
- Communiqué Regarding Meters
- Communiqué Regarding Wind and Solar Measurements
- Customer Service Regulation
- Import and Export Regulation
- Eligible Consumer Regulation
- Electricity Market License Fees
- Electricity Market Tariffs Regulation
- Regulation on Procedures and Principles for Auditing and Pre Inquiries and Investigations in the Electricity Market
- Communiqué Regarding Determination of Transmission and Distribution Connection Charges
- Communiqué Regarding Regulation of Distribution System Revenue
- Communiqué Regarding Regulation of Retail Service Revenue and Retail Prices
- Communiqué Regarding Regulation of Transmission System Operation Revenue
- Communiqué Regarding Regulation of Transmission System Revenue
- Communiqué Regarding Connection and Use of System
- Communiqué Regarding Settlement
- Communiqué Regarding Regulatory Accounting Guidelines
- Communiqué Regarding the Principles and Procedures Concerning Financial Settlement in the Electricity Market
- Communiqué Regarding Connection and Use of System
- Communiqué Regarding the Principles and Procedures to be implemented for the selection process among several applications for Generating electricity at the same site and based on the same resource

-Communiqué regarding retail sale contracts in the electricity market

### **Natural Gas Market:**

-Natural Gas Market Law

-Natural Gas Market License Regulation

-Natural Gas Market Internal Installations Regulation

-Natural Gas Market Transmission Network Operation Regulation

-Natural Gas Market Certificate Regulation

-Natural Gas Market Tariffs Regulation

-Natural Gas Market Facilities Regulation

-Natural Gas Market Distribution and Customer Services Regulation

-Regulation on Procedures and Principles for Auditing and Pre Inquiries and Investigations in the Natural Gas Market

-Communiqué Regarding the Application of Gross Calorific Value in the Retail Sales of Natural Gas Distribution Companies

-Communiqué on Liquefied Natural Gas (LNG)

-General Communiqué Regarding Accounting Guidelines and Financial Reporting

### **Human Resources**

-Regulation On The Organization Of The Energy Market Regulatory Authority And Working Procedures And Provisions Applicable To Its Employees

-Regulation On Employment Of Local And Foreign Experts

-Regulation On Human Resources

### **Administrative Services**

-Regulation Regarding Tendering



**Sergio F. Garribba****Proposed position in the project: Project Leader**

1. Family name: Garribba
2. First names: Sergio
3. Date of birth: 11.07.1939
4. Nationality: Italian
5. Education:

<i>Institution:</i>	<b>Georgia Institute of Technology, Atlanta, Ga.</b>
<i>Date:</i>	<b>1974</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Specialisation courses</b>

<i>Institution:</i>	<b>Massachusetts Institute of Technology, Cambridge, Mass.</b>
<i>Date:</i>	<b>1973</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Specialisation courses</b>

<i>Institution:</i>	<b>Polytechnic Institute of Milan</b>
<i>Date:</i>	<b>1971-1972</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Post-graduate Programme in Management Science</b>

<i>Institution:</i>	<b>University of California, Berkeley, Calif.</b>
<i>Date:</i>	<b>1968</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>MS in Nuclear Engineering</b>

<i>Institution:</i>	<b>Polytechnic Institute of Milan, Italy</b>
<i>Date:</i>	<b>1964</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Engng. Dr. in Nuclear Engineering</b>

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>German</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>French</b>	<b>5</b>	<b>5</b>	<b>4</b>
<b>Spanish</b>	<b>5</b>	<b>2</b>	<b>2</b>

## **7. Membership of professional bodies:**

- i. **Full Professor** of Nuclear Power Engineering at the Polytechnic Institute of Milan, Milan, Italy (from 1984, **on leave** of absence since 1987); **Associate Professor** and **Head** of the Laboratory of Nuclear Engineering, Polytechnic Institute of Milan (from 1974 to 1984).
- ii. **Member** of the WEC Clean Fossil Fuels Systems Committee; **Evaluator** in the High-Level Peer-Review of the World Energy, Technology and Climate Policy Outlook – 2030 by the European Commission, **Member** of the Energy Advisory Group to the European Commission (from 1999 to 2001).
- iii. **Member** of the Inter-Ministerial Committee for Industrial Policy Co-ordination under the national law no. 675/1977 (from 1978 to 1980). **Advisor** to the General Directorate of Energy Resources, Ministry of Industry of Italy for the preparation of the National Energy Plans of 1977, 1981 and revision of 1985.
- iv. **Partner** and **Member of the Board** of small capital-venture companies in Italy, including: **Reseau**, a firm for market surveys, project appraisal, and industry product and development strategies in the areas of automation and robotics, and telecommunications services; **Tecnia**, a firm for economic feasibility studies, and the application of local area networks and advanced telecommunications technology in the transportation sector (from 1979 to 1987)

**8. Other skills:** Author, co-author and editor of about 200 papers and reports, conference proceedings and books in the areas of energy and environment, industry economics, technology innovation and management, nuclear and power engineering, and other scientific subjects. Guest and key-note speaker, chairman, rapporteur, panellist in national and international conferences, symposia and meetings.

**9. Present position:** Commissioner, The Regulatory Authority for Electricity and Gas

**10. Years within the organisation:** 6

**11. Key qualifications:** Promoting competition in the national electricity and gas markets, tariff setting, definition of system access rules and grid governance codes, activity unbundling to remove cross-subsidies and allow for privatisation of state-owned and public-owned companies, monitoring electricity wholesale exchange, regulating electricity and gas retail markets, enacting public service obligations and service quality standards. Quasi-judicial resolution of arbitrates, inquiry and analysis. Advice to the Government and Parliament on the adoption of the European directives and policy matters Collaboration and information exchange with energy regulators from European Union Member States and other countries (years 1998 – present).

Implementation and first operation of the newly established national Regulatory Authority. Definition of formal procedures and decision-making rules and practice. Selection of personnel to cope with priorities and tasks as assigned. Organisation of the offices in the areas of electricity and natural gas markets, grid structures and access, consumer protection and public service obligations ( years 1996-1998).

**12. Specific Countries experience:** Italy, France

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>December 1996-PRESENT</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>The Regulatory Authority for Electricity and Gas</b>
<i>Position:</i>	<b>Commissioner</b>
<i>Description:</i>	

<i>Date: from (year) to (year):</i>	<b>February 1994 – December 1996</b>
<i>Location:</i>	<b>Rome</b>
<i>Company:</i>	<b>ENEA</b>
<i>Position:</i>	<b>Director, Energy Department</b>
<i>Description:</i>	<b>Direction and administration</b>

<i>Date: from (year) to (year):</i>	<b>December 1987-January 1994</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>IEA</b>
<i>Position:</i>	<b>Director of Energy Technology and R&amp;D</b>
<i>Description:</i>	<b>Direction and management</b>

<i>Date: from (year) to (year):</i>	<b>1974-1987</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>IEFE Luigi Bocconi University of Commerce</b>
<i>Position:</i>	<b>Co-Director and Director of Economic Research</b>
<i>Description:</i>	<b>Direction and management of the Institute and its energy research programmes</b>

## **Sergio Ascari**

**Proposed position in the project: Pre-Accession Advisor**

- 1. Family name: Ascari**
- 2. First names: Sergio**
- 3. Date of birth: 11.10.1958**
- 4. Nationality: Italian**
- 5. Education:**

<i>Institution:</i>	<b>University of York, U.K.</b>
<i>Date:</i>	<b>1985</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>M.Sc. (Econ)</b>

<i>Institution:</i>	<b>University of Pavia, Italy</b>
<i>Date:</i>	<b>1982</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Laurea in Economia e Commercio</b>

6. Language skills: (increasing competence from 1 to 5)

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>German</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>French</b>	<b>3</b>	<b>2</b>	<b>1</b>

**7. Membership of professional bodies:** International Association of Energy Economists

**8. Other skills:** Computer use and programming

**9. Present position:** Funzionario I (Senior Administrator), seconded at the Brussels Office of the Council of European Energy Regulators.

**10. Years within the organisation:** 5

**11. Key qualifications:** Gas economic regulation; Energy-Environmental interactions, Solid Waste Policy.

**12. Specific Countries experience:** Italy, EU, Russia

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1999-2002</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Autorità per l'energia elettrica e il gas</b>
<i>Position:</i>	<b>Senior Administrator</b>
<i>Description:</i>	<b>Coordinator of gas economic regulation</b>

<i>Date: from (year) to (year):</i>	<b>1997-1999</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Autorità per l'energia elettrica e il gas</b>
<i>Position:</i>	<b>Senior Administrator</b>
<i>Description:</i>	<b>Coordinator of the environmental unit</b>

<i>Date: from (year) to (year):</i>	<b>1994-1997</b>
<i>Location:</i>	<b>Pavia</b>
<i>Company:</i>	<b>Università degli Studi</b>
<i>Position:</i>	<b>Researcher / Lecturer</b>
<i>Description:</i>	<b>Public Finance, Environmental Economics</b>

<i>Date: from (year) to (year):</i>	<b>1988-1994</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Università Commerciale Luigi Bocconi</b>
<i>Position:</i>	<b>Researcher / Lecturer</b>
<i>Description:</i>	<b>Energy and Environmental Economics</b>

<b>Date: from (year) to (year):</b>	<b>1982-1988</b>
<b>Location:</b>	<b>Milan</b>
<b>Company:</b>	<b>Università Commerciale Luigi Bocconi</b>
<b>Position:</b>	<b>Research Assistant</b>
<b>Description:</b>	<b>Energy Economics</b>

## Senem Tanören

Proposed position in the project: Pre-Accession Adviser Assistant

1. Family name: Tanören
2. First names: Senem
3. Date of birth: 25 October 1969
4. Nationality: Turkish
5. Education:

<b>Institution:</b>	<b>Anadolu University (Distant Training) Management</b>
<b>Date:</b>	<b>1999-2003</b>

### 6. Language skills: (increasing competence from 1 to 5)

<b>Language</b>	<b>Reading</b>	<b>Speaking</b>	<b>Writing</b>
<b>Turkish</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Italian</b>	<b>3</b>	<b>2</b>	<b>2</b>

7. Membership of professional bodies: None
8. Other skills: Computer skills: MS Windows, MS Office Applications: Word, Excel and PowerPoint, 10 finger typing and Internet.
9. Present position: Project Monitoring Specialist for World Bank Projects at Energy Market Regulatory Authority of Turkey.
10. Years within the organisation: 1, 5
11. Key qualifications: Knowledge of various aspects in energy regulatory issues.
12. Specific Countries experience: None.
13. Professional Experience Record:

<b>Date: from (year) to (year):</b>	<b>Sept.2001-May2002</b>
<b>Location:</b>	<b>Ankara</b>
<b>Company:</b>	<b>PRICEWATERHOUSECOOPERS TURKEY</b>
<b>Position:</b>	<b>Translator (Turkish Transmission Company Implementation Project)</b>
<b>Description:</b>	<b>Translation of project deliverables and working papers from English to Turkish and vice-versa. Report production. Interpretation and</b>

	facilitation during meetings and workshops. Administrative assistance.
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<b>Date: from (year) to (year):</b>	Feb.1998-Jan.2001
<b>Location:</b>	Ankara
<b>Company:</b>	DELOITTE&TOUCHE TURKEY/ANKARA
<b>Position:</b>	<ol style="list-style-type: none"> <li>1. Consultant (Distribution Standards Project, Client: Turkish Electricity Distribution Co.-TEDAŞ)</li> <li>2. Consultant (Energy Sector Reform and Privatization Project, Client: Ministry of Energy and Natural Resources-MENR)</li> <li>3. Translator/Interpreter (Preparation of National Transmission Grid System Project, Client: Turkish Electricity Generation, Transmission Co.-TEAŞ)</li> </ol>
<b>Description:</b>	<ol style="list-style-type: none"> <li>1. Data collection for the initial phase of the project. Preparation, translation and review of the project documents and deliverables. Preparation of issue lists for the reports and deliverables. Coordination of the project with the client and foreign consultants.</li> <li>2. Active participation in the research for and drafting of Electricity Market Law, in cooperation with local and foreign legal counsels, including follow-up with the client for feedback and comments. Full responsibility in ensuring the consistency of the Turkish and English versions of the draft Law. Review of other legal documents in order to ensure consistency with the draft Law and with one another.</li> <li>3. Translation of research documents into English, during the initial phase of the Project; translation of reports into Turkish; preparation and translation of presentations, review and quality assurance of deliverables, organizing and maintaining a filing system. Administrative assistance and support to foreign consultants and local executives throughout the projects.</li> </ol>

<b>Date: from (year) to (year):</b>	Oct.1997-Feb.1998
<b>Location:</b>	Ankara
<b>Company:</b>	DHL Worldwide Express
<b>Position:</b>	Customer Service Agent
<b>Description:</b>	Handling customer inquiries, requests and complaints, making shipment bookings at the call centre, using DHL Customer Service

	<b>Applications: G 30, ICS; accepting shipments and keeping petty cash at the front desk.</b>
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<b><i>Date: from (year) to (year):</i></b>	<b>Aug.1997-Oct.1997</b>
<b><i>Location:</i></b>	<b>Ankara</b>
<b><i>Company:</i></b>	<b>Australian Embassy-AUSTRADE</b>
<b><i>Position:</i></b>	<b>Trade Assistant</b>
<b><i>Description:</i></b>	<b>Assisting AUSTRADE Manager in following and answering trade inquiries; performing office tasks such as filing, travel and accommodation arrangements.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>June1997-Aug.1997</b>
<b><i>Location:</i></b>	<b>Ankara</b>
<b><i>Company:</i></b>	<b>Libra Travel Agency</b>
<b><i>Position:</i></b>	<b>Travel Agent</b>
<b><i>Description:</i></b>	<b>Making domestic and international flight and hotel bookings and ticketing, operating Start Amadeus Airline Network System.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1991-June1997</b>
<b><i>Location:</i></b>	<b>Ankara</b>
<b><i>Company:</i></b>	<b>ASTALDI S.p.A</b>
<b><i>Position:</i></b>	<b>Executive Secretary</b>
<b><i>Description:</i></b>	<b>Providing secretarial assistance to the Turkey Branch Manager, providing and monitoring flow and correspondence between Ankara Branch Office, Rome Head Office and Bolu Job Site; making travel and accommodation arrangements in and abroad; translating incoming and outgoing correspondence; maintaining a filing system.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1989-1991</b>
<b><i>Location:</i></b>	<b>Ankara</b>
<b><i>Company:</i></b>	<b>VEGA Travel Agency</b>
<b><i>Position:</i></b>	<b>Travel Agent</b>
<b><i>Description:</i></b>	<b>Making domestic and international flight and hotel bookings and ticketing.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1987-1991</b>
<b><i>Location:</i></b>	<b>Ankara</b>
<b><i>Company:</i></b>	<b>BAŞAK Travel Office and ORAL Translation Office</b>

<b>Position:</b>	<b>Part-time Translator</b>
<b>Description:</b>	<b>Translation of documents on various subjects</b>

**14. Other Relevant Information:** 2003 Energy Law Certificate Programme Faculty of Law, Ankara University.

## Jacques De Jong

**Proposed position in the project: Short term expert**

1. **Family name: de Jong**
2. **First names: Jacques**
3. **Date of birth: 22.04.1947**
4. **Nationality: Netherlands**
5. **Education:**

<i>Institution:</i>	Erasmus University Rotterdam
<i>Date:</i>	1971
<i>Degree(s) or Diploma(s) obtained:</i>	Drs. economics
<i>Institution:</i>	
<i>Date:</i>	
<i>Degree(s) or Diploma(s) obtained:</i>	

6. **Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Dutch	Mother tongue	Mother tongue	Mother tongue
English	good	good	good
...French	Sufficient	Sufficient	poor
German	sufficient	sufficient	Poor

1. **Other skills:**

Experienced policy maker in energy and energy regulation; experienced negotiator in many national and international settings.

2. **Present position:**

- A) senior advisor Dutch Competition Authority & Energy regulatory office
- B) senior fellow Clingendael international Energy program
- C) advisor Dutch emission Authority-to-be

3. **Years within the organisation:**

I worked for the ministry of Economic affairs since April 1971

4. **Key qualifications:**

Participation in a variety of international (EU, IEA, IAEA) of committees and working groups; both as a national delegate and/or as in functions as chairman or vice-chair.



Co-founder of the Council of European Energy regulators; co-chair of its Working Group on Electricity  
 Participant in many HL-meetings, including the Florence and Madrid Fora  
 Frequent speaker in energy conferences and workshops

**5. Specific Countries experience:**

EU-countries; USA

**6. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	1971-1973
<i>Location:</i>	The Hague
<i>Company:</i>	Min. Of Economic affairs
<i>Position:</i>	Junior advisor
<i>Description:</i>	International Economic relations department; EEC-desk

<i>Date: from (year) to (year):</i>	1973-1980
<i>Location:</i>	The Hague
<i>Company:</i>	MEA
<i>Position:</i>	Advisor & senior advisor
<i>Description:</i>	Energy department, Oil directorate
<i>Date: from (year) to (year):</i>	1980-1994
<i>Location:</i>	The Hague
<i>Company:</i>	MEA
<i>Position:</i>	Dep.director
<i>Description:</i>	Energy department, electricity directorate
<i>Date: from (year) to (year):</i>	1994-1998
<i>Location:</i>	The Hague
<i>Company:</i>	MEA
<i>Position:</i>	Coordinator energy distribution
<i>Description:</i>	Energy department
<i>Date: from (year) to (year):</i>	1998-2003
<i>Location:</i>	The Hague
<i>Company:</i>	MEA
<i>Position:</i>	Director
<i>Description:</i>	Office for Energy regulation

**14. Other Relevant Information:**

**15. Contact Address: J.J. de Jong; Jacques.J.dejong@nmanet.nl**

Nma/DTe, Box 16326, 2500 BH The Hague Netherlands

00 31 70 3303501

**Matteo Leonardi**

**Proposed position in the project: Short term expert**

1. Family name: Leonardi
2. First names: Matteo
3. Date of birth: 20 October 1973
4. Nationality: Italian

**5. Education:**

<i>Institution:</i>	<b>Imperial College of Science Technology and Medicine, London UK</b>
<i>Date:</i>	<b>2000</b>
<i>Master of Science</i>	<b>Energy Policy - Environmental Technology. Thesis: Renewables in the European liberalising market</b>

<i>Institution:</i>	<b>Università Statale di Milano</b>
<i>Date:</i>	<b>1999</b>
<i>BA</i>	<b>Economic History; Thesis: Environmental Responsibility of Firms; a case study on the UK electricity industry from 1945 to privatisation</b>

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>French</b>	<b>5</b>	<b>3</b>	<b>3</b>

**7 . Membership of professional bodies:** The Regulatory Authority for Electricity and Gas

**8. Other skills: Computer skills:** Office package

**9. Present position:** Officer at the Research and Documentation Dept.; Taxation and Environment Unit

**10. Years within the organisation:** 1

**11. Key qualifications:** Comprehensive knowledge of various aspects in energy and environmental regulatory issues with particular reference to the design of renewables incentive schemes; Deep knowledge of EU environmental legislation in energy policy; Experienced in Flexible Mechanisms under the Kyoto Protocol and other Environmental certification schemes.

