

## Guidelines and Methodology on Pre-construction Works



**for WWTP municipality projects, Georgia**

### Document control sheet Table of contents

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## Table of Contents

1. Abbreviations & Acronyms .....	5
2. Foreword .....	6
3. Introduction .....	6
<b>Section I. - Actually situation in a water sector in Georgia.....</b>	<b>8</b>
1. The National Procurement Legal Framework .....	8
2. Overview of the Public Procurement Law and other related Laws and Decrees .....	8
3. Barriers to Implementation of procedures and how to overcome them .....	11
4. Status Report .....	13
a) Current Situation .....	13
b) Institutional Setting .....	17
c) Legal Framework .....	25
d) Water administration challenges in Georgia.....	28
e) Key finding and Conclusion .....	33
<b>Section II. - Theoretical framework in Tendering Procedures.....</b>	<b>34</b>
1. Tendering Procedures in construction projects .....	34
2. Principles of Public Procurement .....	36
3. Tender Methods and Process.....	38
4. Tender Documentation.....	40
5. Ethics in Public Procurement .....	43
6. Project Cost related with prices and estimations.....	43
7. Requirements on Contracting Authorities' Staff.....	45
8. ToR and PCM cycle for Service Contracts .....	45
9. Design Works.....	49
10. Contract Supervision - Site Supervising .....	50
<b>Section III. - Tender Documents under EBRD procedures .....</b>	<b>50</b>
1. EBRD Procurement Policy .....	50
2. FIDIC Contract Conditions in EBRD financed projects .....	51
3. Methodology on Tender Documents prepared by NISPAcee .....	51
A1. Tender Documents for Construction Works - EBRD Procedures.....	51
4. Invitation for Tenders.....	52
5. Project Cost Estimation.....	54
6. Volume I - the Tender .....	55
7. Volume II - The Contract .....	57
8. Volume III - The Requirements .....	60
A2. Tender Documents for Design Works - EBRD Procedures .....	60
PART I.....	60
Letter of Invitation (LOI).....	60
Instructions to Consultants and Data Sheet (DS).....	61
Technical Proposal - Standard Forms .....	61
Financial Proposal - Standard Forms .....	61
Eligible Countries .....	61
Bank's Policy - Corrupt and Fraudulent Practices .....	62
Terms of Reference (TORs).....	62
PART II - Conditions of Contract and Contract Forms.....	62
Standard Forms of Contract.....	62

---

Conditions of Contract and Contract Forms .....	62
Bank's Policy - Corrupt and Fraudulent Practices .....	62
Special Conditions of Contract .....	62
Appendices to Contract.....	63
A3. Tender Documents for Site Supervising - EBRD Procedures.....	63
ToR ii) Specific Contract Conditions iii) Requirements on Experts (Consultants).....	63
ToR for Site Supervising .....	63
A. General project management related functions.....	64
B. Pre-construction activities including review of Design Works.....	64
Design Audits, Design review comments .....	64
C. Activities during implementation of tasks .....	64
Inspection and testing at the Contractor's Works .....	64
A. Reporting.....	64
Deliverable Reports .....	64
Operation & Maintenance Manuals.....	64
Requirements on Experts (Consultants).....	64
ANNEX II: Terms of References - ToR.....	65
Key Experts and non Key Experts .....	65
<b>Section IV. - Tender Documents under EU procedures .....</b>	<b>65</b>
B1. Tender Documents for Construction Works - EU Procedures .....	65
1. Volume I - The Tender.....	67
1. Volume II - The Contract.....	70
2. Volume III - The Technical Specifications .....	71
3. Volume IV - The Financial Offer Templates .....	71
4. Volume V - Design Documents, including Drawings.....	71
B2. Tender Documents for Design Works - EU Procedures.....	72
General.....	72
Design Works .....	72
Service Prior Information Notice, Service Contract Notice.....	72
Standard Advertisement for local Publication .....	73
Application for EU/EDF-funded Service Contract.....	73
Format for the Declaration referred to Application Form.....	73
Longlist.....	73
Shorlist Report .....	73
Service Contract Shortlist Notice, Letter to No-shortlisted Candidates .....	73
Invitation to Tender.....	73
Draft Contract Agreement and Special Conditions with Annexes: .....	73
Other information: .....	74
Tender Submission Form.....	74
List of Entities invited to submit a Tender.....	74
Instructions to Tenderers.....	74
Draft Contract - Service Contract .....	74
Special Conditions .....	74
General Contract Conditions.....	75
ANNEX II: Terms of References - ToR .....	75
ANNEX II: Terms of Reference - Fee based.....	76
Key Experts and non Key Experts .....	76
ANNEX II: Terms of Reference - Global.....	77
Terms of Reference for an Expenditure Verification, Report of factual findings.....	78
B3. Tender Documents for Site Supervising - EC Procedures.....	79

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General.....	79
Site Supervising .....	80
Differences in Documents for Design Works and Site Supervising .....	80
Requirements on Experts .....	80
ToR for Site Supervising .....	80
B. General project management related functions .....	80
C. Pre-construction activities including review of Design Works .....	81
Design Audits, Design review comments .....	81
D. Activities during implementation of tasks .....	81
Inspection and testing at the Contractor’s Works .....	81
E. Reporting.....	81
Deliverable Reports .....	81
Operation & Maintenance Manuals .....	81
<b>Section V. - EIA Procedures .....</b>	<b>81</b>
<b>Section VI. - Audit Trail - Implementation Procedures .....</b>	<b>82</b>
1. General .....	83
2. Audit Trail Methodology .....	84
3. Audit Events .....	84
<b>Annexes .....</b>	<b>85</b>
1. How to use Annexes in Tender Documents .....	85
2. List of recommended Annexes.....	85
<b>Resources .....</b>	<b>90</b>

## **1. Abbreviations & Acronyms**

A.R. - Autonomous Republic  
AA - Association Agreement  
AIA - American Institute of Architects  
ADB - Asian Development Bank  
BoQ - Bill of Quantity  
CA - Contracting Authority  
CV - Curriculum Vitae  
CR - Contractor's Representative  
DAB - Dispute Adjudication Board  
DBIA - Design Build Institute of America  
DS - Data Sheet  
EBRD - European Bank for Reconstruction and Development  
EIB - European Investment Bank  
EU - European Union  
EDF - European Development Fund  
EPC - Engineering Procurement Contract  
ER - Employer's Requirements  
FA - Final Acceptance  
FTP - Full Technical Proposal  
FIDIC - Fédération Internationale des Ingénieurs - Conseils  
FPC - Final Payment Certificate  
GB - Green Book  
GCC - General Contract Conditions  
GEL - Georgian Lari  
GWP - Georgian Water and Power  
HES - Health, Environment and Safety  
IFI - International Finance Institution  
IPC - Interim Payment Certificate  
ITC - Instructions to Consultants  
JCT - Joint Contract Tribunal  
JV - Joint Venture  
KfW - Kreditanstalt für Wiederaufbau  
LOI - Letter of Invitation  
MDF - Municipal Development Fund  
MoM - Minutes of Meeting  
NALAG - The National Association of Local Authorities of Georgia  
NPV - Net Present Value  
PA - Provisional Acceptance  
PCC - Particular Contract Conditions  
PP - Public Procurement  
PPL - Public Procurement Law  
PRAG - Practical Guide  
RB - FIDIC Red Book RFP - Request for Proposal  
RFQ - Request for Quotation  
ROI - Return of Investment  
SPA - State Procurement Agency  
STD - Standard Tender Documents  
STP - Simplified Technical Proposal  
TD - Tender Documents (Tender Dossier)  
TS - Technical Specification

UNDP - United Nations Development Programme  
USAID - US Agency for International Development  
UWSCG - United Water Supply Company of Georgia  
VFM - Value for Money  
YB - FIDIC Yellow Book (also P&DB)  
WBS - Working Breakdown Structure  
WB - FIDIC White Book  
WED - Water Framework Directive

## 2. Foreword

These Guidelines are intended to assist a Contracting Authority **to prepare responsive Tender Documents** in conformity with a Standard Documents used for EC co-financed projects as well as for EBRD projects. The main importance has therefore a six separate Tender Documents A1-B3 (Dossiers) prepared based on standard EBRD and EU Tendering Procedures.

## 3. Introduction

This Guidelines and Methodology (“The Guidelines”) describes minimum standards of acceptable practice for public infrastructure construction projects in Georgia. Commitment to continuous improvement and best practice performance is expected of all those involved in Tendering Procedures.

Public Procurement and Tendering Procedures are a relatively new area in Georgia and, usually, the information in this area is obtained through non-professional channels. The Guidelines also serves groups that **are not involved on a daily basis in Public Procurement**, but still **need to receive professional information in this area**.

The Guidelines offers information related to the Tendering Procedures, its implementation in practice, issues and cases faced during daily work, as well as solutions or opportunities to find such solutions. The Guidelines describes the tendering and contractual environment and covers the most common forms of tendering and contractual procedures will be used on infrastructure projects in the country. However this will not cover the essential background tax information, local Laws and related specific conditions in the country and impact of any legislation.

The provisions of the Guidelines should be observed by all parties involved in public infrastructure construction. The Tender Procedures and Contract Management processes should be structured to minimise costs for all parties including the operators, consistent with the standards of behaviour required by these Guidelines.

### Objectives of the Guidelines

This document has been developed as a reference Guidelines to comply with the implementation of the national Procurement Law and Regulations and contains Standards, Procedures and Guidance on of Public Procurement. Although the compliance with the advice or guidance found in the Guidelines is not compulsory, it is strongly recommended to all categories of Procurement Staff at the state, regional and local levels.

Hence, the Guidelines can only be applied as an additional tool to the Procurement Law and regulations in force.

The document is primarily **intended for Public Procurement practitioners**, providing them with a suitable tool to ensure an efficient and consistent practice of the Public Procurement procedures. The Guidelines will also serve as training material in the context of procurement training activities for strengthening knowledge of Staff associated with the Public Procurement procedures.

The Guidelines establishes high and significant benchmarks and encourages high ethical standards for United Water Supply Company of Georgia, managed construction projects in order to achieve better Procurement Practices, higher productivity, high-quality construction Works, better working conditions and the avoidance of malpractice, with significant benefits to the entire Contracting Authority. All other entities and local municipalities are therefore encouraged to apply the principles outlined in these Guidelines taking specific conditions of their project into consideration.

Although the Guidelines primarily address standard methods of procurement and delivery, it also seeks to actively encourage innovation especially regarding Contract Management due to changes in local Laws, especially in a Public Procurement Law and Decrees. The parties to these Guidelines recognise that high standard of performance can be achieved by encouraging innovation and co-operative practices which lead to better quality projects, lower costs over the life of infrastructure and better value for money.

It should be appreciated that the Guidelines is an attempt to bring to the attention of public entities important provisions in the Tendering Documents. However, it is our expectation that by reading these Guidelines, public entities will find it easy to understand the relevant Tender Documents also for specific requirements in construction infrastructure projects which they are participating.

The Procurement Legal Regime-Decree Law sets out new procurement processes which must be carried out by government procurement officers for purchases on behalf of the related Laws.

Contracting Authority should encourage innovation and alternative solutions by using performance based specifications where appropriate, leading to:

- i) increased efficiency in Design, Tendering, Project Management and Financial Management;
- ii) speedy resolution of complex design and production problems;
- iii) less rework and a lower cost finished product; and
- iv) improved delivery of projects in terms of higher quality outcomes.

However in some cases it might to be confusing for practitioners having experience from previous projects based on Georgian Public Procurement Law in some wording (Employer/Contracting Authority etc.) consequently glossary from EBRD and/or EU shall be taken and used.

**Note**

*Due to a continuously development of local Laws, Decrees as well as Documents of international financial institutions, the last version of Documents shall be always taken by Employer into consideration. NISPAcee documents based on a version for EBRD TD November 2015 and EU based TD December 2015.*

**Content of the Guidelines**

The Guidelines consists of five Sections, which are presented below. The Guidelines generally **are not focusing** the Evaluation Procedure and assessment of each related Tender Document based on competitive Bids.

**Section I.** provides a short summary of the actually situation in water sector in Georgia, national Public Procurement Law and Public Procurement Regulations in Georgia, as well as a glossary of terms used in the field of procurement that are set out by the Law and shall apply to these Guidelines. It comprises information on the national procurement policy from the general principals of public procurement to the responsibilities of the different entities involved in procurement.

**Section II.** with theoretical framework for Tendering Procedures describe the general principles of Tendering Procedures from pre-construction activities to Cost Estimation of projects.

**Section III.** describes the different methodology for Works, Supervising and Design Works to be used for EBRD financed construction projects. The section is divided into Sub-sections due to different methodology and tools for Works, Design Works as well as Supervising.

**Section IV.** is focusing the methodology for Works, Supervising and Design Works to be used for EU co-financed construction projects. Spreading into Sub-sections follows a previous practice of the EBRD methodology.

**Section V.** describes EIA procedures and compares the practice in Europe due to existing European Law and experience from EU practice.

Audit Trail in a **Section VI.** in a form of methodology for a Contracting Authority represents a complete Methodology for implementation of projects in water sector to help the Contracting Authority and other entities to develop and primarily monitor such projects during implementation phase.

A **separate Annexes** provides practitioners with useful template documents will be used for both Tendering Procedures for Works Contracts whose usage is recommended in the practical course of the Procurement Procedures will be hold form NISPAcee.

#### ***Disclaimer***

*While every care has been taken to ensure that the content of these Guidelines is useful and accurate, the author and any contributing third party shall have no legal responsibility for any loss or damage arising directly or indirectly in connection with reliance on the use of these Guidelines by persons without recognized qualifications and the appropriate license(s). The Guidelines describes the tendering and contractual environment and covers the most common forms of tendering and contractual procedures will be used on infrastructure projects.*

*The most important issues are included, but it is not feasible to discuss every subject in comprehensive detail within this format.*

*The manual shall not be used as a Guideline with the aim to replace a juridical support on construction projects in Georgia.*

## **Section I. - Actually situation in a water sector in Georgia**

### **1. The National Procurement Legal Framework**

### **2. Overview of the Public Procurement Law and other related Laws and Decrees**

#### **Assessment of existing Documents**

The high consumption of water and current poor conditions of water supply and primarily water treatment systems in planning and execution in Georgia is predominated by:

- i) the lack of Legal Acts and Decrees of various levels;
- ii) missing mechanisms to regulate the property relations;
- iii) weakness of existing management structures;
- iv) absence of accessible regulatory documentation on planning and implementation; and
- v) missing experience on Municipalities to manage large water projects due to international practice.

The necessity to develop the code of rules and regulations, including **Guidance and Methodology for Project Management in Water Sector in Georgia**, therefore became evident.

#### **Generally**



In accordance with Client's requirements and NISPAcee ToR specifications **Assessment of existing Documents in Water Sector** of Georgia were prepared. The Assessment consists of a desk review of relevant project documents related to the project activities such as:

- i) project documents, progress reports, brochures, cost-benefit analysis of WWTP;
- ii) existing Decrees, Laws and other related and relevant documents;
- iii) Country Plan regarding Water Sector Development;
- iv) Existing Public Procurement Law and related Decrees to these procedures.

After Review Period of existing Documents from as well as relevant Project Documentations, **Guidelines Document** were prepared to **describe and explain actually situation in Water Sector**. The concepts there are outlined in this Methodology are already evolved by Water Managers dealing with the ever more complex Development and Management of Resources in Slovak Republic and in Europe.

### **Normative Regulations**

#### **Normative and Legal Regulations and Acts**

Legislation in the area of water supply is based on Georgian Laws, normative, legal and international legal Acts taking into consideration effective use and protection of Water Resources.

Use of water objects for water supply needs involving the technical facilities is made on basis of permission for special water use. Settlement of the wells and capitations on the government reserve land and forest fund is made according to the agreement with the special authorized bodies on regulation and protection of waters, issued by **Committee on Environment Protection under the Government of Georgia**. Documents for obtaining permits are drawn up by water users or by Designers or other organisation.

#### **Agreements of Water Supply and Water Treatment**

Provision of Water Supply Services to organisations, enterprises, form of ownership and legal form is regulated by Law of Georgia.

### **Public Procurement Legislation Review Summary**

#### **Legal framework**

Public procurement in Georgia is regulated by the Law of Georgia on State Procurement (April 20, 2005) - PPL.

#### **Regulatory institutions**

An independent public procurement regulatory body, the State Procurement Agency (SP Agency) has been established and is responsible for developing the PP policies and monitoring compliance of PP practice. The Chairman of the SP Agency is appointed by and reports to the Prime Minister of Georgia.

The main functions of the SP Agency are:

- development of PP regulation and standard tender documents
- harmonisation with international standards
- monitoring procurement procedures
- carrying out tenders when consolidated

#### **Scope of regulation**

The law covers national and local government procurement and includes procurement rules for public law institutions when those entities spend public funds. PPL does not contain specific procurement rules for the utilities sector.

Concessions are regulated by a separate Law (The Law of Concessions), and PPL clearly differentiates between public procurement contracts and procedures and concessions. The law does not establish a

Central Purchasing Body. However, according to PPL, at the discretion of the Government of Georgia, a consolidated tender may be used in the procurement of similar objects.

### **Eligibility rules**

PPL does not establish primary public procurement eligibility rules. However, the Public Procurement Agency, based on a secondary law, has established a register which includes blacklisted participants, bidders and suppliers who are forbidden to participate in procurement. Those Tenderers entered into the Register are unable to submit tenders for a year.

In addition, the contracting entity for each procurement sets forth qualification requirements for the Tenderers. Qualification criteria have to be fair, non-discriminatory and conducive to the promotion of competition principles.

To show compliance with eligibility rules and prequalification requirements specified in tender documents the Tenderers may be obliged to demonstrate appropriate evidence, such as certificates.

### **Procurement procedures**

Based on revision PPL provides nowadays various types of procurement procedures carried out through E-Procurement as following:

- Electronic Tender
- Simplified Electronic Tender (under 200,000 GEL)
- Simplified Procurement (DC - under 5,000 GEL).

Open tender is the default procedure. The contracting entity may apply other procedures only in situations where the law allows.

PPL does not provide for negotiated procedures and forbids any negotiations during the tender. eProcurement is carried out in a simplified e-tender.

### **Procurement time and cost effectiveness**

PPL does not allow for an estimation of the standard length of the procurement process. PPL establishes several specific deadlines for procurement stages:

- the tender notice must be published not less than 3 working days from opening the tenders for simplified electronic tender
- Tenderers must be informed about tender results 5 days after the decision was made
- the Contract must be concluded within 4-5 days, if Performance Security is required (above 200,000 GEL) 4-10 days of informing the Tenderer the Contract was awarded.

PPL provides for mandatory aggregations of lots. Procurement of similar goods, services or works during a contracting entity's budget year shall be regarded as one procurement if it is funded under the same budget. Splitting a procurement to avoid monetary thresholds set forth in PPL is not allowed.

PPL requires formalities to be kept simple and aligns the value and scope of the contract to the formality of the procedure (not mentioned in a case of reverse auction).

PPL contains clear requirements on methods of communication including the mandatory use of electronic communication where the law allows.

If the estimated value of goods or services subject to procurement is over GEL 600,000 and, if the estimated value of works is over GEL 8,000,000, the contracting entity shall publish the tender announcement in one of the languages accepted in international trade. If the estimated value of goods or services to be procured is over GEL 2,000,000 and the estimated value of works is over GEL 4,000,000

publishing an e-tender announcement in English is mandatory. In all other cases, tender documents may be published in a foreign language at the discretion of the contracting entity.

### **Review and remedies**

Prior to the conclusion of a public procurement contract, Tenderers may take legal action against the contracting authority or tender commission which violated PPL rules and infringed their rights.

There are certain exemptions from the general right of the Tenderer to appeal.

The Tenderer may not file a complaint about:

- selection of the procurement method as long as it is in compliance with PPL
- the decision of a contracting entity to suspend or terminate a procurement procedure which has been adopted in compliance with PPL.

A unit within the PP Agency has been established to review complaints, and consists proportionately of the PP Agency's and the NGO's representatives. The contracting entity or the PP Agency delivers a decision and informs the claimant within 10 days of receiving a complaint.

### **Public Contract Management**

PPL requires mandatory planning of public procurement. The contracting entity shall perform procurement functions in accordance with an approved annual plan. In the case of a long-term procurement, the PP Agency shall be notified after the Georgian Ministry of Finance and/or a finance unit of a relevant local self-government body has approved the procurement. PPL does not require contracting entities provide for contract management of a public contract.

No new conditions which change the nature of the contract established in the contract notice and which were the bases for selection of the Tenderer may be added to the Contract.

Amendments which violate the law on public procurement are deemed invalid. Contract performance security, if requested, must be submitted in the form required by the contracting entity.

### **Strengths**

PPL contains sound basic principles and comprehensively regulates the procurement process and guides the drafting of tender documents. PPL allows the use of standard international contract forms for all types of procurement. In addition, PPL allows tenders and qualification documentation confirming compliance with requirements to be submitted electronically (i.e. without a certified electronic signature).

PPL has demonstrated high compliance in terms of transparency, competition and flexibility, mainly due to the extensive use of e-procurement and effective publicising of procurement opportunities. PPL makes advertisement of contracting opportunities mandatory, and requires the mandatory publication of contract award notices and tender documents. Documents related to the tender are available to the public. PPL requires the public tender opening to take place promptly after the deadline for the submission of tenders and the procurement process is duly recorded.

### **Weaknesses**

Georgian PPL scored low in stability as it has been PPL substantially changed within the last three years. This weakness can be easily forgiven as these amendments to PPL improved the legal framework dramatically.

### **3. Barriers to Implementation of procedures and how to overcome them**

To increase the uptake of investments and behaviours in industry and construction generally, public policies are necessary to **eliminate the barriers** that discourage stakeholders from pursuing projects

also in water sector. Beyond removal of barriers, proactive instruments are imperative to enhance users' motivation and incentives to adopt more efficient technologies and practices.

Therefore, by choosing energy-efficient designs and materials for example for their own buildings, governments can exert a powerful influence on the building sector, as well as setting an example for industry. Buildings are generally included, but the potential for savings and possible cost-effective actions are in industry, primarily on water sector, often underestimated.

Under these and other Laws, various policies have been implemented around the World to improve the efficiency of construction projects included industry. Especially in a case of WWTP, due to a specific conditions that each WWTP consist of construction elements and parts as well as from technology (pumps, electricity), both criteria must be taken into consideration.

The barriers to development of projects in water sector are shown in table below.

### Most Common Barriers to the Development of Water Management

Type of Barriers	Description of Barriers
<b>Institutional, Legal, Regulatory Barriers</b>	Regulations and methodology to promote sample WWTP projects are un-adapted or missing.
<b>Information and Technology Barriers</b>	There is a lack of information on and awareness of project in water sector and its benefits among policymakers and building officials as well as the general public, including: <ul style="list-style-type: none"> <li>- Lack of local capacity to design energy-efficient WWTP projects and integrate EE technologies into their work</li> <li>- Lack of data on energy consumption and projects performance</li> <li>- Lack of local expertise for audits of existing WWTP (also in simplified version)</li> <li>- Lack of knowledge about advantages of Preventative Maintenance Plans (PMP) and how to use them in water sector</li> <li>- Lack to prepare, build, and maintain WWTP projects (especially among small company builders and local projects)</li> <li>- Lack of availability of labelling, materials and equipment and limited national expertise to design and manufacture them for the purpose in water sector</li> <li>- Energy consumers are not motivated to use EE products and materials</li> <li>- Lack of institutions to prepare Tender Dossier for water projects in accordance with latest development on the construction markets</li> </ul>
<b>Economic and Financial Barriers</b>	<ul style="list-style-type: none"> <li>- Projects cannot be profitable without fiscal or/and economic incentives that are not in place (exemption from payment of income tax, tax credits, exemption from import duties and taxes, subsidies)</li> <li>- Return of investment is often negative due to a high investment cost (NPV calculation)</li> <li>- Upfront costs are given more attention than recurring costs</li> <li>- Organisations and municipalities do not benefit financially from the energy savings they achieve.</li> </ul>

### Description of the barriers to the implementation of water projects

Though the **policy barriers** to implementing experienced and recognized practices in industry projects as well as in public buildings have largely been dismantled, there are still significant barriers that exist to the implementation to existing and/or future investment projects. The ability to increase the market for water projects and services is still limited significantly by the barriers described below.

