IPA 2008 CROATIA PROJECT FICHE

HR2008-03-15-03

1. Basic information

1.1 CRIS Number: 2008/020-329
1.2 Title: **Monitoring Dependence and Vulnerability of Energy Supply System with the Scope on Security of Supply**
1.3 Code: 03.15 - Energy
1.4 Location: Croatia

**Implementing arrangements:**

1.5 Implementing Agency:
Central Finance and Contracting Agency (CFCA)
Ms Marija Tufekčić
Programme Authorising Officer
Ulica grada Vukovara 284
10000 Zagreb, Croatia

1.6 Beneficiary (including details of SPO):
Beneficiary:
Ministry of economy, labour and entrepreneurship (MoELE)
Directorate for energy and mining
Department for strategic planning, energy balances and market of energy-generating products
U. grada Vukovara 78
10 000 Zagreb, Croatia

Responsible person:
Ministry of economy, labour and entrepreneurship
Ms. Tajana Kesić – Šapić, State Secretary (SPO)
U. grada Vukovara 78
10 000 Zagreb, Croatia

1.7 Overall cost: 1.100.000 €
1.8 EU contribution: 990.000 €
1.9 Final date for contracting: 2 years following the date of conclusion of the Financing Agreement
1.10 Final date for execution of contracts: 2 years after the end date for contracting
1.11 Final date for disbursements: 3 years after the end date for contracting
2. **Overall Objective and Project Purpose**

2.1 **Overall Objective:**

To harmonize legislation and to implement the acquis communautaire in the energy sector in the field of security of supply.

2.2 **Project purpose:**

To establish national system for monitoring methodologies, indicators and standards in relation to security of energy supply

2.3. **Link with AP/NPAA / EP/SAA**

1. **Stabilization and Association Agreement, COM (2001) - 371 final, Article 101:**

   “Cooperation will reflect the principles of the market economy and the European Energy Charter Treaty, and will develop with a view to the gradual integration of Europe’s energy markets.

   Cooperation shall include the following in particular:

   - The formulation and planning of energy policy, including modernization of infrastructure, improvement and diversification of supply and improvement of access to the energy market, including facilitation of transit, transmission and distribution and the restoration of electricity interconnections of regional importance with neighbouring countries.
   - Management and training for the energy sector and transfer of technology and know-how.
   - Promotion of energy saving, energy efficiency, renewable energy and studying of the environmental impact of energy production and consumption.
   - Formulation of framework conditions for restructuring of energy companies and co-operation between undertakings in this sector.

   Development of regulatory framework in the field of energy in line with the EC *acquis communautaire*.”


   Chapter 3.2 Midterm priorities

   Sectoral policies – Energy

   “Continue alignment with the aquis on the internal energy market (electricity and gas), improve energy efficiency, promote renewable energy sources, build up stocks to ensure adequate security of supply, ensure nuclear safety and radiation protection; strengthen administrative capacity in all these areas”.

3. **National Programme for the Integration of the Republic of Croatia into the European Union 2008.**

   Chapter 3.15.1: Energy products market and security of supply, B) Key Priorities
“Project activities ensuring greater security of supply of energy products will continue”.


Ability to assume obligations of membership - Chapter 15: Energy
- Fulfil obligation arising from the Energy Community Treaty
- Strengthen administrative capacity and complete alignment with the EU acquis in the fields of security of supply, energy efficiency and renewable energy sources, the internal energy market (electricity and gas) and nuclear energy as well as ensure high level of nuclear safety and radiation protection.

5. Progress report has cover time period until 06.November 2007. (Croatia Progress Report COM 2007 - 663 final)
Chapter 15, Section 4.15. p.39
„There has been progress on security of supply. On 1 July 2007 Croatia held compulsory oil stocks equivalent to 60 days' consumption. A contingency plan for dealing with disruptions of supply is being developed. Preparations in this area are underway but legislation on authorizations for prospection, exploration and production of hydrocarbons remains to be aligned with the acquis“.

2.4 Link with MIPD 2008 - 2010

This project is envisaged to contribute to the Third Strategic objective under IPA Component “to further enhance Croatia’s ability to assume the obligations of membership by supporting the institutional capacity building for acquis transposition and implementation according to the priorities identified in the Accession Partnership, the screening reports and subsequent negotiations in the different chapters of the acquis". Since Accession partnership identifies priorities in the field of Energy MIPD envisages for the assistance to focus on inter alia “To reinforce and coordinate administrative structures”.