**12. Specific Countries experience:** UK, Italy, Poland, Estonia, Hungary, Slovenia

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>2000-2001</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>ref.irs</b>
<i>Position:</i>	<b>Economist</b>
<i>Description:</i>	<b>Construction of an electricity dispatching model and power plants database; with environmental targets</b>

<i>Date: from (year) to (year):</i>	<b>2000-2001</b>
<i>Location:</i>	<b>Milan</b>

<b>Company:</b>	<b>SERVEN</b>
<b>Position:</b>	<b>Consultant</b>
<b>Description:</b>	<b>Country Team Leader of EU Projects on Joint Implementation of International Emission Reductions Agreements in the EU and CEE Countries and REBUS</b>

<b>Date: from (year) to (year):</b>	<b>2000-2001</b>
<b>Location:</b>	<b>Milan</b>
<b>Company:</b>	<b>Renewable Producers Industrial Association (APER)</b>
<b>Position:</b>	<b>Consultant</b>
<b>Description:</b>	<b>European Renewable Electricity Certificate Trading Project (RECERT)</b>

<b>Date: from (year) to (year):</b>	<b>2000-2001</b>
<b>Location:</b>	<b>Milan</b>
<b>Company:</b>	<b>BLUenergy</b>
<b>Position:</b>	<b>Consultant</b>
<b>Description:</b>	<b>Responsible of the RECS (Renewable Energy Certificate) project.</b>

**14. Other Relevant Information:** 2000; Awarded of a scholarship by the Economic and Social Research Council for the MASTER in REGULATION at the London School of Economics, London, UK.-

## **Oliviero Bernardini**

**Proposed position in the project: Short Term Expert**

- 1. Family name:** Bernardini
- 2. First names:** Oliviero
- 3. Date of birth:** 15 March 1941
- 4. Nationality:** Italian
- 5. Education:**

<b>Institution:</b>	<b>University of Rome</b>
<b>Date:</b>	<b>1973</b>
<b>Degree(s) or Diploma(s) obtained:</b>	<b>Laurea in Chimica Industriale</b>

<b>Institution:</b>	<b>Harvard University</b>
<b>Date:</b>	<b>1967</b>
<b>Degree(s) or Diploma(s) obtained:</b>	<b>Ph. D. In Chemical Physics</b>

<b>Institution:</b>	<b>Carleton University</b>
<b>Date:</b>	<b>1963</b>
<b>Degree(s) or Diploma(s) obtained:</b>	<b>B. Sc. In Mathematics and</b>

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>German</b>	<b>4</b>	<b>4</b>	<b>3</b>
<b>French</b>	<b>5</b>	<b>5</b>	<b>4</b>
<b>Spanish</b>	<b>5</b>	<b>5</b>	<b>4</b>
<b>Russian</b>	<b>3</b>	<b>3</b>	<b>1</b>

**7. Membership of professional bodies:** member of the Scientific Committee of the journal *Energia* and of the International Association of Energy Economists (IAEE).

**8. Other skills:** Author of over 50 technical reports, 40 articles e 6 books. Has lectured widely in Italy and abroad giving some 50 courses and technical seminars at universities, research institutes and training schools.

**9. Present position:** Director

**10. Years within the organisation:** 5

**11. Key qualifications:** Sample surveys, data banks and information systems. Systems analysis and mathematical simulation of economic and social development processes. Resource analysis. Technology assessment and forecasting. Econometric analysis. Market studies. Socio economic and environmental impact analysis. Evaluation of supply strategies. Technological innovation and R&D strategies. Feasibility studies. Project analysis and planning. Business plans. Programme evaluation. Energy regulation. Energy policy analysis and evaluation.

**12. Specific Countries experience:** Albania, Austria, Belgium, Belarus, Canada, Colombia, Costa Rica, Czechoslovakia, Denmark, Ecuador, El Salvador, Ethiopia, Philippines, France, Germany, Guatemala, Honduras, Hungary, Indonesia, Iraq, Jamaica, Japan, Kenya, Nicaragua, Panama, Poland, Russia, Senegal, Switzerland, Turkey, Ukraine, United Kingdom, United States.

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>2000-2002</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Autorità per l'energia elettrica e il gas</b>
<i>Position:</i>	<b>Director</b>
<i>Description:</i>	<b>Energy Market Scenarios</b>

<i>Date: from (year) to (year):</i>	<b>1997-2000</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Autorità per l'energia elettrica e il gas</b>
<i>Position:</i>	<b>Director</b>
<i>Description:</i>	<b>Gas markets</b>

<i>Date: from (year) to (year):</i>	<b>1995-1997</b>
<i>Location:</i>	<b>Genoa</b>
<i>Company:</i>	<b>Ansaldo</b>
<i>Position:</i>	<b>Staff member</b>

<i>Description:</i>	<b>Products Development Division</b>
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<i>Date: from (year) to (year):</i>	<b>1989-1995</b>
<i>Location:</i>	<b>Genoa</b>
<i>Company:</i>	<b>Cesen, Ansaldo</b>
<i>Position:</i>	<b>Director</b>
<i>Description:</i>	<b>Development and Strategies</b>

<i>Date: from (year) to (year):</i>	<b>1986-1989</b>
<i>Location:</i>	<b>Genoa</b>
<i>Company:</i>	<b>Cesen, Ansaldo</b>
<i>Position:</i>	<b>Director</b>
<i>Description:</i>	<b>Engineering and Systems Studies</b>

<i>Date: from (year) to (year):</i>	<b>1981-1986</b>
<i>Location:</i>	<b>Genoa</b>
<i>Company:</i>	<b>Cesen, Ansaldo</b>
<i>Position:</i>	<b>Director</b>
<i>Description:</i>	<b>Planning and Economic Studies</b>

<i>Date: from (year) to (year):</i>	<b>1971-1981</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Montedison</b>
<i>Position:</i>	<b>Researcher</b>
<i>Description:</i>	<b>Technological Forecasting and Assessment</b>

<i>Date: from (year) to (year):</i>	<b>1967-1969</b>
<i>Location:</i>	<b>Stanford University</b>
<i>Company:</i>	<b>Stanford Research Institute</b>
<i>Position:</i>	<b>Researcher</b>
<i>Description:</i>	

<i>Date: from (year) to (year):</i>	<b>1969-1971</b>
<i>Location:</i>	<b>San Donato Milanese</b>
<i>Company:</i>	<b>Snamprogetti</b>
<i>Position:</i>	<b>Researcher</b>
<i>Description:</i>	<b>Process Engineering</b>

<i>Date: from (year) to (year):</i>	<b>1964-1967</b>
<i>Location:</i>	<b>Cambridge, Ms</b>
<i>Company:</i>	<b>Harvard University</b>
<i>Position:</i>	<b>Research Assistant</b>

<i>Description:</i>	<b>Chemical Physics</b>
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**14. Other Relevant Information:**

**Federico Boschi**

**Proposed position in the project: Short term Expert**

- 7. **Family name:** Boschi
- 8. **First names:** Federico
- 9. **Date of birth:** 29 December 1963
- 10. **Nationality:** Italian
- 11. **Education:**

<i>Institution:</i>	<b>University of Bologna</b>
<i>Date:</i>	<b>1995</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Degree in Economics</b>

**12. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Spanish</b>	<b>3</b>	<b>3</b>	<b>3</b>

- 7. **Membership of professional bodies:** Member of the technical secretary of the Italian Minister of Industry; he advised on the implementation of the legislative decree for the liberalisation of the Italian electricity market. In particular, he was in charge of advising on Power Market Rules. Member of the Board of Directors of Taularia S.p.A. (an electricity wholesaler based in Imola, Italy)
- 8. **Other skills:**
- 9. **Present position:** Consultant
- 10. **Years within the organisation:**
- 11. **Key qualifications:** Expert in: risk management in the energy sector, regulatory economics, contracts structure in electricity and gas, forecasts of prices and demand.
- 12. **Specific Countries experience:** Italy, Greece, Switzerland
- 13. **Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>2003- 2003</b>
<i>Location:</i>	<b>Bologna</b>
<i>Company:</i>	<b>HERA S.p.A.</b>
<i>Position:</i>	<b>Consultant</b>
<i>Description:</i>	<b>Advising in organising the trading activity</b>

<i>Date: from (year) to (year):</i>	<b>2003- 2003</b>
<i>Location:</i>	<b>Rome</b>

<b><i>Company:</i></b>	<b>GME S.p.A.</b>
<b><i>Position:</i></b>	<b>Consultant</b>
<b><i>Description:</i></b>	<b>Designing implicit auction mechanism to allocate the interconnection capacity</b>

<b><i>Date: from (year) to (year):</i></b>	<b>2002</b>
<b><i>Location:</i></b>	<b>Rome</b>
<b><i>Company:</i></b>	<b>Acquirente Unico S.p.A. (Italian Single Buyer)</b>
<b><i>Position:</i></b>	<b>Consultant</b>
<b><i>Description:</i></b>	<b>Advising in: strategic planning; design of the main elements of the contracts among Acquirente Unico and Distributors and among Acquirente Unico and power Suppliers; implementing the Risk Management and the Portfolio Management Activities.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>2002- 2002</b>
<b><i>Location:</i></b>	<b>Switzerland</b>
<b><i>Company:</i></b>	<b>Worldenergy</b>
<b><i>Position:</i></b>	<b>Consultant</b>
<b><i>Description:</i></b>	<b>Advising in import-export activities between Switzerland and Greece through Italy; Supporting activities in the development of an Electricity Market Simulator for predicting electricity prices and quantities for the Italian market</b>

<b><i>Date: from (year) to (year):</i></b>	<b>2002 –2003</b>
<b><i>Location:</i></b>	<b>Milan</b>
<b><i>Company:</i></b>	<b>Autorità per l'energia elettrica ed il gas (Italian Regulatory Authority for Electricity and Gas)</b>
<b><i>Position:</i></b>	<b>Consultant</b>
<b><i>Description:</i></b>	<b>Advising in: implementing the Load Profiling Methodology for small customers; defining the conditions for the despatch of electricity on the national networks, with particular reference to the arrangements for handling congestion (insufficient transport capacity on any given network), maintaining the balance between supply</b>

	<b>and demand, and the management of reserve capacity.</b>
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<b><i>Date: from (year) to (year):</i></b>	<b>2001 - 2002</b>
<b><i>Location:</i></b>	<b>Rome</b>
<b><i>Company:</i></b>	<b>Acquirente Unico S.p.A. (Italian Single Buyer)</b>
<b><i>Position:</i></b>	<b>Responsible for electricity purchases and the relationship with the distributors</b>
<b><i>Description:</i></b>	<b>Definition of business process engineering of Acquirente unico, with particular regard to Portfolio Management, Trading and Risk Management; to better perform this task he visited several Traders in the USA and Europe; among the others Enron, Williams and Norsk Hydro; Drafting of a master contract with the distributors establishing rules on data transfer and electricity pricing.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>2000 - 2001</b>
<b><i>Location:</i></b>	<b>Milan</b>
<b><i>Company:</i></b>	<b>Autorità per l'energia elettrica ed il gas (Italian Regulatory Authority for Electricity and Gas)</b>
<b><i>Position:</i></b>	<b>Officer in the Electricity Department</b>
<b><i>Description:</i></b>	<b>Definition of the rules for allocating the interconnection capacity to import electricity from abroad; to perform this task he conducted studies on congestion management and auction theory; Definition of the rules for allocating the generation capacity of the Italian Qualified facilities plants (CIP 6 plants); definition of the rules regulating the wholesale electricity market and the conditions for the despatch of electricity on the national networks, with particular reference to the arrangements for handling congestion (insufficient transport capacity on any given network), maintaining the balance between supply and demand, and the management of reserve capacity; to conduct this task, he conducted a comparative analysis of the market and dispatching models adopted in various European and US countries; rules needed</b>



	<b>to implement the stranded costs recovery mechanism recognised to the incumbent electricity producers on the basis of Ministry of Industry decree of 26 January, 2000</b>
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<b><i>Date: from (year) to (year):</i></b>	<b>2000 - 2000</b>
<b><i>Location:</i></b>	<b>Bologna</b>
<b><i>Company:</i></b>	<b>ARES S.p.A.</b>
<b><i>Position:</i></b>	<b>Team leader</b>
<b><i>Description:</i></b>	<b>Feasibility study for the start up of an electricity Trading company in Italy</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1999 - 2000</b>
<b><i>Location:</i></b>	<b>Bologna</b>
<b><i>Company:</i></b>	<b>Taularia S.p.A.</b>
<b><i>Position:</i></b>	<b>Team leader</b>
<b><i>Description:</i></b>	<b>Start up of a wholesaler company in Italy</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1997 - 2000</b>
<b><i>Location:</i></b>	<b>Imola</b>
<b><i>Company:</i></b>	<b>AMI Imola</b>
<b><i>Position:</i></b>	<b>Responsible for Strategic Planning</b>
<b><i>Description:</i></b>	<b>Institutional relationship with all the regulatory Authorities (electricity, gas and water); Evaluation of the net present value of ENEL's distribution networks; evaluation of the economic and financial impact of the application of "metodo normalizzato" (a new methodology to calculate the allowed return on investments and cost recovery in the water sector);  Construction of electricity tariffs for captive customers. Comparative studies on electricity markets models for Federelettrica (Association of electricity companies owned by the municipalities).</b>

**16. Other Relevant Information:** author or co-author of papers published in Italy and abroad on technical reviews or submitted at national and international conferences or seminars:

F. Boschi "Regulation and electricity wheeling in Italy" Energia n2. 1999

F. Boschi, Lucien Catutelle, Gert De Block, Marco Delpero, Winfried Ohlms, Dominique Ponce, Nunzio Silvestro, Karl Zimmermann "Market Models and transmission grid access" CEDEC Bruxelles October 1998

## Paolo Buccirossi

### Proposed position in the project: SHORT TERM EXPERT

1. **Family name:** Buccirossi
2. **First names:** Paolo
3. **Date of birth:** August 25, 1965
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	<b>Università degli Studi di Roma "La Sapienza"</b>
<i>Date:</i>	<b>Jan. 1992 - Feb. 1995</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Ph. D, Economics</b>
<i>Institution:</i>	<b>FORMEZ (Center for Research and Training for Southern Italy, Naples)</b>
<i>Date:</i>	<b>Jan. 1991 - Dec. 1991</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Master in Public Economics</b>
<i>Institution:</i>	<b>Libera Università Internazionale degli Studi Sociali (LUISS), Rome Italy</b>
<i>Date:</i>	<b>Nov. 1984 - Nov. 1989</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Degree in Political Science</b>

6. **Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	4	4	3

7. **Membership of professional bodies:**
8. **Other skills:**
9. **Present position:** Managing director, RBB Economics Italia (formerly: LEAR)  
*Advisor, Agenzia per il controllo e la qualità dei servizi pubblici locali del Comune di Roma*
10. **Years within the organisation:** 4
11. **Key qualifications:** Antitrust and public sector economist
12. **Specific Countries experience:** Italy, European Union, The Netherlands, Lithuania, Bulgaria
13. **Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1999-2003</b>
<i>Location:</i>	<b>Rome, Italy</b>
<i>Company:</i>	<b>RBB Economics (until march 2003: LEAR)</b>
<i>Position:</i>	<b>Founder and Managing Director</b>
<i>Description:</i>	<b>Consultancy firm which specializes in the fields of antitrust and regulation</b>

<i>Date: from (year) to (year):</i>	<b>1998-1999</b>
<i>Location:</i>	<b>Rome, Italy</b>
<i>Company:</i>	<b>Italian Competition Authority</b>
<i>Position:</i>	<b>Economist, Directorate of Law and Economic Studies</b>
<i>Description:</i>	<b>responsible for reviewing the economic analysis of all the cases before the Authority</b>

<i>Date: from (year) to (year):</i>	<b>1995-1998</b>
<i>Location:</i>	<b>Rome, Italy</b>
<i>Company:</i>	<b>Italian Competition Authority</b>
<i>Position:</i>	<b>Economist, Investigation Units</b>
<i>Description:</i>	<b>economic analysis of investigations in several economic sectors</b>

<i>Date: from (year) to (year):</i>	<b>1993-1994</b>
<i>Location:</i>	<b>Rome, Italy</b>
<i>Company:</i>	<b>Libera Università Internazionale degli Studi Sociali (LUISS)</b>
<i>Position:</i>	<b>Research and Teaching Assistant, Department of Economics</b>
<i>Description:</i>	

<i>Date: from (year) to (year):</i>	<b>1993-1994</b>
<i>Location:</i>	<b>Naples, Italy</b>
<i>Company:</i>	<b>FORMEZ</b>
<i>Position:</i>	<b>Assistant Professor</b>
<i>Description:</i>	<b>Teaching graduate courses in Microeconomics and Public Economics</b>

<i>Date: from (year) to (year):</i>	<b>1990-1992</b>
<i>Location:</i>	<b>Rome, Italy</b>
<i>Company:</i>	<b>Fondazione "G. Pastore"</b>
<i>Position:</i>	<b>Researcher</b>
<i>Description:</i>	

14. **Other Relevant Information:**

15. **Contact Address:**

Via del Banco di S. Spirito, 42  
 00186 Roma  
 tel. +39 06 68.300.530  
 fax +39 06 68.68.286  
 mobile +39 347 96.98.068  
 e-mail: paolo.buccirossi@rbbecon.it

## Rosita Carnevalini

### Proposed position in the project: Short Term Expert

1. **Family name:** Carnevalini
2. **First names:** Rosita
3. **Date of birth:** 09.09.1966
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	Scuola superiore Enrico Mattei, Milan, Italy
<i>Date:</i>	1996
<i>Degree(s) or Diploma(s) obtained:</i>	Master

<i>Institution:</i>	Università Commerciale L. Bocconi, Milan, Italy
<i>Date:</i>	1991
<i>Degree(s) or Diploma(s) obtained:</i>	Laurea in Economia Politica

6. **Language skills:** (increasing competence from 1 to 5)

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	5	4	4
French	3	2	2

7. **Membership of professional bodies:**
8. **Other skills:** Computer use
9. **Present position:** Funzionario I (Senior Administrator)
10. **Years within the organisation:** 6
11. **Key qualifications:** Gas economic regulation; Energy markets
12. **Specific Countries experience:**  
Italy, EU
13. **Professional Experience Record:**

<i>Date: from (year) to (year):</i>	2001-2003
<i>Location:</i>	Milan
<i>Company:</i>	Autorità per l'energia elettrica e il gas

<i>Position:</i>	Head of gas tariffs division
<i>Description:</i>	Coordinator of gas economic regulation

<i>Date: from (year) to (year):</i>	1997-2001
<i>Location:</i>	Milan
<i>Company:</i>	Autorità per l'energia elettrica e il gas
<i>Position:</i>	Principal Administrator
<i>Description:</i>	Gas economic regulation

<i>Date: from (year) to (year):</i>	1997-1993
<i>Location:</i>	Milan
<i>Company:</i>	Università Commerciale L. Bocconi
<i>Position:</i>	Senior researcher
<i>Description:</i>	Energy economics

<i>Date: from (year) to (year):</i>	1993-1991
<i>Location:</i>	Milan
<i>Company:</i>	Università Commerciale Luigi Bocconi
<i>Position:</i>	Researcher
<i>Description:</i>	Energy economics

## Alberto Cavaliere

### Proposed position in the project: SHORT TERM EXPERT

1. **Family name:** Cavaliere
2. **First names:** Alberto
3. **Date of birth:** June 27<sup>th</sup>, 1958
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	Università degli studi di Pavia- Pavia (Italy)
<i>Date:</i>	1992
<i>Degree(s) or Diploma(s) obtained:</i>	Ph. D. in Economics
<i>Institution:</i>	Université Catholique de Louvain Louvain-la-Neuve (Belgium)
<i>Date:</i>	1991
<i>Degree(s) or Diploma(s) obtained:</i>	Master of Arts in Economics
<i>Institution:</i>	Università degli Studi di Pavia
<i>Date:</i>	1983
<i>Degree(s) or Diploma(s) obtained:</i>	Laurea in Economia e Commercio

6. **Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	5	4	4
French	5	5	4

**7. Membership of professional bodies:**

Member of APET (Association for Public Economic Theory), Member of SIEP (Società Italiana di Economia Pubblica), Member of the Editorial Board of the Journal “Economia delle Fonti di Energia e dell’Ambiente”

**8. Other skills:** Referee of the following Journals: Environmental and Resource Economics, Journal of Public Economics, Politica Economica, Rivista di Scienza delle Finanze

**7. Present position:**

Full Professor of Public Economics, Faculty of Economics (Università di Pavia), Deputy Director of the Master of Integrated Environmental Management at IUSS (Istituto Universitario di Studi Superiori) – Pavia. Advisor, Autorità per l’energia elettrica e il gas.