These barriers can be divided into three main groups:

**1. Institutional, legal and regulatory barriers**

One of the areas where the implementation of methodology is complicated is related to the legal and contractual framework in which developers of water projects operate.

**2. Information and technology barriers to implementation**

In addition to legal and contractual issues, there are also barriers related to lack of financial and technical capacity within the potential service providers (Designers, Engineers) and construction companies. These hinder investment which results in the lack of prepared projects in the water sector being taken up and services and/or works provided.

**3. Economic and financial barriers to implementation**

While the barriers outlined above are specific to many municipalities, there are also two primary barriers to the **nationwide** uptake of the measures in water sector and projects at all.

**Removing the barriers on the market**

**Outcomes which would indicate these barriers have been overcome**

Following from the analysis of the barriers to the implementation of practicable Methodology for preparing and evaluation of projects in the water sector, it is possible to draft outcomes that would demonstrate that the project has overcome these barriers. From there, it is then possible to outline the outputs and activities that would lead to the outcomes.

The table below outlines the barriers that this project plans to overcome and the outcomes that will demonstrate that progress has been made in creating a market with implementations for water projects in Georgia.

**Barriers to be overcome in NISPAcee Guidelines and outcomes that will demonstrate the barrier has been overcome**

Barriers	Outcomes which will demonstrate the barrier has been overcome
There are no examples of the WWTP contractual and institutional framework in Georgia	Strategic document established as showcase which also provides best practice examples of the contractual and institutional framework for the implementation of EU procedures
Lack of expertise among the municipalities and Ministries for tender preparation, tender awards and project monitoring base on EU principles and experience	
Lack of funds and funding mechanisms available for investment for EE water projects	Strategy is water sector implemented cost effectively and transparently, with significant demonstration value methods for projects in water sector
Lack of local business models and expertise for implementing measures in water sector	
Lack of a nation-wide effort to replicate the EU model in water sector at the municipal level	Growth in number of EE industry projects, (including water sector) through establishment of sustainable financing
The regulatory framework is still complicated and thus a barrier for national-level implication of water projects	

**4. Status Report**

**Current Situation**

About 95% of the urban and 35% of the rural population is supplied by centralized water service. This indicates high network coverage by international standards. The actual performance of this system is a problem, however. Poor quality of the distribution network results in a water loss rate of 10-51%, and

40% water loss in Tbilisi.

All urban households suffer interrupted supply, receiving water much less than 24 hours a day, in some cities as little as 8-10 hours a day. In rural areas the supply system often does not function at all. This affects mainly people living on higher floors of buildings, because of low pressure in the system. The major reason for that is the shortage of electricity supply due to a lack of payment and also physical shortages.

The majority of the connected urban households can have potentially good water quality, as the main source is groundwater. Groundwater sources provide about 90% of the water supply apart from Tbilisi (in Tbilisi 44% is from surface water). Drinking water quality problems are related to leaking pipes and cross contamination from the sewage system.

The centralized sewage system exists in 37 towns in Georgia. 78% of the population is connected to sewerage, indicating high network penetration by international standards. The systems are, however, in poor condition. Wastewater Treatment Plants are serving 33 towns, with the total daily design capacity of 1.42 million m<sup>3</sup>. There are 19 traditional mechanical/biological treatment plants, with a total design capacity of 1.39 million m<sup>3</sup>/day. Four purely mechanical treatment plants with a design capacity of 0.03 million m<sup>3</sup>/day are available.

However, the plants are typically 10-25 years old; some are as yet unfinished, and most are not maintained. None of the existing plants is actually providing biological treatment since the technical facilities are out of order. Power and other resources are also needed. They are not delivered, as they are not paid for. Mechanical treatment is effective to a certain degree only in Tbilisi (GWP's Treatment plant serves Tbilisi, Rustavi and Gardabani), Rustavi, Kutaisi, Tkibuli, Gori and Batumi and its total estimated daily capacity is 0.7 million m<sup>3</sup>.

Starting from 2004 the improvement of water supply was initiated with funding from the state budget and international donors. Extensive reconstruction-rehabilitation works were carried out in Tbilisi in 2005-2007. Most central water supply pipelines have been rehabilitated and all major drinking water quality-monitoring laboratories have been refurbished and equipped with modern computerized systems (ECBSea, 2009).

Currently, Tbilisi is provided with an up-to-date high-quality water supply service ensuring delivery of good quality drinking water without significant interruptions 24 hours a day to 400, 000 customers, of which about 2000 are public and state organizations, about 15,000 - commercial enterprises and the rest are in the residential sector (GEO-Cities 2011).

The development of water and sewerage systems has become an important priority at all levels in the country. Extensive rehabilitation projects are ongoing in several regions in Georgia (Task Force for Regional Development in Georgia, 2009). Development and improvement of municipal infrastructure, including water supply and sanitation systems, is one of the objectives of the State Strategy for Regional Development of Georgia for 2010-2017.

Specifically, the Strategy aims at creation of favorable environment for investments in the sector; rehabilitation and construction of water supply/sanitation infrastructure; ensuring access to safe drinking water and sanitation; improving water metering; reducing water loss; improving cost recovery etc. In 2009 about 120 Mill. USD was allocated for the rehabilitation and development of drinking water systems, and an additional 35 Mill. USD - for sewerage network.

There has also been increased involvement of donor organizations in supporting rehabilitation of water supply and sewerage sectors in recent years. Among them is the recently completed project of the US Millennium Challenge Corporation, which, through Georgian Municipal Development Fund, supported

the USD 57.7 Mill. regional infrastructure development project for improvement of municipal water and sewerage services in five cities throughout Georgia.

Type of Town	N of towns with central water supply systems	Number of water intakes total/surface water	Total designed capacity 1,000 m <sup>3</sup> /year	N of reservoirs	Total volume of reservoirs 1,000 m <sup>3</sup>	Total length of collectors and distribution systems Km	Length of systems that need renovation Km
I	6	9/2	1.25	11	4.78	144.0	14.0
II	43	70/10	171.3	112	69.36	1,709.6	293.8
III	12	27/1	219.0	64	52.66	1,588.3	137.1
IV	9	28/1	209.0	40	36.8	1,022.6	131.4
V	3	6/0	144.0	17	21.6	681.2	55.0
VI	4	15/4	2,093.0	110	422.0	4,128.2	1,349.5
<b>Total</b>	<b>77</b>	<b>155/18</b>	<b>2,837.55</b>	<b>420</b>	<b>607.2</b>	<b>9,273.9</b>	<b>1,980.8</b>

Table 1. Main technical parameters of the municipal water supply systems (the region of Abkhazia is not included).

Type of Towns

I – Population <1,500

II- 1,500 < Population <10 000

III - 10,000 < Population <25 000

IV – 25 000 < Population <50 000

V- 50 000 < Population <100 000 (Zugdidi, Poti, Gori)

VI – 100 000 < Population (Tbilisi, Kutaisi, Rustavi, Batumi)

Source: Ministry of Environment of Georgia/Municipal water and wastewater sector in Georgia. OECD/DANCEE.201

Table 2. Main technical parameters of municipal sewerage systems and wastewater treatment plants (the region of Abkhazia is not included)

Type of Town	Number of Towns with central swage	Length of collectors and networks (km)	Treatment Plants		
			Number	Designed capacity 1,000 m <sup>3</sup> /day	Actual capacity 1,000 m <sup>3</sup> /day

			<b>M</b>	<b>MB</b>	<b>M</b>	<b>MB</b>	<b>M</b>	<b>MB</b>
I	1	2.0	0	0	0	0	0	0
II	13	188.6	1	5	5.3	17.3	0	0
III	8	235.8	1	4	2.5	66.1	0	0
IV	8	376.2	1	5	8.2	68.0	16.6	0
V	3	134.6	1	2	23.1	41.3	6.8	0
VI	4	9,941.2	0	3	0	1,195	963.7	0
<b>Total</b>	<b>37</b>	<b>4,878.48</b>	<b>4</b>	<b>19</b>	<b>39.1</b>	<b>1,387.7</b>	<b>717.1</b>	<b>0</b>

*Type of Towns*

*I – Population <1,500*

*II- 1,500 < Population<10 000*

*III - 10,000 < Population<25 000*

*IV – 25 000 < Population<50 000*

*V- 50 000 < Population<100 000 (Zugdidi, Poti, Gori)*

*VI – 100 000 < Population (Tbilisi, Kutaisi, Rustavi, Batumi)*

*Source: Ministry of Environment of Georgia/ Municipal water and wastewater sector in Georgia. OECD/DANCEE.201*

The total estimated costs of producing one cubic meter of water through basic maintenance and operation of the system (as calculated by the ministry of Environment in the 2014) is equal to 0.27 GEL per m<sup>3</sup> (about 0.14 USD per m<sup>3</sup>).

In the light of international experience, the unit cost figures for water supply seem high relative to the wastewater treatment unit costs. Since the dominant source of water supply is underground water and the wastewater treatment plants are designed for mechanical-biological treatment we would expect treatment unit costs closer to if not higher than the water supply unit costs. The explanation is the severely limited water supply in many towns resulting in very low per capita water consumption in spite of the high loss rate. Meantime, none of the treatment plants operate at their design level.

The tables below show estimations of costs done by the Ministry of Environment of Georgia for the purposes of the National Environmental Action Plan and it is based on the analyses of statistical data provided by relevant public institutions and GeoStat. However, all figures in the tables 3 and 4 are indicative as Georgian Water and Power Co. and United Water Supply Company does not provide information how cost for cubic meter of water and wastewater is calculated using excuse that these data belong to the commercial information and cannot be publicized.

*Table 3. Total and average unit costs for water supply in the existing system*

	<b>Calculated average unit costs GEL/ m<sup>3</sup></b>	<b>Water production million m<sup>3</sup>/year</b>	<b>Total Annual cost Million GEL</b>
Maintenance	0.15	384	59



Operation	0.12	384	49
<b>Total</b>	<b>0.27</b>	<b>384</b>	<b>108</b>

Source: Ministry of Environment of Georgia/ Municipal water and wastewater sector in Georgia. OECD/DANCEE.201

Table 4. Total and average unit costs for wastewater collection and treatment in existing, actually operated facilities

	Amounts Million m <sup>3</sup> /year	Calculated unit costs GEL/m <sup>3</sup>	Total costs Million GEL/year
<b>Collection</b>			
Maintenance	335	0.08	26
Operation	335	0.02	7
Sub-total	335	0.10	33
<b>Treatment</b>			
Maintenance	250	0.07	18
Operation	250	0.02	6
Sub-Total	250	0.09	24
Totals			
<b>Maintenance</b>			<b>44</b>
Operation			<b>13</b>
Grand Total			<b>57</b>

Source: Ministry of Environment of Georgia/ Municipal water and wastewater sector in Georgia. OECD/DANCEE.201

### Institutional Setting

Ministry of Environment Protection was reorganized in October 2012 and became the Ministry of Environment and Natural Resources Protection with respective increase of responsibilities, staff and budget.

With this reorganization, all the rights and responsibilities related to natural resources management and protection are now with this Ministry. The Ministry is the key authority at the national level dealing with water management.

The Ministry includes the central office for water resources management - the Water Resources Management Service, which implements governmental policy in the field of water resources management and protection, assesses plans of environmental impact mitigation in EIA reports in the field of water, establishes and adopts Maximum Admissible Discharges, conducts state inventory of water use, etc.

The National Environmental Agency under the Ministry is responsible for water quality and quantity monitoring. It also is in charge of issuing licenses for abstraction of groundwater since October 2013. Presently, water monitoring is undertaken by three laboratories under the Agency: Batumi, Kutaisi and Tbilisi laboratories.

The Department on Environmental Supervision under the Ministry is responsible for state control on implementation of water legislation. The Department has 7 regional services and the Black Sea Convention Inspection, located in Batumi.

Other water-related responsibilities are distributed between different state institutions:

The **Ministry of Labor, Health and Social Affairs of Georgia** are responsible for protection of public health. The Ministry develops environmental quality standards, including those for drinking water, surface waters, groundwater and coastal waters.

The **Ministry of Regional Development and Infrastructure of Georgia** is responsible for implementing regional development policy including coordination and support of the development of water supply and sanitation systems. This ministry coordinates activities of the United Water Company that is the biggest operator on the Regions of Georgia. This ministry also supervises the Municipal Development Fund that provides investment for construction and rehabilitation of physical infrastructure of water and wastewater in Municipalities of Georgia.

The **Ministry of Agriculture of Georgia** is responsible for carrying out drinking water quality monitoring (when and where waterholes are used), supervision and state control over irrigation systems.

**Local Self-Governance Institutions** are responsible for the management of water resources of local importance but they generally have very limited competences; water management is highly centralized especially water and wastewater management system. The organic law of Georgia on “LG Code” identifies municipal water and wastewater management as sole responsibility of municipalities and assigns municipalities function to invest, regulate and manage this system, However regulatory function in this sector is implemented by the National Water Regulation board, Investment function is carried out by the ministry of regional development and infrastructure via Municipal Development fund instrument. Only function that remains in the hands of municipalities is to provide subsidies from municipal budgets to cover negative balance between actual cost and fees collected from households.

The water supply and wastewater treatment service is provided by two monopolists: The Georgian Water and Power JSC, that is established by direct foreign investment and serves cities of Tbilisi, Mtskheta, Rustavi and Municipality of Gardabani only. Remaining territory of Georgia is covered by the United Water Company that is a commercial (for profit) enterprise under the ownership of the central government of Georgia.

Exceptions from this scheme are 6 municipalities in the Autonomous republic of Adjara and the municipality of Sachkhere in the region of Imerety where water and wastewater are managed by enterprises that belong to municipalities. Official explanation for specificity of these 7 units is that Adjara has autonomous status hence municipalities from Adjara have not been assigned to the United Water company. As to Sachkhere municipality, bilinear Ivanishvili (whose is native of Sachkhere) subsidizes local water company and the most probably he is willing to finance this particular case and not the entire system of municipal water and wastewater of Georgia.

#### **State owned company “Georgian United Water Supply Company” (GUWSC)**

GUWSC was founded in January 2010 by the decree of the Government of Georgia. The company provided water and wastewater services throughout whole Georgia for urban settlements excluding Tbilisi, Mtskheta, Rustavi and Autonomous Republic of Adjara. The Structure of company consists of head office located in Tbilisi, 6 regional branches and 50 service-centers across Georgia. GUWSC has around 2,700 employees, 60% of employees are engaged in maintenance and operation work, 24% in financial departmental and 16% of personal is an administrative staff. The state owns 100% of shared of the company. Company serves 303,788 households and 15 400 enterprises (legal entities).

The main activity of the company includes: a) water abstraction, treatment and supply; design of water and sewer networks; b) Construction, installation, maintenance and operation of water and wastewater infrastructure and c) Production and rehabilitation of constituent elements of water and sewer systems. Declared mission of the company is to provide 24-hours supply of drinking water to the customers and

guarantee efficient operation of water and derange systems in all regional urban centers and towns across Georgia, to achieve approximation of service to the world standards.

The company has strategy that envisages achievement of following target for 2020:

- Water and sewage infrastructure rehabilitation and construction in all urban settlements
- Control and improvement of water quality
- Modernization of a base for truck fleet and special machinery
- Optimization of billing and service fee collection process
- Improve metering and elimination of water losses
- Achieving economic and technical feasibility
- Elaboration of efficient policy for HR management
- Achieve full compliance with the environmental protection standards
- Guarantee energy efficiency reduce share of electricity in operation
- Achieve financial viability of the company via modernization of financial management system.

GUWSC is headed by Director General and 4 deputy directors who coordinate various sectors of operations (administrative issues, Technical Issues, International cooperation, finance issues). Director general and Deputy directors are appointed by the Agency for management of state enterprises under the ministry of Economy and sustainable development. Despite the fact that directors and its deputies are appointed by the agency of state entireties GUWSC operates under the mandate of the Ministry of regional development and infrastructure of Georgia, it synchronizes its activities with the policy of this ministry and reports in implemented activities. The central office of GUWSC is divided 12 departments:

- 1) Administrative department
- 2) Department for project management and international relations
- 3) Department for commercial safety and monitoring
- 4) Economy Department
- 5) Department for procurement and logistics, including:
  - Procurement division
  - Logistic division
- 6) Accounting and book keeping
- 7) Billing department
- 8) Legal Department
- 9) Department for water supply and construction, including:
  - Division for management water supply systems and operation
  - Division of construction and technical service
- 10) Public Relations.

GUWSC uses two types of service fees: a) per cubic meters in the area where meters are installed and b) per member of household in areas where meters are not available. Service fee is consist of two components a) water and b) water waste. Tariff for cubic meter in vast majority urban settlements for

households is unified and consists 0,499 GEL while for commercial enterprises tariff is as high as 4.307 GEL. In the areas where meters are not available (only households as commercial entities are obliged to install meters) tariff per person varies city by city (see Annex 1). It must be mentioned that tariff does not include investment segment and investment are made by international donors or/and central government of Georgia.

GUWSC uses drinking water standard set up in the ordinance #349/N by the minister of health and labor dated by 17.12.2007. The company also pays huge attention to the compliance with environmental standards, the company has special framework for environmental impact assessment that is used for investment projects finance by international donors and the government of Georgia



GUWSC works with many international donors among them are: The European Bank for Reconstruction and Development, the European Investment Bank, Asian Development Bank, The European Union. GUWSC provides guidance and partnership with the Water Supply Company of the Municipality of Shachkhere (that belongs to the municipality), de'jure this company is not part of GUWSC however fictionally it is attached to the latest. All capital investment project in this municipality is implemented by the GUWSC and good example of such affiliation is that GUWSC implemented 413 182 GEL worth capital investment project funded by the EU in the municipality of Sachkhere to improve capacity of drinking water reservoirs, hence "Sachkhere water supply company" can be recognized as de'facto affiliated company to the GUWSC.

Currently GUWSC implements following projects using investments from following donors:

Asian Development bank – Instalment 2 pump stations and rehabilitation of two reservoirs in the city of Kutaisi; constriction of new water treatment facility and new system for water supply in Nabada urban district of the city of Poti; Construction of water supply and sewage system in the settlement of Anaklia of Zugdidi Municipality and Water Supply and sewage system development in the Municipality of Mestia.

European Investment Bank – provides funding for construction and rehabilitation of potable water distribution systems in following municipalities Lanchkuti, Tsalengikha, Zestaphoni, Tkibuli, Tskaltubo, Kaspi and settlement Ureki (Ozurgeti), Under this investment project 130 km of distribution network will be rehabilitated, 8000 m<sup>3</sup> will be added to existing reservoirs, 2 000 meters will be installed in households.

USAID also provides funding for construction of water treatment facility in the Municipality of Oni.

In future GUWSC plans to implement following projects:

- Asian Development Bank – Second face of water system rehabilitation project will be implemented in Anakla (Zugdidi and Mestia)
- European Investment Bank – Rehabilitation of water distribution systems and reservoirs will be done in 27 cities and municipalities of Georgia. Recently parameters of new investment package are under the negotiation.

International investment projects are prepared and managed by the department for project management and international relations, procurement of goods and services under specific projects are done by the department for procurement and logistics. GUWSC uses flexible procedures for procurement and depends on requirements from the donor. If procurement is made using Georgian public money than law of Georgia on procurement is used and procurement criteria is set up at the lowest price offered. For Asian Development Bank, EBRD and EIB united water company uses procedures that are provided by those institutions. Procedures and nomenclature to be used for specific investment project are given in the general conditions of the investment agreement between GUWSC and the donor.

### Georgian Water and Power JSC

“Georgian Water and Power” (GWP) is a leading company on the water supply market in Georgia and South Caucasus. The company provides service to the population of Tbilisi, Mtskheta, Rustavi and Gardabani population and commercial enterprises. GWP serves up to 460 000 customers including 441 000 households and 19 000 enterprises. IN fact GWP is a consortium that includes GWP itself, LTD “Rustavi water” and LTD “Mtskheta Water”. GWP group recently employs 2 300 persons in Tbilisi, Rustavi and Mtskheta. GWP is an entity of commercial law and its status is Joint Stock Company owned by Georgian and foreign investors.

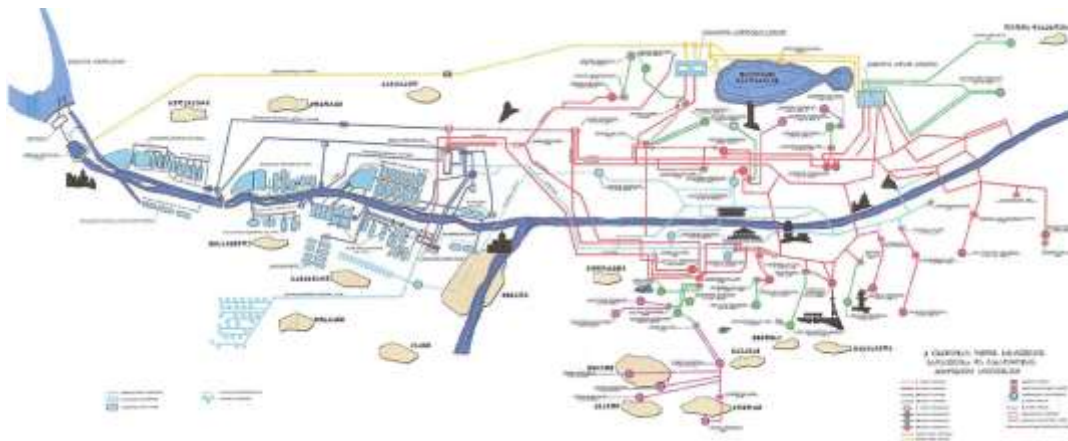
Company is managed by the board of directors nominated by shareholders; there are t departments in the central office in Tbilisi and 5 structural departments in Rustavi and Mtskheta water companies. At the central office specific department for development and strategy deals with investment projects and development policies.

Main area of activity for GWP is supply of clean/safe and stabile water as well as wastewater management and derange in Tbilisi, Rustavi and Mtskheta. In addition GWP owned and operates two hydropower plants. GWP gets water from 3 reservoirs and 6 water conduits. GWP operates two water treatment plants: Sanzona plant with capacity 5 liter per second and Grmagele plant with capacity of 5 liter per second.

<b>Water sources</b>	
<b>Reservoirs</b>	<b>Capacity</b>
Bodoma	1.0 million m <sup>3</sup>
Zhinvali	500 million m <sup>3</sup>
Tbilisi (sea) reservoir	308 million m <sup>3</sup>
<b>Water Conduits</b>	<b>Capacity</b>
Bulachauri	3, 000 liter /sec
Choporti	1,300 liter /sec
Nataktari	1,300 liter /sec
Natakhtari II	900 liter /sec
Saguramo	3,000 liter /sec
Mukhrani Artesian	1,225 liter /sec

GWP uses pipes from 13 mm to 1,400 mm for distribution of water to customers, total length of pipe system is 3, 600 km. out of which 35% are crude iron pipes and 65% still pipes. Due to mountainous landscape of Tbilisi water distribution system has 5 vertical levels. System also includes 84 service reservoirs with total capacity of 300 000 m<sup>3</sup> and 141 pressure pump station out of which 65 pump stations are fully rehabilitated.

GWP also operates drainage and sewage system of Tbilisi and Rustavi. The derange system was first built in Tbilisi in 1835. It has channels from 150 to 1,200 mm mainly built with brick, arch, concrete, reinforced concrete, ceramic, cast iron, asbestos and polyethylene. The derange system is self-flowing using 7 aqueducts to the river Mrkvari, total length of drainage system is 1,600 km out of which 1,000 km is street drainage and 600 km is interquartile.



Map 2 - Water and wastewater system of Tbilisi

Length of main trunk sewer is 72 km, the waste water run through the sewer to the Gardabani treatment plant that has 42 separation chamber for mechanical treatment, total capacity of this plant is 1 million m<sup>3</sup>/day.

GWP issues a bond on the capital market; nominal value of the bond is 1,000 GEL with 14% of interest (coupon) per annum including applicable taxes. Interest is paid semi-annually; minimum allowable purchase is 10 bonds with value of 10,000 GEL. The placement agent of GWP bonds is JSC “Galt and Taggart”, it is possible to sell bonds on secondary markets through brokerage company, and bonds will be admitted on Georgian stock exchange.