2.5 Link with National Development Plan (where applicable)

Not applicable

2.6 Link with national/ sectoral investment plans(where applicable)

Not applicable

3. Description of project

3.1 Background and justification:
Security of energy supply is one of the most important tasks of energy policies makers nationally and internationally, it is crucial that energy economy will be in a place for adequate policy development and implementation with objective to ensure all necessary aspects of reliable, safe and permanently available energy supply with special emphasis on internal and external energy market, diversification of energy generating products –
energy mix, decrease of energy dependency and energy system vulnerability in terms of energy availability and accessibility taking into account consumer and environment protection.

In that regard and according to the last revised Accession Partnership, Croatia has to strengthen administrative capacity and complete alignment with the EU acquis in the fields of security of supply. Croatia has developed a regulatory framework by setting-up energy market legislation for electricity and gas (cf. Annex IV: Law on Electricity Market Official Journal (Narodne Novine) 177/2004, 76/2007, Law on Gas Market Official Journal (Narodne Novine) 40/2007) through which EU directives and regulations have been transposed and partially implemented (cf. Annex IV: Directive 2003/54/EC, Directive 2003/55/EC, Council Directive 2004/67/EC, Directive 2005/89/EC). Security of supply is also partially covered throughout those laws. In 2008 further alignment with the acquis communautaire is foreseen by proposing Regulation on security of supply in crisis situations which is in preparation phase in MoELE and it is expected for the Croatian Government to approve it by the end of year. Those regulations will set-up administrative procedures for the Early Crises Warming System (ECWS) with respect to secure and reliable energy supply especially in electricity and natural gas sector. In that regard, and to support administrative procedures in case of crises situations (war, weather disasters, huge price increase of energy-generating products, shortfall of energy-generating products on market…), Croatia has to develop a national monitoring system for the secure supply of energy.

On the other hand, by signing the Energy Community Treaty (ECT), Croatia has the obligation to report every two years on the state of the security of supply. Security of supply statements is a summary of an extensive report which presents obligations based on ECT, which is prepared by the Ministry of Economy, Labour and Entrepreneurship and other relevant institutions as part of preparations for EU accession. In June 2007 Croatia prepared a “Security of supply statement” which was submitted to Energy Community. This statement reports on Croatia’s obligations set-up by the ECT, and its scope is limited to security of electricity and natural gas supply.


At this moment Croatia does not have any national system for monitoring security of energy supply. Therefore main objective of proposed project will be to set up a national system of procedures for monitoring fuel dependence, vulnerability and sustainability of energy system. After assessment of the existing situation concerning available energy and non energy data and methodological and technical preparation of those data, monitoring software will be developed.

Monitoring software is to be used by MoELE and partly by all relevant Institutions that are involved in the Energy supply system with their respective goals and tasks is given in Annex III. The final beneficiary of the project and the key stakeholder of the project will be the Department for strategic planning, energy balances and market of energy-generating products under the Energy and Mining Directorate of the Croatian Ministry of Economy, Labour and Entrepreneurship. The main objective of this Department is creating conditions for implementation of energy politics of Republic Croatia,
development of energy strategies and harmonization of Croatian legislative in energy sector with legislative framework and politics of EU. Besides MoELE as main beneficiary following institutions will also be involved in the project implementation in respect to their role and activities conducted in Croatian energy sector: Croatian Energy Regulator (CERA), Croatian Energy Market Operator (HROTE), Croatian Electricity Company (HEP), Croatian Oil and Refining Company (INA), Joint Stock Company (JANAF), Croatian Gas Company (PLINACRO), Croatian LNG Company PROplin and Croatian Compulsory Oil Stock Agency (CCOSA). MoELE has already made familiar involved institutions with the project purpose. Most of the involved institutions (except INA which is partially owed by state) are fully owned by the state and consequently are responsible to MoELE. However an informal understanding on mutual cooperation has been reached what will ensure that concerned institutions are providing adequate working environment for their involved staff and the project team.

In general this project is expected to provide a description of existing obstacles, define tasks, functions, prerequisite for methodology for security of supply monitoring system. The provision of number of reporting units included into monitoring system, the methodology used for data processing, analyzing, calculating and defining indicators and standards.