**9. Years within the organisation: 8**

**10. Key qualifications:** Liberalisation of gas markets, Storage regulation (tariffs and access), **Competition** and regulation of wholesale and retail activities, Gas Hubs and spot markets.

**11. Specific Countries experience:** Visiting Professor at “Université de Lyon III”, since 1998; Visiting **Scholar** at: CERNA (Ecole des Mines de Paris), Department of Economics of University College London, Department of Applied Economics of Cambridge University (UK).

**12. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	1987-1995
<i>Location:</i>	San Donato Milanese (MI)- Italy
<i>Company:</i>	Scuola Superiore Enrico Mattei- ENI
<i>Position:</i>	Middle Manager
<i>Description:</i>	Supervision and Teaching in Post Graduate Course devoted to Environmental and Energy Economics

<i>Date: from (year) to (year):</i>	1984-1989
<i>Location:</i>	Milano
<i>Company:</i>	Iefe (Istituto di economia delle Fonti di energia)- Università Bocconi
<i>Position:</i>	Junior Research Fellow
<i>Description:</i>	Applied Research concerning the gas and oil industry

**13. Other Relevant Information:** Research expert at FEEM (Fondazione Eni Enrico Mattei) in Milan and at CEPS (Center for European Policy Studies) in Bruxelles.

**14. Contact Address:** Viale Vittorio Emanuele II, n. 11 PAVIA (Italy), + 39 0382 303562

## Guido Cervigni

### Proposed position in the project: SHORT TERM EXPERT

1. **Family name:** Cervigni
2. **First names:** Guido
3. **Date of birth:** 25 January 1969
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	<b>Bocconi University, Milan</b>
<i>Date:</i>	1994-1997
<i>Degree(s) or Diploma(s) obtained:</i>	Ph. D., Economics
<i>Institution:</i>	<b>Bocconi University, Milan</b>
<i>Date:</i>	1987-1993
<i>Degree(s) or Diploma(s) obtained:</i>	Degree, Economics and Social Science

6. **Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	4	4	4

7. **Membership of professional bodies:**
8. **Other skills:**
9. **Present position:** Head of market development and regulatory affairs at Worldenergy SA, Switzerland and Consultant
10. **Years within the organisation:** -
11. **Key qualifications:** Regulation economist
12. **Specific Countries experience:** Italy, EU, Switzerland
13. **Professional Experience Record:**

<i>Date: from (year) to (year):</i>	2001-2003
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<i>Location:</i>	Rome
<i>Company:</i>	<b>Gestore del Mercato Elettrico S.p.A.</b>
<i>Position:</i>	<b>Head of the Market Development Unit</b>
<i>Description:</i>	<b>Gestore del Mercato elettrico is the market operator of the Italian wholesale electricity market. The Head of the Market Development Unit reports to the CEO. The Market Development Unit develops GME's market design and market rules proposals.</b>

<i>Date: from (year) to (year):</i>	2000-2001
<i>Location:</i>	Milan
<i>Company:</i>	<b>Autorità per l'energia elettrica e il gas</b>
<i>Position:</i>	<b>Head of the Competition &amp; Markets Division of the Electricity Area</b>
<i>Description:</i>	<b>Development of the guidelines to the system operator, design of the market rules, allocation mechanism of cross-border transmission</b>

<i>Date: from (year) to (year):</i>	1997-2000
<i>Location:</i>	Milan
<i>Company:</i>	<b>Autorità per l'energia elettrica e il gas</b>
<i>Position:</i>	<b>Officer, Electricity Area</b>
<i>Description:</i>	<b>Economist in the Tariff Division</b>

<i>Date: from (year) to (year):</i>	1995-1997
<i>Location:</i>	Milan
<i>Company:</i>	<b>Bocconi University</b>
<i>Position:</i>	Lecturer and Researcher
<i>Description:</i>	<b>Academic activity on Network regulation, Energy economics, Property Rights and the Efficiency of the Economic System</b>

**14. Other Relevant Information:**

**15. Contact Address:**

Address: via R. Bonghi 12, 20141, Milan, Italian  
Phone: 3484077729, 0289516802  
E-mail: [guido.cervigni@uni.bocconi.it](mailto:guido.cervigni@uni.bocconi.it)



## Sylvie D'Apote

**Proposed position in the project:** SHORT TERM EXPERT

1. **Family names:** Lambert D'Apote
2. **First names:** Sylvie
3. **Date of birth:** 1966
4. **Nationality:** Italian/French
5. **Education:**

<i>Institution:</i>	ICCET, Imperial College, London
<i>Date:</i>	<b>1993-94</b>
<i>Degree(s) or Diploma(s) obtained:</i>	MSc in Environmental Technology (Energy Policy Option)
<i>Institution:</i>	<b>University "La Sapienza", Rome</b>
<i>Date:</i>	<b>1984-90</b>
<i>Degree(s) or Diploma(s) obtained:</i>	Degree in Economics and Statistics

6. **Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	5	5	5
French	Mother tongue	Mother tongue	Mother tongue
Spanish	5	5	3
Portuguese	5	4	2

7. **Membership of professional bodies:** International Association of Energy Economists.
8. **Other skills:** Extensive PC knowledge with experience of all MS Office software, including Word, Excel, Access, PowerPoint. Experience with database management and statistical and econometric packages (Eviews, TSP, SPSS, SAS).
9. **Present position:** Officer, Autorità per l'energia elettrica e il gas. In charge of the organisation of the World Forum on Energy Regulation.
10. **Years within the organisation:** 1
11. **Key qualifications:** Gas Regulation, Cross-border Gas Issues, Latin American Energy.
12. **Specific Countries experience:** United Kingdom, Continental Europe, Latin America.
13. **Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1999 - 2003</b>
<i>Location:</i>	<b>Paris</b>
<i>Company:</i>	<b>International Energy Agency (IEA/OECD)</b>
<i>Position:</i>	<b>Head of Latin American Programme</b>
<i>Description:</i>	<b>In charge of studies on, and institutional relations with, Latin American countries.</b>

<i>Date: from (year) to (year):</i>	<b>1997 – 1998</b>
<i>Location:</i>	<b>Paris</b>
<i>Company:</i>	<b>International Energy Agency (IEA/OECD)</b>
<i>Position:</i>	<b>Energy Economist</b>
<i>Description:</i>	<b>Responsible for analysing and forecasting energy use in non-OECD countries.</b>

<i>Date: from (year) to (year):</i>	<b>1994 – 1997</b>
<i>Location:</i>	<b>London</b>
<i>Company:</i>	<b>WEFA Energy Ltd</b>
<i>Position:</i>	<b>Energy Economist</b>
<i>Description:</i>	<b>Responsible for analysing and forecasting electricity and coal demand and supply trends worldwide, writing regular multi-client reports on electricity and coal and carrying out client specific consultancies.</b>

<i>Date: from (year) to (year):</i>	<b>1992 – 1993</b>
<i>Location:</i>	<b>Paris</b>
<i>Company:</i>	<b>OECD, Directorate for Science and Technology</b>
<i>Position:</i>	<b>Programme Assistant:</b>
<i>Description:</i>	<b>Organisation and management of several scientific research projects of the Road Transport Research Programme</b>

<i>Date: from (year) to (year):</i>	<b>1991 – 1992</b>
<i>Location:</i>	<b>Paris</b>
<i>Company:</i>	<b>OECD, Development Centre</b>
<i>Position:</i>	<b>Researcher</b>
<i>Description:</i>	<b>Research for, and compilation of, the <i>OECD Directory of Non-Governmental Environment and Development Organisations</i>. Organisation of Global NGO Conference <i>Roots of the Future</i> (Paris, December 1991).</b>

**14. Other Relevant Information:** Sole author of the IEA publication *South America Gas: Daring to Tap the Bounty* (IEA, 2003). Also made contributions to several other IEA and OECD publications.

**15. Contact Address:**

Address 1: 41 avenue Felix Faure, 75015 Paris, France  
Address 2: via Nomentana 251, 00161 Roma, Italy  
Tel (cell.): +39 329 978 1308

## Mauro Formaggio

### Proposed position in the project: Short Term Expert

**Family name:** Formaggio

**First names:** Mauro

**Date of birth:** 22.9.1950

**Nationality:** Italian

#### Education:

<i>Institution:</i>	Post-graduate school in Advanced Technologies, Sogesta, Urbino
<i>Date:</i>	1976
<i>Degree(s) or Diploma(s) obtained:</i>	Attestato

<i>Institution:</i>	Polytechnic of Turin, Italy
<i>Date:</i>	1974
<i>Degree(s) or Diploma(s) obtained:</i>	Laurea in Ingegneria Elettronica

#### Language skills: (increasing competence from 1 to 5)

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	4	4	4
German	2	2	2
French	4	4	4

#### Membership of professional bodies:

##### Other skills:

**Present position:** Funzionario I (Senior Administrator)

**Years within the organisation:** 4

**Key qualifications:** Operation and regulation of gas transmission and dispatching

##### Specific Countries experience:

##### Professional Experience Record:

<i>Date: from (year) to (year):</i>	1999 – 2003
<i>Location:</i>	Milan
<i>Company:</i>	Autorità per l'energia elettrica e il gas
<i>Position:</i>	Senior Administrator
<i>Description:</i>	Coordinator, Natural Gas Networks Division

<i>Date: from (year) to (year):</i>	1998
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<i>Location:</i>	San Donato Milanese
<i>Company:</i>	Snam
<i>Position:</i>	Coordinator
<i>Description:</i>	Telecommunications Services for Natural Gas Transmission

<i>Date: from (year) to (year):</i>	1993-1997
<i>Location:</i>	San Donato Milanese
<i>Company:</i>	Snam
<i>Position:</i>	Coordinator
<i>Description:</i>	Information Systems for Natural Gas Transmission

<i>Date: from (year) to (year):</i>	1981-1993
<i>Location:</i>	San Donato Milanese
<i>Company:</i>	Snam
<i>Position:</i>	Manager
<i>Description:</i>	Reliability and Optimization Systems for the Transmission of Natural Gas

<i>Date: from (year) to (year):</i>	1977-1981
<i>Location:</i>	San Donato Milanese
<i>Company:</i>	Snam
<i>Position:</i>	Expert
<i>Description:</i>	Analysis, Simulation and Optimization of Systems for Natural Gas Transmission

<i>Date: from (year) to (year):</i>	1974-1976
<i>Location:</i>	Vercelli
<i>Company:</i>	Cerutti Officine Meccaniche
<i>Position:</i>	Analyst
<i>Description:</i>	Production scheduling and control

## Sandro Furlan

### Proposed position in the project: Short Term Expert

1. **Family name:** Furlan
2. **First names:** Sandro
3. **Date of birth:** 26 March 1960
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	I.F.P. (French Petroleum Institute), ENSPM Paris
<i>Date:</i>	1996
<i>Degree(s) or Diploma(s) obtained:</i>	Ph. D. in Economics

<b><i>Institution:</i></b>	<b>I.F.P. (French Petroleum Institute), ENSPM Paris</b>
<b><i>Date:</i></b>	<b>1992</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Master in Energy Economics</b>

<b><i>Institution:</i></b>	<b>University of Trieste, Italy</b>
<b><i>Date:</i></b>	<b>1986</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Laurea in Scienze Politiche</b>

**6. Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>French</b>	<b>5</b>	<b>5</b>	<b>5</b>

**7. Membership of professional bodies:** International Association of Energy Economists

**8. Other skills:**

**9. Present position:** Scuola Superiore E.MATTEI-ENI, Milan. Responsible for Energy studies, Professor of Energy Economics, Responsible for relations with International Research Institutes and Universities.

**10. Years within the organisation:** 5

**11. Key qualifications:** Lecturer and Researcher of Energy Economics and Environmental Economics

**12. Specific Countries experience:** Italy, France, Romania, Switzerland, United States

**13. Professional Experience Record:**

<b><i>Date: from (year) to (year):</i></b>	<b>1997-2001</b>
<b><i>Location:</i></b>	<b>San Donato Milanese</b>
<b><i>Company:</i></b>	<b>Scuola Superiore E. Mattei</b>
<b><i>Position:</i></b>	<b>Professor and Responsible of Research</b>
<b><i>Description:</i></b>	<b>Energy Economics</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1992-1996</b>
<b><i>Location:</i></b>	<b>Paris</b>
<b><i>Company:</i></b>	<b>I.F.P. - ENSPM</b>
<b><i>Position:</i></b>	<b>Researcher and lecturer</b>
<b><i>Description:</i></b>	<b>Environmental valuation</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1989-1992</b>
<b><i>Location:</i></b>	<b>Trieste</b>
<b><i>Company:</i></b>	<b>Università degli Studi</b>
<b><i>Position:</i></b>	<b>Researcher / Lecturer</b>
<b><i>Description:</i></b>	<b>International Economics, Energy</b>

	<b>Economics</b>
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<b><i>Date: from (year) to (year):</i></b>	<b>1988-1989</b>
<b><i>Location:</i></b>	<b>Paris</b>
<b><i>Company:</i></b>	<b>OECD Development Centre</b>
<b><i>Position:</i></b>	<b>Consultant</b>
<b><i>Description:</i></b>	<b>Appropriate Technologies for developing countries</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1986-1988</b>
<b><i>Location:</i></b>	<b>Trieste</b>
<b><i>Company:</i></b>	<b>Università degli Studi</b>
<b><i>Position:</i></b>	<b>Researcher / Lecturer</b>
<b><i>Description:</i></b>	<b>Energy and Environmental Economics</b>

**14. Other Relevant Information:**

**Ilaria Galimberti**

**Proposed position in the project: Short Term Expert**

- 1. Family name:** Galimberti
- 2. First names:** Ilaria
- 3. Date of birth:** 22 April 1959
- 4. Nationality:** Italian
- 5. Education:**

<b><i>Institution:</i></b>	<b>Università Bocconi Milan</b>
<b><i>Date:</i></b>	<b>1978-1995</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Degree in Social and Economic Disciplines</b>

<b><i>Institution:</i></b>	<b>S.P.R.U. Science Policy Research Unit University of Sussex</b>
<b><i>Date:</i></b>	<b>1987-1993</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>PhD in Science policy</b>

**6. Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>4</b>
<b>French</b>	<b>5</b>	<b>4</b>	<b>3</b>

**7. Membership of professional bodies:**

**8. Other skills:** Full computer literacy

**9. Present position: Officer, External affairs (since 2001), Research and documentation dept (1997- 2001)**

**10. Years within the organisation: 5**

**11. Key qualifications:** International relations (Phare Projects and CEER), Institutional communication, Annual Report, Development of web based communication, Public hearings organisation. Main features of energy market liberalisation. Electricity market institutions.

**12. Specific Countries experience:** Phare Twinning Project (CZ2000/IB/EY/01) Czech Republic Strengthening Regulation and Enforcement of Energy Acquis

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1994-1997</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>SSI -Studio Ambrosetti srl</b>
<i>Position:</i>	<b>Manager</b>
<i>Description:</i>	<b>Publishing and editing of international economic and social surveys and scenario for national economic operators</b>

<i>Date: from (year) to (year):</i>	<b>1985-1994</b>
<i>Location:</i>	<b>Milan-Rome-Florence- Brighton</b>
<i>Company:</i>	<b>I.R.S. (Milan) E.N.E.A. (Rome) S.P.R.U. -University of Brighton (UK) IRPET (Florence)</b>
<i>Position:</i>	<b>Research assistant in economic research projects</b>
<i>Description:</i>	<b>Participation and co-ordination of different research projects on issues related to:</b> <ul style="list-style-type: none"><li>- <b>Industrial economics and UE integration</b></li><li>- <b>International economics and Italian competitiveness</b></li><li>- <b>Economics of technological innovation</b></li></ul>

**14. Other Relevant Information:**

**Luca Lo Schiavo**

**Proposed position in the project: Short Term Expert**

1. **Family name:** Lo Schiavo
2. **Forename:** Luca
3. **Date of birth:** 26 August 1961
4. **Nationality:** Italian
5. **Education:**

<i>Institution</i>	<b>Politecnico, Milan, Italy</b>
<i>Date</i>	<b>1986</b>
<i>Degree(s) or Diploma(s) obtained</i>	<b>Degree in Engineering of Industrial Technologies, Specialisation in Management engineering</b>

<i>Institution</i>	<b>Istituto studi superiori di amministrazione pubblica, Lausanne, CH</b>
<i>Date</i>	<b>1999</b>
<i>Degree(s) or Diploma(s) obtained</i>	<b>Specialization in Comparative Public Policies</b>

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>mother tongue</b>	<b>mother tongue</b>	<b>mother tongue</b>
<b>English</b>	<b>4</b>	<b>4</b>	<b>3</b>
<b>French</b>	<b>4</b>	<b>3</b>	<b>2</b>

**7. Membership of professional bodies:** Member of the Italian association for Evaluation (AIV) and Italian Association for quality culture (AICQ)

**8. Other skills:** Complete computer literacy

**9. Present position:** Vice-director of Consumer and Service Quality Division, Autorità per l'energia elettrica e il gas

**10. Years within the organization:** 7

**11. Key qualifications:** In charge of the regulation of quality of the electricity service and from 1999 to 2001 Assistant to the President for Internal Organization and Planning

**12. Specific Countries experience:**

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1994 -1997</b>
<i>Location:</i>	<b>Rome</b>
<i>Company:</i>	<b>Public Function Department</b>
<i>Position:</i>	<b>Consultant</b>
<i>Description:</i>	<b>In charge of the direction of the Programme "100 projects for the</b>



	<b>citizens" with particular attention to the area of education, justice and culture</b>
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<b>Date: from (year) to (year):</b>	<b>1995- 1997</b>
<b>Location:</b>	<b>Rome</b>
<b>Company:</b>	<b>Health Ministry</b>
<b>Position:</b>	<b>Consultant</b>
<b>Description:</b>	<b>Definition of the Citizen's Charter for the Health sector</b>