The water tariff in Tbilisi, Rustavi, Gardabani and Mtskheta is set by the national regulatory agency, for households the tariff is a) for households without meters GEL 3,14706 per person per month out of which GEL 2.5429 is for distribution of water and GEL 0.60416 for waste water. b) For households with meters GEL 0.2655 per m<sup>3</sup> out of which GEL 0.21476 is for distribution of water and GEL 0.05075 for wastewater management and treatment. For enterprises installation of meters is obligatory and tariff is set up at GEL 4.4 per m<sup>3</sup> out of which GEL 3.55534 is cost of distribution of water and GEL 0.84488 for wastewater removal and treatment. GWP also gets subsidies from the municipality of Tbilisi for maintenance and rehabilitation of drainage systems. GWP is financial viable company it had charter capital GEL 208,469,000 in 2014 with net profit 24,577,000. In 2014 GWP received 25 million GEL from households and GEL 12.5 million from enterprises for distribution of water and wastewater removal.

GWP and its doter companies are one of the biggest consumers on Georgian service and construction market. GWP as a commercial entity uses own procedures of investment project development and procurement of goods and serviced from domestic and international markets. These procedures are

mainly based of the EC e-procurement book and FIDIC methodology. Tenders are announced on website of GWP as well as in National and International (depends on goods and services) media.

**GEORGIAN WATER AND POWER LLC**  
**Statement of Profit or Loss and Comprehensive Income**  
*(Amounts expressed in thousands of Georgian Lari)*

	Note	2014	2013
<b>Revenue</b>	18	101,968	99,230
Other income	19	5,595	5,029
Provision of trade receivables	11	(1,127)	(1,517)
Salaries and benefits	20	(23,395)	(20,711)
Depreciation and amortisation	8,9	(16,998)	(17,567)
Electricity and transmission costs		(8,673)	(8,829)
Raw materials, fuel and other consumables		(5,036)	(4,740)
General and administrative expenses	21	(2,594)	(2,179)
Infrastructure assets maintenance expenditure		(3,523)	(2,329)
Disposal of construction in progress items	8	-	(2,043)
Other operating expenses	22	(14,535)	(11,425)
<b>Operating profit</b>		<b>31,682</b>	<b>32,919</b>
Finance income	23	667	950
Finance costs	24	(5,836)	(2,105)
<b>Profit before income tax</b>		<b>26,513</b>	<b>31,764</b>
Income tax expense	25	(5,509)	(7,191)
<b>Profit for the year</b>		<b>21,004</b>	<b>24,573</b>
<b>Other comprehensive income for the year</b>		<b>-</b>	<b>-</b>
<b>Total comprehensive income for the year</b>		<b>21,004</b>	<b>24,573</b>

GWP does not that intensive practice of getting funds from EBRD, ADB and EIB as it mostly attracts funds from bonds and bank credits during last three years GWP have not got any big projects financed from multilayer donor agencies, in General GWP has business approach and they see water and waste water sector as a business and profit opportunity rather than social infrastructure that can be based operated under the public sector and serve social interests rather than interest of profit maximization, It shall be also mentioned that unlike in many other cities of Georgia, relatively well developed local economy and high wages of population in the capital city supports definitely supports this approach of GWP.

**Water and wastewater management system in Adjara A.R.**

The system for water and wastewater management in Adjara A.R, is recognized as decentralized taking into account the fact that here water companies de'jure belong to municipalities, however if we look deeply into current situation this perception may become an illusion. In 2010 when Georgian United Water Supply Company was established Adjara had privilege to work with KfW which provided massive load to government of Georgia for rehabilitation water and sewage system of Batumi, the capital city of Adjara. KfW strongly opposed inclusion of Adjara in the mandate of GUWSG and requested from Government of Georgia maintain status quo in the municipalities of Adjara, as a result there are 7 water companies in the Adjara A.R.

These are:

- 1) Batumi Water company
- 2) Kobuleti city water company

- 3) Kobuleti rural water company
- 4) Khelvachauri water and sewage company
- 5) Keda water and sewage company
- 6) Sheakhevi water and sewage company
- 7) Khulo water and sewage company.

In fact only Batumi and Kobuliti water companies are functional only in other cases these companies are providing only minimum services for example Khulo water and sewage company provided water supply only local hospital and administrative building of the municipality.

The municipality nominates management of this water and sewage companies and structure of these companies is the same as structure of GUWSC, they gave deputy directors and structural departments. The municipality decides water supply tariff but they use the same methodology used by GUWSC and GWP, beside tariffs these companies getting massive subsidies from the municipal budget. The biggest water company is the LTD “Batumi water” that is established by the Batumi municipality and belongs to the city of Batumi.

The Batumi water employs 437 persons out of which 236 are full time employs and others short term contractors. Total budget of the Batumi water equals 10 million of GEL and revenues from tariff is only 700 thousand GEL remaining part comes from the city municipality and the government of Adjara A.R. The tariff for household is the same as any city of west Georgia (for example Poti) 0.55 GEL for m<sup>3</sup> and GEL 1,85 per person if there are no meters, Tariff for enterprises is the same as everywhere in Georgia - GEL 4.4 per m<sup>3</sup>.

Batumi water is the champion in technical wastage, according to statistics published by the Batumi water company it collects 30-40 million m<sup>3</sup> of water from reservoirs and distributes to customers only 3-4 millions m<sup>3</sup> hence technical wastage is nearly 90%. This water company also has massive uncollected bill from its customers, state audit company calculated ongoing debt as 18 million Georgian Lari. Batumi municipality gets massive support from KfW for rehabilitation municipal water and waste water system, up to 120 million EUR was spent for rehabilitation work during 2006-2014. In addition 20 million EUR was provided by the European Union. However system us far from efficiency, the water company can guarantee supply only for 12 store buildings, is building has more than 12 store than owner should build service reservoir and use pump to guarantee supply of water to high stores, this is the case with all high store hotels in Batumi.

The state audit service also pointed out problem of high administrative cost, in 2013 salaries composed 43% of entire operational budget of the company, in 2014 this figure increased up to 45%. Procurement procedure are also problematic, being established by municipalities all water companies in Adjara must to follow the Georgian legislation on procurement using the lowest price offered, The audit report also highlights fact that in many cases contracts were awarded those who have been only participants to tenders. Number of tenders with single participants reduced in 2014 but even today it stay high comparing with GUWSC or GWP.

The government of Georgia tried to centralized water management system in Adjara and amalgamate these 7 companies with the GUWSC, even Prime minister of Georgia issues of decree on incorporation of above listed companies under the umbrella of GUWSG in May 2014 but this idea was strongly opposed by KfW and Georgian government had to give up this idea. On its behalf KfW tried to started processes from bellow and facilitate consolidation of these 7 municipal companies into one large inter-municipal entity but with no success. Thus, today status quo is maintained nevertheless government of Georgia managed to implement functional centralization of water companies in Adjara. Despite the fact that these companies and their property belong to municipalities functionally these companies are under the Ministry of regional development and infrastructure of Georgia, they consult their activity



plans with this ministry, they get capital investments from the ministry and even KfW speaks priority with the ministry about its loan package with the ministry on regional development and infrastructure of and ministry of finance rather than with municipalities. To cut in short de jure water and waste water management in Adjara A.R is decentralized but de facto it is as centralized as in other regions of Georgia. This centralization has its objective and subjective factors, subjective factor is that central government is unwilling to give more power and competence to municipalities in this sector, officials at central level believe that they can do job better, they know better how to speak with donors and investors and they know better what is needed at local level. The Objective factor is that these small municipal companies lack necessary knowledge and expertise to manage water and waste water system effectively and efficiently. In case of Batumi water we observe increase of administrative costs instead of increase quality and accessibility of services provided. This factor of non adequacy of local officials to manage municipal services shall be seen as basic constrain not only for decentralization of water management but for entire process of devolution state power at locals in Georgia.

### **Legal Framework**

There are more than 15 major laws in Georgia that significantly influence the management of water resources and the associated environmental concerns. However, mainly, water resources management system in Georgia is currently regulated by the Water Law of 1997.

The Law mainly provides for protection and use of surface waters and practically leaves out legal regulation of groundwater as well as coastal waters.

The main legislative change was brought to Georgia's environmental law with the 2004 Tax Code of Georgia and 2005 Law on Licenses and Permits. According to the Tax Code, all taxes for environmental pollution (including for water pollution) were abolished. The Law on Licenses and Permits further radically reduced the number of activities, classified as environmentally sensitive and requiring management and supervision. The initial draft of the law included permitting system for surface water abstraction and discharges but later it was removed.

These are the examples of why the Water Law of 1997 fails to provide good basis for regulation of management of water resources. In addition, current water-related legislation practically does not provide for comprehensive and clear regulation of such important and diverse issues as water resources management; pollution prevention tools; ownership, the rights of ownership and use of water bodies; water cadastre; integration of water protection requirements and restrictions in regard to land use and spatial development; jurisdiction of regional and local self-governing bodies over water resources, etc.

Overall, Georgia's water-related legislation is inconsistent, contradictory and fragmented throughout the wide range of legal acts, of which the most important ones are listed below:

- Law of Georgia "On Environmental Protection" (1996) ⇒ provides for establishment of environmental quality (including water quality) norms (standards);
- Law of Georgia "On Mineral Deposits" (1996) ⇒ considers groundwater as part of mineral deposits and regulates all aspects of groundwater use and to certain extent - groundwater protection as well;
- Law of Georgia "On Land Melioration" (1997) ⇒ regulates waters and water bodies used for melioration (agricultural) purposes;
- Law of Georgia "On System of Protected Areas" (1996) ⇒ provides legal ground for establishment of protected area categories (including marine protected areas and water bodies within terrestrial protected areas);
- Laws of Georgia "On Health Protection" (1997) and "On Public Health" (2007) ⇒ provide for

establishment of sanitary-hygienic requirements, norms and rules with regard to waters and water quality;

- Law of Georgia “On Regulation and Engineering Protection of the Seashores, Reservoirs and River Banks” (2000) ⇒ regulates engineering protection for seashores and river/reservoir banks against abrasion, floods etc.;
- Law of Georgia “On Recognition of Ownership Rights on Land Plots Being under the Usage of Natural Persons and Legal Entities of Private Law” (2007) ⇒ regulates legalization of ownership rights on land plots (including water bodies/water lands) which are being used by natural and legal persons in unlawful way;
- Laws of Georgia ““On State Control for Environment Protection (State *Environmental Control*)” (2005) and “On Ecological Expertise” (2007) ⇒ provide for legal streamlining in a number of water-related important aspects, such as usage of water resources for power plants, protection of rivers and water reservoirs from industrial waste, protection of environment and soil from wastewater infiltration;
- Organic Law of Georgia “On Self-governance” (2006) ⇒ defines municipal water and wastewater management and regulation as exclusive (own) power of local authorities.

Alongside of the primary legislation there is supportive legislation that regulates various aspects of municipal water and wastewater management. These legal acts are following:

- Law of Georgia on environment impact assessment permits (2008) ⇒ Sets up regulations and procedures for assessment of impact that might be impose to nature and landscape by human activities. This law also regulates what are criteria for awarding contracts to an entity for implementation of environment of impact assessment activities.
- Ordinance of Government of Georgia in technical nomenclature for potable water (2014) ⇒ this ordinance defines technical and chemical characteristics of the potable water used in the centralized water supply systems. This ordinance is obligatory for all private and public entities that supply potable water to Georgian settlements.

No other legal act requested by Slovak experts has an impact on municipal water and wastewater management system as these laws regulate different state of affairs than municipal water specifically: The Law of Georgia on intellectual property regulates right of ownership of intellectual property and its neighboring rights based on creativity and imagination; The Law of Georgia on public procurement regulates procedures of purchasing goods and services by public institutions but it applies neither GWP nor GUWSC as those are commercial entities and not public authorities. The Law on procurements is not used by the MDF as this institution operates with funds received from international finance institutions and statute of MDF stipulates that procedures of funding agencies have supremacy over the Georgian legislation in MDF.

The Law of Georgia on Land Registration regulates registration of urban and agricultural land in Georgia and it has nothing to do with municipal water and wastewater management system. The Law of Georgia on code of spatial and urban planning defines general framework for land use planning and architectural design of settlements in Georgia. It does not define any specific regime for municipal water management or regulation of wastewater treatment. Only provision in this law is that wastewater treatment facilities cannot be placed in the inner territories of settlements, in natural reserves and national parks. In General, Georgian legislation is quite blank on wastewater, in the decree of government says that Georgia can use European and foreign standards for wastewater management is they provide better conditions that Georgian regulatory acts. As there are no Georgian regulations in this field all Georgian entities (such as GWP, GUWSC, MDF as well water company of municipalities from Adjara A.R) use regulation of those international institutions that provide funding for the rehabilitation of wastewater management system.

Therefore, the current water resources management lacks consistency, efficiency and integrity with other sectors and therefore needs overall reorganization both with regard to institutional and regulatory aspects. There is a strong need for reform of the current water legislation and the current system of water resources management. The first step in direction of harmonization of regulatory base in this field is elaboration of draft law “on water resources management” that must replace acting Law on water adopted in 1997.

The draft Law will consist of four main sections - general, principal, transitional and final sections with approximately 40 sub-sections (chapters) covering the water-related subjects consistently and integrally.

The Draft Law will seek to cover a broad range of topics related to management, use and protection of water resources. So, it will become important to ensure coverage of enough details in the content to enable the Government and regulating authorities to implement the law correctly. It should be clear to the practitioner - particularly one who represents interested agencies (in particular the Ministry of Environment and Natural Resources Protection) and/or natural or legal bodies - if the Law establishes any norms or create any binding obligations on various governmental agencies to enact specific and enforceable regulations. Indication should be given on how the Government has to implement and enforce the Law. The Draft Law should define clear distribution of responsibilities. For the Law to work, it needs to clearly define what will be required, what role the public, industry and government agencies will play in the regulation process, and what will happen in the case of non-compliance.

The substantial principles should be outlined in the Law itself. The responsible governmental agency should be specified in the Draft Law and obliged to develop regulations based on those principles. The Draft Law will consist of four main sections - general, principal, transitional and final sections with approximately 40 sub-sections (chapters) covering the water-related subjects consistently and integrally. In terms of convergence with the EU water legislation, the Law is supposed to cover the legal requirements under the following directives:

- The Water Framework Directive (WFD)
- The Bathing Water Directive
- The Urban Waste Water Treatment Directive
- Floods Directive
- The Nitrates Directive
- The Groundwater Directives
- Drinking Water Directive
- The Dangerous Substances Directive
- The Freshwater Fish Directive
- Environmental Quality Standards Directive
- Integrated Pollution Prevention and Control (IPPC) Directive
- The Dangerous Substance Discharges Directive
- Biocides Directive
- Marketing and Use of Dangerous Substances Directive
- Plant Protection Products Directive.

The scope of the Draft Law, in line with the WFD, shall cover surface waters, transitional waters, coastal waters, groundwater and the related protected areas, as well as water infrastructural facilities (all water services which provide, for households, public institutions or any economic activity: abstraction, impoundment, storage, treatment and distribution of surface water or groundwater; waste-water collection and treatment facilities which subsequently discharge into surface water etc.).

The Law also will provide for all other aspects of integrated water resources management including water classification system, water quality objectives and standards, water use, water resources planning, pollution prevention, combined approach, economic tools, public participation, monitoring and

enforcement, flood risk management, etc.

As convergence with different EU Directives is envisaged, the Law will legally link the different processes, since institutional and administrative requirements are similar for different directives.

Currently the Draft Law is under the process of consideration at different levels, which includes, amongst others, its review by general public. The public hearings of the draft Law took place in November and December 2014 with participation of the representatives of the different Ministries, NGO, private sector and other stakeholders. The draft Law was submitted for the consideration by cabinet of ministers in November and it will be sent to parliament in spring 2016.

The EU-Georgian Association agreement (chapter 3) also stipulates obligations of Georgia to ensure adequacy of Georgian regulatory base for water and wastewater management to the directives of the European Commission. The implementation period of these commitments is up to 20 years after the ratification of the AA by the all parties. That means Georgia should start active work for harmonization of its legislation on water resource management with the EU legislation and therefore adoption of new law of Georgia on water resource management will be an important step in this direction.

## **Water Administration Challenges in Georgia**

### **1. Legal background**

Generally, in Georgia water administration system was developed in late 90s of the 20<sup>th</sup> century. After 2005 the system was transformed in phased manner; recently large-scaled modifications were planned and carried out.

On March 25, 2013 amendments were introduced into the Law of Georgia (subparagraph 37.5 of the Article 93 of the Law), according to which before January 1, 2014 the Government of Georgia was ordered to elaborate the Draft Law “On administration of water resources” and to submit it to the Parliament of Georgia. The same amendments defined recovery of the liabilities due to the relevant rights assigning acts in the field of water use adopted with the Draft Law “On administration of water resources”. Legislation of Georgia about water is presented with over 15 Laws and many more by-laws.

The following shall be underlined among the legislative acts:

The Law “About water”, which presents the general regulating framework concerning the water resources and which defines general issues of water protection and use, though not covering all the aspects of water administration, among them administration of underground waters, which is regulated according to the law about minerals; the Law “About licensing and permissions”, according to which the only permission regulating water use is the permission of ecological impact.

Besides, in the field of water there is the minerals producing license, by means of which use of underground waters is regulated, as well as fishing licenses. All in all, the legislation of Georgia about water is fragmental and contradictory; it is not covering pollution and effective mechanisms of preventing the excessive use of water and it does not allow to develop a well-functioning system of water administration.

Besides, there are the following Laws and codes:

a) the Law of Georgia “About environment protection” (1996), which regulates the issues related to the norms of water qualitative standing;

b) the Law of Georgia “About minerals” (1996), which regulates the issues related to the underground waters;

c) the Law of Georgia «About system of protected territories (1996), which regulates special nature protective significance water object protection issues;

d) Law of Georgia “About healthcare” (1997) and “About social health” (2007), which regulate aspects related to the water standards (sanitary-hygienic norms and rules);

- c) Maritime Code of Georgia (1997) and Law of Georgia “About Maritime Space of Georgia” (1998) regulate the issues of coastal and territorial water pollution;
- e) Law of Georgia “About regulation and engineering protection of sea, ponds and rivers” (2000), which regulates the issues of coasts engineering protection;
- f) Law of Georgia “About recognition of property right over the land plots being in ownership (propriatorship) of natural persons and legal entities of private law” (2007), which regulates the issues of recognition of the property right of the persons over for the land being in legal ownership (use), as well as deliberately appropriated state-owned land (among them the water fund lands);
- g) Laws of Georgia “About soil conservation and fertility restoration and improvement” (2003), “About permission of ecological impact” (2007), which regulate several environmental issues related to the field of water;
- h) Organic Law of Georgia “Local Self-Administration Code” (2014), which defines authorities of local self-administration bodies in the field of water resources, etc.

Among the by-laws the following shall be outlined:

Water qualitative norms are defined with the Order #279/N by the Minister of Labor, Health and Social Protection of Georgia “On approval of norms of the environment qualitative standing”. The first part of this document about use of potable water is replaced by the Resolution #58 by the Government of Georgia as of January 15, 2014 “On approval of technical regulations of potable water”; general rules of protection from pollution of superficial waters are set with the Resolution #425 “On approval of technical regulations of protection of superficial waters of Georgia from pollution by the Government of Georgia” as of December 31, 2013.

The indicated document sets the general principles for avoidance of pollution of superficial waters; the rule of development and approval of the normative acts of maximum permissible inflow is set with the Order #169 “On approval of the resolution about maximum permissible norms of emission of malicious substances into the environment and pollution of environment with microorganisms” by the Minister of Environment Protection of Georgia as of December 29, 1997.

According to the Law “About permission of ecological impact”, for all the activities, which are not due to permission of ecological impact, it is obligatory to preserve technical regulations, which are set with the Resolution #17 “On approval of environment technical regulations” by the Government of Georgia as of January 3, 2014. This document defined technical regulations of inflow of enterprises and non-entrepreneurial objects discharged waters and technical regulations of taking of the water from the superficial water object.

Therefore, now the legislation acting in the field of water consists of three general blocks– (special) legislation directly regulating water field, the legislation acting in the field of environment protection and various fields of industrial legislation (land-tenure, maritime space, coasts engineering protection, land melioration, spatial-territorial planning, etc.) acting legal norms.

### **Standing in water administration field**

In Georgia water administration is strictly centralized. Water policy is not oriented towards implementation of particular goals and tasks. The goals given in the legislation about water are of general character. Particular events, which would facilitate to implementation of those goals, are not defined. At the same time, there are no effective mechanisms of water quality administration.

There are no principles of integrated administration of water resources (with the purpose to obtain maximal economic and social benefits, taking into account interests of various sectors and maintaining value of pools ecosystem, complex mastering, protection and conservation of water, ground and other related natural resources in the framework of water (river) hydrological borders (pool)) in the legislation of Georgia, or they are not considered, and that is circumstance interfering with transfer to the water pool administration model.

Therefore, obtaining of basic improvements in the field of water is possible with the purposed and consecutive reforms in this field, which would complexly cover all the aspects related to protection and rational (sustainable) use of water resources - strategic, legal, normative-technical, institutional, administration and financial. At the same time, reform from methodological point of view shall be based on modern requirements approved in developed countries and recognized internationally, which means introduction of water resources integrated administration principles.

One of the most significant segments of the events to be carried out by Georgia in the water sector is the liability to switch to the river pool administration plans, being important requirement of water framework directive. According to the Agreement, for complete transfer to the pool administration plans 10 years are set, though, due to complexity of the issue (factual absence of the relevant legislative base and the water objects monitoring system, raising of public awareness and participation securing incomplete system, etc.), it is significant to make substantial steps in timely manner within that direction.

### **Subjects (supplier/regulatory) acting in water supply/drainage field**

In the sector of water supply and drainage of Georgia, throughout the country before 2009 there were 80 potable water supply companies are functional, which secure service rendering at the local level (among them for population) - at the same time more or less chaotically.

The Parliament of Georgia in June 2011, with the changes introduced into the Law of Georgia “About electro energy and natural air”, potable water and drainage service rendered became due to licensing, and according to the same changes, the current water supply companies were given 6-months term for obtaining of licenses.

During the period defined with this law, throughout Georgia in total 14 licenses of water supply were issued (among them: 1. Georgian Water and Power LLC; 2. United Water Supply Company of Georgia LLC; 3. Mtskheta Water LLC; 4. Rustavi Water LLC; 5. Batumi Water LLC; 6. Kobuleti Water Pipeline LLC; 7. Kobuleti Village Water LLC; 8. Keda Water Pipeline LLC; 9. Khulo Water Pipeline LLC; 10. Khelvachauri Water Pipeline LLC; 11. Sachkhere Water Pipeline LLC; 12. Shuakhevi Water Pipeline LLC; 13. JSC Sanatorium Likani; 14. Soguri LLC

Examples of household service companies in the field of water supply today - Georgia (municipalities)

<b>Region</b>	<b>Number of Municipalities</b>	<b>Municipal Companies</b>	<b>Non-municipal Companies</b>	<b>Note</b>
Adjara	6	7		Coverage zone—mostly incomplete
Guria	4	2	5	Coverage zone – mostly incomplete
Imereti	12	1	11	Coverage zone – mostly incomplete
Samegrelo – Zemo Svaneti	10		10	Coverage zone – mostly incomplete
Racha-Lechkhumi – Kvemo Svaneti	5		4	Coverage zone – mostly incomplete
Kakheti	9	5	9	Coverage zone – mostly incomplete
Samtskhe-Javakheti	7		7	Coverage zone – mostly incomplete

Mtskheta-Mtianeti	5	3	5	Coverage zone – mostly incomplete
Shida Kartli	5		5	Coverage zone – mostly incomplete
Kvemo Kartli	7	2	7	Coverage zone – mostly incomplete

According to the report of regulatory commission, there are 17 licenses issued to the date. Among the suppliers, from the point of view of scope in terms of financial as well as territorial coverage, number of subscribers and service, there are three companies to be underlined - Georgian Water and Power LLC, United Water Supply Company LLC and Batumi Water LLC.

### **Municipal authority in water supply and drainage field**

In accordance with the Organic Law of Georgia “Local Self-Administration Code”) subparagraph 8 of the paragraph 2 of the Article 16), the municipality is entitled to secure water supply (among them with technical water) and drainage; development of melioration system of local significance.

According to the transitional provision of the same Law (Article 163), it is verified that the conditions of implementation of authorities for securing of supply of potable water and drainage service is set by the municipality, according to which the municipality in the framework of the authorities foreseen with the subparagraph 8 of the paragraph 2 of the Article 16 of the same Law, supply of potable water and drainage service is provided by the relevant licensee by means of the subjects of private Law in those settlement, where the potable water supply and drainage services not rendered by the relevant licensee supplier.