This technical project should be worked-out for all aspects in conjunction with fuel dependence monitoring procedures, energy system vulnerability, sustainability, demand side management capacity and all other aspects in terms of energy market liberalization with scope to security of energy supply and early crises warning. The process of integrating administrative sources into monitoring system will differ in difficulty, depending on the types of information systems.

After having an operational monitoring system and the Regulation on security of supply in crisis situation approved, Croatia will be able to establish Early Crises Warning System with respects to secure and reliable energy supply especially in electricity and natural gas sector.

3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact (where applicable)

Impact and catalytic effect
Due to the raising importance of the security of energy supply it is expected for the project to have a strong impact through establishment of the System for Monitoring Dependence and Vulnerability of Energy Supply with Scope on Security of Supply for Republic of Croatia accordingly to EU requirements in order to fulfil obligations of EU Member State in shorter time than it would be without financing. The strongest impact of proposed project is expected to be on security of supply for electricity and natural gas sectors what will also facilitate the fulfilment of MoELE public obligations in respect to relevant energy market legislation.

Additionality is ensured. EU funding will not replace other funding from the government or other donors and the EU funded intervention/project will result in benefits which would not occur otherwise.

Sustainability
Train the trainers approach for the use of monitoring software will ensure that appointed staff of institutions that monitor security of the energy supply are able to operate with
the developed software. After the completion of this project, the owner of the software will remain MoELE.

**Cross border impact**

Not applicable.

3.3 Results and measurable indicators:

**Results and measurable indicators in relation with activity 1**

Result 1.1. Institutional and operational framework for monitoring of the security of energy supply developed and set up

Result 1.2. Requirements for the monitoring software developed.

That will be assessed according to the following indicators:

- All necessary monitoring data produced and compatible with EU requirements
- Specification for the monitoring IT software developed
- All necessary reports produced and provided to EC and to national users.

**Result and measurable indicators in relation with activity 2**

Result 2.1. Monitoring system for the security of energy supply operational in all involved administrative institutions

That will be assessed according to the following indicators:

- Monitoring software produced
- All relevant administrative institutions integrated into monitoring system and having access on different level
- Approximately 20 people trained to use software

3.4 Activities:

**Activity 1 - Operational and institutional framework and definition of respective software characteristics - will be implemented through Contract 1: Technical Assistance**

Activity 1.1. Assessment of existing situation concerning security of supply situation in Croatia, including legislation and institutional set-up according to national and EU requirements in terms of security of supply.

Activity 1.2. Conducting an analyses of all necessary methodologies, procedures, standards, monitoring tools, indicators and other elements that are necessary for establishment of the adequate monitoring system for the security of supply.

Activity 1.3 Assistance in elaborating adequate methodologies, techniques, standards, indicators and procedures for monitoring and data selection.

Activity 1.4. Assistance in identifying institutional framework and preparation of data from different sectors and sources – energy, economy, statistics etc – to be compatible with the monitoring system. Under this activity it is envisage to determine information needed by various institutions and how to provide the information in a suitable form to be in a position to use the data in the monitoring system.
Activity 1.5 Assistance in setting up of operating framework through proposal of architecture for monitoring system, technical and applicable assumptions, including safety of information system and data back up and assurance of compatibility of the system with one which will be used under IPA 2007 project.

Activity 1.6 Providing recommendations for monitoring software development

**Activity 2 – Development of the software and respective trainings - will be implemented through Contract 1: Technical Assistance**

Activity 2.1. Development of the separate, tailor made software that will be technically compatible with the one produced under IPA 2007 project and which will be worked out on the basis of information needs and users requirements.

Activity 2.2. Launching new monitoring software in practice and make improvements and fine tuning if necessary

Activity 2.3. Launching of functioning monitoring system into the practice

Activity 2.4 Preparation of the Operating User Manual for usage of software

Activity 2.5 Organize workshops covering topics on energy economy, realised and anticipated energy balances, energy demand planning, various indicators and standards with the scope on energy supply security. This, along with participation in the previous IPA 2007 project activities will build up capacity among final beneficiary (-ies) to continue with monitoring of the energy supply security system.

Activity 2.6 Training workshops for appointed staff of all involved institutions to obtain extensive knowledge on how to use monitoring system and to develop practical skills. Seminar will be attended approximately by 20 people from all involved institutions.