<b>Date: from (year) to (year):</b>	<b>1986 -1993</b>
<b>Location:</b>	<b>Milan</b>
<b>Company:</b>	<b>Different consultant agencies</b>
<b>Position:</b>	<b>Consultant</b>
<b>Description:</b>	<b>Consultant activity in the area of organization, quality control, innovation and project management</b>

#### **14. Other Relevant Information**

Participation into institutional working groups organized by the Dept. of Public Function on issue related to quality standards and public services, drafting of the discipline of Citizen's Charters

Participation to international seminars on issues related to the change of the PA and the regulation of quality standards

Research activity on issues related to Quality of service and evaluation of the efficiency of the public sector

*Publications and other activities*

- L. Lo Schiavo, S. Ramponi, Fornitura dell'energia elettrica: regolazione della continuità del servizio, *Automazione e strumentazione*, luglio-agosto, n. 7, anno L, 2002
- L. Lo Schiavo, Valutazione e qualità, in: AA.VV. Valutazione 2001, Franco Angeli, 2002
- L. Lo Schiavo, La qualità nel settore pubblico, in: T. Conti, P. De Risi (a cura di), Manuale di qualità, Milano: Il Sole 24 ore, 2001
- L. Lo Schiavo, A. Montebugnoli, Sviluppare la Carta dei servizi sociali, *Prospettive sociali e sanitarie*, n. 3, 2001
- L. Lo Schiavo, Quality standards in the public sector, *Public Administration*, n.3, 2000
- L. Lo Schiavo, Le misure di qualità e la customer satisfaction, in: B. Dente e G. Azzone (a cura di), Valutare per governare, Milano: Etas, 1999
- B. Dente, L. Lo Schiavo, Politiche pubbliche e change management, *Studi organizzativi*, n.2, 1999
- L. Lo Schiavo, Valutazione e qualità dei servizi pubblici, in: N. Pasini (a cura di), Le Carte dei servizi, Milano: Franco Angeli, 1999
- L. Lo Schiavo, La Carta dei servizi ha funzionato in Italia?, *Consumatori, diritti, mercato*, n. 3, 1998
- L. Lo Schiavo, Reinventare i progetti pilota:una proposta, *Queste istituzioni*, n. 1, 1998

- L. Lo Schiavo, Un'agenzia per la promozione e la valutazione della qualità nel SSN, *Prospettive sociali e sanitarie*, n. 6, 1998
- L. Lo Schiavo, Cambiamenti del rapporto centro-periferia, in: O. De Leonardis, L. Bifulco (a cura di), *L'innovazione difficile*, Milano: Franco Angeli, Milano 1997
- L. Lo Schiavo, La Carta dei servizi nel cestino dei rifiuti?, *Rivista trimestrale di scienza dell'amministrazione*, n. 2, 1997
- L. Lo Schiavo, I cittadini e la soddisfazione per i servizi pubblici, *Micro & Macro Marketing*, n.1, 1997
- L. Lo Schiavo, Standard di qualità e Carta dei Servizi, *Prospettive sociali e sanitarie*, n. 1, 1997
- M. Tomassini, L. Lo Schiavo, Formazione e diffusione di casi esemplari, *Formazione domani*, n.23-24, 1996
- L. Lo Schiavo, Il processo di riforma dei servizi pubblici: diritto, tutela e partecipazione, in De Ambrogio, Setti Bassanini (a cura di), *Tutela dei cittadini e qualità dei servizi*, Milano: Franco Angeli, 1996
- F. Bucarelli, L. Lo Schiavo, Per una pubblica amministrazione che funzioni meglio e costi meno, *L'impresa*, n.7, 1995

## Roberto Malaman

**Proposed position in the project:** Short Term Expert

1. **Family name:** Malaman
2. **First names:** Roberto
3. **Date of birth:** 21 April 1958
4. **Nationality:** Italian
5. **Education:**

<b><i>Institution:</i></b>	<b>University of Sussex, U.K.</b>
<b><i>Date:</i></b>	<b>1988</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Visiting fellow</b>

<b><i>Institution:</i></b>	<b>University of Milan, Italy</b>
<b><i>Date:</i></b>	<b>1984</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Laurea in Economia e Commercio</b>

### 6. Language skills: (increasing competence from 1 to 5)

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>French</b>	<b>3</b>	<b>1</b>	<b>1</b>

7. **Membership of professional bodies:** Autorità per l'energia elettrica e il gas

8. **Other skills:** invited expert to the Expert Group Meeting on financial issues of Agenda 21, United Nations Commission for Sustainable Development and member

of the Italian representation to the UN-CSD ad-hoc working group on consumption and production patterns

**9. Present position:** Director

**10. Years within the organisation:** 5

**11. Key qualifications:** Environmental economics and policy, Consumer Affairs.

**12. Specific Countries experience:** Italy, EU

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1995-2002</b>
<i>Location:</i>	<b>Castellanza</b>
<i>Company:</i>	<b>Libero Istituto Universitario C. Cattaneo</b>
<i>Position:</i>	<b>Lecturer</b>
<i>Description:</i>	<b>Environmental Economics</b>

<i>Date: from (year) to (year):</i>	<b>1991-1997</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Fondazione Eni Enrico Mattei</b>
<i>Position:</i>	<b>Program Officer</b>
<i>Description:</i>	<b>Environmental Economics and Policy</b>

<i>Date: from (year) to (year):</i>	<b>1992-1997</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>IRS - Istituto per la Ricerca Sociale</b>
<i>Position:</i>	<b>Research Director</b>
<i>Description:</i>	<b>Environment and technological innovation</b>

<i>Date: from (year) to (year):</i>	<b>1984-1992</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>IRS - Istituto per la Ricerca Sociale</b>
<i>Position:</i>	<b>Researcher / Lecturer</b>
<i>Description:</i>	<b>Industry, environment and technological innovation</b>

**14. Other Relevant Information:**

**Maria Rita Mazzanti**

**Proposed position in the project: Short Term Expert**

- 1. Family name:** Mazzanti
- 2. Forenames:** Maria Rita
- 3. Date of birth:** 27 September 1962
- 4. Nationality:** Italian
- 5. Education:**

<b><i>Institution:</i></b>	<b>King's College, London</b>
<b><i>Date:</i></b>	<b>1993</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>LLM in European Community Law</b>

<b><i>Institution:</i></b>	<b>Università degli Studi di Roma "La Sapienza"</b>
<b><i>Date:</i></b>	<b>1986</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Law Degree</b>

**6. Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b><i>English</i></b>	<b>5</b>	<b>5</b>	<b>5</b>
<b><i>German</i></b>	<b>5</b>	<b>5</b>	<b>5</b>
<b><i>French</i></b>	<b>5</b>	<b>4</b>	<b>4</b>

**7. Membership of professional bodies:** The Regulatory Authority for Electricity and Gas and Acquirente Unico Spa

**8. Other skills: Computer programmes:** Word, Excel, Power Point, Access

**9. Present position:** Legal Consultant – energy sector

**10. Years within the organisation:** 3

**11. Key qualifications:** Legal aspects of energy markets and nuclear power. Transition economies. Regulatory Authority: work related to the Authority's activities in the field of research and documentation. Acquirente Acquirente Unico Spa, Corporate strategies division: in charge of the organization of two Conferences on Energy related topic (liberalisation and protection of consumers).

Participated in MEDA Project – Restructuring of Energy Companies (MEDA-REC) Training Programme for Energy Companies, Saint Raphael, December 2002.

**12. Specific Countries experience:** Vienna

**13. Professional Experience Record:**

<b><i>Date: from (year) to (year)</i></b>	<b>1998 –2000</b>
<b><i>Location</i></b>	<b>Milan, Italy</b>
<b><i>Company</i></b>	<b>Italian Regulatory Authority for Electricity and Gas</b>
<b><i>Position</i></b>	<b>Legal Advisor</b>
<b><i>Description</i></b>	<b>Legal work related to the Authority's activities in the field of electricity.</b>

<b><i>Date: from (year) to (year)</i></b>	<b>1993-1998</b>
<b><i>Location</i></b>	<b>Rome, Italy</b>
<b><i>Company</i></b>	<b>ENEL Spa</b>
<b><i>Position</i></b>	<b>Legal</b>

<b>Description</b>	<b>In charge of following International and EU development in the field of electricity (Internal Electricity Market, Energy Charter Treaty, TACIS and PHARE programmes), environment and competition. Participated in TACIS project ETA 9401-Advice to the Government and Preparation of a strategy Plan for Energy (Tadjikistan, September 1996)</b>
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<b>Date: from (year) to (year)</b>	<b>1989 - 1991 (Legal Division) 1989 - 1990 (Technical Co-operation Section)</b>
<b>Location</b>	<b>Vienna</b>
<b>Company</b>	<b>International Atomic Energy Agency</b>
<b>Position</b>	<b>JPO</b>
<b>Description</b>	<b>Collaborated in the elaboration of preparatory work for the Standing Committee for nuclear damage and the Revision of the Vienna Convention, drafted legal opinions on matters related to the Agency's mandate and internal regulations and rules; assisted at the meetings of the Board of Governors and General Conference and prepared drafts of the meetings. Assisted in the preparation and organization of the 'Regional Training Course on Nuclear Law and Safety Regulations in African Countries' (Nairobi 4-15 March 1991)</b>

<b>Date: from (year) to (year)</b>	<b>1988 - 1989</b>
<b>Location</b>	<b>Rome, Italy</b>
<b>Company</b>	<b>Studio Legale Valentini</b>
<b>Position</b>	<b>Procuratore legale</b>
<b>Description</b>	<b>Legal practice</b>

<b>Date: from (year) to (year)</b>	<b>1987 - 1988</b>
<b>Location</b>	<b>Rome, Italy</b>
<b>Company</b>	<b>International Law Development Institute IDLI</b>
<b>Position</b>	<b>Course Assistant</b>
<b>Description</b>	<b>Assisted in the preparation and realization of three courses</b>

#### 14. Other Relevant Information

Extensive travel in Europe, the USA and the Middle East. Lived in the United States (Los Angeles, California), in Saudi Arabia (Riyadh), in Austria (Vienna) and in the UK (London).

September 1996: Tadjikistan (TACIS project ETA 9401-Advice to the Government and Preparation of a strategy Plan for Energy)

March 1991: Nairobi (IAEA Regional Training Course on Nuclear Law and Safety Regulations in African Countries)

#### Publications

"Il Trattato della Carta Europea dell'Energia" (Energy Charter Treaty), Rassegna Giuridica dell'Energia Elettrica, anno XII N.4 Ottobre-Dicembre 1995

"Le Convenzioni Internazionali sulla Responsabilità Civile per Danni Nucleari", Rassegna Giuridica dell'Energia Elettrica, Anno IX N.4 Ottobre-Dicembre 92, Giuffrè Ed. Milano;

"Legal Aspects of Decommissioning in Italy", Stillegung und Beseitigung kerntechnischer Anlagen, Tagungsbericht der AIDN/INLA Regionaltagung 2-3 Juli 92, Nomos Verlagsgesellschaft, Baden-Baden;

"Research Paper n. 30 - Nuclear Safety", Agenda 21 and the UNCED Proceedings, Oceana Publications, Inc. New York, London, Rome.

## Ivana Paniccia

### Proposed position in the project: Short Term Expert

1. **Family name:** Paniccia
2. **First names:** Ivana
3. **Date of birth:** 2 December 1963
4. **Nationality:** Italian
5. **Education:**

<b><i>Institution:</i></b>	<b>University of Rome Luiss, Italy</b>
<b><i>Date:</i></b>	<b>1988</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Degree in Economics (summa)</b>

<b><i>Institution</i></b>	<b>2<sup>nd</sup> University of Rome "Tor Vergata"</b>
<b><i>Date:</i></b>	<b>1988</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Master in "Economics and Institutions"</b>

<b><i>Institution</i></b>	<b>University of Reading (UK)</b>
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<i>Date:</i>	<b>1999</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>PhD in Economics</b>

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<i>Italian</i>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<i>English</i>	<b>5</b>	<b>5</b>	<b>5</b>
<i>French</i>	<b>3</b>	<b>3</b>	<b>3</b>
<i>German</i>	<b>2</b>	<b>1</b>	<b>2</b>

**7. Membership of professional bodies:**

**8. Other skills:** Computer literacy (statistics, econometrics and data treatment software (Eviews, Spad), Windows, Word, Excel, Internet and e-mail)

**9. Present position:** Head of Studies and Economic Analysis, Agenzia per il controllo e la qualità dei servizi pubblici locali del Comune di Roma

**10 Years within the organization:** 1

**11. Key qualifications:** Industrial economics, Market regulation, Liberalization of the energy market, Pool market for electricity, Monitoring of the energy market, Tariff structure

**12. Specific Countries experience:**

**13. Professional Experience Record:**

<i>Date:</i>	<b>1997 – 2002</b>
<i>Location</i>	<b>Milan</b>
<i>Company</i>	<b>Regulatory Authority for Electricity and Gas</b>
<i>Position</i>	<b>Head of the Office of Analysis and Strategies, Research Service</b>
<i>Description</i>	<b>Coordination of the research activity on the impact of regulation and liberalization of the energy market. Analysis of the evolution of the structure and of the level of competition of the energy market in Italy and Europe. Monitoring of the implementation of the EU directives in the European countries. International comparison of the level, structure and evolution of final prices of electricity and gas. Analysis of the models and of the performances of the pool markets for electricity adopted in the liberalised systems. Drafting of regulation for the electricity market. Restructuring of the statistic monitoring system of the energy market.</b>

<i>Date:</i>	<b>1988 – 1997</b>
<i>Location</i>	<b>Rome</b>
<i>Company</i>	<b>L.U.I.S.S. – Independent University for Social Studies</b>
<i>Position</i>	<b>Assistant Professor of Industrial Economics and Researcher</b>
<i>Description</i>	<b>Coordinator in the Industrial and Financial Research Group.</b>

**14. Other Relevant Information:**

**Publications:** *Industrial Districts: Evolution and Competitiveness in Italian Firms*, Edward Elgar Publishing, Cheltenham, forthcoming.

*Confronti internazionali di prezzo dell'energia elettrica* (International Comparison of Prices of Electric Energy), Autorità per l'Energia Elettrica e il Gas – Quaderni di ricerca, 1999.

*The Performance of Industrial Districts*, Human System Management nr. 18, 1999

*One, a Hundred, Thousands Industrial Districts. Organizational Variety in Local Networks of Small and Medium Enterprises*, Organization Studies nr. 19/4, 1998.

*Technological change and vertical integration: Analysis of international vertical integration in multinational companies*, with John Cantwell, in The Changing Boundaries of the Firm, Routledge, 1998.

*I rapporti tra grandi imprese multinazionali e piccole e medie imprese in Italia* (The Relationship between Multinational Enterprises and Italian Small and Medium Enterprises), Business International – Quaderni di ricerca, 1996.

*Concorrenza e regolamentazione nell'industria elettrica inglese* (Competition and Regulation in the English Electric Industry), with F. A. Grassini, in La privatizzazione dell'industria elettrica in Inghilterra e Galles (The Privatization of the Electric Industry in England and Wales), Il Mulino, Bologna, 1995.

*La politica di promozione degli investimenti esteri nel Regno Unito. Obiettivi, strumenti e organizzazione* (The Promotion of Foreign Investments in the United Kingdom. Objectives, Instruments, Organization), Business International, Quaderni di ricerca, 1994.

## Marcella Pavan

### Proposed position in the project: Short term expert

1. **Family name:** Pavan
2. **First names:** Marcella
3. **Date of birth:** 22 July 1964
4. **Nationality:** Italian
5. **Education:**

<b><i>Institution:</i></b>	<b>University College of London</b>
<b><i>Date:</i></b>	<b>1991</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Master of Science in Environmental Economics</b>

<b><i>Institution:</i></b>	<b>Bocconi University, Milan</b>
<b><i>Date:</i></b>	<b>1989</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Degree (<i>Laurea</i>) in Economic and Social Sciences</b>

6. **Language skills: (increasing competence from 1 to 5)**



<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>4</b>	<b>4</b>

**7. Membership of professional bodies:** The Regulatory Authority for Electricity and Gas

**8. Other skills:** Computer skills

**9. Present position:** Head of the Energy Efficiency Division

**10. Years within the organisation:** 5

**11. Key qualifications:** Current working areas include: policy instruments to promote energy efficiency and energy savings in end use sectors; evaluation issues and approaches for energy savings; tariff regulation in the electricity and natural gas sector and environmental issues; policy instruments to promote renewable generation and consumption (e.g. green certificates, green prices, feed-in tariffs); climate change policy issues and tools (e.g.: tradable emission permits, Joint Implementation, Clean Development Mechanism).

In the past has worked extensively also on externalities and environmental damage evaluation, and environmental taxation.

**12. Specific Countries experience:**

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1996-1998</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Fondazione Eni Enrico Mattei</b>
<i>Position:</i>	<b>Coordinator of international research projects and relations</b>
<i>Description:</i>	<b>Scientific Coordinator of project proposals to the European Commission (Fourth and Fifth Framework Programme), the OECD, the World Bank, the European Science Foundation, including research projects, research networks, training of researchers on energy, economic and environmental issues (e.g. Joule Programme, Environment and Climate, Human Capital and Mobility , Targeted Socio-Economic Research, Training and Mobility of Researchers) Participation to Expert Groups and Steering Committees of the European Commission, the OECD, the UNEP</b>

<i>Date: from (year) to</i>	<b>1995-1997</b>
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<i>(year):</i>	
<i>Location:</i>	Venice
<i>Company:</i>	Fondazione Eni Enrico Mattei
<i>Position:</i>	Office Manager and Research Coordinator
<i>Description:</i>	Coordinator of the project "Venice 21: a consensus-building approach to the management of environmental conflicts" in collaboration with the University of Venice, the local Administration and the International Council for Local Environmental Initiatives; budget administration human resources development

**14. Other Relevant Information:** **Training activity:** courses, seminars and tutorship in environmental and natural resources economics in a number of Italian and foreign universities (University of Turin, Bocconi University of Milan, John Hopkins University of Bologna, University College of London)

**Past and current expert evaluator of project proposals** for the European Commission (Fourth, Fifth and Sixth Framework Programme) and the OECD; Regular speaker at national and international **conferences and workshops**; Several **publications** in Italian and English in the field of energy and environmental economics and policy.

## Ignacio Pérez Arriaga

**Proposed position in the project: Short Term Expert**

1. **Family name:** Pérez Arriaga
2. **First names:** Ignacio J.
3. **Date of birth:** 23 June, 1948
4. **Nationality:** Spanish
5. **Education:**

<i>Institution:</i>	Universidad Politécnica de Madrid
<i>Date:</i>	June 1982
<i>Degree(s) or Diploma(s) obtained:</i>	Ph. D. in Industrial Engineering

<i>Institution:</i>	Massachusetts Institute of Technology (MIT), USA
<i>Date:</i>	June 1981
<i>Degree(s) or Diploma(s) obtained:</i>	Ph. D. in Electrical

<b><i>Institution:</i></b>	<b>Massachusetts Institute of Technology (MIT)</b>
<b><i>Date:</i></b>	<b>June, 1978</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Master of Science in Electrical Engineering</b>

<b><i>Institution:</i></b>	<b>Instituto Católico de Artes e Industrias (I.C.A.I.), Universidad Pontificia Comillas, Madrid</b>
<b><i>Date:</i></b>	<b>June 1970</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Electrical Engineer</b>

**6. Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Spanish</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>French</b>	<b>4</b>	<b>5</b>	<b>4</b>

**7. Membership of professional bodies:** Member of the Professional Association of ICAI Engineers; Fellow Member of IEEE (Institute of Electrical and Electronic Engineers); Member of Sigma Xi (Scientific Research Society of North America); Member of CIGRE (Conferencia Internacional de Grandes Redes Eléctricas); Corporate Member of IEE (The Institution of Electrical Engineers).

