Doc. N° 01/I SPA/MC/055 ISPA Measure No: 2001 BG 16 P PE 006

# FINANCING MEMORANDUM

Agreed between the European Commission and the Republic of Bulgaria

Concerning the grant of assistance from the Instrument for Structural Policies for Pre-accession to the following measure

Wastewater Collection and Treatment

located in Pazardjik, Bulgaria

### FINANCING MEMORANDUM

The European Commission, hereinafter referred to as "the Commission", acting for and on behalf of the European Community, hereinafter referred to as "the Community" represented by the Commissioner for Regional Policy, Mr. Michel Barnier, for the Commission

on the one part, and

The Government of Bulgaria, hereinafter referred to as "the beneficiary"

on the other part,

HAVE AGREED AS FOLLOWS:

#### Article 1

The measure referred to in Article 2 below shall be implemented and financed out of the budgetary resources of the Community in accordance with the provisions set out in this Memorandum. The measure referred to in Article 2 below shall be implemented in line with the General Conditions annexed to the Framework Agreement signed between the Commission and the beneficiary and supplemented by the terms of this Memorandum and the provisions annexed hereto.

#### Article 2

#### Identification of the measure

The Instrument for Structural Policies for Pre-accession shall contribute, by way of a grant, towards the financing of the following measure as described in Annex I:

Measure number: 2001 BG 16 P PE 006

Title: Pazardjik Wastewater Collection and Treatment

<u>Duration</u>: **Start date**: The date of signature of the financing memorandum by the Commission.

End date: 31 December 2006.

Location: Pazardjik, Bulgaria

Group: Maritsa Basin

#### Article 3

### Commitment

- 1. The maximum public or equivalent expenditure which may be taken into account for the purpose of calculating assistance shall be € 19 110 968;
- 2. The rate of Community assistance granted to the measure is fixed at 65 % of total public or equivalent expenditure as indicated in the financing plan in Annex II;
- 3. The maximum amount of assistance from the Instrument for Structural Policies for Pre-accession is fixed at € 12 422 129;
- 4. An amount of € 9 937 703 is committed from the 2001 budget under budgetary line B7-020. Commitments in respect of subsequent instalments shall be based on the initial or revised financing plan for the measure, subject to the state of implementation of the measure and to budgetary availability.

#### Article 4

#### Payments

- 1. Community assistance shall cover payments on the measure for which legally binding commitments have been made by the beneficiary and for which the requisite finance has been specifically allocated. These payments must relate to the works described in Annex I.
- 2. Payments made before the date of signature of financing memorandum by the Commission shall not be eligible for assistance from the Instrument for Structural Policies for Pre-accession.
- 3. The measure described in Annex I and payments by the body responsible for the implementation of the measure shall be completed no later than 31 December 2006.

The report required for the payment of the final balance should be submitted not later than 6 months after this date.

- 4. The advance payment is fixed at  $\notin$  2 484 426, which shall be transferred as follows:
  - An amount of  $\in$  1 242 213 is paid out after signature of this memorandum by the beneficiary;
  - The remainder is paid out after signature of the first substantial works contract to be agreed between the beneficiary and the Commission and the fulfilment of the other conditions specified in the Art. 8 (3) hereunder.
- 5. In accordance with Annex III. 1, Section III, point 5, the Commission will accept for this measure a total amount of advance and intermediate payments of 90 % of the total assistance granted.

#### Article 5

#### Respect of Community law and policies

The measure shall be carried out in compliance with the relevant provisions set out in the Europe Agreements and shall contribute to the achievement of Community policies, in particular those concerning environmental protection and improvement.

#### Article 6

#### Intellectual property

The Beneficiary and the authority responsible for implementation mentioned in Annex I point 3 shall ensure that they acquire all necessary intellectual property rights to studies, drawings, plans, publicity and other material made in conjunction with planning, implementation, monitoring and evaluation of the project. They shall guarantee that the Commission, or any body or person delegated by the Commission shall have access and the right to use such material. The Commission will only use such material for its own purpose.

#### Article 7

#### Permits and authorisations

Any type of permits and or authorisations required for the implementation of the measure must be provided by the competent authorities of the Beneficiary in due time and in accordance with national law.