Two main tasks of the technical assistance will be:
- to prepare technical architecture of the monitoring system for the security of supply and to prepare a list of recommendations for the monitoring software development.
- to develop stand alone tailor made software since energy economy has its national specificities, unified software does not exist on regular IT market.

Software development is necessary for processing economic, energy, statistical, mathematical, environmental etc. data sets, energy balances. Usage of this program will enable analysts to making various mathematical - numerical, economical, statistical, etc. calculations. Based on these conclusions and analysis results of given numerical parameters different recommendation will be made to policy makers and Croatian government in terms of security of supply. Programmed software will be operational if installed on the existing working stations (computers) which will be procured through IPA 2007 project and made available before start of project in MoELE and involved institutions into project.

3.5 Conditionality and sequencing:
National co-financing will be earmarked in the state budget.
3.6 Linked activities

The proposed project is linked to the IPA 2007 project - HR 2007/03/15/4 Energy Administrative Data Management that is due to start by the first quarter of the year 2009. The latter one envisaged to assist in setting up of a national system of administrative registers on energy usage and developing management information system which coordinates the information with the national and international institutions.

There is no overlap between two IPA projects (IPA 2007 and IPA 2008). On the contrary they are complementary in way that certain calculations of those administrative energy data results such as primary energy supply, primary energy demand, final energy demand, import and export of energy-generating products, energy prices and many others parameters and results will be furthermore used as an aggregate data input for monitoring dependence and vulnerability of energy supply system with scope on security of supply project. IPA 2007 would only facilitate access to energy data for the TA expert and avoid the situation of going through complicating procedures of asking energy data inputs to relevant institutions in energy sector. Energy data management project IPA 2007 is a project for management of web based collection of energy administrative data for example: daily electricity production, daily supply of electricity to customers, daily gas supply and demand, prices of oil derivates every Monday on gas stations across Croatia, short and medium term planned investments in power sector, monthly import and export of oil and oil derivates by different companies, filling up tables etc. which are transposed from relevant EU legislation to national legislation, which is in full extent explained in IPA 2007 Project Fiche and MoELE have obligation to collect them. This obligation arises from transposition of EU legislative into Croatian national legislative. The proposed project under IPA 2008 is to develop analytical software using numerical, statistical, socio-economical, technical, etc. data, like total primary energy demand and supply (TPES and TPED), energy usage by sectors, supply-demand index based on demand and supply structure, crises capability index based on assessment of supply disruptions risks and ability to mitigate risks, final energy intensities, diversity index, energy supply security indicator, human development index as index for long term socio-economic stability, reserve and production ratios, depletion index etc. data for servicing a security of energy supply and early crises warning (for example severe shortage of gas supply or very high price increases).

In terms of the timing, IPA 2008 project is due to start with the implementation after the results of IPA 2007 project should be obtained, that is to say in the 2nd quarter of year 2010. However, the sequencing of the two projects is not an obstacle and if IPA 2007 is delayed, IPA 2008 could start with the first set of activities. Experts’ cooperation and exchange of founding’s on energy data assessment with the TA experts engaged in IPA 2007 would facilitate gap analyses in terms of legislative, institutional setup and technical situation in terms of security of supply foreseen in activity 1.1 of this project.

MELE will ensure coordination and complementarities between the projects funded under IPA 2007 and IPA 2008.

3.7 Lessons learned
Since IPA 2007 project on energy data management is still not in the implementation phase, lessons learned are related to the experience gained during preparatory phase conducted until now which include drafting of log frames, project fiches and terms of references. In this point it is most valuable experience gained from preparatory phase cognition that all aspects of project activities should be very well assumed and explained, preparatory work should be adequately done according to EC prescribed rules and procedures and that deadlines should be followed up. Additionally it was realised that adequate cooperation and involvement of all relevant institution must be ensured.