**8. Other skills:** Elected student representative of the class of 1970, School of Engineering, ICAI, Comillas University; Elected member of the Board of Directors of the Association of Engineers of the ICAI Engineering School (1972-74); Elected representative in the Faculty School Committee (1973-75); Member of the International Committees of the following international conferences: International Congress on Intelligent Systems Applications to Power Systems, Stockholm (Aug. 1988), Seattle (July 1989), Tokyo (May 1991), Melbourne (Jan. 1993), Orlando (Jan. 1996); International Demonstration of Expert systems in the Electric Industry, Montreal, May 1989;

IASTED Conference on High Technology for the Electric Power Industry, Valencia, Spain, July 1989. System Control, Operation and Management, Hong-Kong, Nov. 1991, Nov. 1993;

APSCOM-91, 93, International Conference on Advances in Power Systems Control, Operation and Management, Hong-Kong, Nov. 91, 93;

Stockholm Power Tech, (IEEE sponsored) International Symposium on Electric Power Engineering, June 18-22, 1995;

4th Spanish-Portuguese Power Meeting, Porto (Portugal), July 1995;

12th Power Systems Computation Conference (PSCC), Dresden (Germany), August 1996

Member of the Council of the Power Systems Computation Conference, July 1999 – Present.

Appointed member of the following working groups of IEEE: Working Group on Artificial Intelligence Applications;

Working Group on Systems Oscillations;

Subcommittee on International Practices, Energy Development and Power Generation Committee; Appointed by IEEE as liaison officer between the "Computer and Analytical Methods Subcommittee" and the Task Force on "Power System Engineering Aspects of Transmission Access and Non Utility Generation"; Appointed member of the IEE Professional Group P9: Power System Operation and Planning (only non UK member in the Group), 1994-1997; Founder and first President of the IEEE Spanish Chapter Power Engineering Society, 1994-1995; Appointed member of the Executive Committee of the Power Systems Computation Conference (PSCC).

**9. Present position:** Professor Electrical Engineering

**10. Years within the organisation:** 3

**11. Key qualifications:** He has been the principal investigator of more than thirty research projects, consultant in more than 15 countries and has taught courses and given lectures as invited speaker in more than 100 international meetings, and he has published more than 100 papers in journals and conference proceedings, most of them international ones, in the following areas: Electricity economics and regulation; Transmission regulation: investment, access and pricing; Modeling, analysis and optimization of the operation and planning of large generation, transmission and distribution electric energy systems; Modeling, stability analysis and control of large dynamic systems. Techniques for model order reduction. Applications to large electric networks; Reliability engineering of generation, transmission and distribution systems; Computer-aided optimal design of electric machinery; Development of expert systems for incipient fault diagnosis of complex industrial systems. Applications to thermal power plants. Optimization of maintenance strategies;

**12. Specific Countries experience:**

**13. Professional Experience Record:**

<b><i>Date: from (year) to (year):</i></b>	<b>1995-2000</b>
<b><i>Location:</i></b>	<b>Madrid</b>
<b><i>Company:</i></b>	<b>Spanish National Electric Regulatory Commission</b>
<b><i>Position:</i></b>	<b>Commissioner</b>
<b><i>Description:</i></b>	<b>Commissioner at the Comisión Nacional del Sistema Eléctrico</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1994-1995</b>
<b><i>Location:</i></b>	<b>Madrid</b>
<b><i>Company:</i></b>	<b>Universidad Pontificia Comillas</b>
<b><i>Position:</i></b>	<b>Vice-Rector</b>
<b><i>Description:</i></b>	<b>Vice-Rector for Research and Doctoral Programs</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1984-1994</b>
<b><i>Location:</i></b>	<b>Madrid</b>
<b><i>Company:</i></b>	<b>Universidad Pontificia Comillas</b>
<b><i>Position:</i></b>	<b>Professor</b>
<b><i>Description:</i></b>	<b>Full Professor of Electrical Engineering. Founder and Director of the INSTITUTO DE INVESTIGACION TECNOLOGICA (IIT)</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1986 - 1990</b>
<b><i>Location:</i></b>	<b>Madrid</b>
<b><i>Company:</i></b>	<b>School of Engineering of the Madrid Polytechnic University</b>
<b><i>Position:</i></b>	<b>Assistant Professor</b>
<b><i>Description:</i></b>	<b>Tenured assistant professor. Graduate course on "Reliability of Electric Power Systems".</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1988 - 1989</b>
<b><i>Location:</i></b>	<b>Massachusetts</b>
<b><i>Company:</i></b>	<b>Massachusetts Institute of Technology</b>
<b><i>Position:</i></b>	<b>Visiting Professor</b>
<b><i>Description:</i></b>	<b>Visiting Professor, Laboratory for Electromagnetic and Electronic Systems. Graduate course on "Planning, operation and control of electric power systems".</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1981 - 1984</b>
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<b><i>Location:</i></b>	<b>Madrid</b>
<b><i>Company:</i></b>	<b>Instituto Tecnológico de Postgraduados (ITP)</b>
<b><i>Position:</i></b>	<b>Director of Research Programs</b>
<b><i>Description:</i></b>	<b>Director of Research Programs in the Energy Division on the same aforementioned topics.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1975 - 1981</b>
<b><i>Location:</i></b>	<b>Spanish</b>
<b><i>Company:</i></b>	<b>Electric Power Systems Engineering Laboratory, MIT</b>
<b><i>Position:</i></b>	<b>Graduate student</b>
<b><i>Description:</i></b>	<b>Occasional collaborations with ITP in the identification of research programs for the Spanish electricity industry.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1970 - 1975</b>
<b><i>Location:</i></b>	<b>Madrid</b>
<b><i>Company:</i></b>	<b>Electrical Engineering School, Comillas University.</b>
<b><i>Position:</i></b>	<b>Lecturer</b>
<b><i>Description:</i></b>	<b>Courses in Physics and Electromagnetic Theory</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1970 - 1972</b>
<b><i>Location:</i></b>	<b>Madrid</b>
<b><i>Company:</i></b>	<b>Electrical Engineering School, Comillas University.</b>
<b><i>Position:</i></b>	<b>Lecturer and Undergraduate Officer</b>
<b><i>Description:</i></b>	<b>Lecturer and Undergraduate Officer of the Engineering School, ICAI, Comillas University</b>

#### 14. Other Relevant Information:

### Giuliana Rotta

**Proposed position in the project:** SHORT TERM EXPERT

1. **Family name:** Rotta
2. **First names:** Giuliana
3. **Date of birth:** 11-07-1975
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	Università L. Bocconi – Milan
<i>Date:</i>	1994 - 1999
<i>Degree(s) or Diploma(s) obtained:</i>	Degree in Economics

6. **Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	4	3	3
German	3	3	3

7. **Membership of professional bodies:**
8. **Other skills:** MS Office - advanced
9. **Present position:** Officer, Gas Area
10. **Years within the organisation:** 2
11. **Key qualifications:** Tariffs regulation, balance sheets and cash flow analysis
12. **Specific Countries experience:**
13. **Professional Experience Record:**

<i>Date: from (year) to (year):</i>	2000 – 2001
<i>Location:</i>	Milan
<i>Company:</i>	Bain & Company
<i>Position:</i>	Consultant

<i>Description:</i>	Merger and acquisition operations, company assessment and valuation and statement of due diligence
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<i>Date: from (year) to (year):</i>	1999
<i>Location:</i>	Milan
<i>Company:</i>	Crédit Commercial de France
<i>Position:</i>	Auditing
<i>Description:</i>	Auditing of balance sheets and implementation of internal accounting control system

#### 14. Other Relevant Information:

### Vincenzo Cioffo

#### Proposed position in the project: Short Term Expert

1. **Family name:** Cioffo
2. **First names:** Vincenzo
3. **Date of birth:** 27 September 1965
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	University of Brescia
<i>Date:</i>	1995
<i>Degree(s) or Diploma(s) obtained:</i>	Postgraduate studies in Law

<i>Institution:</i>	University of Brescia
<i>Date:</i>	1991
<i>Degree(s) or Diploma(s) obtained:</i>	Laurea in Economia

#### 6. Language skills: (increasing competence from 1 to 5)

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
Italian	Mother tongue	Mother tongue	Mother tongue
English	5	4	4
German	2	2	2
French	3	1	1



7. **Membership of professional bodies:** The Regulatory Authority for Electricity and Gas
8. **Other skills:**
9. **Present position:** Funzionario (Administrator)
10. **Years within the organisation:** 5
11. **Key qualifications:** Legal aspects of gas regulation; Legal adviser of the Director General(2002-2003); Legislative and Legal Service (1998-2002)
12. **Specific Countries experience:**
13. **Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1993-1998</b>
<i>Location:</i>	<b>Rovato (BS)</b>
<i>Company:</i>	<b>Cogeme Spa</b>
<i>Position:</i>	<b>Legal Officer</b>
<i>Description:</i>	

**14. Other Relevant Information:**

**Stefano Ramponi**

**Proposed position in the project: Short term expert**

1. **Family name:** Stefano
2. **First names:** Ramponi
3. **Date of birth:** 1 October 1965
4. **Nationality:** Italian
5. **Education:**

<i>Institution:</i>	<b>Padua University</b>
<i>Date:</i>	<b>1992</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Degree in Electrical Engineering</b>

<i>Institution:</i>	<b>Politecnico of Milano</b>
<i>Date:</i>	
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Master's Degree in Industrial Organisation and Management cum laude. Thesis: "Free energy market analysis and feasibility studies for a new trading company".</b>

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>German</b>	<b>4</b>	<b>4</b>	<b>4</b>

**7 . Membership of professional bodies:** The Regulatory Authority for Electricity and Gas

**8. Other skills: Computer skills:** *Extensive use of* Windows, Word, Excel, PowerPoint; Enel Spa: Stage in Firenze, courses on technical, computer, and organization improvement. Speaker in several conferences for AEI (Italian Electronic and Electrical Association) and other sectorial organizations.

**9. Present position:** Manager for electric quality service of the control and inspection department

**10. Years within the organisation:**

**11. Key qualifications:** Inspection of the distributor operations for the compliance with the technical and commercial quality standards for electricity transmission and distribution stated by the Italian authority; inspection of the electric generators operations to check the compliance of cogeneration and renewables power plants with the national incentive price system; inspection of the gas distributors operations to check the compliance with national tariff system; co-operation with the National Custom officers to manage and control the electrical and gas distributors tariff implementation to the non eligible clients;

**12. Specific Countries experience:**

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1997-1998</b>
<i>Location:</i>	<b>Milan</b>
<i>Company:</i>	<b>Enel</b>
<i>Position:</i>	<b>Manager</b>
<i>Description:</i>	<b>Whit 68 employees, assigned to coordinate the following operations: management of Lombardia area operations centre and monitoring of the high and medium voltage network according to the telecontrol system procedures; management of relations with the Italian independent transmission system operator (Gestore della Rete di Trasmissione Nazionale); quality assurance and technical standardization in high and medium voltage network development; management of connection procedures of end users and electric generators in high and medium voltage;</b>

	<b>high voltage network planning; data processing and analysis of electric service quality on high and medium voltage network.</b>
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<b><i>Date: from (year) to (year):</i></b>	<b>1996-1997</b>
<b><i>Location:</i></b>	<b>Milan</b>
<b><i>Company:</i></b>	<b>Enel</b>
<b><i>Position:</i></b>	<b>Manager</b>
<b><i>Description:</i></b>	<b>with 31 employees, assigned to coordinate the following operations: technical and economic planning for the implementation of the activities in the medium and low voltage distribution network; development of network telecontrol system (SCADA); management of the administrative and institutional permitting process for network lay down activities; contracts management concerning the development of the medium and low voltage electronic map; management of relations with public institutions.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1995</b>
<b><i>Location:</i></b>	<b>Monza</b>
<b><i>Company:</i></b>	<b>Enel</b>
<b><i>Position:</i></b>	<b>Assistant to the Manager</b>
<b><i>Description:</i></b>	<b>Development and implementation of electrical network planning, the budgeting and the strategic area planning.</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1993-1994</b>
<b><i>Location:</i></b>	<b>Milano</b>
<b><i>Company:</i></b>	<b>Enel</b>
<b><i>Position:</i></b>	<b>Assistant to the Manager</b>
<b><i>Description:</i></b>	<b>Assigned to the design, operations, maintenance and planning activities in high, medium and low voltage distribution systems.</b>

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<b>Date: from (year) to (year):</b>	<b>1993</b>
<b>Location:</b>	<b>Milano</b>
<b>Company:</b>	<b>High school “M. Buonarroti” in Trento.</b>
<b>Position:</b>	<b>Professor</b>
<b>Description:</b>	<b>Professor in Electrical Engineering and Electrical Measures at distribution systems.</b>

<b>Date: from (year) to (year):</b>	<b>1987-1988</b>
<b>Location:</b>	<b>Siracusa</b>
<b>Company:</b>	<b>Italian Naval Base</b>
<b>Position:</b>	
<b>Description:</b>	<b>Officer on board of Frigate “V. Fasan”</b>

<b>Date: from (year) to (year):</b>	<b>1984-1987</b>
<b>Location:</b>	<b>Livorno</b>
<b>Company:</b>	<b>Naval Academy</b>
<b>Position:</b>	
<b>Description:</b>	

**14. Other Relevant Information:**

**Eugene Daniel Cross**

**Proposed position in the project: Short term expert**

- 1. Family name:** Cross
- 2. First names:** Eugene Daniel
- 3. Date of birth:** 22 August 1961
- 4. Nationality:** Dutch nationality pending

## 5. Education:

<b><i>Institution:</i></b>	<b>University of Edinburgh, Europa Institute, Scotland</b>
<b><i>Date:</i></b>	<b>1989-1990</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>LL.M. (With Distinction), (class rank: first)</b>

<b><i>Institution:</i></b>	<b>St. Louis, University School of Business</b>
<b><i>Date:</i></b>	<b>1985-1988</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Master of Finance</b>

<b><i>Institution:</i></b>	<b>St. Louis, University School of Law</b>
<b><i>Date:</i></b>	<b>1983-1986</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Juris Doctor</b>

<b><i>Institution:</i></b>	<b>St. Louis, University</b>
<b><i>Date:</i></b>	<b>1979-1983</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>B.A. History (With Distinction), (class rank: first)</b>

## 6. Language skills: (increasing competence from 1 to 5)

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Dutch</b>	<b>2</b>	<b>2</b>	<b>1</b>

**7 . Membership of professional bodies:** International Bar Association, Energy Institute, Amsterdam

**8. Other skills: Computer skills:** Attorney at law

**9. Present position:** Director, Energy Institute

**10. Years within the organisation:** 1

**11. Key qualifications:** Energy lawyer specialised on analysis and development of legislation/regulation and policy relating to electricity, renewable energy, energy efficiency, gas and heat sub sectors in various countries. Training expert and author on EC energy law. Advisor to energy regulatory authorities on development of regulatory instruments and strategies. Drafting of electricity/energy laws, regulations, licences and other legal instruments. Author of several books, including: *Electric Utility Regulation in the European Union* (John Wiley & Sons) (360 pages) (1996);

*EC Energy Law* (Oxford University Press, 2001, 110-page chapter); *Legal Frameworks for the Promotion of Wind Energy and Renewable Energy Resources in the EU Member States* (1997).

**12. Specific Countries experience:** Turkey, EU candidate countries, Russia, Ukraine, Baltic Sea Region, Lebanon, Jordan, Syria, Turkey, Russian Federation, Bulgaria, Czech Republic, Estonia, Lithuania, Latvia, Poland, Romania, Slovak Republic, Slovenia, Serbia, Albania, Macedonia, Bosnia/ Herzegovina, Tajikistan, Azerbaijan, Kyrgyzstan.

**13. Professional Experience Record:**

<b><i>Date: from (year) to (year):</i></b>	<b>2001 – 2003</b>
<b><i>Location:</i></b>	<b>Petten</b>
<b><i>Company:</i></b>	<b>ECN Policy Studies</b>
<b><i>Position:</i></b>	<b>Senior Scientist</b>
<b><i>Description:</i></b>	<b>Senior Scientist, ECN Policy Studies, Petten, The Netherlands</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1991 - 2001</b>
<b><i>Location:</i></b>	<b>Leiden, Central and Eastern Europe</b>
<b><i>Company:</i></b>	<b>University of Leiden, EU</b>
<b><i>Position:</i></b>	<b>Senior Research Fellow, Advisor</b>
<b><i>Description:</i></b>	<b>Senior Research Fellow International Institute of Energy Law, University of Leiden, The Netherlands; Advisor on energy sector reform in EU, Central and Eastern Europe, and CIS</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1991</b>
<b><i>Location:</i></b>	<b>The Hague</b>
<b><i>Company:</i></b>	<b>Centre for Studies and Research in International Law</b>
<b><i>Position:</i></b>	<b>Research Fellow</b>
<b><i>Description:</i></b>	<b>Analysis of EC internal market programme</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1986-1989</b>
<b><i>Location:</i></b>	<b>St. Louis</b>
<b><i>Company:</i></b>	<b>Mazur &amp; Raben</b>

<b>Position:</b>	<b>Attorney</b>
<b>Description:</b>	<b>Regulation specialist; Competition/Antitrust lawyer</b>

<b>Date: from (year) to (year):</b>	<b>1985-1986</b>
<b>Location:</b>	<b>St. Louis</b>
<b>Company:</b>	<b>McDonnell Douglas Corporation</b>
<b>Position:</b>	<b>Law Clerk</b>
<b>Description:</b>	<b>Law Clerk, McDonnell Douglas Corporation, St. Louis, USA</b>

**14. Other Relevant Information: Books/Major Studies:**

- *Electric Utility Regulation in the European Union*, 360 pp. (John Wiley & Sons 1996)
- *Regulation of Security of Gas Supply in the EU Candidate Countries*, 100 pp. (ECN, 2002)
- *Legal Frameworks Relating to the Regulation and Promotion of Renewable Energy Sources, CHP and District Heating Sector in 13 Central and Eastern Europe Countries: Alignment with EC Energy Law and Policy*, 200 pp. (Leiden U. 1999)
- *Legal Frameworks for the Promotion of Wind Energy and Other Renewable Energy Resources in the EU Member States*, 120 pp. (Leiden U. 1997)
- *Electricity Regulation in the Netherlands*, 250 pp. (w/ A. Huygen) (DSWO Press 1995)

Chapters in Books:

- “EC Energy Law” (with P.J. Slot and L. Hancher) in *Energy Law in Europe* (Oxford U. Press, October 2001) (110 pages)

ECN Published Reports

- *Review of Electricity Policy and Regulation in the Netherlands* (with co-authors) (ECN, February 2003) (30 pages)
- *Decentralised Generation: Development of EU Policy*, (with co-authors) (ECN, October 2002) (87 pages)
- *Energy Performance Certification and Labelling in the Lithuanian Building Sector* (with co-authors) (ECN, December 2002) (95 pages)

Articles:

- *EU Regulation of Energy Efficiency in the Buildings Sector: Recent Developments*, Proceedings of the Vilnius Gedimino Technical University, Vilnius, Lithuania, (23-24 May 2002)
- *EU Legislation on Energy Efficiency: Implementation in the Building Sector*, Proceedings of the Institute of Architecture and Construction, Kaunas, Lithuania (May 2001)
- *Electricity reform in Europe: Regulatory models from the UK*, Issue 34, Oxford Energy Forum, (August 1998)

- *Regulated Access to European Electricity Networks*, Vol. 7, Utilities Law Review (Jan/Feb 1996)
- *The EU Electricity Directive: Options for Implementation*, presented in Neptun, Romania (Sept 1996) (WEC proceedings)
- *EC Electricity Legislation and the Irish Electricity Industry*, 1 Tulsa Journal of Comparative & International Law, 33-55 (1993).
- *Pre-emption of Member State Law in the European Economic Community: A Framework for Analysis*, 29 Common Market Law Review, 447-472 (1992) Winner of 1991 Kluwer International Law Award for best European Law Essay.
- *Regional Development Assistance: Does the EC Experience Point the Way for NAFTA?*, [1994] Am. Soc. Int'l. L. Proc., 20 pp. (rapporteur).
- *International Cooperation in Competition Law Enforcement: An Analysis of the 1991 U.S. - EC Agreement*, 6 Leiden Journal of International Law, 117-122 (1992).
- *Legislative Veto Provisions and Severability Analysis: A Re-examination*, 30 Saint Louis University Law Journal, 537-566 (1986).