In accordance with the same provision, the conditions of legal relations by and between municipality, Energy and Water Supply Regulatory National Commission of Georgia and suppliers - legal entities to private Law, legal relations in the framework of the authorities foreseen with the subparagraph 8 of the paragraph 2 of the Article 16 of the same law are defined with the relevant legislative act.

Therefore, according to the rule set by the Law, the municipality is one of the main subjects entitled for water supply and drainage, which fails to exercise the own authorities and to implement liabilities in the same field due to various reasons (among them one is absence of the relevant legislative regulations).

### **Inclusion of Energy and Water Supply Regulatory National Commission of Georgia into the field of water supply**

In accordance with the changes introduced into the Law of Georgia “About electricity and natural air”, water supply activities fell in the commission regulatory field since 2007. On basis of the same Law, with the purpose of regulating the water supply field, the commission developed several bylaws. Energy and Water Supply Regulatory National Commission (NEWSRC) has been functioning since 1998, as the energy regulatory body, and in the following year it became Energy and Water Supply Regulatory National Commission. At the same time, since July 2008 to February 2014 the commission was functioning in Kutaisi. As the result of one of the changes implemented in 2014 commission is domiciled in Tbilisi.

In the information about the work of the commission it is indicated that, it has issued 17 licenses for the water supply companies in Georgia. Though, it shall be indicated that the United Water Supply Company operates 56 systems with one shared license. Household service companies licensed by the commission render service to approximately 60% of the population of Georgia.

Commission is entitled to fine as well as with the purpose to secure compliance with standards and rules, to claim for change of management of the household service company (which might be considered as comparatively effective means in practice) and/or to terminate the license. At the same

time, when the licensed company fails to achieve the set work indicators/goals, the commission is entitled to issue recommendations for timely elimination of the flaw, for which it will define particular terms. In such case, regulatory becomes the part of improvement process also, together with the regulatory function (which on one hand might be related to the problem also). At the same time, it shall be indicated that licensing and tariffs defining authority shall cover overall territory of Georgia (including autonomous republics).

### **Separating Management and Service Activity Issues**

Georgian organic law on “Local Self-government code” clearly states that water supply and sewage services is the responsibility of the local government and hence, the “sole municipality”(service type). Respectively, municipalities possess the right and liability to provide services to the community and the end costumers within its administrative borders. While providing services, a variety of means, forms and structures can be used. This entails forming LLCs by individual municipalities or municipality groups with its independent manager and will provide services to the population.

### **Decentralization of Management and Trends**

Transition to less centralized and market oriented economy in Eastern Europe and Eurasian countries was followed by rising decentralization of governance which meant shifting focus from highly centralized decision-making to local, or decentralized one.

The politics of decentralization had various forms and functions, from least aggressive (where central government was deconcentrated) to more aggressive (when the rights and liabilities would be transferred to autonomous, local governments), where the local government was elected on the basis of free and open elections.

### **The Key Issues of Water Sector Reform Implementation**

#### **1. Legislative Competences**

The government works on the draft laws providing water supply and sewage system services throughout Georgia (in urban as well as rural areas). At the same time, its purpose is to provide the elaboration of the regulation which will be consistent with the organic Law of Georgia “Local Government Code “ and Law-established municipal competences (in the field of water supply).

#### **2. Full Decentralization of Authorities and Responsibilities**

On the way of political reform it was essential to realize that the full decentralization of authorities and responsibilities related to water supply and sewage system and the issue of transition them to the local government represent the sphere which is the subject of regulation by the law. In this case, law demand and / or the issue(s) will be as follows:

- **Sector Assets Transfer to the Municipalities.** All the assets related to the water supply and sewage system service which are in the ownership of the state, must be officially transferred to local governments (municipalities), who have administrative powers in the areas that are served by the respective assets;
- **The Possible Reorganization of the United Water Supply Company.** All assets, which are currently owned by the state and are included in the balance sheet of the United Water Supply Company, which in its turn operates these assets, in the long-term period, must be transferred to the respective municipalities in stages.
- **In this case there will be approximately more than 50 communal water supply companies.** After completion the processes of decentralization and the transition of assets, there will be approximately more than 50 communal water supply companies, many of which will be of small size (in terms of number of users of the service area).

### **Water Supply Regional Groups and the Undeveloped Portion of United Water Supply Company**



Possible Regional Communal Groups	Population According to Census(Demography)	Serviced by the United Water Supply Company
Kakheti	318,900	113,740
Kvemo Kartli	425,000	106,512
Samtskhe-Javakheti	160,300	105,907
Mtskheta-Mtianeti	94,300	24,122
Shida Kartli	264,700	115,098
Imereti	497,800	366,839
Guria	113,100	28,865
Samegrelo-Zemo Svaneti	330,900	167,031
Racha-Lechkhumi	41,100	12,079

### About the Development of Water Supply and Sewage System (the Draft Law of Georgia)

Within the framework of Georgia organic law “Local Government Law”, the Draft Law of “About the Development of Water Supply and Sewage System” is being developed (is in the process of development) which will provide further arrangement and development of this field, it will also determine legal relationship terms between the municipality, the Ministry of Energy and Water Supply Regulatory Commission and the provider entities of private Law.

In addition, it should be noted that the water supply (the company) is appropriate to be licensed by an independent body (so, for example: Regulatory Commission) and not a municipality, the authority representing water supply and sewage system.

### Key finding and Conclusions

Georgia uses three models of water and wastewater management, the capital city of Tbilisi, Rustavi and Mtskheta municipalities are served by commercial entity which is joint venture. Vast majority of territory of Georgia is served by centralized water supply company which belongs to the central government of Georgia and there are municipalities in Adjara A.R. (plus two more) where water and wastewater system is managed by municipalities. Each of above listed models has its positive and negative aspects.

Positive aspect of GWP is that company is financially viable and Tbilisi has most efficient water supply system in Georgia, however municipality of Tbilisi have very limited role in regulation of water supply sector, service tariffs are decided by the National regulatory board, Tbilisi and Rustavi providing subsidies to the GWP and do not have any profit from the corporate income GWP gains in these municipalities.

Centralized approach used by the GUWSC gives possibility to the central government easily attract funding from donors, staff of GUWSC are highly qualified in project management and procurement procedures, however centralized approach does not support realization of interest of local communities and as a result GUWSC takes care of water supply system in urban areas and rural settlement are excluded from benefits of safe and sustainable water supply.

Neither model that is used in Adjara A.R. proves its efficiency, municipalities have direct ownership over the water supply and wastewater management companies, local elected bodies decide rate of service fees and internal structure of organizations, however these municipal companies have huge debts, collection rate of service fee are extremely low, administrative costs high and operational losses huge in these companies. Staff of these municipal companies lack adequate skills and knowledge and they are unable independently deal with international investment institutions. Therefore central

government has incentive to include these companies in the GUWSC and complete process of centralization of water and wastewater sector of municipal economy providing argument that such consolidation allows government to keep water tariff relatively low in Georgia.

Issue of tariffs is another dilemma for Georgian water and wastewater sector of municipal economy. Tariff for household on cubic meter of water is low in Georgia compared with European countries but it is so because of underestimation of wastewater cost (0.08 GEL/m<sup>3</sup>). But this is not a stable solution the EU-Georgia association agreement stipulates specific requirements for wastewater treatment and management that will definitely require elevation of share of wastewater in the tariff of water, thus tariff on water for households in Georgia will definitely go up in the nearest future reaching those for enterprises and centralization of the system may become not solution to the problem but part of the problem itself.

It is widely known in economics that centralization has its limit of economic efficiency and as rule very big entities need more overhead costs, on the other hand centralized service providers are not flexible enough to accommodate local interests and create sense of ownership among the local society. As a result, such big centralized organizations having problem of collection service fees, they are economically exclusive and politically fragile institutions.

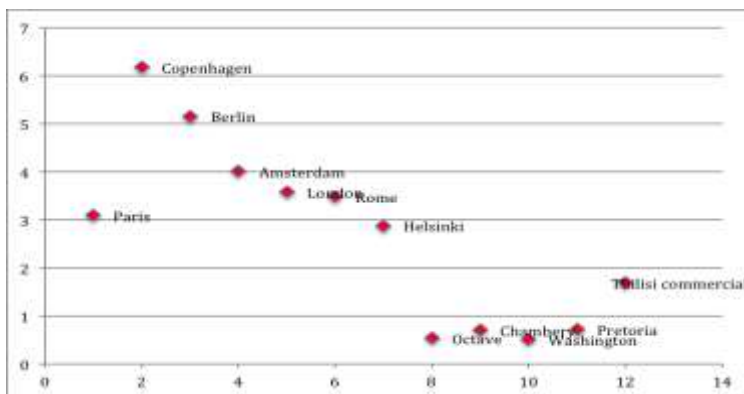


Chart 1 - Water tariff in big cities EUR/cubic m.

The best solution for Georgia is to involve municipalities in management of local water and wastewater and decentralize United Water Supply Company by giving more control to local governments over local branches of GUWSC, however we should remember that only decentralization does not guarantee efficiency. Example of Adjara A.R. shows that municipal staff needs adequate knowledge and experience, as well as municipal water companies need well organized procedures and internal structure to provide adequate service to local customers.

So it is critically important to build such administrative and human capacities in Georgian municipalities beforehand and then start process of decentralization water and wastewater management system as opposite processes may cause collapse of one of the key municipal service in Georgia.

## Section II. - Theoretical framework in Tendering Procedures

### 1. Tendering Procedures in construction projects

Tendering is the process used by many construction clients to obtain the programme and price for building a project. It typically consists of three parts:

- i) deciding on the type of Contract and the terms and conditions that would form the basis of the contractual relationship and under which the Work will be done;
- ii) selecting the most suitable Contractor given the budget and time available;
- iii) and establishing the Contract price.

### Tender Documents

The Tender Documents of a project should typically contain the design and specification of what the Client wants to build. It is the same documentation that a Contractor (Bidder) needs to calculate and offer a price and programme for a project. Tender Documents also help to obtain competitive tenders that can be evaluated objectively to select a suitable Contractor.

Poor specification writing, disparities between Bill of Quantities (BoQ) and drawings and specifications, and poorly prepared Tender Documents are common problems associated with Tender Documents. Poor quality Tender Documents can lead to inaccurate estimates, higher margins in bids, Claims and disputes. Other investigation indicated that major problems associated with quality of information in drawings, specifications and Bills of Quantities included missing information, late information, wrong information, insufficient detail, impracticable designs, inappropriate information, unclear information, provisional information, poorly arranged information, uncoordinated and conflicting information.

Hence, the clearer the Tender Documentation, the more straightforward the construction process will be and the lesser the cost of tendering will be to a Contractor. The time spent by estimators writing assumptions, specifications and doing guesswork clearly adds to the costs of tendering.

Nowadays, a mismatch of documents with no proper order and structure leads to uncertain Bids with higher bid prices. Most documents received nowadays are not to the standard and clarity needed to give an unqualified, good and competitive offer.

Accurate and timely information is critical of the each stage of the process, and lack of effective information systems is a main cause of procurement delays and inefficiencies. The related information system must be able to:

- produce information for quantifications and Tender Documents;
- issue notifications of Award;
- track order status and compliance with Contracts terms;
- manage communications with Contractor.

Some global procurement mechanism as UNDP, Supply Chain Management System etc. used negotiations as a primary tactic to established Contracts on high-used and high-cost items. These system need to ensure multiple source options to assure steady supply. However most modern Laws and regulations covering public-sector procurement require competitive procurement methods. Negotiation can be legitimate when only a few suppliers are available on the market.

Almost all procurement Laws and regulations are based on previous Laws developed in and for the Country. Therefore questions of which system of Law applies often arise - especially in the cases for project financing from EBRD, UNDP or other resources or Donors. The matter becomes particularly important if a disagreement arises. The best example is application of FIDIC Contract in countries all over the World due to a fact, that FIDIC conditions have roots in Commonwealth Law.

### **Procurement Processes and Standard Documents**

The preparation of **Tender Documents** and the selection of the appropriate Tender Procedure and methods are critical tasks in procurement also for municipality infrastructure projects in Georgia.

However any changes or variations to the Tender Procedures must:

- be based on the merit of the Bid;
- not give preference to any Bidder; and
- minimise any unnecessary costs for a Bidder.

In making changes, Contracting Authority must consider the risk that Authority may be made liable to compensate Bidders who might be negatively affected by any changes.

### **The need for consistency**

To be fair all Suppliers and Bidders should be given the same commercial information and guidance and instructions during the Tender process. Procedures, rules and Bid evaluation criteria need to be applied consistently to the different Bids to prevent any actual or perceived discrimination or preferential treatment. Consistency of this kind can best be maintained where clear procedures are documented in advance, where Staff are fully trained in them, and where there is strong continuity in the people who make up the Tender project team and advisers.

### **Planning the Tender**

Tendering is a vital part of the company's activities. It is therefore important to plan the Tender properly and to carry out a systematic scrutiny of the Tender Documents - irrespective of project size, contract/tender form and the extend of 'own production'. The company shall develop its own procedures with respect to legal and technical scrutiny as well as risk assessment. Likewise, the procedures for building Site inspection in connection with the Tender have been established.

## **2. Principles of Public Procurement**

### **General Principles**

Generally, the following principles will apply for Tendering Procedures not depending on two different Procurement Methods will be used in these Guidelines:

- i) value for money - procuring goods and services at optimal cost, having regard to issues such as policy, performance standards, Risk Management and life cycle costs;
- ii) open and fair competition - maximising the opportunity for firms and individuals to compete for business;
- iii) accountability - allocating responsibility for compliance with policy and adoption of best practice;
- iv) Risk Management - adopting management strategies to minimise risk in Tendering and Contract Management;
- v) probity and transparency - ensuring fairness, impartiality, consistency and transparency in all stages of the tendering phase;
- vi) local industry participation - using local producers whenever and wherever they offer best value for money;
- vi) minimisation of tendering costs - ensuring that consideration is given to the costs of tendering.

### **Importance of the Standard Tender Documents**

It is unfortunate that many public entities do not spend enough time to acquaint themselves with the content of the Tender Documents.

In the tendering process, it is recommended that Procuring Entities use the Standard Tender Documents (STD's) which aims at:

- a) increasing predictability and uniformity in the tendering process,
- b) increasing efficiency of the tendering process and reduce costs,
- c) reducing unresponsive bids and thus increasing competition; and
- d) reducing preparation and review time of the TD.

Tendering is one of the stages in construction procurement that requires extensive information and documents exchange. However, tender documents are not always clear in practice. The aim of this document was to ascertain the clarity and adequacy of Tender Documents used in practice. The quality of Tender Documentation is still a problem in construction despite the existence of standards like EBRD sample documents and EU document PRAG that are meant to help in producing clear and consistent project information.

The poor quality of Tender Documents is a source of inaccurate estimates, Claims and Disputes on Contracts in many construction projects. Particular savings are made by having standard tender response formats across all Georgia Government legal services panels coordinated across government as a whole.

### **The competitive Tendering Procedure**

The main objective of the Tendering Procedure is to ensure the “best fit” Contractor is selected to supply Works and/or services to the Client which offers best value for money. Such a supplier is likely to be sound commercially, technically competent, financially sound and perceived as best for the task.

### **Basic rule in Public Procurement - Value for Money**

Value for Money (VFM) is defined as the optimal combination of whole life costs, service delivery and quality necessary to meet the end user’s requirements. Meeting the end user’s requirements is fundamental. End users are not usually the purchasers themselves and their needs must be tested critically for cost effectiveness. To ensure best VFM in procurement the relevant factor is whole life cost.

Whole life cost takes into account all aspects of cost over time, including capital, maintenance, management and operating costs, whenever they fall. It is Government policy that purchasers should also use their commercial influence to help improve the competitiveness of suppliers, e.g. by ensuring that the products, processes and services which they buy, as far as possible, reflect the requirements (in terms of quality and price) of world markets. Suppliers should not be put to unnecessary costs through casual enquiries for bids. All procurement officials are responsible for ensuring that best VFM is achieved throughout the procurement process.

In the case of **construction projects**, VFM relates both to the functionality and building quality of the finished building/structure, and to the quality of service provided by the various Consultants and contractors engaged by the end user. The former may include several factors such as: design aesthetics; appropriateness and sensitivity to surroundings; ease of maintenance; adaptation to suit future Client requirements; and impact on the wider environment. The latter should take account of the particular abilities, skills and strengths of potential service providers, including their aptitude for providing innovative solutions and for working effectively alongside the other team members.

**Goods and services** should be acquired by competition unless there are convincing reasons to the contrary. Competition avoids any suggestion of favouritism and the encouragement of monopoly; it also helps promote efficiency and economy. The form of competition should be appropriate to the value and complexity of the goods or services acquired. It is a policy principle that procurement should be undertaken through open competition. Purchasers, in consultation with customers, are responsible for identifying suppliers most likely to offer best VFM and for encouraging them to tender.

### **Whole Life Cost**

Contracting Authorities, whenever initiate procurement, shall take into account the whole life cost of the contract object, in order to strategise better what to purchase. The concept envisages all of the ownership costs related to a building or facility throughout its lifetime, comprising: its purchasing (including design, other consultancy, construction and equipment fit-out); its operational and running costs (including energy use, maintenance and replacement of equipment or components); and its disposal costs.

### **Tenders and Quotes**

Government agencies use a range of instruments to obtain legal services. Typically, these have been developed on an agency-by-agency basis. Request for Tender (RFT) documentation is used when establishing panels and Request for Quote (RFQ) documentation may be used when approaching an existing legal services panel to provide services in relation to a particular matter or type of work (i.e. high volume work). This documentation can be standardised across government. The Legal Management Services Unit is responsible for the centralisation and standardisation of procurement documentation to reduce duplication and save valuable resources.

### 3. Tender Methods and Process

Contracting Authority should select a Tender Method and process that suits the procurement, its level of risk, is timely, avoids creating unnecessary costs for Tenderers and safeguards the security and confidentiality of all Tenderers.

Subject to legislative requirements, the Tender may be let by various procedures of which the most commonly used are:

- i) Open Tenders;
- ii) Selected Tenders and;
- iii) Preregistered (Selective) Tenders.

**Open Tendering** requires the Principal to advertise the “Invitation to Tender” in a relevant newspaper, provide pertinent project details, invite the public to Tender and inform prospective Tenderers of the closing place, date and deadline of tender submission.

**Selected Tendering** follows the same general procedure as Open Tendering with the exception that only those tendering organisations that have shown prior competence in similar projects may tender the project.

Alternatively, the tendering organisation may acquire this status by submission and acceptance by the CA of information relating the organisation’s ability to execute similar projects. Such information would be furnished and accepted prior to the Principal inviting a Tender. A register is maintained by the CA and regularly reviewed. Organisations are invited to Tender as Work is required after reference to this register.

**Pre-registered (Selective) Tendering** is a two-stage process involving an advertised invitation to respond to an Expression of Interest from interested Tenderers in lieu of an invite to tender. The CA will use an “expression of interest” process before it invites tenders. The CA will advertise publicly the purpose and nature of the Contract or project and the date by which it will invite Tenders. The aim at the expression of interest stage is not to elicit Tenders, but rather to assess the capacity of the respondents to undertake the Work or project, and to refine the specifications.

The CA will make the evaluation criteria for registration available to all respondents and such criteria should include:

- i) financial capacity;
- ii) organisational capacity;
- iii) performance capability as evidenced by references;
- iv) resource availability;
- v) occupational health and safety management;
- vi) environmental management;
- vii) quality management;
- viii) project management;
- ix) relevant experience; and
- x) compliance with this Guide.

The CA may invite tenders from some, or none of the registrants, by the advertised date. If the CA does not invite Tenderers by that date, it will write to all registrants advising when tenders are to be invited.

Respondents who are not invited to Tender will be advised in writing. The CA will use this list of registrants to invite tenders for the advertised contract or project only. Conditions of tendering shall be the same for each Tenderer on any particular tender process. All requirements, including the criteria for tender evaluation, shall be clearly stated in the conditions of tendering.

#### Goals of Pre-registered Tendering

The main goal of **Pre-registered Tendering** is to select from a total of 10-12 companies with comparable references, experience in the region and capacity options finally 3-5 companies which fully

meet CA requirements. During the next stage only eligible companies will be entitled to apply their bids.

Generally contractual arrangements set out the legal relationship parties wish to establish and hence creating rights, obligations and procedures for resolving contractual disputes. The important role plays also selection of appropriate procurement method in line with the project needs.

The Tendering is suitable for projects which programme requirement does not allow sufficient time to complete Design Works before Contractor selection. The circumstances that may bring this situation about include projects where:

- the benefits to be accrued from early start and shorter construction time exceed the likely risks of commencing the Work on half-completed design information;
- early Contractor involvement to advise on buildability, design and programming is required
- separation of design from construction is impractical;
- price is only one of the criteria for selection and design input from the Contractor is required.

**The Pre-Registered Tendering system** involves competitive selection of Contractors in the first phase and negotiations in the second, however the short-listed Bidders will be not integrated into the design team. In the second stage only short-listed companies (5-7 Tenderers) will receive a complete Tender Documentations with drawings, BoQ, Technical Specifications etc.

The factors that may influence Contractor selection under this method include the following selection criteria:

- experience, technical knowledge and ability to execute the Work;
- capacity, in terms of physical resources (workmanship, plants, productions, factories), human resources (quality of management, staff, technicians, technical knowledge and experience in the office and on site);
- reputation based on past performance Contracts, number of projects successfully completed, speed of construction, after- contract services;
- length of time in business, current sound financial and trading position, business relationship, categories of Clients (private, GO), type of projects in which Contractor specializes (industry, civil engineering, Plants);
- structure of proposed sub-contractors, JV or other entities will be involved on Project;
- non-economic factors with influence on Contractor's ability to perform the Works.

The factors which influence the choice of appropriate contractual arrangement include:

- size, nature and complexity of development;
- dates for commencement and completion;
- adequacy of construction information on which to establish Client's cost limit;
- availability of valid and adequate construction information on which to obtain tenders;
- the scale of changes the Client is likely to effect during the construction phase;
- requirements of Client's Risk Management;
- avoidance of variations to the Works and where unavoidable, kept to a minimum.

Therefore under the FIDIC Conditions, P&DB Contracting Authority (CA) shall prepare and present non-restricted one-stage tendering procedure; the candidates should meet the following criteria:

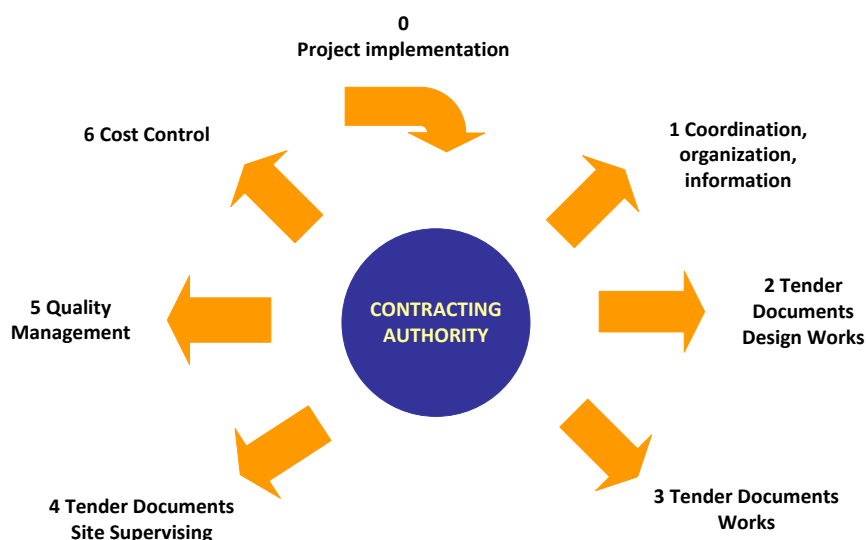
- the capacity / capability;
- references of energy and water sector;
- international reference list;
- appropriate insurance for Works and Design Works;
- ability to become bank guarantee by international recognised Bank;
- ability to build in local conditions as a Main Contractor or Leading Company in JV.

The same principles for two-stage selective tendering procedure will be used also for selection for Engineer (Site Supervising) based on FIDIC Conditions.