MoELE will mitigate overlap of IPA 2007 and IPA 2008 projects by strongly proposing diversification by means of proposed projects in terms of relevant EU and national legislative, Energy Community Treaty and final output of proposed projects. Nevertheless experience and expertise gained in implementing CARDS projects by other departments under the same Directorate for energy and mining will be shared between the relevant staff during the regular monthly meetings between PIU members and taken into account. Adequate staffing will be provided in the Department for strategic planning, energy balances and market of energy-generating products for the efficient management of the project activities.
### 4. Indicative Budget (amounts in €)

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>TOTAL EXP.RE</th>
<th>TOTAL PUBL EXP.RE</th>
<th>IPA COMMUNITY CONTRIBUTION</th>
<th>NATIONAL PUBLIC CONTRIBUTION</th>
<th>PRIVATE CONTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EUR (a)=(b)+(e)</td>
<td>EUR (b)=(c)+(d)</td>
<td>EUR (c)</td>
<td>% (2)</td>
<td>Total EUR (d)=(x)+(y)+(z)</td>
</tr>
<tr>
<td>Activity 1</td>
<td>IB</td>
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<td>1.100.000</td>
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<td>90</td>
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<td>contract 1-TA</td>
<td>IB</td>
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<td>1.100.000</td>
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<td>90</td>
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<tr>
<td>TOTAL IB</td>
<td>1.100.000</td>
<td>1.100.000</td>
<td>990.000</td>
<td>90</td>
<td>110.000</td>
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<tr>
<td>TOTAL INV</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>TOTAL PROJECT</td>
<td>1.100.000</td>
<td>1.100.000</td>
<td>990.000</td>
<td>90</td>
<td>110.000</td>
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</table>

**Amounts net of VAT**

(1) In the Activity row use “X” to identify whether IB or INV

(2) Expressed in % of the Public Expenditure (column (b))

(3) Expressed in % of the Total Expenditure (column (a))
5. Indicative Implementation Schedule (periods broken down per quarter)

<table>
<thead>
<tr>
<th>Contracts</th>
<th>Start of Tendering</th>
<th>Signature of contract</th>
<th>Project Completion</th>
</tr>
</thead>
</table>

All projects should in principle be ready for tendering in the 1st Quarter following the signature of the FA.

6. Cross cutting issues (where applicable)

6.1 Equal Opportunity

Equal access regardless of sex, nationality, racial or ethnic origin, religion or belief, disability, age or sexual orientation will be guaranteed for participation in the project. Equal opportunities will be ensured by the Steering Committee during the project implementation.

6.2 Environment

The project will not have any negative effects on the environment, even more one of the main requirements for the future monitoring system is to be environmentally safe.

6.3 Minorities

Based on the fundamental principles of promoting equality and combating discrimination, participation in the project will be guaranteed on the basis of equal opportunity for minorities.
ANNEXES

1- Log frame in Standard Format

2- Amounts contracted and Disbursed per Quarter over the full duration of Programme

3- Description of Institutional Framework

4 - Reference to laws, regulations and strategic documents:
   Reference list of relevant laws and regulations
   Reference to AP /NPAA / EP / SAA
   Reference to MIPD
   Reference to National Development Plan
   Reference to national / sector investment plans

5- Details per EU funded contract (*) where applicable:
**ANNEX I**

### Logical Framework Matrix

<table>
<thead>
<tr>
<th>Monitoring dependence and vulnerability of energy supply system with scope on security of supply</th>
<th>Programme name and number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of the Economy, Labour and Entrepreneurship Directorate for Energy and Mining</td>
<td>IPA 2008</td>
</tr>
</tbody>
</table>

- **Contracting period expires**: 2 years following the date of conclusion of the Financing Agreement
- **Disbursement period expires**: 3 years after the end date for contracting

<table>
<thead>
<tr>
<th>Overall objective</th>
<th>Objectively Verifiable Indicators – impact indicators</th>
<th>Sources of Verification</th>
</tr>
</thead>
</table>
| To harmonize legislation and to implement the acquis communautaire in the energy sector in the field of security of supply. | • Increased overall level of security of energy supply  
• Full compatibility between national and EU standards on security of supply of electricity, oil and gas upon accession of Croatia to EU  
• Compliance of rules and regulations of Croatia with EU laws. | • EU Progress Report  
• Reports of Directorate for Energy and Mining  
• Energy security of supply reports to EC/Energy Community  
• Croatian Official Gazette |