Other Reports:

*Political and Legislative Options for the Promotion of CHP and District Heating in the Baltic Sea Region* (15 pages), May 2001 (For SYNERGY Project: Renewing District Heating in the Baltic Sea Region).

- *EC Energy Law Relating to Renewable Energy, CHP and Energy Efficiency* (30 pages) (December 1998) (For PHARE-Lithuania Training Project).
- *Guidelines for assessment and development of heat supply legislation in Central and Eastern Europe* (May-June 1998) (for PHARE multi-country heat supply project).
- *Renewable Energy Regimes in the EU: Regulation and Reform* (15-country survey and analysis) (100 pages) (May 1997).
- *Legal Aspects of Energy Policy in Central and Eastern Europe* (11-country analysis of energy law for PHARE Regional Energy Programme) (100 pages) (March 1997).
- *The Structure and Regulation of the European Electricity Industry*, paper presented to Mintopenergo and to Russian Ministry of Energy, 3 March 1994, Moscow (in Russian).
- *Electricity Regulation in France, the Netherlands, Germany and Portugal*, paper presented to Mintopenergo and to Russian Ministry of Energy, 3 March 1994. (in Russian).
- *EU Electricity Regulation: A Functional Analysis of the European Commission's Legislative Programme*, paper presented to Mintopenergo and to Russian Ministry of Energy, 3 March 1994, Moscow (in Russian).
- *Electricity Law in the Member States of the European Community*, 300 pp. (1993).

**Michel Rivier Aabbad**

**Proposed position in the project: Short term expert**

1. **Family name:** Rivier Abbad
2. **First names:** Michel
3. **Date of birth:** 25 November 1962
4. **Nationality:** Spanish
5. **Education:**

<b><i>Institution:</i></b>	<b>Universidad Pontificia Comillas</b>
<b><i>Date:</i></b>	<b>1998</b>



<i>Degree(s) or Diploma(s) obtained:</i>	<b>Ph. D. in Electrical Engineering from I.C.A.I.</b>
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<i>Institution:</i>	<b>Universidad Pontificia Comillas</b>
<i>Date:</i>	<b>1986</b>
<i>Degree(s) or Diploma(s) obtained:</i>	<b>Electrical Engineer from I.C.A.I.</b>

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
<b>Spanish</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>French</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>

**7. Membership of professional bodies:** INSTITUTO DE INVESTIGACION TECNOLÓGICA (IIT) of the Universidad Pontificia Comillas

**8. Other skills:** Assistant Professor in the School of Electrical Engineering of the same University.

**9. Present position:** Director

**10. Years within the organisation:** 1

**11. Key qualifications:** Project manager, principal investigator and/or participant investigator; Electric Power System Engineering. Modelling, analysis, optimization and control of operation and planning of generation, transmission and distribution in large electrical systems. Electricity economics and regulation. Transmission pricing.

**12. Specific Countries experience:** Colombia, Argentina, UK

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1999-2002</b>
<i>Location:</i>	<b>Madrid</b>
<i>Company:</i>	<b>INSTITUTO DE INVESTIGACION TECNOLÓGICA (IIT) of the Universidad Pontificia Comillas</b>
<i>Position:</i>	<b>Deputy Director</b>
<i>Description:</i>	<b>Electric Power System Engineering. Modeling, analysis, optimization and control of operation and planning of generation, transmission and distribution in large electrical systems. Electricity economics and regulation. Transmission pricing.</b>

<b>Date: from (year) to (year):</b>	<b>1993-1999</b>
<b>Location:</b>	<b>Madrid</b>
<b>Company:</b>	<b>INSTITUTO DE INVESTIGACION TECNOLÓGICA (IIT) of the Universidad Pontificia Comillas</b>
<b>Position:</b>	<b>Research Staff</b>
<b>Description:</b>	<b>Electric Power System Engineering. Modeling, analysis, optimization and control of operation and planning of generation, transmission and distribution in large electrical systems. Electricity economics and regulation. Transmission pricing.</b>

<b>Date: from (year) to (year):</b>	<b>1988-1993</b>
<b>Location:</b>	<b>Madrid</b>
<b>Company:</b>	<b>INSTITUTO DE INVESTIGACION TECNOLÓGICA (IIT) of the Universidad Pontificia Comillas</b>
<b>Position:</b>	<b>Research Assistant</b>
<b>Description:</b>	<b>Research and Consultancy Experience</b>

**14. Other Relevant Information: Teaching experience:** University courses:  
Since October 93: Escuela Técnica Superior de Ingeniería (ICAI.), the Engineer School, de la Universidad Pontificia Comillas, Bachelor courses

- *Electrical Machines*
- *Generation, Transmission and Distribution of Electrical Energy*
- *Systems Engineering*
- *Coordination of bachelor thesis* within the Electricity Engineer branch

Doctoral and Postgraduate Courses

- *Regulation and Economics of Electrical Energy Transmission systems*

*Specialized courses:*

Lecturer in the Course *Curso de Negocio Energético* organized by the Club Español de la Energía. MADRID, Spain (April 2003); Organizer and Lecturer of the International Course organized under the European program EES-UETP *Introduction to Optimization Techniques applied to Power Systems Generation Operation Planning*. Madrid, Spain. (February 2003); Lecturer in the Course *Curso de Negocio Energético* organized by the Club Español de la Energía. MADRID, Spain (April 2002); Lecturer in the international Course *First Training Course for Energy Regulators*, organized by mean of the Council of European Energy Regulators. Palma de Mallorca. Spain (March 2002); Organizer of the international Course organized under the European program CREG-ALURE "*Regulation and economy of electrical energy transmission systems*" in Bucaramanga, Colombia (June 2000); Organizer and Lecturer of the international Course organized under the european program CREG-

ALURE "*Regulation and economy of electrical energy transmission systems*" in Santiago de Chile, Chile (November 1999); Lecturer in the international Course organized under the european program CREG-ALURE "*Introduction to Electrical Energy Regulatory Issues*" Cuernavaca, Méjico (July 1999); Lecturer in the international Course organized under the european program COMETT II "*Electricity Markets: Fundamentals and International Experiences*" Oporto, Portugal (October 1998); Lecturer in the international Course organized under the european program COMETT II "*Some Recent Advances on Optimisation and Simulation of Generation Management*" Paris (March 1996); Lecturer in international the Course "*Electric Energy Markets*" for CIDESPA (September 1994).

**Publications:** June 2003 J. Reneses, Á. Baíllo, E. Centeno, M. Ventosa, M. Rivier, A. Ramos: "**Strategies to fulfill medium-term objectives through short-term operation in competitive power markets**". IEEE PowerTech 2003, June, 2003. Bolonia, Italia

M. Rivier, I. J. Pérez Arriaga, C. Vázquez, "**Will the California crisis perturb Spain's liberalization process?**" IEEE Power Engineering Review, August 2002

A. García-Alcalde, M. Ventosa, M. Rivier, A. Ramos, G. Relañó: "**Fitting electricity market models. A conjectural variations approach**" Proceedings of the 15th PSCC, Power Systems Computing Conference, Sevilla, Spain, June 2002.

A. Ramos, M. Ventosa, M. Rivier, A. Santamaría: "**An iterative algorithm for profit maximization by market equilibrium constraints**" Proceedings of the 15th PSCC, Power Systems Computing Conference, Sevilla, Spain, June 2002.

Á. Baíllo, M. Ventosa, M. Rivier, A. Ramos, G. Relañó "**Bidding in a Day-Ahead Electricity Market: A Comparison of Decomposition Techniques**", Proceedings of the 15th PSCC, Power Systems Computing Conference, Sevilla, Spain, June 2002

C. Vázquez, M. Rivier, I. J. Pérez Arriaga "**A market approach to long-term security of supply**" IEEE Transactions on Power Systems, Vol. 17, No. 2, pp. 349-357, May 2002

C. Vázquez, M. Rivier, I. J. Pérez Arriaga "**Production Cost Minimization Versus Consumer Payment Minimization in Electricity Pools**" IEEE Transactions on Power Systems Vol 17, Nº 1 January 2002, pag 119 – 127. January 2002

Á. Baíllo, M. Ventosa, A. Ramos, M. Rivier, and A. Canseco, "**Strategic Unit Commitment for Generation in Deregulated Electricity Markets,**" in *The Next Generation of Electric Power Unit Commitment Models, International Series in Operations Research & Management Science*, B. F. Hobbs, M. H. Rothkopf, R. P. O'Neill, and H.-P. Chao, Eds., 1st ed. Boston: Kluwer Academic Publishers, 2001, pp. 227-248. 2001

Rivier, M.; Ventosa, M.; Ramos, A. "**A generation operation planning model in deregulated electricity markets based on the complementarity problem**" in *Complementarity: Applications, algorithms and Extensions*, Michael C. Ferris, Olvi L. Mangasarian and Jong-Shi Pang, Eds., Kluwer Academic Publishers, 2001, pp. 273-295. 2001

Á. Baíllo, M. Ventosa, M. Rivier, and A. Ramos, "**Strategic Bidding in a Competitive Electricity Market: A Decomposition Approach,**" presented at 2001 IEEE Porto PowerTech, Porto, Portugal, September 2001. September 2001

- Carlos Vázquez, Michel Rivier, Ignacio J. Pérez-Arriaga, **"If Pay-as-Bid Auctions Are Not a Solution for California, then Why Not a Reliability Market?"** The Electricity Journal, pp. 41-48. May 2001
- Baíllo, A.; Ventosa, M.; Rivier, M.; Ramos, A. **"Strategic Bidding under Uncertainty in a Competitive Electricity Market"**. Sixth International Conference on Probabilistic Methods Applied to Electric Power Systems (PMAPS), Madeira, Portugal, September 2000
- Ventosa, M.; Garcia-Alcalde, A.; Mencía, A.; Rivier, M.; Ramos, A. **"Modeling Inflow Uncertainty in Electricity Markets: A Stochastic MCP Approach"** Sixth International Conference on Probabilistic Methods Applied to Electric Power Systems (PMAPS), Madeira, Portugal, September 2000
- Ventosa, M.; Rivier, M.; Ramos, A.; Garcia-Alcalde, A. **"An MCP Approach for Hydrothermal Coordination in Deregulated Power Markets"** IEEE Summer Meeting, Seattle, USA, July 2000
- Rivier, M.; Pérez-Arriaga, I.J. **"Modelo probabilista de explotación generación-red de un sistema eléctrico utilizando técnicas de programación paramétrica"** 6ª Jornadas Hispano-Lusas de Ingeniería Eléctrica. Lisboa, Portugal, 7-9 Julio 1999. July 1999
- Ventosa, M.; Ramos, A.; Rivier, M.; Bautista, A.; de Andrés, R. **"Modelado de la Explotación de la Generación a Largo Plazo de Sistemas Eléctricos en Competencia Mediante el Problema Complementario"** 6ª Jornadas Hispano-Lusas de Ingeniería Eléctrica. Lisboa, Portugal, July 1999
- Vázquez, C.; Rivier, M.; Pérez-Arriaga, I.J. **"Revisión de modelos de casación de ofertas para mercados Eléctricos"**. 6ª Jornadas Hispano-Lusas de Ingeniería Eléctrica. Lisboa, Portugal, July 1999
- Rivier, M.; Ventosa, M.; Ramos, A. **"A generation operation planning model in deregulated electricity markets based on the complementarity problem"** Presented at the 2nd International Conference on Complementary Problems (ICCP 99). Madison, Wisconsin (USA), June 1999
- Ventosa, M.; Ramos, A.; Rivier, M. **"Modelling profit maximisation in deregulated power markets by equilibrium constraints"**. 13th Power Systems Computation Conference (PSCC '99). Trondheim, Norway July 1999
- Ramos, A.; Rivier, M.; Ventosa, M. **"A new tool for bidding hydropower into a competitive market"**. Hydro Review Worldwide (HRW). Vol. 6, No. 6,. Pag 22-25 December 98
- Ramos, A.; Ventosa, M.; Rivier, M. **"Modeling Competition in Electric Energy Markets by Equilibrium Constraints"** Utilities Policy 7 (4) Pag 233-242. 1998
- Ramos, A.; Rivier, M.; Ventosa, M.; Arroyo, S.; Palacios, L.; Rey, M. **"A tool for Hydro Energy Scheduling and Bidding in the Spanish Framework"** Hydro Vision 98 Conference. Reno, Nevada, EEUU.. HCI Publications, 1998, Pag 655-664 July 1998
- Rivier, M; de la Fuente, J.I.; Vázquez, C; Barquín, J.; Ramos, A. **"Análisis, Estudios y Aplicaciones en el nuevo entorno competitivo de generación eléctrica"** Monográfico sobre la liberalización del sector eléctrico. Anales de Mecánica y electricidad. Vol. LXXV, Fascículo II,. Pag. 126-138. April 1998

Rupérez, I.; Rivier, M.; Martínez Córcoles, F.; Andrés, J.M., “**Tratamiento de las cuotas de combustibles garantizados en mercados competitivos de generación eléctrica**”. 5ª Jornadas Hispano-lusas de Ingeniería Eléctrica. Salamanca,. Pag. 893-901. July 1997

Rivier, M.; Pérez-Arriaga, I.J.; Sanchez, P.; Ramos, A.; Gómez, T., "**An Improved Version of the Model Juanac: Applications to Network Adequacy and Economic Studies in Large Interconnected Power Systems**", Fourth International Conference on Probabilistic Methods Applied to Electric Power Systems, Rio de Janeiro, Brasil,. Pag. 295-302. September 1994

Rivier, M., Pérez-Arriaga, I.J., "**Computation and Decomposition of Spot Prices for Transmission Pricing**", 11th PSCC Conference, Avignon, Francia,. Pag. 371-378. September 1993

Conejo, A., Rivier, M., Pérez-Arriaga, I.J., "**Aplicación de la Descomposición de Dantzig-Wolfe a la Descentralización de un Despacho Óptimo Global de Sistemas Interconectados de Energía Eléctrica**", XX Reunión Nacional de Estadística e Investigación Operativa. Cáceres,. September 1992

Rivier, M., Pérez-Arriaga, I.J., "**Probabilistic Bulk Production Cost Model by a Continuation Montecarlo Simulation Method**", Third International Conference on Probabilistic Methods Applied to Electric Power Systems, Londres, Pag. 290-298. July 1991

Rivier, M., Pérez-Arriaga, I.J., Luengo, G., "**JUANAC: A Model for Computation of Spot Prices in Interconnected Power Systems**", 10th PSCC Conference, Graz, Austria,. Pag. 254-261. August 1990

## **Gabriella Utili**

**Proposed position in the project: SHORT TERM EXPERT**

- 1. Family name: Utili**
- 2. First names: Gabriella**
- 3. Date of birth: 07/04/1954**
- 4. Nationality: Italian**
- 5. Education: Degree on Political Science**

<i>Institution:</i>	Bologna University
<i>Date:</i>	December 1999
<i>Degree(s) or Diploma(s) obtained:</i>	Degree in Political Science
<i>Institution:</i>	
<i>Date:</i>	
<i>Degree(s) or Diploma(s) obtained:</i>	

**6. Language skills: (increasing competence from 1 to 5)**

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
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Italian	Mother tongue	Mother tongue	Mother tongue
English	4	4	4

**7. Membership of professional bodies:**

**8. Other skills:** Computer literacy

**9. Present position: Head of Information and Consumer Affairs**

**10. Years within the organisation: 7**

**11. Key qualifications:** Consumer affair specialist

**12. Specific Countries experience:** Italy, USA, UK, Spain

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	1980-82
<i>Location:</i>	Bologna
<i>Company:</i>	STUDI INDUSTRIALI
<i>Position:</i>	Junior researcher
<i>Description:</i>	Research in industrial economics

<i>Date: from (year) to (year):</i>	1983-84
<i>Location:</i>	Bologna
<i>Company:</i>	NOMISMA
<i>Position:</i>	Senior researcher
<i>Description:</i>	Research in industrial economics

<i>Date: from (year) to (year):</i>	1985-97
<i>Location:</i>	Bologna
<i>Company:</i>	Bologna University – Faculty of Political Science – Department of Economics
<i>Position:</i>	Senior researcher
<i>Description:</i>	Research in industrial economics

<i>Date: from (year) to (year):</i>	1997-2003
<i>Location:</i>	Milano
<i>Company:</i>	Autorità per l'energia elettrica e il gas
<i>Position:</i>	Senior officer
<i>Description:</i>	Consumer affairs

**17. Other Relevant Information:**

## Carlos Vázquez

### Proposed position in the project: Short term expert

1. **Family name:** Carlos
2. **First names:** Vázquez
3. **Date of birth:** 22 April 1969
4. **Nationality:** Cuba
5. **Education:**

<i><b>Institution:</b></i>	<b>Universidad Pontificia Comillas, Madrid, Spain</b>
<i><b>Date:</b></i>	<b>1993</b>
<i><b>Degree(s) or Diploma(s) obtained:</b></i>	<b>Electrical Engineer. I.C.A.I. Dissertation: Evaluation of methodologies for pricing third party access in electrical networks</b>

<i><b>Institution:</b></i>	<b>Universidad Pontificia Comillas, Madrid, Spain</b>
<i><b>Date:</b></i>	<b>2003</b>
<i><b>Degree(s) or Diploma(s) obtained:</b></i>	<b>Ph. D. in Industrial Engineering. I.C.A.I Dissertation: Auction models for electricity markets.</b>

### 6. Language skills: (increasing competence from 1 to 5)

<i><b>Language</b></i>	<i><b>Reading</b></i>	<i><b>Speaking</b></i>	<i><b>Writing</b></i>
<b>Spanish</b>	<b>Mother Tongue</b>	<b>Mother Tongue</b>	<b>Mother Tongue</b>
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>

7. **Membership of professional bodies:** The Instituto de Investigación Tecnológica (IIT), Universidad Pontificia Comillas, Madrid, Spain

8. **Other skills: Computer skills:**

9. **Present position:** Research Assistant

10. **Years within the organisation:** 8

11. **Key qualifications:** Market design and regulation for wholesale electricity markets, Transmission regulation for power markets, including loss allocation, congestion management, investment and transmission pricing, guarantee of supply mechanisms in competitive power systems, Modelling, analysis and optimization of the operation and planning of generation, transmission and distribution in large-scale power systems; During this time, he has published, lectured and participated in research projects.