The combination of two-stage tendering with subsequently negotiations in connection with FIDIC P&DB Conditions are summarised in a form of advantages as follows:

- overlapping of design and construction phases as time-saving method with attendant savings in cost;
- reduction of CA risk regarding Design responsibility;
- early start on site may be achieved;
- the Contractor's skills and work experience are made available to the design team;
- all important project details are discussed during the negotiations, thus effecting a rational price;
- early Contractor appointment in the design phase leads to a beneficial contribution;
- the CA obtains the Contractor he prefers as the Contractor is selected for ability as well as price.

Principles and methodology of Tender Documents is visible in table below.



#### 4. Tender Documentation

Tender Documents are the **written details of the goods and services** required and should include a copy of the proposed Contract between the CA and the Contractor. For civil engineering works, there will be copies of plans, drawings and specifications and where appropriate, a Bill of Quantities. The drawings, specifications, Bill of Quantities and/or Schedule of Rates and Prices, Letters of Agreement will form the basis of the contract between the CA and the Contractor.

Tender Documents should specify the CA requirements clearly and indicate the criteria for evaluation, including the weighting given to each evaluation criteria. All parties should have regard to the costs of tendering to the industry and the community at large, and avoid calling repeated rounds of tendering.

The tender documentation should specify the timelines for the acceptance of Tenders and notification of the successful Tenderer. Where these timelines are to be altered, the Tenderers should be notified accordingly. If there are to be significant delays then Tenderers are to be given the opportunity to vary their Tender.

The following information should be provided in any invitation to Tender:



- i) name and registered office of the CA, architect, quantity surveyor and other major Consultants;
- ii) the proposed contractual obligations of the parties, ie, type of Contract and any special conditions being contemplated.

The following information should be provided in any invitation to Tender:

- i) name and registered office of the CA, architect, quantity surveyor and other major Consultants;
- ii) the proposed contractual obligations of the parties, ie, type of Contract and any special conditions being contemplated;
- iii) full details of Work for which the Tender is called, ie: location of site; and general description of Work and some indication of size, including specific requirements;
- iv) a Bill of Quantities, if appropriate (where quantities are provided by the CA they shall be measured in accordance with used methodology in the country)
- v) the specific time for construction;
- vi) all known information that may affect the risks of the project;
- vii) any supporting information required from Tenderers;
- viii) the person to provide additional information on behalf of the CA;
- ix) sufficient detail to avoid undue design and documentation Work prior to the selection of a Tender, unless the CA offers to pay;
- x) the method and time of lodgement and, in the case of public opening of Tenders, details as to the time and place of public opening;
- xi) what provision is made for rise and fall in prices,
- xii) whether allowance has been made to address significant movements in costs of consumables and materials due to global factors;
- xiii) how provision is made for inclement weather;
- xiv) how liquidated damages and latent conditions are to be applied;
- xv) industry standard conditions of tendering, with special conditions only where necessary;
- xvi) any special conditions or obligations under the contract that are not part of the standard conditions;
- xvii) guidance to Tenderers on the selection evaluation process;
- xviii) indicative timelines for the evaluation and acceptance of the Tender;
- xix) advice as to whether Tenderers will be reimbursed for the reasonable cost of preparing tenders for substantial design and construct projects; and
- xx) any test results associated with the project.

### **Specifications, Technical Specifications**

The specification is a most important section of the Invitation to Tender Documentation, both for the purchasing organisation and for potential Contractors, since it is the specification which sets out precisely what characteristics are required of the products or Services sought. Especially for FIDIC P&DB projects is TS crucial as a part of Employer's Requirements (ER).

There are two main types of specification - the "functional" specification which sets out the functions that the Works and/or services are expected to fulfil, including the performance to be achieved, and the "technical" specification which stipulates the technical characteristics

As a general rule, the specification should include expected performance or output but should not necessarily define how this should be achieved. To do so may lead to more costly solutions to the purchasing organisation's requirements than might be proposed by potential suppliers.

The following is a check list of some of the aspects which, depending on the nature of the requirement, might need to be considered for inclusion in an invitation to tender:

- the scope and/or functions of the Work or Service required
- the output required
- the quality expected
- estimated maintenance requirements when appropriate

- the expected Contract amount
- any standards required to be achieved, or applied timescales
- start date required
- finish date if “time is of the essence”
- a schedule of deliveries
- any inspection required and at what stages
- details of free issue materials
- accommodation details for installation
- insurance cover required for contractors
- costs in use of components or complete product where appropriate
- response times
- details of measurement of the Work.

The following details must be included:

- interfaces - the name of the person in the purchasing organisation who will have responsibility, on behalf of that organisation, for aspects of either the Tendering Procedure, or for aspects of the management of any resulting Contract, should be given. Equivalent contacts at the supplier are also required;
- resource specialism - particularly where overseas companies are concerned, the professional qualifications of all participants should be required, and details of any standards involved, such as ISO or EN standards. Any compatibility with existing equipment, even if included in the specification, should be highlighted;
- objectives of the requirement - it can often be advantageous to alert potential Contractors to how or where precisely the requirement fits into your enterprise or process. When nearing completion of the Tender Procedure, it can be of assistance to invite Tenderers to view the location or existing process;
- clarity - the prospective Contractor’s role should be clearly stated, and all terminology properly defined;
- completeness - to ensure the Works or Services supplied operate as expected, details of any ancillary Works required for satisfactory installation and working should be given in detail;
- measurability - details of any measurable outputs should be described, as well as who will do the measurement, and the reporting process to be used.

Quality standards must be clearly defined to ensure there is no ambiguity, particularly between the requirements set out in the specification and information provided through any discussions or other documents. All critical aspects of the Contract should be identified and it might be necessary to determine and show how they will be identified and measured. It could be that Approval of a quality plan is a condition of Contract and a requirement for assessment of the Bids.

The sort of information which might be included on a quality plan is:

- the named people involved in implementing the quality plan;
- how the Contract will be monitored, measured and reported upon;
- the procedures and controls in place;
- the quality of materials and how these are to be defined;
- how the Service or materials will be provided;
- the method for resolution of difficulties or disputes;
- details of any improvements incorporated or proposed.

All documentation must clearly detail the responsibilities of the Client and Contractor with respect to testing and/or acceptance of the Works or Service on completion of supply. When drawing up a specification and/or Contract details the need for competition must be maintained. As an example, gains anticipated during the life of the project or process, or from more efficient equipment, must be considered when preparing any specification or Tender where the exercise is a retendering one.

## **5. Ethics in Public Procurement**

The Code of Ethics in public procurement identifies three main categories as the follow:

- i) confidence in the public procurement process;
- ii) professionalism of employees;
- iii) quality of execution.

To accomplish these goals, the fundamental basic principles of impartiality, independence and integrity apply, and should be followed at all times. This means that:

- i) no suspicion of conflict of interest should be existent;
- ii) corrupt practice should be immediately reported;
- iii) no impression should be given that actions will be influenced by a gift or favour;
- iv) dealings with Tenderers must be honest, fair and even-handed.

All employees involved directly or indirectly in the procurement process are subject to the following:

- a) they shall not engage in personal, business or professional activity nor hold a financial interest that conflict with the duties and responsibilities of their position.
- b) they shall not solicit, accept or agree to accept any gratuity for themselves, their families or others, which results in personal gain, and which may affect their impartiality in making decisions on the job.
- c) they shall not directly or indirectly use, take, dispose of, nor allow the use, taking or disposing of any property or resources belonging to any Contracting Authority.

In addition to the exclusion criteria of Tenderers, the Contracting Authority must exclude candidates in the circumstances described below:

- i) conflict between consulting activities and procurement of goods, works or services: a firm that has been engaged by the Contracting Authority to provide goods, Works or Services (other than consulting services) for a project, and each of its affiliates, shall be disqualified from providing consulting Services related to those goods, works or Services. Conversely, a firm hired to provide consulting Services for the preparation or implementation of a project, and each of its affiliates, shall be disqualified from subsequently providing goods, Works or Services (other than consulting services) resulting from or directly related to the firm's consulting Services for such preparation or implementation;
- ii) conflict among consulting assignments: neither Consultants nor any of their affiliates shall be hired for any assignment that, by its nature, may be in conflict with another assignment Consultants;
- iii) relationship with the Contracting Authority's Staff: (including their Personnel and Sub-Consultants) that have a business or family relationship with a member of the Contracting Authority's Staff who are directly or indirectly involved in any part with the preparation of the terms of the Contract, and/or the selection process for such Contract, and/or supervision of such Contract, shall be disqualified from providing consulting Services related to this Contract.

## **6. Project Cost related with prices and estimations**

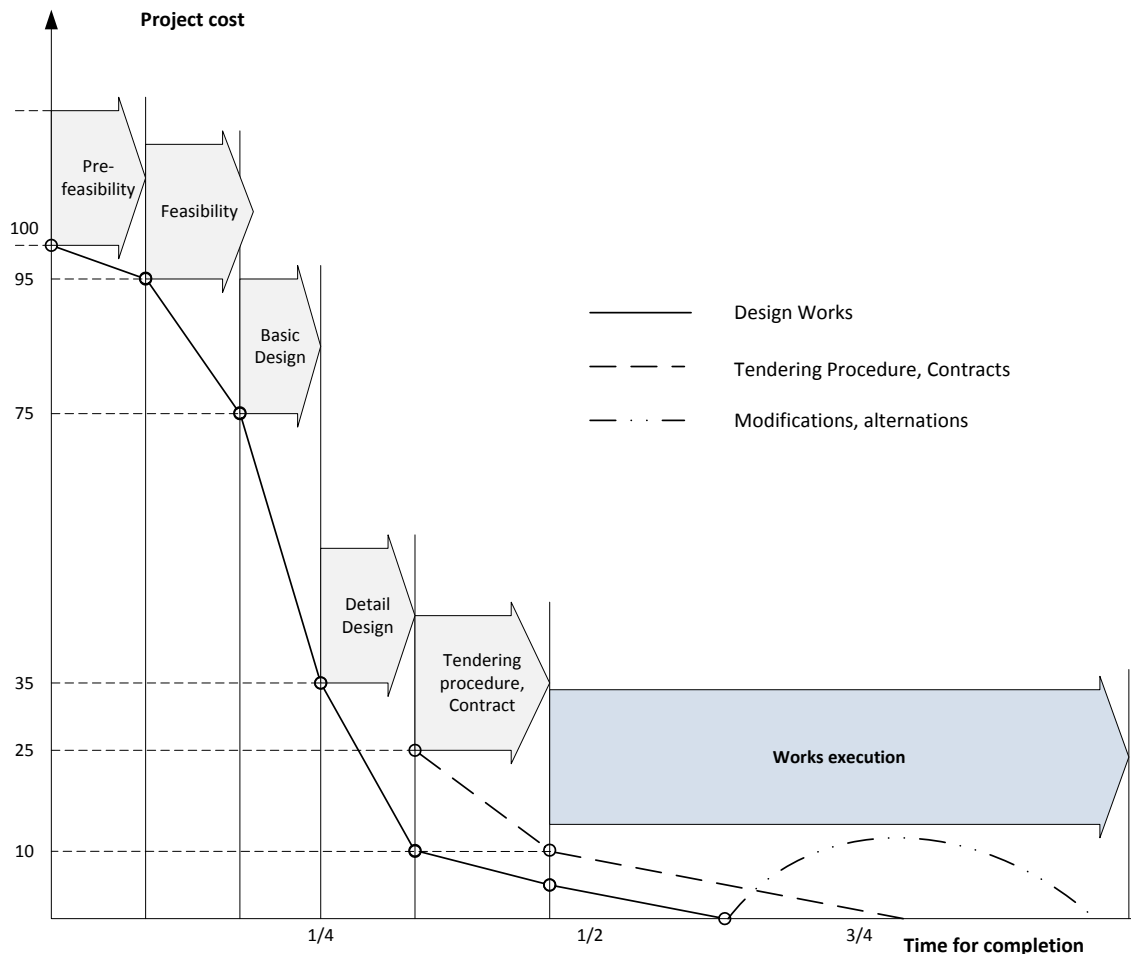
A part of the related services is to prepare, present and ensure CA's Approval for the soft cost overview, which are divided into:

- cost of Design Works
- cost of project supervising - Engineer.

Soft cost estimation has nowadays only a small degree of inaccuracy in a form of contingencies (5-10%) and based mainly on construction cost estimation.

On the other hand the cost of Construction Works can be estimated with a reasonable amount only after the presentation of the study, respectively documentation in a form of basic design. The table shows soft

cost only till Contract Award with General Contractor. The cost for Engineer’s supervising and Design Works during construction completion are presented in related packages.



A graph presents a relationship between stages of Design Works and project cost. Documentation in a form of study will occurred higher prices of bids during Tendering Procedure due to a fact, that higher risk of Bidders must be a part of their prices. On the other side Tendering Procedure based on complete Tender Documents, specifications, complete soil investigation etc. will depreciate prices of Bidders. The differences between bids provided on a base of studies and later on a base of complete Tender Documents shows figures between 20 - 40 % differences.

During the execution of Works there is no more additionally space for Contracting Authority to depreciate the prices of construction; therefore the role of proper Tender Documents has more and more importance.

### Standard Tender Documents and its role in Variation Order Procedure Reduction of Variation Orders in construction projects

How to avoid Claims in a construction business? Are they differences between excusable and non-excusable Claims? Is even the Contractor entitled to apply Claims on WWTP projects due to signed Contract taking the SCC into consideration?

One of the main targets regarding Standard Documents on Tendering Procedure is therefore to minimise the Contractor’s request on time and/or additionally money in a form of Claims.

To consider the reasons for and the origin of construction industry Claims it is necessary first to examine the complex nature of construction - especially for P&DB related projects - and the effects of Claim Management of the different legal jurisdictions which may be encountered. It is also necessary to remember and recognize the fact that the **Employer's view will always differ from those of the Contractor.**

Claim and Disputes represent a risk of loss to both parties to any construction Contract and they are themselves often the result of other risks, or error and of unexpected. It is necessary, therefore, to consider also the wide-ranging risks which exist and how they can be managed.

Practice of American Institute of Architects-AIA listed in Document A201, version 1997 **explain Claim** as following:

*“A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time, or other relief with respect to the terms of Contract. The term „Claim“ also includes disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. Claim must be initiated by written notice. The responsibility to substantiate Claim shall rest with the party making the Claim”.*

Due to proposed Contracts - no depends on SCC and on local conditions - the Claim agenda must be established and maintained by the Engineer continuously through whole Time for Completion. Unfortunately even nowadays in many cases lacks of Claim relevant and useful data to be used to avoid Contractor's Claims on Site, are missing or are uncompleted. In some cases it the real reason for lacks in agenda poor management on Client's side.

There can be no doubt that it is best if construction Claims can be settled amicably, often on compromise basis if necessary. If not, and if disputes develop, effort should be made to resolve them, perhaps by Alternative Dispute Resolution (ADR) measures.

### **7. Requirements on Contracting Authorities' Staff**

Today's competitive demands require the Procurement Procedure to be accomplished in a capable and professional manner. A Contract can stand or fall on the expertise and performance of the Purchasing Manager or Buyer, who must always be striving to obtain Works and/or services at best overall value for money. Much more is involved than simply issuing requests for quotations, receiving bids and choosing the lowest as being the more appropriate.

Before the tender stage is reached, it is essential to have a Management Team in place to deal with the Tender Procedures, thus ensuring the legalities are observed and that ownership of the process is established. This is sometimes referred to as the Procurement Project Team.

It must be borne in mind that there is a risk element to the process and the team must, therefore, be knowledgeable enough to minimise that risk, accepting responsibility for it should the unforeseen occur, and be able to rectify the situation. On occasion Senior Management must be involved to ensure that company strategy is not compromised. If the organisation making the purchase, that is the customer organisation, has not planned the utilisation of its resources properly and does not keep up with current trends in its specific industry, if it ignores the commercial and legal aspects of setting up a Contract, then the risk of failure or unplanned expenses will be greater.

The number of people involved in the process and their expertise will, of course, reflect the complexity of the project in hand at any specific time.

### **8. ToR and PCM cycle for Service Contracts**

#### **Developing the Terms of Reference**

##### **Main Consideration**

The Terms of Reference (ToR) are the key document in the RFP. They explain the objectives, scope of Work, activities and tasks to be performed, respective responsibilities of the CA and Consultant, as well

as expected results and deliverables of the assignment. An adequate and clear ToR is important for the understanding of the assignment and its correct execution. Drafting the ToR requires expertise with the type of assignment and needed resources as well as familiarity with the project background and knowledge of the CA's organisation. If the needed qualifications to produce the ToR are not available in-house, CA should hire a specialised independent Consultant.

### **Drafting the Terms of Reference**

The following considerations must guide the preparation of the ToR:

- i) the ToR should contain sufficient background information on the project to enable Consultants to present responsive proposals;
- ii) the scope of Work in particular should be consistent with the available budget;
- iii) the ToR should take into account the organisation of the entity and its level of technical expertise and institutional strength.

### **Outline of the Terms of Reference**

The ToR normally consists of:

- a) Background of the project;
- b) Objectives of the consulting assignment;
- c) Scope of Work;
- d) Transfer of knowledge;
- e) List of reports, schedule of deliveries, and period of performance;
- f) Data, local Services, personnel and facilities to be provided by the CA.

#### **1. Background of the Project**

The background summarises the main features of the project and describes the assignment's objectives and general purpose. In particular, it should include:

- a) Name of the Contracting Authority;
- b) Rationale of the project;
- c) Need for Consultants in the project and issues to be resolved;
- d) Activities to be carried out;
- e) Supervision arrangements.

#### **2. Objectives of the Consulting Assignment**

The ToR should precisely describe the objectives and expected results, and should include:

- a) Design of project;
- b) Preparation of bidding documents;
- c) Supervision of Works;
- d) Provision of training;
- e) Collection and analysis of data.

#### **3. Scope of Work**

The ToR should describe only the activities, not the approach or methodology. The scope of Work is defined by addressing the following:

- a) Definition, scope, limits and criteria of acceptance of the assignment;
- b) Level of detail;
- c) Main issues to be addressed;
- d) Special equipment requirements;
- e) Legal framework;
- f) Transfer of knowledge;
- g) Need for continuity;
- h) Quality management requirements (if needed).

#### 4. Transfer of Knowledge

The ToR should provide specific details on the characteristics of the required Services.

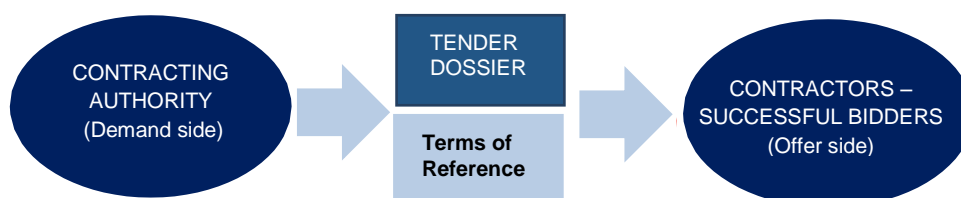
#### 5. Reports and Schedule of Deliveries

The ToR should indicate the estimated duration of the assignment, from the date of commencement to the date the CA receives and accepts the Consultant's Final Report. The ToR should indicate the format, frequency and content of reports.

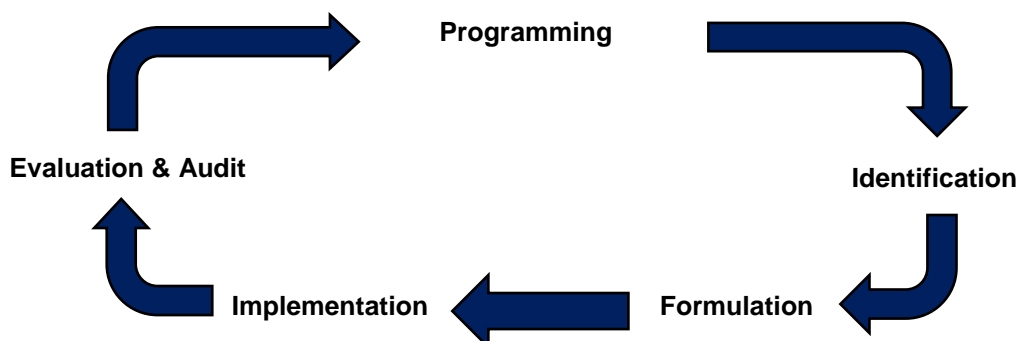
#### 6. Data, Personnel and Facilities

The TOR may provide all the needed facilities (office space, vehicles, survey equipment, office and computer equipment, and telecommunication systems).

The ToR as a communication tool on construction projects



Project Cycle Management (PCM) phases



ToR information	EU PRAG ToR template
Context / Background to the assignment	1. BACKGROUND INFORMATION
Description of the assignment (Objectives and Results)	2. OBJECTIVE, PURPOSE & EXPECTED RESULTS
Context / Background to the assignment	3. ASSUMPTIONS & RISKS
Issues to be studied / Methodology	4. SCOPE OF THE WORK
Work plan and time schedule	5. LOGISTICS AND TIMING
Expertise required	6. REQUIREMENTS
Reporting requirements	7. REPORTS
Reporting requirements	8. MONITORING AND EVALUATION

### Indicative Checklist for ToR (EC practice)

ToR element	Y / N	Comment
<b>1. Background information</b>		
Does the information in this sector provide you with an adequate understanding of the current project environment?		
Who are the partner institutions and beneficiaries which have an interest in the project?		
What are the key problems to be addressed by the project / assignment?		
What progress has been made or actions undertaken, if any, to date to try to improve the situation?		
Other related projects and donor activities?		
Project-related data, e.g. geographical data target groups, category of services to be rendered		
<b>2. Description of the assignment</b>		
<b>Specific objectives:</b>		
Does this section clearly and logically define:		
the overall project objectives and how they will contribute to achieving programme objectives?		
the purpose of the service / assignment and how it can contribute to improving the current situation?		
<b>Results to be achieved by the Consultant</b>		
Does this section contain quantified objectives?		
If so, is there a clear linkage between targets set and the quantification of objectives?		
What will be produced as a result of the tasks / activities undertaken by the Consultant?		
Can these outputs be verified and measured?		
<b>3. Methodology</b>		
Is detailed information provided with respect to:		
the methodology to be used and tasks to be undertaken?		
the responsibilities for the contract performance, finances, expenditures and reports and the method of co-operation between the contracting authority and contractor?		
the time schedule needed to implement the project?		



the duration of the assignment?		
the place(s) where the services are to be delivered?		
<b>4. Expertise required</b>		
Does this section provide adequately detailed information with respect to:		
<b>Profile of the Consultants:</b>		
the technical expertise required of key personnel?		
the minimum years of experience required for each?		
other qualifications (i.e. advanced university degree, languages, writing, analytical and inter-personal skills, etc)?		
<b>Inputs by the Consultants:</b>		
a clear specification of the work days required to complete the activities		
<b>5. Reporting requirements</b>		
Are all required reports specified, such as: inception report, progress reports, and final report?		
Other documents as may be required by the project (feasibility study, terms of reference, etc)		
<b>6. Work plan and timetable</b>		
Does this section provide adequately detailed information with regard to:		
a clearly set out and detailed list of tasks to be undertaken in order to reach the objectives of the project, and / or Consultant's job description?		
These should be listed in order of importance or in chronological order. If appropriate, the time schedule for completion of the various activities should be stipulated here.		
<b>7. Services rendered by the organization</b>		
Does this section provide information on:		
<b>Facilities to be provided for the project:</b>		
If facilities are to be provided by the Consultant, are these clearly defined and specified?		
Contribution of the recipient institution (i.e. office space, telephones, support Staff, etc)?		
<b>Equipment:</b>		
Information about equipment to be purchased (only if strictly necessary for the project)		
<b>Incidental expenditure:</b>		
Are incidental expenditures clearly specified and in accordance with the guidance notes provided by the EC interim template?		

## 9. Design Works

The Contract for Design Works will be performed under the conditions of EBRD (EC) for Services taking into accounts the specifics of the project of WWTP. The Contract and its Annexes will also cover a detailed description of Design Work in a form of ToR (planning, investigation, and conceptual design leading to the procurement), requirements of insurance, payment conditions etc. The low level of documentation with uncertain documents is also related to high risk of Tenderers during Tendering Procedure, which will be reflected in their bids.

To obtain the highest Basis of Value and proper selection of the Design Build team, selection criteria should include:

- full compliance with the procurement specification or Tender;
- quality and track record of the total design-build team, including the design professionals;
- quality of planning and Design - how well the project will work;
- quality and durability of materials offered;
- life-cycle costing;
- constructability.