#### Article 8

# Specific conditions related to the measure

Without prejudice to the general provisions specified in Annex III the Community grant for the measure is subject to the following conditions:

1. Condition on the assumptions and the status of the assets:

The Commission reserves the right to revise the amount of the assistance for ISPA set out in Article 3 if, within five years of the date of the completion of works, the operating conditions (tariffs, revenues, etc.) vary significantly relative to the original assumptions made in determining the level of the grant and/or there is a substantial modification:

- a) affecting the nature of the operation or its implementing conditions, or giving to a private or public body an undue advantage; and
- b) resulting either from a change in the nature of the ownership of any part of the financed infrastructure, or a cessation or material change in the operating arrangements.

The beneficiary country shall inform the Commission of any such change, and shall seek the ex-ante agreement of the Commission to these changes.

2. Condition on viability:

The Community grant for the measure is subject to the authorities concerned making available sufficient resources in order to ensure the effective operation and maintenance of the assets.

- 3. The second half of the advance, in addition to the condition specified in Art. 4 (4), shall be subject to:
  - a) an undertaking by the authorities to present the municipal programme for investments in the water sector in Pazardjik;
  - b) the presentation by the beneficiary of a final procurement plan, which has to be agreed by the Commission;
  - c) the setting up of a Project Implementation Unit and the appointment of a project manager for the measure under terms of reference acceptable to the Commission;
  - d) the presentation of evidence that:
    - (i) The industrial wastewater is pre-treated and/or recycled as appropriate.
    - (ii) The pre-treatment is monitored and enforced by the appropriate environmental authorities.
    - (iii) The industrial loads are not harmful to the designed technology to the treatment plant.
  - e) An undertaking by the Bulgarian authorities that an appropriate charge will be introduced for industries, that is acceptable to the Commission, based on the quantity and quality of effluent produced and on the cost of treatment.
- 4. A final programme for treatment, reuse and disposal of the sludge must be presented to the Commission by 31 December 2002 under terms acceptable for the Commission.
- 5. Intermediate payments shall be subject to confirmation that progress has been made in carrying out the works included in the multiyear municipal programme for investment in the water sector in Pazardjik.
- 6. The final payment shall be subject to the presentation by the final beneficiary of a specific operation and maintenance programme under terms acceptable by the Commission by 31 December 2006. The programme shall cover a 10-year period starting from 1 January 2007.

#### Article 9

The implementation provisions described in the Annexes to this financing memorandum form an integral part of it. Non-compliance with the conditions and implementation provisions shall be dealt with by the Commission according to the procedure stipulated in Annex III.1. Section VIII.

#### Article 9

The implementation provisions described in the Annexes to this financing memorandum form an integral part of it.

Non-compliance with the conditions and implementation provisions shall be dealt with by the Commission according to the procedure stipulated in Annex III.1. Section VIII.

#### Article 10

The authentic text of this financing memorandum is the present document as signed hereunder.

Done at 50714,04.02.2002 *For the recipient* 

National ISPA Coordinator/

Done at Brussels,

Q-(144/16-12-2001

For the Community M. Barnier Commissioner



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# List of Annexes

Annex I Description of measure

Annex II Financing plan

# ANNEX 1

#### Description of measure Pazardjik Wastewater Collection and Treatment Commission code No: 2001 BG 16 P PE 006

#### 1. MEASURE TITLE

Pazardjik Wastewater Collection and Treatment

#### 2. AUTHORITY MAKING THE APPLICATION (National ISPA Co-ordinator)

- 2.1. Name: Ministry of Regional Development and Public Works (MRDPW), Directorate "European Investment Projects", Sector "ISPA Co-ordination Unit"
- 2.2. Address: 6, Sv. Nedelya Sq., 1000 Sofia, Bulgaria
- 2.3 Contact: Vesselina Lubenova