<table>
<thead>
<tr>
<th>Project purpose</th>
<th>Objectively Verifiable Indicators – result indicators</th>
<th>Sources of Verification</th>
</tr>
</thead>
</table>
| To establish national system for monitoring methodologies, indicators and standards in relation to security of energy supply | • Monitoring IT system operational  
• Network of institutions operational involved in monitoring energy security  
• All relevant data on energy security regularly produced for reporting and decision-making purposes  
• Full compatibility between national and EU standards on electricity, oil and gas security of supply standards when Croatia become MS and the project will be finish  
• Developed software tools for processing administrative data as planned in year 2011  
• Number of rules and regulations | • Project Reports  
• Independent Evaluation reports  
• Monitoring reports  
• Annual report of Croatian Energy Regulatory Agency  
• Statistical office reports  
• Mandatory Reports/Documents useable by domestic and international institutions  
• Croatian Official Gazette – (Narodne Novine) |

<table>
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<tr>
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<th>Assumptions</th>
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</thead>
</table>
| | | • Allocated budgetary resources are sufficient for the successful project outcome  
• Enough human resources are provided from relevant institutions  
• Support and cooperation between relevant institutions  
• Further alignment with the relevant EU energy acquis |
<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively Verifiable Indicators – output indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| 1.1 Institutional and operational framework for monitoring of the security of energy supply developed and set up | • All necessary monitoring data produced and compatible with EU requirements.  
• Specification for the monitoring IT software exists.  
• All relevant reports produced and provided to EC and national users according to time schedule imposed by EU legislative and Energy Community Treaty | • Reports produced and provided to EC and national users  
• Project progress report  
• Seminar/workshop materials  
• Manual of monitoring software | • Availability of long-term qualified experts employed by involved institutions  
• The project is implemented and software used |
| 1.2. Requirements for the monitoring software developed | • Monitoring software produced  
• All relevant administrative institutions integrated into monitoring system having access on different level  
• Approximately 20 people trained to use software | | |
| 2.1. Monitoring system for security of energy supply is operational in all involved administrative institutions | | | |

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Specification of costs</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| 1. Operational and Institutional framework and definition of respective software characteristics  
1.1 Assessment of existing situation concerning security of supply in Croatia including legislation and institutional set-up according to national and EU requirements in terms of security of supply  
1.2 Conducting an analyses of all necessary methodologies procedures, standards, monitoring tools, indicators and other elements that are necessary for establishment of the adequate monitoring system for security of supply  
1.3 Assistance in elaborating adequate methodologies, techniques, standards, indicators and procedures for monitoring and data selection  
1.4. Assistance in identifying institutional | 1. Technical Assistance Contract | € 1.100,000 | • Technical assistance selected according to the rules  
• Personal capacities and project management in the beneficiary institutions ensured  
• Continuous cooperation between TA and IT experts to develop detailed specifications of the software  
• Contractor/System developer will provide staff with adequate knowledge  
• Assurance of co-financing  
• Availability of data throw IPA 2007 “Energy Administrative Data |
framework and preparation of data from different sectors sources – energy, economy, and statistics etc- to be compatible with monitoring system.

1.5. Assistance in setting up of operating framework through proposal of architecture for monitoring system, technical and applicable assumptions, including safety of information system and data back up

1.6. Providing recommendations for monitoring software development

2. Development of the software and trainings

2. Development of software and respective trainings

2.1. Development of the separate, tailor made software

2.2. Launching new monitoring software in practice and make improvements and fine tuning if necessary

2.3. Launching of functioning monitoring system into the praxis

2.4. Preparation of the Operating User Manual

2.5. Organize workshops and seminars on energy economy and demand side management

2.6. Train the Trainers workshops for appointed staff of all involved institutions

| Management” project or in direct contact with energy administrative sources |
| • Necessary resources provided |
| • Adequate number of the competent staffing which is in charge of the realization of the project has to be in place for implementing and monitoring project activities |
| • All necessary equipment (working stations, etc.) are available by the MoELE prior to the project start |
ANNEX II:  amounts (in €) Contracted and disbursed by quarter for the project