#### **10. Contract Supervision - Site Supervising**

Continuous monitoring and auditing is required to supervise any construction Contract. This can be carried out by the CA, government agencies or Consultants appointed to supervise a Contract being funded by CA. For all but the former, the Consultant must in turn be monitored and audited to ensure compliance with the Contract and to encourage cost effectiveness and to avoid corruption.

Nature of the project, its scope and also specifics require the deployment of specialized engineering companies for supervision of the execution of Works on Site. Selecting Project Engineer under the EBDR or EU Conditions should meet the following criteria:

- the capacity / capability
- references of water sector
- international reference list
- insurance for Services
- ability to build an international team based on CA requirements, with the knowledge of FIDIC conditions (EU Conditions) and knowledge of English / Russian language.

### **Section III. - Tender Documents under EBRD procedures**

#### **1. EBRD Procurement Policy**

**The Procurement Policy Department** of EBRD develops and updates procurement policies, rules and methods. It is also responsible for maintaining a procurement quality assurance system, reviewing complaints and publishing procurement information.

**The Procurement Policy Department** maintains international cooperation with other international financial institutions, undertakes policy dialogues with the Bank's Countries of Operations for the improvement of Public Procurement, builds institutional capacity of the institutions in the Bank's Countries of Operations and hosts conferences on project procurement topics.

The Standard Tender Documents (STD) has been prepared by the EBRD for use by the Bank's clients for the procurement of goods, Works and Services on Bank-financed projects and the FIDIC forms now cover a wide range of projects. Use of these STDs is **mandatory for open tendering and competitive selection procedures**. However the Bank is not a party to the Contract and does not accept legal responsibility for the adequacy of the Contract forms contained in these documents. **Clients are therefore advised to ensure that the Contract conditions are suitable and complete** in respect of any particular Contract.

As other international financial entity in the country, except EBRD, EC, WB, KfW and SIDA is acting EIB (European Investment Bank) actually preparing water projects in Kutaisi. A weakness of Tender Procedures in this case is a fact that the Bank is "flexible" in using Standard Tender Documents: the procedures either of ADB or WB could be used.

However the Bank set up only General Guidelines for Procurement Procedures, using as a Contract base mainly FIDIC Conditions. This flexibility occurs all participants problems with variety of possibilities for TD, therefore it is complicated to prepare and implement standardisation for procedures; this might vary from case to case.

## **2. FIDIC Contract Conditions in EBRD financed projects**

Knowledge of FIDIC conditions and tendering procedures should not be regarded as an essential post-contract project tool solely on FIDIC based projects but an essential commercial tool for use and of benefit company-wide from commencement of project procurement (in the case of Employers and their Consultants) or commencement of tendering (in the case of Contractors and Consultants).

In 1999 the FIDIC task group discarded the Red, Yellow and Orange Books for a completely new suite of Contracts, known colloquially as the "Rainbow Forms" comprising:

- The Red Book - Conditions of Contract for Construction;
- The Yellow Book - Conditions of Contract for Plant and Design-Build;
- The Silver Book - Conditions of Contract for EPC/ Turnkey projects;
- The Green Book - The Short Form of Contract.

The FIDIC forms can be applied to a wide range of differing engineering and construction projects; from traditional civil engineering to hi-tech process Plants. The description of the Works is contained in either the Specification (Red Book) or Employers Requirements (Yellow and Silver Books) and the roles and responsibilities of the parties and the Engineer/Employers Representative are contained in the conditions.

Employers may even benefit from proffering FIDIC Conditions where potential Bidders are from different countries and may perceive a familiar and more mutual (and possibly fairer than standard) form of Contract as increasing the attractiveness of tendering and reducing the potential contracting risks.

## **3. Methodology on Tender Documents prepared by NISPAcee**

In accordance with the practice of tendering procedures used by the EBRD, NISPAcee prepared a complete Tender Documents (TD) for the sample project in Georgia with the name: "Rehabilitation and extension of existing Wastewater Treatment Plant in the County of Tbilisi."

The submitted Tender Documents for the Tendering Procedure for infrastructure municipality project will cover main complicated contractual documents of FIDIC Conditions for related projects - FIDIC P&DB Conditions in version 1999. Elaborated and submitted documents contain a full range of Tendering Procedures and tailor-made documents including a list of recommended Annexes etc. for the award of Works, Services and Supervising in accordance with the methodology of EBRD, divided into:

- i) Design Works;
- ii) Supervising Works;
- iii) Construction Works.

However we presume that UWCG will act for all related Tendering Procedures as Implementation Agency (IA) and therefore will be set up as Employer (Client). This will be supported also due to a fact that there is a lack of knowledge, capacity and experience in municipalities in the country and municipalities are nowadays not able to act as an Employer. The company UWCG has proofed experience also with EC based projects receiving for their implementation this year 12 Millions GEL.

### **A1. Tender Documents for Construction Works - EBRD Procedures**

Following consequently procedures and Standard Tender Documents of EBRD, a NISPAcee methodology is divided into following chapters:

- a. Volume I - The Tender
- b. Volume II - The Contract
- c. Volume III - The Requirements.

#### 4. Invitation for Tenders

A fully separate type of a Document represents Invitation for Tenders which based on a Template of EBRD Standard Form to be used not only for Municipality Infrastructure Project. A responsibility for a Document belongs fully to Contracting Authority; an advertisement of Invitation for Tenders will be made through an EBRD website, in some cases supported also through local media in the Country. General Description shall give basic information about a future investment project; the related basic data will be taken from a Design Works results.

##### **How to prepare an Invitation for Tenders?**

For Invitation for Tenders are more important a relevant data in a form of Employer's requirements regarding qualification of Tenderers. These cover a relevant data about a Tender for: average annual turnover, financial resources as well as specific experience with similar construction projects.

To set up appropriately amounts will be required the Employer shall take into consideration:

- i) information and data about local companies including their professional profile;
- ii) knowledge about construction business in the Country at all

therefore a data stated below in Invitation for Tenders shall be considerate as a sample only.

An equal information and data as data stated in Standard Documents under a **Volume I. ii. - Tender Data** must be set up **to avoid discrepancies in both documents**. However the amounts shall be determined based on a size/magnitude of the project.

### **INVITATION FOR TENDERS Republic of Georgia**

#### **Rehabilitation and extension of WWTP, Georgia**

This Invitation for Tenders follows the General Procurement Notice for this project which was published on the EBRD website, Procurement Notices ([www.ebrd.com](http://www.ebrd.com)) on <dd/mm/yyyy>

United Water Supply Company of Georgia, 76b Vazha Pshavela Ave, 0186 Tbilisi, Georgia

hereinafter referred to as "the Employer", intends using part of the proceeds of a loan from the European Bank for Reconstruction and Development (the Bank) towards the cost of **Tbilisi County Municipal Infrastructure**.

The Employer now invites sealed tenders from contractors for the following contract to be funded from part of the proceeds of the loan:

#### **Rehabilitation and extension of WWTP, Georgia**

##### **General description**

The project concerns water investments and has one basic component:

- Rehabilitation and extension of Waste Water Treatment Plant, Tbilisi County

A vast majority of the wastewater collected from < > is formed by sewage water, produced mainly in households. The project includes Design Works and Construction of Wastewater Treatment Plant (WWTP) in Tbilisi County. The Plant is proposed for design capacity < > population equivalent as well as for distant future for < > population equivalent. The tender shall be resolved only Plant with a capacity of < > PE.

The proposed solution for wastewater plant of < >PE will be incorporated only into Waste Water Plant layout so as to make clear the location of each object in the future. The design of the Waste Water Treatment Plant for the town of < > is based on the nitrification and denitrification treatment processes with chemical precipitation of phosphorus.

The duration of required Services and Works will be < > days.

The price including VAT will be calculated on the basis of currently applicable rate. Taxpayer is Contracting Authority.

Tendering for contracts to be financed with the proceeds of a loan from the Bank is open to firms from all countries. The proceeds of the Bank's loan will not be used for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

To be qualified for the award of a Contract, Tenderers must satisfy the following minimum criteria:

a) **Average annual turnover.** The Tenderer (in case of a JVCA all Partners combined must meet requirement) shall have an average annual construction turnover (defined as billing for Works in progress and completed) over the last **3 (three)** financial years of not less than **2,000,000.00 (two million) EURO** equivalent. In case of a JVCA all Partners combined shall have an average annual construction turnover (defined as billing for Works in progress and completed) over the last **3 (three)** financial years of not less than **2,000,000.00 (two million) EURO** equivalent.

b) **Financial resources.** The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means sufficient to meet the construction cash flow for the contract for a period of **4 (four)** months, estimated as not less than **500,000.00 (five hundred thousand) EURO** equivalent, taking into account the applicant's commitments for other Contracts.

Total requested credit facilities must meet following criteria:

- for a Single Entity 500,000.00 EURO
- for JVCA
  - o Partner of a JVCA min. 15%
  - o Leading Partner of a JVCA min. 40% .

c) **Specific experience.** The Tenderer (in case of a JVCA all Partners combined) shall demonstrate that it has successful experience as prime contractor in the execution of at least **2 (two)** projects of Design and execution of Construction of Waste Water Treatment Plant of a nature and complexity comparable to the proposed Contract (each for min. .... PE) that have been successfully and substantially completed within the last **5 (five)** years prior to the tender submission deadline, each with a value of at least **1,500,000.00 (one million five hundred thousand) EURO** (excluding VAT). The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described below.

Leading Partner of JVCA shall provide min. 40 % of Accepted Contract Amount, each Partner of JVCA min. 15 % of Accepted Contract Amount.

The Tenderer must demonstrate that Works and supplies have been done directly by him in position of prime contractor or Leading Partner of JVCA.

Tender documents may be obtained from the office at the address below upon payment of a non-refundable fee of **150 EURO**.

**Please make a payment to the following bank account number: < >**

Upon receipt of appropriate evidence of payment of the non-refundable fee, the documents will promptly be dispatched; however, no liability can be accepted for their loss or late delivery.

All tenders must be accompanied by a tender security of < > **EURO**.

Tenders must be delivered to the office at the address below on or before < > on < >, at which time they will be opened in the presence of those Tenderers' representatives who choose to attend.

A register of potential Tenderers who have purchased the tender documents may be inspected at the address below.

Prospective Tenderers may obtain further information from, and inspect and acquire the tender documents at, the following office:

**Contact name:** Mr. < >

**Employer:** United Water Supply Company of Georgia

**Address:** 76b Vazha Pshavela Ave, 0186 Tbilisi, Georgia

**Tel:** < >

**Email:** < >

**Date:** < >

### 5. Project Cost Estimation

A Project Cost Estimation is a part of pre-construction activities jointed with a calculation of NPV (ROI) of related project. Base on this methodology primarily cost estimation for all activities related with investment project must be provided divided into hard cost (Works) and soft cost (Services).

A table below present estimation for all Tendering Procedures will be put into a Tender Documents. A main rule is that the figures for cost estimation will be in proportion to qualification criteria for Works as well as for Services.

## Criterion for Tender Documentation WWTP

## 6. Volume I - the Tender

### Instructions to Tenderers

Sub-Articles Tender Documents through Tender Opening and Evaluation till Award of Contract represent Standard Tender Documents of EBRD for tendering procedures for all from the Bank co-financed projects. These contents general as well as specific data for Tenderers to prepare Tender Submissions with all related and jointed Documents forming parts of their Bids.

Pos.	Scope of Works	Estimated Contract Value EUR	Tender Security	Qualification criteria	Notice
1.	Works	<estimated value>	Pg. .. <amount>	Pg. ... - financial resources ... EUR Pg. .... - projects, each ... EUR Pg. ... - average annual turnover .... EUR Pg. .... - Contractor's equipment	
2.	Design Works	<estimated value>	Pg. .. <amount>	Pg. ... - financial resources .... EUR Pg. ... - ... projects, each .... EUR Pg. ... - average annual turnover ... EUR	
3.	Supervising (FIDIC Engineer)	<estimated value>	Pg. .. <amount>	Pg. ... - financial resources ... EUR Pg. .... - ... projects, each ....EUR Pg. ... - average annual turnover ... EUR	

### Tender Data

Volume with Tender Data contents relevant information primarily about financial performance of Tenderer or JVCA-if any, financial resources and general and specific experience as well as data about Contractor's Personnel and Equipment.

Criterion will be prepared by Contracting Authority taking specific local conditions in Georgia into consideration first of all based on overview about the construction market and related references of Tenderers in the country. The CA must set appropriate level for related data.

Pre-tender meeting or Site visit under the para 5. shall avoid subsequently Claims of Contractors after the Contract Award. Required Attachments having Form ELI, CON, FIN and EXP shall be set up by the Contracting Authority.

Other documentation under the para 10. represents Attachment 2 - Preliminary Programme and Attachment 3 - Other Information shall be set up together with Design Company.

Regarding a currency (Conversion to single currency) under the Volume I. - Tender to be used for an application on EBRD projects belongs strictly to Bank requirements: if a finance sources will be from EBRD, mainly the payments as well as all related Tender Standard Documents required this currency. However for other Donors and USD basis could be required.

A Bank Standard Tender Documents define contractual parties as an Employer and Contractor following consequently FIDIC family Contract Conditions. Terms in a part Tender Data as well as in other parts of a TD corresponds with Contract Conditions.

It means that however a practice in Georgia knows “Contracting Authority” as one contractual party, the FIDIC Conditions must be follow up.

Documents with a name: Requirements and Technical Specifications shall be prepared by Contracting Authority base on a separate contractual relationship with a Design Company. These documents will be an integrated part of a TD, due to a specific project conditions for a different type of Municipal infrastructure project.

A “technical part” of each TD (covering TS, Drawings, BoQ etc.) shall be prepared for each refurbished WWTP separately therefore it is not possible to prepare this ER (Employer Requirements) in advance.

#### **Tender Form**

A document under the Volume I.iii has a form of bank template to be presented by Tenderer as a part of his Bids without any modifications in wording.

#### **Tender Security Form**

For Tender Security Form under Volume I. v. a bank template shall be used, the document will be a part of Bids without any modification or alternation. The amount to be taken by an Employer shall be determinate as 2 % of the estimated cost of the project.

However there is a common practice in Georgia to put cash on bank account, regarding Bank Guarantees there is no space for another, maybe for some Tenderers more useful solution.

#### **Manufacturer Authorisation Form**

A document shall be used in a Template form with confirmation of Manufacturer of certain main products - in a case of rehabilitation Works for technology parts of WWTP.

#### **Letter of Acceptance**

With Letter of Acceptance under the annexed Template the Contracting Authority will confirm the acceptance of Bids to Tenderers.

#### **Price Schedules**

Price Schedules under Volume I.iv. could based on different type of prices and therefore vary. An important part of Schedules is a Preamble which describe in details structure of prices and Price Schedules in a form of explanation of BoQ and related schedules. Document Prices Schedules will be prepared externally by Design Company and after cross checking with drawings will be integrated into Tender Documents.

Also currencies of payment shall be set-up by Contracting Authority. Taking SCC into consideration, for both TD (EBRD, EC) payments in EUR or Georgian Lari (GEL) will be chosen. Mainly for project co-financed from IFI payments in EUR will be set-up, otherwise the exchange rate of National Bank of Georgia ([www.nbg.ge](http://www.nbg.ge)) will be used on the date of the invoice.

#### **Schedule of supplementary information**

Schedule consists of already described Attachments 1 and Attachment 2, extended about Attachment 3 with other information about relevant Tender Data. These have a form of Templates of Proposed Subcontractors, Proposed Insurers as well as data about Proposed Bank which will issue Performance Securities.

All Templates belongs to responsibility of Contracting Authority to fill in relevant data for tender procedure.

#### **Annexes/Appendixes to Contracts and how to use them**



It is to be distinguished from other Appendices to a Contract which may contain additional terms, specifications, provisions, standard forms or other information which have been separated out from the main body of the Contract.

These are: an **Appendix** (general term) and an **Annex** (which includes information, usually large texts or tables, which are independent stand-alone Works which have been included in the Contract, or a large except from a book).

Finally in a construction practice of EBRD as well in EU Contracts an Annex and an Appendix are both forms of Addendums to a main related document - a Contract.

Schedules generally refer to materials that shall be in the Contract but are instead moved to the end usually due to their length in an effort to achieve clarity and brevity in the Contract. For this reason schedules, documents, Technical Specifications, drawings are often considered to be part of the Contract and are required to be separately signed by both contractual parties.

### **Relation of Annexes/Appendixes to the Contract**

An Annex or Appendix cannot be submitted without the main document - a Contract. The main aim of both types is to add greater details, visuals and examples for better understanding of the main document - Contract and to allow better Work with them directly on a Site - without having continuously eye on the Contract.

Without further explanation, Annexes or Appendices may be deemed to form an integral part of the obligations of either or both parties. Obviously, the scope or binding nature of both types of Documents depends on the way it is referred to in the obligatory language of the Contract.

### **Authors of Annexes/Appendixes**

Appendices are usually written by original authors or can be written by outside party. In a complex projects some of the Annexes are prepared and submitted externally - therefore a detail List of Annexes/Appendixes is strongly recommended to follow up the whole procedure. It is also recommended to establish a standard phrase to refer to a schedule, as part of the Contracting Authorities' Contract drafting conventions.

## **7. Volume II - The Contract**

### **General Conditions of Contract**

The Conditions of Contract for Plant and Design-Build: **General Conditions of Contract for electrical and mechanical Plant, and Building and Engineering Works, designed by the Contractor**, Part A shall be those forming Volume II. i of the "Conditions of Contract for Construction", 1<sup>st</sup> edition 1999 prepared by the *Fédération Internationale des Ingénieurs-Conseils* (FIDIC).

Due to a copyright Law of all related FIDIC Documents only the resource of the place where the FIDIC Contract Conditions can be obtained is given.

### **Particular Conditions of Contract**

PCC has a 2 parts: Particular Conditions I. and Particular Conditions II. The Particular Conditions I. has a form of a "Short Particular Conditions" with simply overview about related changes and modifications to General Contract Conditions as Appendix to Tender under Volume II. iii of TD.

These Conditions are subject to the variations and additions set out in Volume II. ii hereof entitled "Part B: Particular Conditions of Contract" (PCC).

This part of TD shall be revising before preparing a last version of Tender Documents by **Georgian Lawyer to incorporate a last version of related Laws and by-Laws into the Documents** due to a fact that FIDIC Conditions based on British precedential Law.

Any other Specific Conditions must be subsequently incorporated into the PCC by the Contracting Authority - especially any changes under the Clause 5. [Design] if an Employer for Design Works Requirements will be changed. This situation may occur in connection with a different Scope of Services in a form of Design Works will be prepared by Design Company based on a separate Tendering Procedure under the TD for Design Works.

Based on previous experience of Main Expert with infrastructure municipal water projects, the significant experience related WWTP projects were already incorporated into the PCC in Clauses and Sub-Clauses as well in related Annexes to the Contract.

### **Contract Agreement**

Contract Agreement under a Volume II. iv. represents a typical short version of Construction Contract under the FIDIC P&DB Conditions. An important part of the Contract represents Clause 2. describing related Contract Documents. Contract Agreement has a form of Template from EBRD following sample Contract under a FIDIC Contract Conditions.

Due to a variety of possible Appendixes to a Contract, “typical Appendixes” for WWTP project were chosen in a form of Appendix 1. - Appendix 12. Recommended “full version” of Appendixes or Annexes in a form of table is presented below in a Sub-Article Appendixes comparing FIDIC Contract Conditions.

### **Appendixes**

#### **Appendix 1. - Payment Conditions for IPC and FPC**

An Appendix presents a full modality of payments divided into construction, Plant equipment and transport cost. An Appendix might to be modify based on concretely situation and Scope of required Works.

A simply version of IPC and FPC shall delete transport cost, installation and set up payments based on progress of construction Works - not divided into Plant and construction.

#### **Appendix 2. - Price Adjustment**

A Price Adjustment Appendix under the Volume II. Vi. or Sub-Clause will be used for a construction projects with a longer Time for Completion (more than 3 years) or for a projects with a high volume of several construction materials.

However the Employers doesn't use very often this Sub-Clause for simpler projects to avoid a possibility of Contract Price increasing after Contract Award. For WWTP sample project the prices will remain fix for the entire duration of the Contract under the condition that Time for Completion will be 1-2 years.

#### **Appendix 3. - Insurance Requirements**

Related Appendix divide a Contractor's insurance into Cargo Insurance, Installation Insurance, Third Party Liability Insurance and Professional Indemnity Insurance for Design Works. The last one is due to a fact, that General Contractor shall provide also a Design Works under the Clause 5. [Design] under P&DB FIDIC Conditions. A proportionality of Insurance related with a Scope of Works must be taken into consideration - higher Insurance cover will cost more money to be paid by Contracting Authority.

#### **Appendix 4. - Time Schedule**

A Time Schedule (Time Programme) is presented only in a form of Basic Data for main activities of Contractor on Site as well as pre-construction activities in a form of Design Works. The data according to Appendix 4. are only indicative showing the period from the Effective Contract Date without overlapping of any activities.

However under the Sub-Clause 8.3. of Contract Conditions still remains an obligation of Contractor to submit to the Contracting Authority the Contract Master Schedule (CMS) for the Approval. This shall base on a computerized logic network and shall be prepared according to the Critical Path Method (CPM).

**Appendix 5. - List of Subcontractors for Works**

A Template of EBRD Standard Documents will be used; the main purpose of a Document is to avoid replacement of Subcontractors during of Time for Completion after Contract Award. The subsequently procedures regarding replacement of Subcontractors are listed under the Sub-Clause 4.4. [Subcontractors]. However any changes in the List must be approved by Contracting Authority.

**Appendix 6. - List of Subcontractors for Design Works**

A Template of EBRD Standard Documents will be used; the procedures will follow a previous Appendix 5. for Works.

**Appendix 7. - Scope of Works and Supply by the Employer**

In some cases also an Employer has an obligation to delivery Works, Services or Supply for the related project. However for a WWTP there is **no** Personnel, facilities, Works, equipment, materials and supplies will be provided/supplied by the Employer due to provision of GC 4.20 [Employer's Equipment and Free-Issue Materials] of Contract.

In some cases Site Yard Facilities for a Site Supervising will be provide by the Employer during Time for Completion.

**Appendix 8. - List of Document for Approval and Review**

This document base on previous experience and practice from infrastructure projects and **belongs either to FIDIC or EBRD Standard Documents**. The main advantage of a Document and support of Staff on Site is a simple control of all related Documents will be prepared by Contractor for a control of a Site Supervisor.

Related Clauses and Sub-Clauses are listed in a Document as well as a formats and copies of Documents to be presented.

**Appendix 9. - Operation and Maintenance Manual**

To ensure a long-life operation regularly maintenance shall be provide on WWTP after handing-over to Employer. Requirements on M&OM under a Volume II. xiii. described in details and structure the Document with relevant details on M&OM.

A prime purpose of Manuals is to describe the best means to maximize equipment operational availability, while minimizing equipment downtime. The Document will be used later on by an Operator of the WWTP.

**Appendix 10. - Performance Security Form**

Performance Security Form as a Template of the EBRD under a Volume II. xiv. shall be fill in from Tenderers and his Banks. In this case the Security form could be joined with a Letter of Acceptance or with Commencement of Works.

**Appendix 11. - Bank Guarantee Form for Advance Payment**

A Template form of the EBRD will be used in some cases where a Bank Guarantee for Advance Payment will be apply.

**Appendix 12. - Form of Completion Certificate**

A Completion Certificate based on Sub-Clause 10.3 [Interference with Tests on Completion] of GCC belongs to Template of EBRD as a Standard Document.

## 8. Volume III - The Requirements

A fully separate package of requirements plays an important role in a Tender Documents - Employer's Requirements (ER) which has a high importance. Especially in FIDIC P&DB Contracts represents this part a key document with directly influence on success of the project.

Also a future possible Contractor's Claims (Variation Orders-VO) has roots in insufficient descriptions, uncompleted technical specifications, errors, omissions, inaccuracies and discrepancies in drawings, BoQ or documents of required Works and/or Services.

The Employer's Requirements are mainly divided into following logical parts in a form of:

- i) Technical Specifications and Standards;
- ii) Drawings;
- iii) Bill of Quantities.

Not only for EBRD co-financed construction projects belongs ER all to responsibility of Employer, however due to FIDIC Contract Conditions the risk for the TD could be transferred to a Designer.