12. **Specific Countries experience:**

13. **Professional Experience Record:**

#### **14. Other Relevant Information: Research and Consultancy Experience:**

**Foundations and trends of liberalization models in electricity markets.** For Endesa, Spain. 2001 – 2004

**Spanish wholesale power market price modelling.** For EDF Unité Commerciale Espagne. 2003

**Price risk analysis in the Spanish power market.** For Unión Fenosa, Spain. 2003 – 2004

**Security of supply in the Dutch electricity market: the role of reliability options.** For the Office for Energy Regulation (DTE) of The Netherlands. 2003

**Private expert report for the Competition Authority on the events that occurred in the Spanish daily market during 19, 20 and 21 November, 2001.** For Endesa, Spain. 2002

**Long-term security of generation supply: the “reliability options” approach.** For the Dutch Ministry of Economic Affairs. 2002

**Cost components of cross-border exchanges of electricity.** For the Directorate-General for Energy and Transport, European Commission. 2002

**Study of the Californian electricity crisis and its translation to the Spanish case.** For Unión Fenosa, Spain. 2001

**Generation capacity payments in the Colombian wholesale market.** For the Association of Colombian Generators (ACOLGEN), Colombia. 2000

**Effects of energy markets deregulation onto EU’s technology portfolio: Conventional and emerging technologies.** For the Institute for Prospective Technological Studies (IPTS). 1999 – 2000

**Price formation and wholesale market design for the electricity system.** For the Association of Colombian Generators (ACOLGEN), Colombia. 1999

**Design and evaluation of the rules of the daily wholesale market in Spain.** For the National Electricity Regulatory Commission (Comisión Nacional del Sistema Eléctrico - CNSE), Spain. 1997 – 1999

**General support on electricity market design. Spot markets, energy contracts and stranded cost recovery.** For the National Electricity Regulatory Commission (Comisión Nacional del Sistema Eléctrico - CNSE), Spain. In collaboration with London Economics and Ian Pope Associates. 1997

**Institutional and regulatory studies associated to the Treaty for the Electrical Interconnection between the Central American Countries, SIEPAC.** For Endesa, Spain. 1996 – 1997

Interconnection system for Central America (SIEPAC). Technical and economical feasibility studies. **For Endesa, Spain. 1995 – 1997.**

#### **Publications:**

Ignacio J. Pérez-Arriaga, Jesús Peco, Carlos Vázquez, “Aclaraciones sobre la tarifa eléctrica”, (“**Clarifications on the electricity tariff**”, in Spanish), Anales de Mecánica y Electricidad, Vol. LXXX, Fascículo III, May-June 2003.

Michel Rivier, Ignacio J. Pérez-Arriaga, Carlos Vázquez, “**Will the California crisis perturb Spain’s liberalization process?**”, presented at the IEEE PES Summer



Meeting, Vancouver, Canada, June 2001. Scheduled for publication at IEEE Power Engineering Review, August 2002.

Carlos Vázquez, Luis Olmos, Ignacio J. Pérez-Arriaga, “**On the choice of the slack bus in mechanisms for transmission network cost allocation that are based on network utilization**”, 14th Power Systems Computing Conference, PSCC, Seville, Spain, June 2002.

Carlos Vázquez, Michel Rivier, Ignacio J. Pérez-Arriaga, “**A market approach to long-term security of supply**”, presented at the conference “*Methods to secure peak load capacity on deregulated electricity markets*”, Stockholm, Sweden, June 2001. Published at IEEE Transactions on Power Systems, Vol. 17, No. 2, May 2002.

Carlos Vázquez, Michel Rivier, Ignacio J. Pérez-Arriaga, “**Production cost minimization versus consumer payment minimization in electricity pools**”, IEEE Transactions on Power Systems, Vol. 17, No. 1, February 2002.

Carlos Vázquez, Michel Rivier, Ignacio J. Pérez-Arriaga, “Modelos de subastas para mercados eléctricos”, (“**Auction models for electricity markets**”, in Spanish), Anales de Mecánica y Electricidad, Vol. LXXVIII, Fascículo V, September-October 2001.

Carlos Vázquez, Michel Rivier, David Berzal, Rocío Herranz, “Algoritmo de casación para tratar las saturaciones de las líneas de transporte en los mercados eléctricos”, (“**Auction algorithm for transmission congestion management in electricity markets**”, in Spanish), Seventh Portuguese-Spanish Electrical Engineering Conference, Leganés, Spain, July 2001.

Carlos Vázquez, Michel Rivier, Ignacio J. Pérez-Arriaga, “**If pay-as-bid auctions are not a solution for California, then why not a reliability market?**”, submitted to the Blue Ribbon Panel “*Pricing in the California Power Exchange electricity market: Should California switch from uniform pricing to pay-as-bid pricing?*”, organized by the California Power Exchange, November 2000. Published at The Electricity Journal, Vol. 14, No. 4, May 2001.

Carlos Batlle, Carlos Vázquez, “**A probabilistic model for capacity payments distribution in a deregulated wholesale electricity market**”, Sixth International Conference on Probabilistic Methods Applied to Electric Power Systems (PMAPS), Madeira, Portugal, September 2000.

Carlos Vázquez, Irene Otero-Novas, Michel Rivier, “Propiedades de convergencia de los modelos iterativos”, (“**Convergence properties of iterative auctions**”, in Spanish), IIT Working Paper IIT-00-088, January 2000.

Carlos Vázquez, Michel Rivier, Ignacio J. Pérez-Arriaga, “Revisión de modelos de casación de ofertas para mercados eléctricos”, (“**Review of bid-selection models for electricity markets**”, in Spanish), Sixth Portuguese-Spanish Electrical Engineering Conference, Lisbon, Portugal, July 1999.

Tomás Gómez, Carlos Vázquez, “**The Spanish day-ahead energy market**”, IIT Working Paper IIT-98-046A, October 1998.

Michel Rivier, J. Ignacio de la Fuente, Carlos Vázquez, Julián Barquín, Andrés Ramos, “Análisis, estudios y aplicaciones en el nuevo entorno competitivo de generación eléctrica”, (“**Analysis, studies and applications in the new competitive environment of electricity generation**”, in Spanish), Anales de Mecánica y Electricidad, Vol. LXXV, Fascículo II, Monograph on the liberalization of the electricity industry, March-April 1998.

Carlos Vázquez, “Impacto de las restricciones de rampa en el proceso de casación”, (**“Impact of ramp-rate constraints on the bid-matching procedure”**, in Spanish), IIT Working Paper IIT-98-036I, March 1998.

**Carlos Vázquez, Ignacio J. Pérez-Arriaga, Tomás Gómez, Francisco J. Rubio-Odériz**, “Regulatory studies within the SIEPAC project: Interconnection agreements for Central America”, **Cigré Symposium “Impact of Open Trading on Power Systems”**, Tours, France, June 1997.

#### **Lecturing Activity:**

Lecturer in the international course **“Electricity markets: Models and tools for utilities and other players”**, organized by the EES-UETP, Porto, Portugal, May 2000.

Lecturer in the international course **“Electricity markets: Fundamentals and international experiences”**, organized under the European program COMETT, Porto, Portugal. October 1998.

Lecturer in the international course **“Towards a competitive electricity market”**, organized under the European program COMETT, Lausanne, Switzerland, June 1997.

#### **Theses Supervised:**

Borja Fernández Agraz, “Programación de unidades en un sistema eléctrico liberalizado”, (**“Unit commitment for a liberalized power market”**, in Spanish), Engineer degree thesis, Universidad Politécnica de Madrid, October 2002.

Juan Sánchez-Gabriel, “Liberalización de los sistemas de transporte ferroviario: un modelo competitivo de asignación de surcos”, (**“Railway transport liberalization: a competitive model for slot allocation”**, in Spanish), Engineer degree thesis, Universidad Pontificia Comillas, Madrid, June 2001.

Rocío Herranz, “Tratamiento de las restricciones de transporte en los mercados eléctricos: modelos basados en mecanismos competitivos”, (**“Congestion management in electricity markets: models based on competitive mechanisms”**, in Spanish), Engineer degree thesis, Universidad Pontificia Comillas, Madrid, June 2000.

David Berzal, “Alternativas basadas en mecanismos de mercado para el tratamiento de las restricciones de transporte en los sistemas eléctricos”, (**“Market-based alternatives for transmission congestion management in power systems”**, in Spanish), Engineer degree thesis, Universidad Pontificia Comillas, Madrid, June 1999.

## **Vazio Daniela**

### **Proposed position in the project: Short term Expert**

1. **Family name:** Vazio
2. **First name:** Daniela
3. **Date of birth:** 17 March 1966
4. **Nationality:** Italian
5. **Education:**

<b><i>Institution:</i></b>	<b>Genoa University – Italy</b>
<b><i>Date:</i></b>	<b>1997</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Degree in Economics</b>

**6. Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>3</b>	<b>3</b>
<b>French</b>	<b>4</b>	<b>2</b>	<b>2</b>

**7. Membership of professional bodies:** R.I.E. srl – Energetic and Industrial Researches

**8. Other skills:** Economic analyst

**9. Present position:** Researcher

**10. Years within the organisation:** 4

**11. Key qualifications:** knowledge and experience of public utilities, electricity production and natural gas distribution, regulation and tariffs in Italy. Balance sheet analysis, business planning, firm and investments evaluation.

Main studies:

- Italian Network services: benchmarking analysis
- Balance sheet analysis for a sample of firms in the electricity and gas market
- Survey on Italian reform of tariffs for methane gas distributed over urban networks (decision no. 237/'00 Authority )
- Analysis of gas value chain for a public utility company : distribution and supply tariffs for Italian captive customers
- Report on decisions no. 122/'02 – 207/'02 Italian Authority of electricity and gas
- Italian Electricity market and Gencos evaluation
- Developments and future wholesale prices on the Italian electricity market

**12. Specific Countries experience:** Italy, Germany

**13. Professional Experience Record:**

<b><i>Date: from (year) to (year):</i></b>	<b>1997 - 1999</b>
<b><i>Location:</i></b>	<b>Genoa -Italy</b>
<b><i>Company:</i></b>	<b>N.R.R. legal office</b>
<b><i>Position:</i></b>	<b>assistant</b>
<b><i>Description:</i></b>	<b>property management</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1995 - 1999</b>
<b><i>Location:</i></b>	<b>Milan – Italy</b>
<b><i>Company:</i></b>	<b>Segesti srl</b>
<b><i>Position:</i></b>	<b>assistant</b>
<b><i>Description:</i></b>	<b>external relations</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1986 - 1994</b>
<b><i>Location:</i></b>	<b>Genoa – Italy</b>
<b><i>Company:</i></b>	<b>G.T. spa</b>
<b><i>Position:</i></b>	<b>assistant</b>
<b><i>Description:</i></b>	<b>accounting and finance</b>

**14. Other Relevant Information:** Articles published on “Energia” magazine on profitability of public utilities

## Elena Fumagalli

**Proposed position in the project: Short term Expert**

1. **Family name:** Fumagalli
2. **Forename:** Elena Maria
3. **Date of birth:** 1 October 1970
4. **Nationality:** Italian
5. **Education:**

<b><i>Institution</i></b>	<b>Politecnico di Milano</b>
<b><i>Date</i></b>	<b>July 1997</b>
<b><i>Degree(s) or Diploma(s) obtained</i></b>	<b>Laurea in Nuclear Engineering</b>

<b><i>Institution</i></b>	<b>Universita’ degli Studi di Padova</b>
<b><i>Date</i></b>	<b>February 2002</b>
<b><i>Degree(s) or Diploma(s) obtained</i></b>	<b>Ph.D. in Energy Studies</b>

**6. Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Italian</b>	<b>mother tongue</b>		
<b>English</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>French</b>	<b>4</b>	<b>3</b>	<b>1</b>
<b>Spanish</b>	<b>3</b>	<b>1</b>	<b>1</b>

**7. Membership of professional bodies:** Department of Electrical Engineering Politecnico di Milano

**8. Other skills:** Matlab Programming

**9. Present position:** Postdoctoral researcher

**10. Years within the organization:** 2

**11. Key qualifications:** Research focus on probabilistic analysis of generation and transmission reliability in the context of deregulated power markets. Economic efficiency of the electric power exchange as proposed for the Italian market is also an area of interest.

**12. Specific Countries experience:**

**13. Professional Experience Record:**

<b><i>Date: from (year)</i></b> <b><i>To (year)</i></b>	<b>2002-2002</b>
<b><i>Location</i></b>	<b>Milan</b>
<b><i>Company</i></b>	<b>Autorità per l'Energia Elettrica e il Gas</b>
<b><i>Position</i></b>	<b>External consultant</b>
<b><i>Description</i></b>	<b>Appraised and compared quality regulation in various European and extra European countries.</b>

<b><i>Date: from (year)</i></b> <b><i>To (year)</i></b>	<b>2000-2001</b>
<b><i>Location</i></b>	<b>Cambridge</b>
<b><i>Company</i></b>	<b>Energy Laboratory, Massachusetts Institute of Technology</b>
<b><i>Position</i></b>	<b>Visiting Student</b>
<b><i>Description</i></b>	<b>Explored the interplay of regulation, pricing schemes, and operation of the electricity distribution network, in a deregulated market environment. Proposed an innovative pricing scheme for quality of service that redefines quality provision as a risk management process.</b>

<b><i>Date: from (year)</i></b> <b><i>To (/year)</i></b>	<b>1997-1999</b>
<b><i>Location</i></b>	<b>Milan</b>
<b><i>Company</i></b>	<b>Research Institute for Energy and the Environment, IEFÉ, Bocconi University</b>
<b><i>Position</i></b>	<b>Junior Researcher</b>
<b><i>Description</i></b>	<b>Reviewed and compared policies for renewable energy generation in the EU; developed an efficient</b>

	<b>pricing scheme for renewable energy sources, and recommended revisions to Italian legislation on renewables.</b>
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**14. Other Relevant Information:** Teaching assistant at the Politecnico di Milano; Lecturer at the Politecnico Master School (Poliedra) for the Course *Energy trading and Sales*.

*Publications and other activities:*

- Fumagalli E., ‘Managing Quality of Service on the Distribution Grid according to consumers’ preferences’, *Economia delle Fonti di Energia e dell’Ambiente*, n. 2/2001, January 2002, Franco Angeli, Milano.
- Fumagalli E., Black J., Ilic M., Vogelsang I. *A reliability insurance scheme for the electricity distribution grid*, IEEE PES Summer Meeting, July 15<sup>th</sup> to 19<sup>th</sup> 2001 Vancouver, Canada and MIT Energy Laboratory Working Paper.
- Fumagalli E., *Quality of Service: Comparing the Italian Regulatory scheme with an Insurance-Based Approach*, Proceedings of the International Conference ‘Gas and Electricity Forum’, June 21<sup>st</sup> and 22<sup>nd</sup> 2001, Milan, Italy
- Ilic M., Arce J., Yoon Y., Fumagalli E., ‘Assessing Reliability as the Electric Power Industry Restructures’, *The Electricity Journal*, March 2001.
- Ilic M., Black J., Fumagalli E., Visudhiphan P., Watz J., *Understanding Demand: The Missing Link in Efficient Electricity Markets*, MIT Energy laboratory Working paper, August 2001.
- Contributions to: de Paoli L., Lorenzoni A., *Economia e politica delle fonti rinnovabili e della cogenerazione*, Franco Angeli, Milano 1999.

## Marco Delpero

**Proposed position in the project: Short term expert**

1. **Family name:** Delpero
2. **First names:** Marco
3. **Date of birth:** 20 October 1964
4. **Nationality:** Italian
5. **Education:**

<b><i>Institution:</i></b>	<b>University of Torino, Italy</b>
<b><i>Date:</i></b>	<b>1989</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Degree in Economics</b>

**6. Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>German</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>French</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>Russian</b>	<b>2</b>	<b>2</b>	<b>2</b>

**7. Membership of professional bodies:** The Regulatory Authority for Electricity and Gas

**8. Other skills:**

**9. Present position:** Head of Electricity Tariff Department, Autorità per l'energia elettrica e il gas

**10. Years within the organisation:** 5

**11. Key qualifications:** Electricity distribution and transmission tariff regulation; Implementation of Regulatory accounting standards (1999-2003); Construction of a stranded cost evaluation model; Definition of Regulatory accounting standards (1998-1999)

**12. Specific Countries experience:**

**13. Professional Experience Record:**

<i>Date: from (year) to (year):</i>	<b>1998</b>
<i>Location:</i>	<b>Turin</b>
<i>Company:</i>	<b>Azienda Energetica Municipale di Torino</b>
<i>Position:</i>	<b>Head of Cost Controlling Department</b>
<i>Description:</i>	<b>Managing budgeting, cost controlling and strategic planning</b>

<i>Date: from (year) to (year):</i>	<b>1993-1998</b>
<i>Location:</i>	<b>Turin</b>
<i>Company:</i>	<b>Azienda Energetica Municipale di Torino</b>
<i>Position:</i>	<b>Head of Internal Auditing Department</b>
<i>Description:</i>	<b>Development of the Internal Auditing Department</b>

<i>Date: from (year) to (year):</i>	<b>1991-1993</b>
<i>Location:</i>	<b>Rome</b>
<i>Company:</i>	<b>Federelettrica</b>
<i>Position:</i>	<b>Assistant</b>
<i>Description:</i>	<b>Studies on electricity tariff and on electricity market design; cost analysis of CHP; consultancies for associated companies on questions related to electricity tariffs, financial and</b>

	<b>accounting matters; electricity distribution cost analysis</b>
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<b><i>Date: from (year) to (year):</i></b>	<b>1989-1991</b>
<b><i>Location:</i></b>	<b>Turin</b>
<b><i>Company:</i></b>	<b>Azienda Energetica Municipale</b>
<b><i>Position:</i></b>	<b>Finance Director Assistant</b>
<b><i>Description:</i></b>	<b>Financial analysis of investments in hydroelectric and thermoelectric power plants; DCF investment modelling; cost accounting analysis</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1984-1989</b>
<b><i>Location:</i></b>	<b>Turin</b>
<b><i>Company:</i></b>	<b>Azienda Energetica Municipale</b>
<b><i>Position:</i></b>	<b>Accountant at the Electricity Billing Department</b>
<b><i>Description:</i></b>	<b>Customer accounting and billing</b>