<table>
<thead>
<tr>
<th>Contracted</th>
<th>2009 Q4</th>
<th>2010 Q1</th>
<th>2010 Q2</th>
<th>2010 Q3</th>
<th>2010 Q4</th>
<th>2011 Q1</th>
<th>2011 Q2</th>
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<tr>
<td>Technical assistance</td>
<td>1.100.000</td>
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<td>-</td>
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<tr>
<td>Cumulated</td>
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<tr>
<th>Disbursed</th>
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<tr>
<td>Technical assistance</td>
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<td>200.000</td>
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<tr>
<td>Disbursed</td>
<td>250.000</td>
<td>400.000</td>
<td>500.000</td>
<td>600.000</td>
<td>800.000</td>
<td>900.000</td>
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</table>
MoELE (Department for energy and mining) The Energy Department carries out activities relating to energy balance of the Republic of Croatia, analyses the energy flows, the situation in the world energy sources market, considers the energy source price issues, carries out activities relating to building of energy facilities, harmonizes the connection of energy systems of the Republic of Croatia with the systems of other countries, coordinates the energy system development with the development plans of the Republic of Croatia, proposes measures for efficient organization of energy activities, participates in drafting laws and regulations relating to energy sector, oversees and reviews economic measures affecting the status of legal persons in the energy sector, participates in drawing up and procedure of enactment of tariff systems and general conditions for particular energy sources and customer categories, oversees development programmes and business operations of companies in the energy sector, carries out reviews and prepares documentation for approval of energy related investment plans within the competence of the Ministry of the Economy, Labour and Entrepreneurship follows up the development status of petroleum & gas management abroad, proposes activities relating to energy efficiency area and the area of renewable energy resources, participates in activities referring to bilateral and multilateral agreements of the Republic of Croatia in the energy sector; organizes promotion activities and carries out other activities within its scope.

The project leader and direct beneficiary of the support for Monitoring Dependence and Vulnerability of Energy Supply System with Scope on Security of Supply project is the Ministry of Economy, Labour and Entrepreneurship (MoELE).

The partner institutions involved are: Croatian Energy Regulator (CERA), Croatian Energy Market Operator (HROTE), Croatian electricity company (HEP), Croatian oil and refining company (INA), Joint Stock Company (JANAF), Croatian Gas Company (PLINACRO), Croatian LNG company PROplin and Croatian Compulsory Oil Stock Agency (CCOSA).

CERA is an autonomous, independent and non profit public institution with responsibilities of the body which carries out regulation of energy activities in the Republic of Croatia, in accordance with the Law on regulation of energy activities, Energy law and other laws which define regulation of different energy activities. It passes regulations within the energy sector under these Laws and regulations which regulate the performance of particular energy activities, giving opinions or consent regarding the rules and regulations within the energy sector. Also collects and processing data regarding the activities of energy undertakings, supervises over the service quality provided by energy undertakings, participates in the
energy policy design, and cooperates with ministries and responsible inspection boards in accordance with applicable laws.

**HROTE** Opening of electricity market represents an irreversible process. In an increasingly complex electricity supply system HROTE implements market rules and surveys relationships among market participants. Public awareness of environmental protection and sustainable energy development favours the promotion of energy efficiency and use of renewable energy sources. HROTE has an important role in intensifying electricity production from renewable energy sources and cogeneration.

**HEP** In accordance with energy legislation, on 1 July 2002 HEP d.d. was transformed into HEP Group - a system of related companies performing core electric activities and auxiliary activities. HEP Group is a holding consisting of a parent company or HEP d.d. and its subsidiary companies. Given that a holding does not constitute a legal entity in its own right, HEP Group is not one either. Only individual companies within the holding are legal persons. In other words, HEP Group is a group of legally independent related companies which are subsidiaries of its founder (HEP d.d.). While retaining title to assets the parent contractually transfers them to its subsidiaries or daughter companies for management and has the final responsibility for the provision of public service and competitiveness on market.

**INA** is vertically integrated oil and gas company operating in oil and gas exploration and production, refining and marketing of oil products. Its subsidiaries are engaged in LPG business, natural gas transportation and providing integrated oilfield services. INA is a medium-sized European oil company and a significant regional player.

**JANAF** Joint Stock Co.(JANAF Plc.), headquartered in Zagreb, in charge of managing the Adriatic oil pipeline system designed and built in the period from 1974 to 1979, as modern, efficacious, and cost-efficient crude oil transportation system for both local and foreign users. Along with crude oil transportation, other major activities of JANAF Plc. are also reloading and storage of crude oil and oil products.

**PLINACRO** As an independent legal subject, PLINACRO was established in 2001, though with a long tradition and experience in performing natural gas transmission by high pressure pipelines to distributors and industrial consumers in north and east Croatia. On January 19, 2001 a company PLINACRO Ltd was established and registered as a member of INA group, 100% owned by INA Plc, while from March 11. 2003 the company became a state-owned company.