Due to specific conditions this part of the TD **will be not prepared by NISPAcee** and belongs fully to **responsibility of the Contracting Authority** based on a separate Tendering Procedure and subsequently Contract Award for which the Tender Documents on Design Works will be fully applicable.

All the specifics of the existing Plants to be refurbished shall be incorporated into **Specific Contract Conditions** as well as into related **ToR for Design Works**.

### A2. Tender Documents for Design Works - EBRD Procedures

In some cases - depends on Specific Conditions - required Services could have a form of one Contract describing Design Works as well as Site Supervising. However due to a Tender Procedures there are a small differences regarding only ToR, requirements on Experts and Specific Contract Conditions, Majority of typical TD remains the same one. Generally related Tender Documents based on a short-listed procedure for a selection of Consultants.

Following consequently procedures and a Standard Tender Documents of an EBRD (September 2014) a NISPAcee methodology is divided into following chapters:

- i) Volume I - The Tender
- ii) Volume II - The Contract
- iii) Volume III - The Requirements.

This Standard Request for Proposals ("SRFP") has been prepared by the EBRD and based on a Master Procurement Document for Selection of Consultants ("Master Document"). The Master Document was prepared by participating Multilateral Development Banks ("MDBs") and reflects what are considered "best practices". This TD follows the structure and the provisions of the Master Document, except where specific considerations within the respective institutions have required a change.

Before preparing a Request for Proposals (RFP) for a specific assignment, the user must be familiar with the EBRD Procurement Policies and Rules (PP&R), and the Guidelines and **must have chosen an appropriate method and the appropriate Contract form**. The SRFP includes two standard forms of a Contract: one for time-based assignments and the other for lump-sum assignments.

## PART I

### Letter of Invitation (LOI)

This Section represents a Template of a letter from the Client addressed to a shortlisted consulting firm inviting it to submit a proposal for a consulting assignment. The LOI includes a list of all shortlisted

firms to whom similar Letters of Invitation are sent, and a reference to the selection method and applicable Guidelines or Policies of the financing institution that govern the selection and whole award process.

### **Instructions to Consultants and Data Sheet (DS)**

This Section consists of two parts: “Instructions to Consultants” and “Data Sheet”. “Instructions to Consultants” contains provisions that are to be used without modifications.

“Data Sheet” contains information specific to each selection and corresponds to the Clauses in “Instructions to Consultants” that call for selection-specific information to be added. Any necessary changes, acceptable to the Bank, to address specific country and project issues, to supplement, but not over-write, the provisions of the Instructions to Consultants (ITC), shall be introduced through the Data Sheet only. This Section provides information to help shortlisted Consultants prepare their proposals.

Information is also provided on the submission, opening and evaluation of proposals, Contract negotiation and Award of Contract. Information in the Data Sheet indicates whether a Full Technical Proposal (FTP) or a Simplified Technical Proposal (STP) shall be used.

### **Technical Proposal - Standard Forms**

This Section includes the forms for FTP and STP that are to be completed by the shortlisted consultants and submitted in accordance with the requirements of Section 2. Form TECH-2 represents a brief description of the Consultant’s organization and an outline of the recent experience of the Consultant that is most relevant to the assignment.

For each assignment, the outline should indicate the names of the Consultant’s Key Experts and Sub-consultants who participated, the duration of the assignment, the Contract amount (total and, if it was done in a form of a joint venture or a sub-consultancy, the amount paid to the Consultant), and the Consultant’s role/involvement.

Form TECH-3 represents comments and suggestions on the Terms of Reference that could improve the quality/effectiveness of the assignment; and on requirements for counterpart staff and facilities, which are provided by the Client, including: administrative support, office space, local transportation, equipment, data, etc.

Form TECH-4 is suitable only for full proposals with required description of the approach, methodology and a Work Plan for performing the assignment, including a detailed description of the proposed methodology and staffing for training, if the Terms of Reference specify training as a specific component of the assignment.

Form TECH - 5 (for FTP and STP) represents Work Schedule and planning for deliverables related to both modalities.

Form TECH - 6 (for FTP and STP) represents Team Composition, Assignment and Key Experts’ inputs divided into full time a part time assignment.

Form TECH-6 in a form of CV presents employment record relevant to the assignment for each Consultant.

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### **Financial Proposal - Standard Forms**

This Section includes the financial forms that are to be completed by the shortlisted Consultants, including the Consultant’s costing of its technical proposal, which are to be submitted in accordance with the requirements of Section 2.

Financial Proposal Standard Forms FIN-1 to FIN-4 shall be used for the preparation of the Financial Proposal under the related instructions.

### **Eligible Countries**

This Section contains information regarding eligible countries related to ITC 6.3.2.

### **Bank's Policy - Corrupt and Fraudulent Practices**

The Bank requires that Clients (including beneficiaries of Bank-financed operations), as well as Tenderers, suppliers, Contractors, Subcontractors, concessionaires, Consultants, Sub-consultants, and Experts under Bank financed Contracts, observe the highest standard of ethics during the procurement and execution of such Contracts.

This Section provides shortlisted Consultants with the reference to the Bank's policy in regard to corrupt and fraudulent practices applicable to the selection process. This Section is also incorporated in the Standard Forms of Contract (Section 8) as Attachment 1.

### **Terms of Reference (TORs)**

This Section describes the scope of Services, objectives, goals, specific tasks required to implement the assignment, and relevant background information; provides details on the required qualifications of the Key Experts; and lists the expected deliverables. A Template represents an important part of a Tender Documents with direct influence on required Services.

This Section shall not be used to over-write provisions in Section 2. After appropriately modification and under Specific Conditions a ToR from EU Contracts could be used primarily due to common required Services.

## **PART II - CONDITIONS OF CONTRACT AND CONTRACT FORMS**

### **Standard Forms of Contract**

This Section of STD includes two types of Standard Contract forms for large and/or complex assignments:

- i) a Time-Based Contract and;
- ii) a Lump-Sum Contract.

Each type includes General Conditions of Contract ("GCC") that shall not be modified, and Special Conditions of Contract ("SCC"). The SCC include Clauses specific to each Contract to supplement the General Conditions (practically the same principles as for FIDIC Contracts will be used). The CA shall made decision regarding suitable and appropriately type of Contract will be used taking project specifics into considerations.

Each Standard Form of Contract incorporates also a "Bank's Policy - Corrupt and Fraudulent Practices" (Section 6 of Part I) in a form of a separate Attachment 1.

### **Conditions of Contract and Contract Forms**

Conditions of Contract and Contract Forms belongs to a separate Section 8. of EBRD Tender Documents. General Conditions of Contract consist of 49 Clauses divided into relevant Sub-Clauses. Subject to prior agreement with the Bank and if the nature of a specific assignment requires this, other forms of Contract may be used, however this shall be pre-approved by the Bank.

For the Contract Form also a priority of related Contract Annexes shall be taken into consideration. In the event of any inconsistency between the documents, mainly the following order of precedence shall prevail: the Special Conditions of Contract; the General Conditions of Contract, including Attachment 1; Appendix A; Appendix B; Appendix C and Appendix D; Appendix E.

### **Bank's Policy - Corrupt and Fraudulent Practices**

Corrupt and Fraudulent Practices has a form of a separate Template as Attachment 1 to Contract with exact definitions of corrupt, fraudulent, coercive and collusive practice.

### **Special Conditions of Contract**

Special Conditions of Contract followed a practice of international overseas construction Templates, however the SCC includes Clauses and Sub-Clauses specific to each Contract to supplement the General Conditions.

A Template shall be prepared from experienced Client's Expert, a basic Template could be extended with amendments from EC Contract Conditions for Services - if required.

### **Appendices to Contract**

Following main Appendices to a Contract will be used, extension of Appendices shall mirror local specifics in a Country:

- i) Appendix A - Terms of Reference
- ii) Appendix B - Key Experts
- iii) Appendix C - Remuneration Cost Estimates
- iv) Appendix D - Reimbursable Expenses Cost Estimates
- v) Appendix E - Form of Advance Payments Guarantee.

### **Appendix A - Terms of Reference (ToR)**

Appendix A divide required Services into a logical parts/section describing duties and obligations of Consultants related to a WWTP Project. Primarily related phases of Design Works are described in appropriately details to avoid subsequently Claims (VO) regarding descriptions of Consultant's duties. A form, as well as required copies are incorporated into each Design Phase as well as requirements on geological, hydro-geological and geotechnical investigation as well as survey Works.

For Technical Specifications a part F. shall be prepared by the Consultant.

### **Appendices B - D**

Client's requirements under Appendices B-D describe fulfilment of Consultant's obligations related to a WWTP Project. Monthly rates for Experts shall based on a Form FIN-3,4 of the Consultant's Proposal and reflect any changes agreed at the Contract negotiations, if any.

All reimbursable expenses shall be reimbursed at actual cost.

### **Appendix E - Form of Advance Payments Guarantee**

In a form or Client's Template requirements on Advance Payments Guarantee are given. For all related Bank Guarantees in a form of Templates local Law as well as Clauses GCC 45.1 (a) and SCC 45.1(a) shall strictly be taken into consideration.

### **A3. Tender Documents for Site Supervising - EBRD Procedures**

However a high similarity is between EBRD procedures for Design Works and Site Supervising having differences only in followings chapters/clauses/sections:

- i) ToR
- ii) Specific Contract Conditions
- iii) Requirements on Experts (Consultants).

The remaining conditions, templates, letters etc. will be practically the same one as for Design Works Contracts and Bank STD.

### **ToR for Site Supervising**

The Consultant shall conscientiously fulfil, to the highest professional standards, the role of the delegated powers by the Contracting Authority's Representative to supervise the construction of the Works and to ensure that they are executed in accordance with the Conditions of Contract, Contracting Authority's requirements, Specifications and any amendments thereto.

The Consultant's activities for **Site Supervising** are divided into following tasks:

- a) general Project Management related functions;
- b) pre-construction activities including review of Design Works (design of Design company, Contractor's Design Works);
- c) activities during implementation of tasks - Site Supervising ad related activities;
- d) reporting.

### **A. General Project Management related functions**

The Consultant is responsible for the activities described in appropriately details in related ToR.

### **B. Pre-construction activities including review of Design Works**

#### **Design Audits, Design Review Comments**

The Consultant shall prepare design audits and design review memoranda as required **during the pre-construction phase**, depending on the needs to address Contracting Authority requirements and specific points related to the tasks of a Designer.

### **C. Activities during implementation of tasks**

#### **Inspection and testing at the Contractor's Works**

The Consultant with the Contracting Authority's participation shall undertake to implement the following:

1. Review and approval of quality assurance control plans and delivery schedules of the Contractor;
2. Regular review of production schedules and delivery schedules of the Contractor;
3. Review and approval of factory testing procedures and factory test results submitted by the Contractor - if any;
4. Witnessing of laboratory tests of the field activities and preparation of corresponding records as per the Requirements of the Contracting Authority;
5. Review of test reports on laboratory test results submitted by the Contractor.

Other Consultant activities represent:

- Construction Supervision and Management
- Inspection, acceptance meeting and Acceptance Tests
- Technology transfer and training of Contractor's Authority's Staff
- Environmental management aspects
- Taking Over Certificate
- Performance Certificate
- Final Certificate of Payment.

### **A. Reporting**

#### **Deliverable Reports**

An inception report shall be submitted within 4 weeks from the commencement of the Consulting Services. It shall include the proposals how the Objectives of the Services are to be achieved. In addition, it shall also include an implementation schedule highlighting the milestones to be met in order the Project can be executed smoothly.

In their Methodology Statement, the Consultant shall provide a fixed layout for all the reports to be submitted. Types of related Reports based on a detail description under the ToR.

#### **Operation & Maintenance Manuals**

The Consultant shall review and approve in consultation with the Contracting Authority, the Operation & Maintenance Manuals submitted by the Contractor, within 4 weeks before the commencement of the commissioning.

Furthermore the Consultant shall prepare and submit a Reference Manual for the Project providing recommendations of the Consultant with cross references to related documents along with the approved Operation & Maintenance Manual.

#### **Requirements on Experts (Consultants)**

Due to a character of Services and Client's requirements a team shall consists of 3-4 Experts with previous experience with preparation and implementation of projects in water sector. Previous



experience from FIDIC based projects and/or other relevant practice is mandatory. Specific professional experience represents extensive broad experience in WWTP Design Works Contract administration, evaluation of Contractor's Claims and Service as a Project Engineer on WWTP construction Contracts of comparable magnitude.

## **ANNEX II: Terms of References - ToR**

Regarding project results ToR requirements represent a very important part of a TD with direct influence on project results at all. Modifications in this part of TD based on a variety of financing modalities. The CA must decide and primarily set-up an appropriate criteria on Experts.

The skills required may include professional and technical skills, team management skills, communication and facilitation skills, and/or language skills. The precise time inputs of the Experts shall be left to the discretion of Tenderers as part of their technical proposal. However, it may be useful to identify a minimum input for the contribution of Key Experts.

The profile of the "ideal Expert" should not be described as it sets a threshold for acceptance of the offer. When choosing the criteria, CA shall consider the real minimum requirements and the availability of such Experts on the market. The criteria should be as broad as possible. Quantifiable criteria should be drafted with vigilance. If an Expert does not meet the minimum requirements, he/she must be rejected.

### **Key Experts and non Key Experts**

The Contractor shall conscientiously fulfil, to the highest professional standards, the role of the delegated powers by the Contracting Authority's Representative to provide Design Works. He must ensure that they are executed in accordance with the Conditions of Contract, Contracting Authority's requirements, Specifications and any amendments thereto; and to ensure that so far as is reasonably possible, within the Contract Price and Contract Period allowed under the Contract or any agreed amendments thereto.

Especially focused shall be requirements on Contractor's Staff, especially on Key Experts. Non Key Experts and support Staff is also a significant part of TD, however CVs for non Key Experts should not be submitted in the Tender but the Tenderer will have to demonstrate in their offer that they have access to Experts with the required profiles.

A methodology how to prepare ToR due to requirements with all relevant details and scope of required Services is to be found under a Section II. - Theoretical framework in Tendering Procedures.

## **Section IV. - Tender Documents under EU procedures**

### **B1. Tender Documents for Construction Works - EU Procedures**

Following consequently procedures and a Standard Tender Documents of EU and NISPAcee methodology is divided into following chapters:

- i) Volume I - The Tender
- ii) Volume II - The Contract
- iii) Volume III - The Technical Specifications
- iv) Volume IV - The Financial Offer Templates
- v) Volume V - Design Documents, including Drawings.

### **General**

EU Works Contracts cover primarily the execution of Works or a Work related to one of the activities referred to in Annex II to Directive 2004/24/EU or the realisation. A "Work" means the outcome of

building or Civil Engineering Works taken as a whole that is sufficient in itself to fulfil an economic or technical function.

Works Contracts are usually concluded by the partner country with which the European Commission has a financing agreement (under indirect management).

Comparing the Standard Tender Documents of EBRD and EU Standard Procedures there are differences joined primarily with several financial resources and modalities for financing for EU projects.

Therefore EU Standard Documents offers possibilities for financing either from EU Budget or EDF projects. Based on different resources and different Contracting Authorities prepared and submitted documents offer more possibilities and variety.

As a relevant support to all EU Tendering Procedures is a PRAG (Practical Guide) - see below for EU financed investment projects with a lot of useful remarks and notices or preparing Standard Tender Documents.

Taking only a price ceiling into consideration, there are following thresholds for Contracts under EU procedures:

- i) Contracts with a value of EUR 5 000 000 or more
- ii) Contracts with a value of EUR 300 000 of more but less than EUR 5 000 000
- iii) Contracts with a value of less than EUR 300 000
- iv) Contracts with a value of less than EUR 20 000
- v) Procedures applicable without ceilings.

They are different ways to implement the EU budget or the EDF funds, depending on the variable level of implication of the European Commission in its implementation. The former management modes (centralised, decentralised, joint and shared) have been streamlined to just three:

- i) Direct Management
- ii) Indirect Management
- iii) Shared Management.

### **Direct management**

The European Commission is in charge of all EU budget implementation tasks, which are performed directly by its departments either at headquarters or in the EU delegations or through European executive agencies.

Therefore, the European Commission or the European executive agency is the Contracting Authority and takes decisions on behalf and for the account of the partner countries. Deviations from standard procedures (exceptions/derogations) and prior Approvals/events to be reported laid down in the Practical Guide are allowed in compliance with internal procedures.

### **Indirect management**

Under indirect management, the European Commission entrusts budget implementation tasks to:

- partner countries (or to bodies designated by them)
- international organisations
- development agencies of EU Member States
- other bodies.

Two modalities are possible under indirect management with partner countries.

### **Indirect management with ex-ante controls**

Decisions on the procurement and Award of Contracts are taken by the partner country, which acts as the contracting authority, following prior authorisation of the European Commission. This prior authorisation can encompass in some cases and only for specific commitments, a deviation from standard procedures (exception/derogation) or prior approval/event to be reported. Deviations, prior Approvals and events to be reported are processed internally by the European Commission.

### **Indirect management with ex-post controls**

Decisions provided for in the financing agreement are taken by the partner country, which acts as the Contracting Authority without prior authorisation by the European Commission. However, deviations from the standard procedures laid down in the PRAG require an authorisation by the European Commission.

### **Shared management**

This mode is rarely used in the implementation of external actions, but there are a few cases such as joint operational programmes on cross-border cooperation implemented by a joint managing authority (for instance under the European Neighbourhood Instrument, ENI, or the Pre-accession Assistance, IPA II). The choice of management mode is an essential element of the financing decision and it is reflected in the corresponding documents (e.g. the “action document” for the relevant financing decision and (annual) action programme).

### **Practical Guide and how to use it**

Procedures established by the European Commission for procurement and award of grants under the relevant EU external aid programmes are consolidated in a Practical Guide (PRAG). The PRAG explains the contracting procedures applying to all EU external actions financed from the EU general budget (the EU budget) and the European Development Fund (EDF). Any deviation from PRAG and its Annexes requires either derogation or an exception from the relevant European Commission Services in accordance with internal rules.

PRAG provides users with the comprehensive information necessary to undertake procurement or grant procedures from the very first steps to the award, signature and implementation of Contracts. The Annexes cover both the award phase and the execution of Contracts. Guide outlines the contracting procedures to be used in direct management and indirect management with ex-ante Approval or with ex-post controls by the European Commission.

The financing of external actions is governed by the applicable EU and EDF Financial Regulation, the common rules and procedures for the implementation of the Union's instruments for financing external action (CIR) and by the relevant basic acts, for example, the programme regulation, such as the DCI, ENI, IPA II, or EIDHR for actions financed from the EU budget, and the Cotonou Agreement for actions financed from the EDF.

### **Restricted procedure**

In view of the characteristics of certain Works, a restricted tender procedure may be used. The competent authority of the European Commission must authorise the use of this approach and may provide technical support on a case-by-case basis. Publication of the relevant notice as stipulated in the publication guidelines remains mandatory to ensure the widest possible participation.

### **Open procedure**

The standard method of awarding Works Contracts is by means of an international open tender procedure following publication of all relevant notices as stipulated in the publication guidelines.

## **1. Volume I - The Tender**

### **Generally Requirements**

Tender documents must be carefully drafted to ensure that both the Contract and the procurement procedure are carried out correctly. Tender documents must also contain all the provisions and information that Tenderers need to submit their tenders: the procedures to follow, the documents to provide, cases of non-compliance, award criteria, etc.

Technical specifications must afford equal access for candidates and Tenderers and not have the effect of creating unjustified obstacles to competitive tendering. General the Contracting Authority is responsible for drawing up these documents.

### **Works Contract Prior Information Notice, Works Contract Notice**

Both Documents represents a base related data about a Project prepared and to be published in advance form Contracting Authority. The structure of documents primarily serves information about the Project and Contracting Entity.

A Contract Specifications describe shortly a Project and a Tender Procedure will be used. A separate Document represents a Standard advertisement for local publication of local open Tender Procedures to be published in advance from CA.

### **Timing of Information notice, Works Contract Notice**

A prior information notice setting out the specific characteristics of the planned Tender Procedure must be published, save in exceptional circumstances, at least 30 days before the publication of the Contract Notice.

Prior information notices are sent as soon as possible after the decision approving the programme for Works Contracts. Publishing a Prior Information Notice does not bind the Contracting Authority to finance the Contracts proposed and prospective Contractors are not expected to submit Tenders at this stage. Prior information notices must be submitted for publication to the relevant Services of the European Commission in electronic form at least 15 days before the intended date of publication, to allow time for translation.

Prior information notices are published in the Official Journal of the European Union, on the EuropeAid website and in any other appropriate media.

### **Instructions to Tenderers (Invitation to Tender)**

Instruction to Tenderers represents a template with modalities for EC projects as well as for EDF financed projects. From financial point of view and subsequently payment, the Tender Documents offer either Lump-sum price or prices based on Breakdown of Prices in a form of BoQ for Unit Price Contracts. However the financial criteria as well as professional and technical criteria must be set up by Contracting Authority.

### **Tender Form**

A Tender Form under the Volume I. has a form of EU Template to be used as a Standard Document for submitting Tenders to Contracting Authority under the related procedure. Appendix to Tender will be prepared by Contracting Authority as a part of Tender Documents.

### **Tender Guarantee Form**

A Tender Guarantee Form under the Volume I, Section 3 has a form of Template shall be prepared by Tenderer and his Bank financing the Project.

Generally all projects co-financed from an EU and/or EDF sources required EUR as a common currency. Due to a fact that NISPACEE Standard Tender Documents works with EU practice, the currency and subsequently payments in EUR will be required. However for another Donors and/or projects also other currencies or mixed ratio EURO/local currency could be fixed.

Tender Guarantee represents a common practice for EU as well as for EBRD financed projects. Mainly a Bank Guarantee in a form under the Volume 1, Section 3 represents practice for municipality projects under EU. An EU rules has a priority.

However a most common practice in Georgia is a Performance Guarantee in amount of 5 % during a Defect Liability Period, there is different practice for EBRD as well as for EU based municipality projects. Consequently 10 % of Retention Money is required from each IPC whereas 5 % shall be

released after Taking-over Procedure a 5 % of amount remains for a Defect Liability Period as a Performance Guarantee.

### **Questionnaire**

A main aim of a Questionnaire is to collect a relevant data about each Tenderer under a CA's Template. The whole Document is divided into Sub-Documents 4.1. to 4.6. as a EU Template with relevant comments for Tenderers.

On the other hand a CA shall have a sufficient capacity in a form of well-educated Staff to provide assessment and evaluation of all submitted Documents from Tenderers. In a Table Financial Statement the Tenderer will fill in relevant data about his financial situation in a period - 3 years.

A Table with Financial identification will help the CA to have an overview about the financial status of each Tenderer.

### **Administrative Compliance Grid and Evaluation Grid**

Both Documents to be prepared from CA will show an Evaluation Committee in a form of Templates related Bids of Tenderers to set up all related data about a Procedure.

### **Glossary**

A Table Glossary represents a Standard Tender Documents of EC based projects with explanations of words and expressions to be used for the TD.

### **Technical qualifications**

A related Tables shall be fill in from each Tenderer showing his capacity and Staff as well as a Staff to be employed on the Contract WWTP taking specific conditions into consideration. Required CV corresponds to format and practice in EU for CV of each member of team for a Project.

A Work Plan and Programme under a Form 4.6.3. has a simple form of Basic Data for main activities of Contractor on Site as well as pre-construction activities in a form of Design Works. The data according to a Work Plan are only indicative showing the periods from the Effective Contract Date without overlapping of any activities.

However under the Article 17. [Programme of implementation of tasks] of Contract Conditions remains an obligation of the Contractor to submit to the Contracting Authority the Contract Master Schedule (CMS) package for the Approval. This shall base on a computerized logic network and shall be prepared according to the Critical Path Method (CPM).

Requirements on Subcontractors shall be added to Template - Form 4.6.3.4. A main purpose of a Document is to avoid replacement of Subcontractors during of Time for Completion after Contract Award. The subsequently procedures regarding replacement of Subcontractors are listed under the Article 7.9 [Subcontracting]. Never less any changes in the List must be approved by Contracting Authority.

Experience as a Contractor will be required under a Form 4.6.4 in a Section 4 of the TD. For partnerships in a form of a Joint-ventures - if any Form 4.6.5. shall be submitted by a Tenderer. A Form 4.6.8. represents a Site Yard Facilities to be prepared for a Site Supervisor from a Contractor describing in a relevant scope and details office spaces and its equipment on Site.