# 3. AUTHORITY RESPONSIBLE FOR IMPLEMENTATION (as defined at Section II (2) of Annex III.2)

- 3.1. Name: "Strategy, Accession Programmes and Projects Department (SAPP)", Ministry of Environment and Water (MOEW)
- 3.2. Address: 67, W.Gladstone Sq., 1000 Sofia
  - Contact : Mariana Hristova, SAPP Head of Department, Ministry of Environment and Water (MOEW)
- 4. FINAL BENEFICIARY (IN CASE IT IS A DIFFERENT BODY FROM THE AUTHORITY MENTIONED UNDER 3)
  - 4.1. Name: Regional Water Company Pazardjik
  - 4.2. Address: 6 Vtory January st.
  - 4.3 Contact: Todor Gichev, Chief Engineer

#### 5. LOCATION

- 5.1. Beneficiary country: Bulgaria
- 5.2. Region: Pazardjik, Maritsa basin

#### 6. DESCRIPTION

#### 6.1. Background

The measure relates to one of the priorities of the National Programme for the Adoption of the Acquis (NPAA): "Adoption and implementation of the Acquis communautaires relating to urban waste treatment".

The measure relates also to the following priorities of the Accession Partnership:

- Short-term priority continue transposition of framework and horizontal legislation, establishment of implementation of detailed approximation programmes and implementation strategies related to individual acts.
- Medium-term priority development of monitoring and implementation control structures and capacities, continuous planning and implementation of approximation programmes related to individual legal acts.

The measure is consistent with the National Programme for priority construction of urban wastewater treatment plants in the Republic Bulgaria. The objective of the Programme is to establish, according to the identified river basins, the priorities for construction of urban WWTPs for all populated areas in the country with over 10,000 equivalent inhabitants. It includes finalising the construction of urban WWTPs, reconstruction, extension and modernisation of existing ones, as well as design and construction of new urban WWTPs.

Finally, the measure is consistent with the National Development Plan until the year 2006, Sector "Environment", adopted by the Council of Ministers in 1999.

#### 6.2. The Maritsa basin intervention

This measure is one of the several water projects implemented or in preparation which will affect the Maritsa river basin and financed by ISPA, the Bulgarian budget and / or the EIB.

The measure is consistent with the National ISPA environment strategy adopted in June 2000 by the Bulgarian Superior Council for Regional Development.

The receiving water is the Maritsa River, which reaches the boundary of Greece and Turkey approximately 150 km downstream of Pazardjik, and forms the border of these two countries for approximately 120 km until it reaches the Aegean Sea.

The Bulgarian authorities have financed, with exclusively internal resources, wastewater treatment plants and related investments in Ihtiman (upstream of Pazardjik) and in Plovdiv, Kazanlak and Nova Zagora (all, at present, with operating WWTPs).

The Bulgarian authorities with ISPA and EIB have decided in 2000 to finance the construction of new wastewater plants in Stara Zagora, Dimitrovgrad and Haskovo (the latter only with Bulgarian and EIB resources).

# 6.3. The ISPA Measure

The overall project comprises the construction of a wastewater treatment plant for the treatment of wastewater generated in the city of Pazardjik, which will eliminate the discharge of untreated sewage into the Maritsa River.

The infrastructures are designed to meet effluent standards of the EC Directive 91/271 concerning Urban Wastewater treatment transposed in the Bulgarian legislation with the Ordinance No 6/09.11.2000.

The project preparation was carried out by means of an international consultant firm using Cross Border Co-operation Phare funds for Bulgaria.

#### Component 1

#### The Wastewater treatment plant

The wastewater treatment plant is expected to consist of the following main items:

- Main screens, 3 +1 units;
- Grit removal chamber, 1 tank;
- Primary settling tanks, 2 units;
- Aeration tanks with diffused air aeration, 3 units;
- Secondary Settling tanks, 3units;
- Pumping station for sludge recirculation and surplus sludge;
- Effluent disinfection with chlorine;
- Sludge thickening tank, 1 unit;
- Open sludge digestion tanks, 2 units;
- Sludge drying beds ;
- Administrative building, laboratory, workshop and electrical substation;
- Roads (external and on site).