**Proplin Ltd.** is the leading company in Croatia in sale and distribution of liquefied petroleum gas in all sectors of industry and economy.

**HANDA** Newly established agency for Croatian Compulsory Oil Stocks (O.J. 57/2006). The main objective of agency is establishment and management of 90 days compulsory oil stock and security of supply according to EU directive.
ANNEX IV - Reference to laws, regulations and strategic documents:

**LIST OF RELEVANT LAWS AND REGULATIONS**

**Croatian legislation:**
- Energy sector development strategy of the Republic of Croatia *Official Journal 38/2002*
- Ordinance on energy balances *Official Journal (Narodne Novine) 33/2003*
- Law on oil and petroleum product market *Official Journal (Narodne Novine) 57/2006*
- Law on Gas Market *Official Journal (Narodne Novine) 40/2007*

**European Commission legislation:**
- Council Directive 2006/67/EC of 24 July 2006 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products (Text with EEA relevance)
- 77/706/EEC: Council Decision of 7 November 1977 on the setting of a Community target for a reduction in the consumption of primary sources of energy in the event of difficulties in the supply of crude oil and petroleum products

**Reference to AP / NPAA / EP / SAA** (Please see Section 2.3)

**Reference to MIPD** (Please see Section 2.4)

**Reference to National Development Plan** (Please see Section 2.5)

**Reference to national / sector investment plans** (Please see Section 2.6)
ANNEX V - Details per EU funded contract (*) where applicable:

For Contract 1 - Technical assistance:

It is the opinion of the project beneficiary that the Technical assistance should be given the precedence to Twinning instrument due to the specificity of the “security of energy supply” field for which necessary expertise is more likely to be found in the private sector than in public administration bodies. Requirements for the security of supply are given by the EU, but there is a wide range of the implementation of those requirements on the national level among member states. With security of supply being very sensitive issue it is therefore the wish of the FB to have assistance that is familiar with the wide range of different “security of energy supply” systems, especially in relation to the relevant institutional set-up, rather then having one roll model which will most likely to happen in the case of twinning. Additionally use of technical assistance would enable FB to implement the project through one contract since IT expertise is largely located in the private sector.

Account of tasks expected from the contractor

- Give assessment of present situation concerning energy security of supply systems
- Make analysis of the EU legal framework, EU recommendations for methodology in the field, use of administrative sources for development of monitoring system
- Provide Listings of necessary administrative data required by EU
- Methodological and technical preparation of integration of different data from administrative sources
- Use of energy and non-energy administrative sources for purposes of developing monitoring system
- Prepare and analyze draft data sets which will be used for software development to manage collection input, analysis, processing and output of processed data
- Building up co-operation networks with individual administrators of relevant administrative sources (technical and economic)
- Making analysis of administrative sources (technical, economic and methodological)
- Making analysis of alignment of integration tools
- Working-out a draft set of indicators, standards, methodologies, etc. and integration tools for monitoring system
- Working-out draft of general (for all sources) and specific (for each) source
- Drafting of architecture of software development for monitoring system, technical and applicable assumptions, including safety of information system and data back up
- Make recommendations for monitoring software development
- Examine the possibilities offered by various software (IT) technologies
- Working out technical project as complex basis for programming, which will solve integration of data set into the system
- Development of tailor made software for monitoring purposes
- Presentation of software model to involved users
- Testing upon implementation of software
• Carrying out pilot project- filling in monitoring systems with data, solving of data compatibility and functionality
• Launching of functioning monitoring system into the praxis
• Writing instructions and Manual
• Holding a training of staff of - approximately 20 employees
• Other activities related to the methodological and technical preparation of the monitoring system

Profile of the long-term Technical Assistance (Team leader):
• Experience with EU legislative implementation
• Senior expert in the field of Energy, with special emphasis on Energy economy
• Familiar with data requirements and legislative in EU for Energy sector
• Strong background in field of electricity, gas, oil and oil derivates
• Excellent knowledge of IT
• Excellent knowledge of software development
• Minimum 10 years of adequate experience
• Experience with a similar project is an asset
• Good managerial and communication skills, ability to explain and deliver substance of the subject in clear and understandable way