**14. Other Relevant Information:**

2003 – Member of the Electricity Tariff Harmonisation Task Force – Council of European Energy Regulators;

2003 – Member of the Working Group – International Price Comparisons – Council of European Energy Regulators;

2002 – Visiting Lecturer at the *Master della concorrenza e della regolazione delle Public Utilities* – Università degli Studi di Roma (Tor Vergata)

2002 – Member of the G Harmonisation Working Group – Council of European Energy Regulators;

1997-1998 – President of the Electricity Tariff Working Group – CEDEC (European confederation of local energy distribution companies) – co-author of the final paper – F. Boschi, L.Catutelle, G. De Block, M. Delpero, W. Ohlms, D. Ponce, N. Silvestro, K. Zimmermann “Market Models and transmission grid access”, CEDEC Bruxelles October 1998

1990-1997 – Member of the Electricity Tariff Working Group – CEDEC - Co-author of the final reports presented in year 1990 - Aachen, 1992 – Paris, 1994 - Bruxelles

1993-1997 – Member of different Federelétrica working groups on electricity tariffs; co-author of a report on quality of services issues presented in 1993 at the Annual Congress of the Italian Electric Association

**Andrea Galieti**

**Proposed position in the project: Short Term Expert**

**1. Family name: Galieti**



2. **First names:** Andrea
3. **Date of birth:** 21 March 1973
4. **Nationality:** Italian
5. **Education:**

<b><i>Institution:</i></b>	<b>University of Trento, Italy</b>
<b><i>Date:</i></b>	<b>1998</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Laurea in Economia e Commercio</b>

<b><i>Institution:</i></b>	<b>University of Trier, Germany</b>
<b><i>Date:</i></b>	<b>1995</b>
<b><i>Degree(s) or Diploma(s) obtained:</i></b>	<b>Business Studies</b>

6. **Language skills: (increasing competence from 1 to 5)**

<b><i>Language</i></b>	<b><i>Reading</i></b>	<b><i>Speaking</i></b>	<b><i>Writing</i></b>
<b>Italian</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>English</b>	<b>5</b>	<b>4</b>	<b>4</b>
<b>German</b>	<b>Mother tongue</b>	<b>Mother tongue</b>	<b>Mother tongue</b>
<b>French</b>	<b>4</b>	<b>2</b>	<b>1</b>

7. **Membership of professional bodies:** The Regulatory Authority for Electricity and Gas
8. **Other skills:** Computer use and programming
9. **Present position:** Funzionario (Administrator)
10. **Years within the organisation:** 2
11. **Key qualifications:** Gas economic regulation; Unbundling.
12. **Specific Countries experience:** Italy, Germany
13. **Professional Experience Record:**

<b><i>Date: from (year) to (year):</i></b>	<b>1999-2001</b>
<b><i>Location:</i></b>	<b>Milan</b>
<b><i>Company:</i></b>	<b>Edison S.p.A.</b>
<b><i>Position:</i></b>	<b>Administrator</b>
<b><i>Description:</i></b>	<b>C.E.O. Staff / Energy sector</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1998-1999</b>
<b><i>Location:</i></b>	<b>Milan / Germany</b>
<b><i>Company:</i></b>	<b>Montedison S.p.A.</b>
<b><i>Position:</i></b>	<b>Analyst</b>
<b><i>Description:</i></b>	<b>Energy and Agro-chemical Industry</b>

<b><i>Date: from (year) to (year):</i></b>	<b>1997-1998</b>
<b><i>Location:</i></b>	<b>Italy</b>
<b><i>Company:</i></b>	<b>Arma dei Carabinieri</b>
<b><i>Position:</i></b>	<b>Officer</b>
<b><i>Description:</i></b>	<b>Army / Security</b>

**14. Other Relevant Information:**

**ANNEX G TO THE TWINNING COVENANT: MEMBERS OF EMRA's TWINNING COMMITTEE**

<b>Expert</b>	<b>Title</b>	<b>Department</b>	<b>Linked Objective</b>
Cahit AKINCI	Head of Department	International Relations and Coordination with the EU Department	Project coordination (PL)
Burçin PAMUKSUZ	Group Head	International Relations and Coordination with the EU Department	Project coordination (Counter PAA)
Hidayet ALTINBAŞ	Group Head	Finance Department	Project coordination (Financial management)
Ali ARSLAN	Energy Expert	Competition and Consumer Rights Department	GR 1&2, SC
Fakir Hüseyin ERDOĞAN	Energy Expert	Electricity Market Regulation, Monitoring and Assessment Department	GR 1&2 (SC 1.1, 1.6, 1.9, 1.13, etc., electricity)
Nazım BAYRAKTAR	Energy Expert	Natural Gas Market Implementation Department	GR 1&2 (SC 1.1, 1.6, 1.9, 1.13, gas)
Fatih BİLGİÇ	Energy Expert	International Relations and Coordination with the EU Department	
Fatih Mustafa CERİT	Energy Expert	Audit and Supervision Department	
Tevfik ÖZ	Officer	Human Resources Department	GR 3&4
Mustafa YAVUZ	Expert	Electricity Market Regulation, Monitoring and Assessment Department	

Notes:

GR = Guaranteed result

SC = Sub-component

## ANNEX H TO THE TWINNING COVENANT: STUDY TOURS

**CNE (Spain):** Electricity, gas and market opening

Relevant sub-components: 1.1, 1.4, 1.9, 1.12, 1.16

- Market opening
- Aggregation of customers
- Eligible customers
- Licensing (both for electricity and natural gas)
- Cross-border trading (CBT)
- Gas release
- Stranded costs

**AEEG (Italy):** For 3 visits, electricity, gas, customer protection, regulatory information system

Relevant sub-components: 1.1, 1.3, 1.5, 1.7, 1.8, 1.9, 1.10, 1.11, .13, 1.15, 2.1, 3

- Customer protection
- Aid mechanisms for vulnerable customers
- Metering infrastructure
- Balancing and settlement mechanism
- Privatization issues
- Security and reliability of supply
- Network management
- CBT (both for electricity and natural gas)
- Competition promotion (both for electricity and natural gas)
- Tariffs
- Gas storage and LNG
- Audit and supervision of the regulatory activities
- IT infrastructure of the authority
- Regulatory information system
- Analysis of the institutional structure and relationships
- Training programs
- Energy market opening assessment

**OFGEM (UK):** Gas, organization of competitive markets, electricity

Relevant sub-components: 1.1, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.14, 1.15, 2.1, 2.2, 3

- Supply of last resort

- Performance of distributors
- Self-supplier license
- Balancing and settlement
- Competition assessment
- Pricing of auxiliary services
- Licensing
- Tariffs
- Implementation of network code
- Gas release
- Audit and supervision of the regulatory activities
- Analysis of the institutional structure
- Examination of the training programs pursued by the institutions
- 

**DTE (The Netherlands):** Gas, competition issues, electricity (especially tariffs)

Relevant sub-components: 1.1, 1.3, 1.4, 1.5, 1.8, 1.13, 2.1, 2.2, 3

- Market monitoring
- Tariff formation and approval procedures
- CBT pricing
- Investment monitoring
- Licensing
- Tariffs
- Audit and supervision of the regulatory activities
- Analysis of the institutional structure
- Examination of the training programs pursued by the institutions
- Analysis of the problems experienced related to competition and consumers' rights and examination of the systems established for solving such problems
- Examining energy models and energy market opening indicators used by regulatory bodies

**STEM (Sweden):** Electricity

Relevant sub-components: 1.6, 1.7, 1.9, 1.10, 1.15

- Wholesale markets design and organisation
- Settlement issues
- IT infrastructure
- Demand forecast
- Renewables utilization

**CEER and CREG (Belgium):** International organization and cross border trade

Relevant sub-components: 1.1, 1.5, 1.16, 3

- CBT
- Gas release
- Audit and supervision of the regulatory activities

## Annex I – Activity Table

1. Know how transfer	Contents	AEEG Responsible Experts	No. of Days	No. of Visits	Timing (Quarters)	EMRA Responsible Experts	Guaranteed Results
1.1 Kickoff Seminar	Public high level debate on "Liberalising the electricity and gas market: comparative experiences for a Twinning project"	Project leader, Italian Minister of European policies, AEEG President, Jacques De Jong, PAA	4	4	1	Project leader, EMRA President, Burçin Pamuksuz	1
1.2 Development of the role of EMRA towards the evolution of the liberalisation process of electricity and gas market, including the promotion of new primary legislation as needed both as a consequence of the evolution of the acquis, notably new directives on EU market common rules, and due to the emerging obstacles to competition which must be removed to ensure the functioning markets, a level playing for market participants, non-discriminatory access to networks and essential facilities, and the protection of small and vulnerable customers' rights.	1.2.1 Market reform in theory and practice, EMRA and AEEG's role towards competition and removal of obstacles to a functioning market.	Jacques de Jong, PAA	2	1	3-4	Experts from Human Resources Department and other interested experts.	1
	1.2.2 Analysis of the Turkish market and the need for further reforms; strategic suggestions	Oliviero Bernardini	8	2	5-6		1
	1.2.3 Development of strategic recommendations for EMRA's role towards further market reforms	Jacques de Jong, PAA	6	2	2		1
	1.2.4 Analysis of EMRA's activities and external relation strategy; strategic suggestions.	Ilaria Galimberti PAA	10	2	1-2	Experts from electricity, gas and legal departments	1
1.3 Calculation of transmission and distribution tariffs, publicizing policies and non-discriminatory	1.3.1 Analysis of the current Turkish tariff system and recommendations for reform	Marco Delpero Federico Boschi Daniela Vazio PAA, Matteo Leonardi	13	4			1

	1.3.2 Outline of recommendations for design and calculations of new transmission and distribution tariffs	Federico Boschi Daniela Vazio Matteo Leonardi	40	3	2-4		1
	1.3.3 Follow up and discussion of achievements	Marco Delpero, PAA, Daniela Vazio Matteo Leonardi	10	3	5-6		1
1.4 Authorization including bidding procedures, criteria and specific requirements to obtain distribution licenses for gas and electricity.	1.4.1 Kick-off seminar:Licensing experiences in EU Member States	Maria Rita Mazzanti	5	1	3	Experts from electricity, gas and legal departments	1
	1.4.2 Outline of recommendations for a licensing system	Maria Rita Mazzanti	10	2	3-4		1
	1.4.3 Follow-up and discussion of achievements	Maria Rita Mazzanti	5	1	5-6		1
1.5 Development of methodologies for cross border trade for electricity and gas including congestion management and capacity allocation procedures, transparency and information provision, cross border infrastructure capacity development, harmonized cross border exchange tariffication, international agreements (i.e Energy Charter Treaty) and the EU regulatory process (Florence, Madrid and Athens Forums).	1.5.1 Outline of regulatory requirements for cross border trade in EU Member States illustration of the Italian experience and analysis of Turkish regulation	Guido Cervigni, Michael Thomadakis, Ivana Paniccia	9	3	3	Experts of the electricity, gas, legal and international relations departments	1
	1.5.2 Outline of recommendations for cross border regulations	Guido Cervigni, Sylvie D'Apote, Ivana Paniccia	15	3	4-5		1
	1.5.3 Follow up and discussion of achievements	Guido Cervigni, Sylvie D'Apote, Ivana Paniccia	9	3	6		1



1.6 Outline of a regulatory framework for the utilization and development of renewable energy sources and embedded generation in line with the EU policies including simplified authorization procedures, price and quota regulation approaches, network access and green certificates.	1.6.1 Outline of EU Member States' methodologies and analysis of the Turkish situation	Matteo Leonardi	5	1	3	Experts from electricity, gas, legal and international relations departments	1
	1.6.2 Outline of a new Turkish regulatory framework for the development of renewable energy sources and embedded generation	Matteo Leonardi	15	1	4		1
	1.6.3 Follow-up and discussion of achievements	Matteo Leonardi	5	1	6		1
1.7 Monitoring of security of supply including risk and crisis management, public service requirements, environment, energy efficiency, rational use of energy and demand side management, imports and reporting and consultation needs in liberalised electricity and gas markets. Role of regulators, market-based mechanisms and approaches to stimulate capacity development by market players.	1.7.1 Kick-off seminar: Regulations and security of supply in EU Member States	Michel Rivier Abbad, Sandro Furlan	6	2	2	Experts from the electricity and gas markets	1
	1.7.2 Analysis of Turkish security of supply situation and policies and outline of recommendations for security of supply regulation for the electricity and gas markets	Michel Rivier Abbad, Sandro Furlan	10	2	3-6		1
	1.7.3 Analysis of Turkish energy demand development and policies and outline of recommendations for demand side management	Marcella Pavan	13	2	3-4		1
	1.7.4 Analysis of reliability of service issues and outline of related recommendations	Elena Fumagalli	13	3	4-5		1

	1.7.5 Follow-up and discussion of achievements	Marcella Pavan, Michel Rivier Abbad, Sandro Furlan, Elena Fumagalli	12	4	6		1
1.8 Market monitoring, measurement, assessment and development of competitive activity in the electricity and gas market, including reporting on market dominance, market concentration and predatory and anti-competitive behaviour and penalties in compliance with EU experience and practices, competition policies.	1.8.1 Analysis of recent development in the Turkish electricity and gas markets	Oliviero Bernardini Ivana Paniccia Paolo Buccirossi	9	3	2-3	Experts from the electricity, gas, auditing, sectoral competition, legal and international relations departments	1
	1.8.2 Outline of methodological suggestions for market monitoring and reporting	Oliviero Bernardini Ivana Paniccia Paolo Buccirossi	20	4	3-4		1
	1.8.3 Follow-up and discussion of achievements	Oliviero Bernardini Ivana Paniccia Paolo Buccirossi	9	3	6		1
1.9 Market opening, eligible customer concepts and aggregation policies and practices for non-eligible customers.	1.9.1 Illustration of the Italian methodology for the administration of eligible customers and outline of recommendations for Turkey	Oliviero Bernardini PAA	8	2	1-2	Experts from the sectoral competition, international relations auditing, legal, electricity and gas departments	1
	1.9.2 Follow-up and discussion of achievements	Oliviero Bernardini PAA	3	1	2-3		1
1.10 Review of network codes and market-based mechanisms for network access, congestion management and balancing of electricity and gas markets	1.10.1 Outline of EU Member States' methodologies and analysis of the Turkish situation	Federico Boschi, Mauro Formaggio, Rosita Carnevalini	9	3	2	Experts from electricity and gas departments	1

under the condition of sufficient market liquidity, including terms and conditions and tariffs for the provision of balancing services.	1.10.2 Outline of recommendations for Turkey	Federico Boschi, Mauro Formaggio, Rosita Carnevalini	11	3	2		1
	1.10.3 Follow-up and discussion of achievements	Federico Boschi, Rosita Carnevalini	4	2	5-6		1
1.11 Protection of consumer rights and settlement of dispute mechanisms and procedures, including approaches to circumvent the emergence of lengthy and time-consuming disputes, and appeal mechanisms in line with EU Member States' experience.	1.11.1 Outline of regulatory experiences in customer protection in Italy and other EU Member States	Gabriella Utili Maria Rita Mazzanti	6	2	3	Experts from legal, sectoral competition and international relations	1
	1.11.2 Analysis of Turkish regulation and outline of recommendations	Gabriella Utili Maria Rita Mazzanti	10	2	4-5		1
	1.11.3 Follow-up and discussion of achievements	Gabriella Utili Maria Rita Mazzanti	6	2	6		1
1.12 Concepts, application and time-frame for stranded costs including those in small, isolated systems.	1.12.1 Outline of regulatory experiences in Italy and other EU Member States	Oliviero Bernardini	5	1	3	Electricity, gas and legal departments	1
	1.12.2 Analysis of Turkish stranded costs and outline of recommendations	Oliviero Bernardini	10	1	4-5		1
	1.12.3 Follow-up and discussion of achievements	Oliviero Bernardini	3	1	6		1
1.13 Specific regulatory issues relating to LNG storage and underground storage of natural gas.	1.13.1 Outline of regulatory experiences in Italy and analysis of the Turkish situation	Alberto Cavaliere PAA	3	1	3	Natural gas department	1

	1.13.2 Outline of recommendations for Turkey	Alberto Cavaliere PAA	5	1	4		1
	1.13.3 Follow-up and discussion of achievements	Alberto Cavaliere PAA	3	1	4		1
1.14 Technical control and inspection activities and issues of metering, theft and loss, execution of fines and auditing activities.	1.14.1 Outline of the regulatory experiences in Italy	Stefano Ramponi, Giulio del Gobbo	6	2	2	Auditing, legal, electricity and gas departments	1
	1.14.2 Analysis of Turkish situation and outline of recommendations	Stefano Ramponi, Giulio del Gobbo	10	2	3-4		1
	1.14.3 Follow-up and discussion of achievements	Stefano Ramponi, Giulio del Gobbo	6	2	6		1
1.15 Best practices of Regulatory Information System (RIS) in EU countries, regulatory accounting standards, financial reporting and expropriation issues.	1.15.1 Outline of the regulatory experiences in Italy and other EU countries.	Marco Delpero, Andrea Galieti	10	2	4	Related experts from all departments	1
	1.15.2 Analysis of Turkish situation and outline of recommendations	Marco Delpero, Andrea Galieti	10	2	5-6		1
1.16 Regulatory issues concerning the containment of the impact of long term contracts on competition.	1.16.1 Outline of the regulatory experiences in Italy and other EU countries	Guido Cervigni Sylvie D'Apote	6	2	2	Legal, natural gas and electricity departments	1
	1.16.2 Analysis of Turkish situation and outline of recommendations	Guido Cervigni Sylvie D'Apote	10	2	3-4		1
	1.16.3 Follow-up and discussion of achievements	Guido Cervigni Sylvie D'Apote	6	2	6		

1.17 Closing event.	Public high level debate on “The Turkish electricity and gas market towards EU accession”	Project leader, AEEG President, Jacques De Jong, PAA	3	3	6	Project leader, EMRA President, Burçin Pamuksuz	1
2.EMRA Staff Training Programme							2
2.1 Training for EMRA's assistant energy experts, primarily on the EU internal energy market and management issues	2.1.1 (A-N) Training Course	Please see Training Table below	40	13	2-3		2
	2.1.2 Contracted Services						2
	2.1.3 Training Assessment	Tutors and PAA	5	1	4		2
2.2 Training for EMRA's senior energy staff on key regulatory issues, notably those with implications on the EU internal energy market, EU regulatory practices and management issues.	2.2. Training sessions for senior staff	Please see Training Table below	51	24	2, 4, 6		2
2.3 Study visits	See Annex I	PAA	35	7	3-8		2
3. Development of good governance, corporate identity, adoption and modification of organization structure, revising and streamlining working procedures and human resource development.	3.1. International seminar on the organisation of energy regulators	Organisation experts from OFGEM, CRE, CNE, DTE, AEEG	12	6	2		3

	3.2.1 Analysis of EMRA's organisational structure and development of reorganisation suggestions	Luca Lo Schiavo	6	2	2-3		3
	3.2.2 Analysis of the current Turkish tariff system and recommendations for reform	Luca Lo Schiavo	10	2	4		3
	3.2.3 Follow-up and discussion of achievements	Luca Lo Schiavo	6	2	7		3
Totals of STE Working days/Visits			546	152			