The Wastewater treatment plant will serve a population equivalent of 216,666 for the year 2025. It will treat a flow of approximately 68,000m3/day and will be designed to meet the following parameters:

Parameters	Unit	Situation today (Paramet.)	Situation before ISPA measure (2025) (Inlet parameters)	Situation with ISPA measure (2025) (Outlet paramet.)
Total daily average flow	m3/d	57 200	68 000	68 000
Population equivalent			216 666	216 666
BoD	mg/l	191	191	25
CoD	mg/l	340	340	125
Suspended solids (SS)	mg/l	178	178	35
Nitrates (N total)	mg/l	19	22	18
Phosphates (P total)	mg/l	1.75	4.1	3.9

# Design parameters for the Pazardjik WWTP

# Component 2

Trunk sewer and connections from the sewer network to the WWTP

- A. A trunk sewer with a total length of 2,655 m (1,000 m already constructed) shall be built between Pazardjik and the WWTP site, composed of the following parts:
  - 1,665 m of collector  $\Phi$  2000 mm;
  - Bridging channel upstream of WWTP L = 13,5 m cross-section 2600/1650 mm.
- B. The following connections B.I and B.II shall be made between the trunk sewer and the sewerage network of Pazardjik:
  - B.I Stormwater overflow and connection of Main Collector I to trunk sewer:
    - 185 m of collector  $\Phi$  1500 mm;
    - 50 m of temporary outfall sewer  $\Phi$  1000 mm.
  - B.II Completion of connection of industrial area collector to trunk sewer with the measures (provided data are approximate numbers);

- Electromechanical equipment of pumping station with 3 pumps (civil works are existing);
- Replacement of existing concrete rising main (in bad condition) between PS and trunk sewer, by a PE (or similar) pipe  $\Phi$  1200 mm, total length 210 m;
- Replacement of existing under crossing the Maritsa river (2 steel pipes in bad condition) by 2 PE (or similar) pies  $\Phi$  1000 mm, length 2 x 268 m.

# 7. OBJECTIVES

The overall objective of the measure is to protect the Maritsa River from pollution from discharges of untreated sewage and industrial wastewater, by upgrading the collection system, by provision of a wastewater treatment plant to treat the wastewater to acceptable effluent quality standards and by provision of an outfall sewer. This measure will improve the sewerage infrastructure to contain and control sewage flows and to reduce leakage from sewers and uncontrolled overflows, which would otherwise damage ground and surface water sources.

In particular, the measure will:

- Enable the city of Pazardjik to achieve compliance with Urban Waste Water Directive;
- Reduce the risks to human health for the population living in the target areas served by the new WWTP;
- Reduce the pollution in the Trans-border region, including the Aegean sea.
- Reduce the potential risk of groundwater contamination;
- Reduce the potential risk of soil contamination;
- Improve the protection of the environment of the river basin waters;
- Improve the state of the flora/fauna of the riverine environment;
- Build-up an effective ecological infrastructure to facilitate economic activity;
- Improve the conditions for the development of key sectors of the economy tourism and agriculture;
- Improve the quality and quantity range of services for the population in the targeted area;
- Create new employment opportunities
  – temporary and permanent and stimulate local and regional development

# 8. INDICATIVE WORK SCHEDULE

Category of work	Commencement	Completion	
Land acquisition	31/12/2000		
Economic analysis	1/2/2001	15/4/2001	
Financial analysis	1/2/2001	15/4/2001	
Feasibility study	1/2/2001	15/4/2001	
EIA	1/2/2001	30/7/2001	
Design studies	1/3/2001	30/6/2001	
Tender documents	1/5/2001	30/10/2001	
Construction	1/10/2002	30/9/2005	
Operational phase	1/10/2005		

#### 9. ENVIRONMENTAL IMPACT ANALYSIS

The type of infrastructure investment falls within the scope of Annex I of the Directive 85/337. The national authorities have discretion to decide if an EIA is required and have decided to carry out the EIA. The competent authority is the Ministry of Environment and Water.

The resolution on EIA, including full public consultation, was taken in July 2001 with a set of recommendations which will have to be followed before the start, during the construction and during the operation period of the plant.

In Bulgaria, the municipalities are obliged to take into account the EIA recommendations.

The measure will meet the requirements of the following EC Directives:

- 1) EC Directive 91/271 on Urban Wastewater Treatment; by ensuring that the wastewater discharges will comply with the requirements for discharges into less sensitive waters, for agglomerations exceeding 10,000 p.e.;
- 2) EC Directive 78/659 on Freshwater Fish needing protection or improvement in order to support fish life as amended by EC Directive 91/692; by treating the wastewater discharges, the measure will contribute to the improvement of the river basin waters and thus the conditions for the support of fish life;
- 3) EC Directive 80/68 on Groundwater Directive as amended by EC Directive 91/692;

- 4) EC Directive 76/464 on the pollution caused by certain dangerous substances discharged into the aquatic environment;
- 5) EC Directive 76/160 concerning the quality of bathing water;
- 6) EC Directive 75/440 concerning the quality required of surface water intended for the abstraction of drinking water;
- 7) EC Directive 80/778 relating to the quality of water intended for human consumption;
- 8) Water Framework Directive 2000/60 establishing a framework for Community action in the field of water policy.

# 10. COST AND ASSISTANCE (IN €)

Total cost	Private sector contribution	Non eligible expenditure	Total eligible cost	ISPA grant	Grant Rate %
19.467.968	0	357.000	19.110.968	12.422.129	65

The national counterpart financing will be provided by the Bulgarian State budget.

For an indicative cost breakdown of the measure, please refer to the following table:

# Indicative Cost breakdown

Item	Total cost (Euro)	Expenditures incurred before application (Euro)
Planning/design fees	335,793	225,000
Land pur chase	-	132,000
SitePreparation	818,311	-
Main works	11,400,796	-
Plant and machinery	4,032,707	-
Technical assistance and Supervision	881,710	-
Contingencies	1,492,410	-
Tax/public levies	-	-
Plant Start-Up	149,241	-
TOTAL (Euro)	19,110,968	357,000

#### 11. INVOLVEMENT OF IFIS

No International Financial Institution is involved in co-financing this measure. It may be noted, however, that the EIB has agreed to finance in 2000 with ISPA and the Bulgarian authorities three other WWTPs in the same river basin (Stara Zagora, Haskovo and Dimitrovgrad for the Maritsa river basin).

#### 12. SPECIFIC CONDITIONS RELATED TO THE MEASURE

See Article 8 of the Financing Memorandum.

#### 13. **PROCUREMENT PLAN**

The works will be implemented according to the indicative procurement plan appended as Annex I.a.

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Tender N°	Description of works and services to be tendered	Type of contract (works, supplies or services)	Provisional month of launch of tender (month/ year)	Rate of reimburs. of invoices relating to specific contract
1	Technical assistance for implementation support *	Service	Early 2002	65%
2	Supervision during the implementation (Fidic engineer)	Service	Early 2002	65%
3	Construction of the proposed waste water treatment plant according to Fidic conditions of contract.	Works	Middle 2002	65%
4	Construction trunk sewer and 5 connections with network and with right bank industrial area according to Fidic conditions of contract.	Works	Middle 2002	65%

# Indicative Procurement Plan

The specific terms for the award of contracts will be made available in the Official Journal of the European Communities and/or the Internet.

\* In addition, as normal ISPA practice, technical assistance will be used, following the Framework contractor procedure, to hire independent expertise to supervise the international tendering.

**ANNEX II** 

FINANCIAL PLAN (based on commitments from EU budget)

Wastewater collection and treatment in Pazardjik in Bulgaria Title of measure:

ISPA No: 2001 BG 16 P PE 006

Euro 9 (%) =8/1 . • Loan from IFI 8 1 . authorities Governmen 6.688.839 National 5.351.071 Central 668.884 668.884 65 6 (%) =5/3 65 65 65 1 . . ٠ Eligible Cost ISPA 12.422.129 9.937.703 1.242.213 1.242.213 5 100 100 100 4 (%) =3/1 86 . . . Total 15.288.774 19.110.968 790.119.1 1.911.097 =5+7 3 357.000 Non Eligible Cost 357.000 2 i, . 1 . 15.288.774 19.467.968 Total Cost 1.911.097 1.911.097 357.000 =2+3 ł non annualised Year Total 2006 2000 2001 2002 2004 2005

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