A List of Documents for Approval or Review in a Form 4.6.9 base on previous experience and practice from infrastructure projects and **belongs not to EU Standard Documents**. The main advantage of Document and support of Staff on Site is a simple control of all related Documents will be prepared by Contractor for a control of a Site Supervisor.

Related Articles and Sub-Articles are listed in a Document as well as a formats and copies of Documents to be presented.

## **1. Volume II - The Contract**

A Contract Form under the Volume 2, Section 1. is submitted in a EU Template form as a Works Contract for European Union External Actions. A Sub-Article (2) must be taken into consideration especially due to priority of Documents will be used as a parts of Contract. A Standard Priority is submitted in an EU Template, all related Appendixes must be collected and added. A Contract Form represents a typical short version of Construction Contract to be used also under the FIDIC P&DB Conditions.

Due to a variety of possible Appendixes to a Contract, “typical Appendixes” for WWTP project were chosen in a form of Appendix 1. - Appendix 7 (8). Recommended “full version” of Appendixes in a form of table is presented below in a Sub-Article Appendixes to Contracts - divided into Works and Services.

### **Special Conditions**

Special Conditions (SC) under the Volume 2, Section 3. shall reflect all project specifics taking local conditions into consideration. Following consequently the same principles as used for FIDIC P&DB Contracts, the Contractor for WWTP shall be responsible also for related Design Works.

This part of TD shall be revised before preparing a last version of Tender Documents by Georgian Lawyer to incorporate a last version of related Laws and by-Laws into the Documents due to a fact that Special Conditions as well as General Conditions based on another Law.

Any other specific conditions must be subsequently incorporated into the Special Conditions by the Contracting Authority - especially any changes under the Article 12c. [Design and build Contracts] if an CA’s requirements for Design Works will be changed. This situation may occur in connection with a different Scope of Services in a form of Design Works will be prepared by Design Company based on a separate Tendering Procedure under the TD for Design Works.

Base on previous experience of Main Expert with infrastructure municipal water projects the significant experience related WWTP project were already incorporated into the SC in Articles and Sub-Articles as well in related Appendixes to the Contract.

### **General Contract Conditions**

For a General Contract Conditions (GCC) Conditions for Works Contracts financed by the European Development Fund (EDF) or the European Union under the Volume 2, Section 2 shall be those forming Volume II. of the GCC. However in a new version of EU Documents (12/2015) a General Contract Conditions are already incorporated in a Tender Documents.

### **Specimen Pre-financing Payment Guarantee**

A Template form under Volume 2, Section 5 of the EU projects will be used in some cases where a Bank Guarantee for Pre-financing Payment will be apply. For all related Bank Guarantees in a form of Templates local Law shall be strictly taken into consideration.

### **Specimen Performance Guarantee**

A Performance Guarantee Form as a Template of the EU projects under a Volume 2, Section 4 shall be fill in from Tenderers and his Banks.

### **Specimen Retention Guarantee**

A Retention Guarantee Form as a Template of the EU projects under a Volume 2, Section 6 shall be filling in from Tenderers and his Banks.

### **Tax and Customs arrangements**

A Tax and Customs requirements under the Template of EU shall apply only for EDF financed projects. A Document has a form of Template from EU.

## **2. Volume III - The Technical Specifications**

Technical Specifications under Volume III. belongs fully to responsibility of a Contracting Authority. The TS will be taken back-to-back from a Design Company based on a separate previous Contract Agreement. A direct influence of Technical Specifications and Drawings on a Contract Price is described in a Methodology in previous Sub-Clauses.

## **3. Volume IV - The Financial Offer Templates**

### **Financial Offer Templates**

A Financial Offer Templates cover more possibilities for TD based on a separate methodology for prices: either lump-sum Contracts (Volume 4.2.1) or Contracts with price break-down - with BoQ (Volume 4.2.2. and 4.2.3.) will be apply. The decision regarding a proper type of pricing must be made from Contracting Authority due a character of project and investment.

This part of TD has in a foreword also an explanation regarding most common used Lump-sum Contracts and Unit-prices Contracts and how to use them properly in a practice. Appropriately type of a pricing belongs to Specific Conditions and a type of Contract. All pros and cons shall be taken into consideration from a CA.

## **4. Volume V - Design Documents, including Drawings**

A fully separate package of requirements plays an important role in a Tender Documents - Employer's Requirements (ER) which has a high importance.

Especially in Design-Build Contracts represents this part a key document with directly influence on success of the project. Also a future possible Contractor's Claims (Variation Orders-VO) has roots in insufficient descriptions, uncompleted technical specifications, errors, omissions, inaccuracies and discrepancies in drawings, BoQ or documents of required Works and Services. To avoid a VO appropriately attention must be given also to a control of related Drawings and Specification prepared by Designer.

Due to project specific conditions this part of the TD **will be not prepared by NISPAcee** and belongs fully to responsibility of the Contracting Authority. The Documents will be taken back-to-back from Design Company based on a separate Tendering Procedure and Contract Agreement.

Specifics of the existing Plants to be refurbished shall be incorporated into **Special Contract Conditions** as well as into related **ToR for Design Works**.

### **Award Decision**

A Document represents in a form of Template an officially letter prepared by CA as a result of Evaluation Committee to Award a Contract to one of Tenderers.

### **Letter for unsuccessful Tenderers**

A Document in a form of Template will be send to all unsuccessful Tenderers after a Contract Award with appropriately explanation why a Tender was inadmissible or unsuccessful with description of reason(s).

### **Notification Letter**

A Document prepared on letterhead of Contracting Authority and subsequently sends to successful Tenderer of a Tender procedure inform a company about the results of TD and required also remaining Documents for a Contract Award.

### **Works Contract Award Notice**

A Document belongs fully to a CA having two alternatives base on a separate regulations (EUOJ or OJ).

### **Addendum to Works Contract**

Addendum in a form of a Template belongs only to Provisions concluded between the Contracting Authority and the Contractor will be changed, replaced or completed. All other terms and conditions of the Contract shall remain unchanged.

### **The Bill of Quantities/breakdown - Addendum**

If also a BoQ due to Addendum to a Contract will be changed, a related BoQ Breakdown shall be used as Annex to a Contract Addendum.

## **B2. Tender Documents for Design Works - EU Procedures**

Following consequently procedures and a Standard Tender Documents of an EU and NISPAcee methodology is divided into Sub-Clauses as stated in a Table of Contents with relevant Annexes.

### **General**

Comparing the Standard Tender Documents of EBRD and EU Standard Procedures there are differences also for all types of Works as well as for any kind of Services joined primarily with several financial resources and modalities for financing for EU different types of projects.

Therefore the EU Standard Documents offers possibilities for financing municipality infrastructure projects either from EU Budget or EDF projects resources. Based on a possible different resources and different Contracting Authorities prepared and submitted documents EU, TD offers more possibilities and variety covering different types of resources.

As a relevant support to all EU Tendering Procedures PRAG (Practical Guide) for EU financed investment projects with a lot of useful remarks and notices or preparing Standard Tender Documents will be used.

The procedure shall base on a two-stage Tendering Procedure (see a part Section II. - Theoretical framework in Tendering Procedures) with shortlisting of Tenderers.

### **Design Works**

Tender Documents for Design Works will cover the same typical situation - a Designer will prepare As-built drawings of an existing WWTP and proposal for an extension and refurbishment (upgrade) of the WWTP. Tender Documents will be presented with tailor-made templates to be used by Municipalities also for Supervising of Construction Works.

Remarks and amendments to Tender Documents from NALAG local Experts were incorporated into this Guidance and methodology of Documents also for EC based documents.

Each of a presented and submitted Tender Documents consists of more packages based on different methodology of Tender incorporated: Call for Tender, Tender Data, Tender Security Form, Price Schedules Documents, Contract in a form of General Conditions, Specific Conditions, Appendix to Tender, as well as different templates for Guarantees, List of Subcontractors etc. **however dividing into any Volumes in EC Documents (as for EBRD methodology) - for better overview and to work with - is missing.**

### **Service Prior Information Notice, Service Contract Notice**

The Document has a form of a Template with standard basic information and data about the related project. Responsibility for a document and complying with a Standard Tender Documents under the EC financed project belongs fully to a Contracting Authority.

Only a few data will be prepared in collaboration with other entities (cost estimation, scope of required Services, selection and award criteria, short project description) in a form of outsourcing data. A Template for Application for a Service Contract shall be also prepared by the Contracting Authority.



### **Standard Advertisement for local Publication**

A document has strictly a form of Template will be used for publication on officially web-pages of EC with project base data to awake interest of Tenderers.

### **Application for EU/EDF-funded Service Contract**

In a form of given Template a document shall be prepared by Contracting Authority, no modification is required. The required basic financial data regarding turnover, data about manpower etc. shall fill in from a Tenderer due to Template requirements.

### **Format for the Declaration referred to Application Form**

A Template represents basic data required from Tenderer as a part of Tender Submission, a document shall be prepared by CA.

### **Longlist**

A longlist will be used as an internal document of Contracting Authority and is no part of Standard TD.

### **Shorlist Report**

A Document will be prepared by the Contracting Authority based on a Tendering Procedure as an internal document with all related Annexes, a Template belongs to Standard EC Documents. The whole procedure start with a Longlist, the Observers provide assessment of Tenderers who apply for a related project.

The Evaluation Committee identified all applications which were received before the deadline, were administratively compliant, were from natural or legal persons with eligible nationalities and included declarations from the leader and all consortium members (if any), as recorded in the attached Longlist. All members of the Evaluation Committee and any observers signed Declarations of Impartiality and Confidentiality, which are attached to the Report.

### **Service Contract Shortlist Notice, Letter to No-shortlisted Candidates**

A result of Report is a List of Shorlisted Candidates in a form of Service Contract Shortlist Notice prepared by a CA as well as a List to No-Shorlisted Candidates.

A document Shortlist Notice shall be completed by the Contracting Authority and made public at the same time as the invitations to a Tender are sent to Short-listed candidates.

### **Invitation to Tender**

An Invitation to a Tender will be prepared under a Template by a Contracting Authority and send only to Shorlisted Candidates. Instructions to Tenderers which are a part of Invitation consist of following documents:

### **Draft Contract Agreement and Special Conditions with Annexes:**

- I. General Conditions for service contracts
- II. Terms of Reference
- III. Organisation and Methodology (to be submitted by the Tenderer using the Template provided)
- IV. Key Experts (including templates for the summary list of Key Experts and their CVs) (for contracts requiring Key Experts)
- V. Budget (to be submitted by the Tenderer as the Financial offer using the Template provided)
- VI. Forms and other supporting documents
- VII. Expenditure verification: Terms of Reference and Report of Factual Findings  
(please delete for Global Price Contracts)

**Other information:**

- I. Shortlist notice
- II. Administrative compliance grid
- III. Evaluation grid

**Tender Submission Form**

**List of Entities invited to submit a Tender**

A document to be completed by the Contracting Authority and sent together with the Invitations to Tenderers (ITT) to the entities invited to submit a Tender.

**Instructions to Tenderers**

Generally the Services required by a Contracting Authority are described in the Terms of Reference - ToR. They are set out in Annex II to the Draft Contract, which forms Part B of a Tender Dossier. This part of a TD based on EC Template for Services and it is a same one as to be used subsequently for a Site Supervising. Instructions to Tenderers represent a basic document EC for a Standard Tendering Procedures. A Clause will be submitted in a full version including modifications stated in brackets.

This part of document is generally divided into:

- i) Technical offer
- ii) Financial offer

of a Submission including instructions how to complete a spreadsheet of a Tender taking variation solutions - if any - into consideration. A possibility for additional information before the deadline for submitting Tenders works with 4 alternatives due to Specific Conditions. In some certain cases also an interview with Tenderer is possible.

The best value for money is established by weighing technical quality against price on an 80/20 basis under an Article 12.3. In some cases also a cancellation of a Tender Procedure may apply under an Article 15.

**Draft Contract - Service Contract**

A Service Contract follow up principles of a “Short Contract” based on a British Common Law including order of precedence of Contract Documents. This shall follow up also related Annexes to the Contract.

**Special Conditions**

A Special Conditions represents one of the part of Tender Documents will be prepared by a Contracting Authority. In many cases also external Lawyer’s support is essential due to a fact that Contract and Contract Conditions shall mirror a local Laws, Decreases and by-Laws in Georgia. Duties and responsibilities of a Design Company shall be however read strictly in conjunction with ToR and all related Annexes to the Contract.

Therefore Specific Conditions of TD shall be revising before preparing a last version of Tender Documents by Georgian Lawyer to incorporate a last version of related Laws into the Documents due to a fact that Special Conditions as well as General Conditions based on another Law.

Based on previous experience of a Main Expert of NISPAcee with infrastructure municipal water projects the significant experience related WWTP project were already incorporated into the SC in Articles and Sub-Articles as well in related Annexes to the Contract. Any other Specific Conditions must be subsequently incorporated into the Special Conditions by the Contracting Authority.

### **General Contract Conditions**

For a General Conditions (GC) for Service Contracts for external actions financed by the European Union or by the Development Fund (EDF) shall be those forming Annex I. of the GSC. These Conditions consists of 42 Articles which must **remain without any changes, comments or Amendments.**

### **Annexes to Service Contract**

All relevant Annexes to a TD shall be prepared by a Contracting Authority as a part of Tender Documents. As a **main Annexes** to a Sample Contract shall be used following Annexes however due to local specifics also other Annexes could form a Contract:

#### **Annex VII. - List of Subcontractors for Design Works**

In accordance with an Article 4. [Subcontracting], the Contractor is free to submit proposals for Subcontractors for additional items from time to time. A Template from EBRD Standard Documents will be used; the procedures will follow a previous Appendix 5. for Works.

Any changes in a List of Subcontractors after Contract Award shall be approved by the Contracting Authority.

#### **Annex VIII. - Site Inspection Protocol**

By signing of the Site Inspection Protocol protocol in a form and manner stated in a separate Annex (Site Inspection Protocol) the Contractor confirms that he received all necessary information concerning risks, unforeseen and all other circumstances which can affect the cost or terms of Services performance, surveyed and studied Works Site or Services venue and the territories adjoining to it and found a place of Services suitable for performance according to the present Contract.

Signature of Site Inspection Protocol shall avoid subsequently Variation Orders (VO) after a Contract Award.

#### **Annex IX. - List of Documents for Approval or Review**

This document based on a previous experience and practice from infrastructure projects and **belongs neither to FIDIC, EC nor to EBRD Standard Documents.** The main advantage of Document and support of Staff on Site is a simple control of all related Documents will be prepared by a Contractor for a control of Site Supervisor.

Related Clauses and Sub-Clauses are listed in a Document as well as a formats and copies of related Documents to be presented from Contractor.

#### **Annex X. - Site Yard Facilities for CA's purpose (office accommodation)**

The Contracting Authority must ensure that Experts of Contractor are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable Experts to concentrate on their primary responsibilities. Equipments and items may vary depend on Staff on a Site.

In some cases therefore Site Yard Facilities for a Site Supervising will be provide by Contracting Authority during a Time for Completion. A CA shall ensure to Contractor appropriately Site Facilities directly on the Site - if required or another solution will be arranged (CA office etc.).

### **ANNEX II: Terms of References - ToR**

Regarding project results ToR requirements represent a very important part of a TD with direct influence on project results at all. Modifications in this part of TD based on a variety of financing modalities. The CA must decide and primarily set-up an appropriate criteria on Experts.

The skills required may include professional and technical skills, team management skills, communication and facilitation skills, and/or language skills. The precise time inputs of the Experts

shall be left to the discretion of Tenderers as part of their technical proposal. However, it may be useful to identify a minimum input for the contribution of Key Experts.

The profile of the “ideal Expert” should not be described as it sets a threshold for acceptance of the offer. When choosing the criteria, consider the real minimum requirements and the availability of such eExperts on the market. The criteria should be as broad as possible. Quantifiable criteria should be drafted with vigilance. If an Expert does not meet the minimum requirements, he/she must be rejected.

## **ANNEX II: Terms of Reference - Fee based**

An ToR base on modalities for:

- i) Fee bases ToR
- ii) Global Fee ToR.

The Contractor’s activities are generally in both cases divided into following tasks:

- i) Design Works under the relevant Articles of Contract;
- ii) survey Works and geological, hydro-geological and geotechnical investigation;
- iii) reporting.

However a detailed description shall be a part of a separate Annex (Design Works - detail description) describing in appropriately details all required activities and responsibilities of Experts.

### **Key Experts and non Key Experts**

The Contractor shall conscientiously fulfil, to the highest professional standards, the role of the delegated powers by the Contracting Authority’s Representative to provide Design Works and to ensure that they are executed in accordance with the Conditions of Contract, Contracting Authority’s requirements, Specifications and any amendments thereto; and to ensure that so far as is reasonably possible, within the Contract Price and Contract Period allowed under the Contract or any agreed amendments thereto.

Especially focused shall be requirements on Contractor’s Staff, especially on Key Experts. Non Key Experts and support Staff is also a significant part of TD, however CVs for non Key Experts should not be submitted in the Tender but the Tenderer will have to demonstrate in their offer that they have access to Experts with the required profiles.

Requirements on 4 Key Experts are already incorporated into a sample document. A methodology how to prepare ToR due to requirements with all relevant details and scope of required Services is to be found under a Section II. - Theoretical framework in Tendering Procedures.

### **Incidental expenditure**

The provision for incidental expenditure covers ancillary and exceptional eligible expenditure incurred under a Service Contract. It cannot be used for costs that should be covered by the Contractor as part of its fee rates, as defined above. Its use is governed by the provisions in the General Conditions and the notes in Annex V. to the Contract.

### **Reporting requirements**

They Reports must be provided along with the corresponding invoice, the financial report and an expenditure verification report defined in Article 28 of the General Conditions. Scope of Reports and requirement how to prepare and submit them are defined in Article 7.1. Reporting Requirements.

Each Report must consist of a narrative section and a financial section. The financial section must contain details of the time inputs of the Experts, incidental expenditure and expenditure verification.

### **Monitoring and Evaluation**

Specific performance measures chosen because they provide valid, useful, practical and comparable measures of progress towards achieving expected results shall be prescribed from CA - if any. Generally

these could be quantitative: measures of quantity, including statistical statements; or qualitative: judgements and perception derived from subjective analysis.

### **ANNEX II. - Terms of Reference - Global**

To prepare a relevant Terms of Reference (ToR) on Design Works as an alternative solution to ToR - fee based belongs fully to a Contracting Authority. The same principles and structure will be used, the differences are only in:

- i) Type of reimbursement of cost (lump sum or fee based)
- ii) Related reporting in connection with payments.

A remaining Articles, CA requirements, structure etc. are the same one for both types of Annexes II.

### **Annex II. - Terms of Reference (ToR) on Design Works - Detail Description**

Detail and sufficient descriptions play a key role in Tender Documents to ensure qualify Tender Bids during a Tendering Procedure and subsequently execution of Works directly on a construction Site. A high attention must be therefore given to prepare relevant description of required Services taking local conditions into consideration.

A detail description of required Services is therefore a part of Standard Tender Documents.

### **Requirements on Technical Specifications**

Given the technical complexity of many Works Contracts, preparation of the Tender Dossier - particularly the technical specifications - may require the experience and knowledge of one or more Expert(s).

As with the Terms of Reference for Service Contracts, particular care must be taken when drafting the technical specifications. They are the key to successful procurement, a sound Works Contract and a successful project.

Technical specifications state - where applicable - the exact nature and performance characteristics of the Works. Where applicable, they also specify conditions for delivery and installation, training and after-sales service.

It is essential that the performance characteristics suit the intended purpose. If there needs to be an information meeting or a Site Visit to clarify technical requirements at the site where the Works are to be carried out, this should be specified in the instructions to Tenderers, together with details of the arrangements.

The purpose of the technical specifications is to define the required Works precisely. The minimum quality standards, defined by the technical specifications, will enable the Evaluation Committee to determine which tenders are technically compliant.

Unless warranted by the nature of the contract, technical specifications referring to or describing products of a given brand or origin and thereby favouring or excluding certain products are prohibited. However, where products cannot be described in a sufficiently clear or intelligible manner, they may be named as long as they are followed by the words "or equivalent".

### **Annex III. - Organisation & Methodology form Template**

A Template shall be prepared by a Tenderer whereas required information is divided into following chapters:

- Rationale
- Strategy
- Backstopping
- Involvement of all Members of Consortium
- Timetable of Work
- Logframe.

Any comments in a form of outlines to a Terms of Reference for the successful execution of activities, in particular regarding the objectives and expected results, thus demonstrating the degree of understanding of the contract shall mirror Tenderer's experience from a past.

Tenderer's opinion on the key issues related to the achievement of the Contract objectives and expected results. A list of the proposed tasks a Tenderer consider necessary to achieve the Contract objectives shall be a part of Annex III.

#### **Annex IV. - Key Experts**

A Template shall be prepared by a Tenderer whereas information in a form of a CV is required. The Template corresponds fully with EC practice regarding a form as well as a structure.

#### **Budget Fee**

A structure and Template is covering both possibilities regarding payments for related Services:

- a global price with or without national currency or
- budget fee in a form of Cost Breakdown

divided into Key Expert and Non Key Experts including overheads etc. and provision for incidental expenditure.

#### **CV Template**

CV Template represents a common practice on CVs using for EC as well as other IFI projects.

#### **Budget/ Budget fee**

To fill in a budget fee template a Tenderer shall take into consideration required structure and splitting of all related project costs in a form of notices. No changes in a structure of budget fee will be provided.

#### **Statement of exclusivity and availability**

A Template will be prepared by a Contracting Authority following EC requirements; document shall be filling from an each Tenderer taking part in a Tendering Procedure.

The engagement of an Expert is confirmed if the Expert is committed to work as a Key Expert under a signed Contract financed by the EU general budget or the EDF or if he/she is a Key Expert in a Tender which has received a Notification of Award. The date of confirmation of the engagement in the latter case is that of the Notification of Award to the Contractor.

Generally it is not allowed to offer Services as an Expert to any other Tenderer participating in this Tender Procedure.

#### **Annex VI. - Pre-financing Guarantee Form**

A Template form of the EC base projects will be used in some cases where a Pre-financing Guarantee for Advance Payment will be apply.

#### **Templates for Financial Identification**

Due to a variety of possible Tenderers also several types of Templates for financial identification are published. Its represents in accordance with EC common practice Templates for natural persons, private/public law body and public entities.

#### **Terms of Reference for an Expenditure Verification, Report of factual findings**

In some case for fee-based Service Contracts - external actions of the EC projects a Contractor shall accept an Auditor to provided an audit to confirm that the Services financed by the Service Contract complies with the terms and conditions of the Service Contract and for ensuring that this Financial Report can be reconciled to the Contractor's accounts and records in respect of these Services.

The Contractor is responsible for providing sufficient and adequate information, both financial and non-financial, in support of the Financial Report. The Auditor generally verifies the eligibility of the fees with the terms and conditions of the Service Contract. A document consists of a Template and related 4 Annexes to verification.

A Report of Factual Findings shall be prepared by Auditor and related only to the Financial Report of Auditor.

#### **Administrative Compliance Grid, Evaluation grids for Experts**

The evaluation grids will be set up and used **for internal purpose of a Contracting Authority**. The categories to be used to provide an assessment of the Organisation and Methodology (i.e. Rationale, Strategy, Back-up function, Involvement of the consortium members and Timetable of activities including the number of expert days proposed) and each of the Key Experts (i.e. Qualifications and skills, General professional experience & Specific professional experience) may be modified as required and the division of scores must be adapted according to the requirements of the specific Tender Procedure.

The number of Key Experts must correspond to the number of Key Expert profiles identified in the Terms of reference and must not exceed 4 Key Experts. The total scores of the Key Experts shall not exceed 40% but may be less. The strengths and weaknesses in evaluation grid must reflect the commonly agreed by the Committee amongst all those pointed out by the evaluators in their individual grids.

The Evaluation Committee must evaluate Tenders on the basis of this evaluation grid, which includes maximum scores. Those maximum scores cannot be modified after the deadline for informing potential Tenderers of any clarifications. A type of appropriately grid to be used based on a type of Contract.

#### **Tax and Customs Arrangements**

For EDF financed projects Tax and Customs Arrangements shall be applicable due to a special Tax and Customs Conditions.

The ACP States shall apply to contracts financed by the Community tax and customs arrangements no less favourable than those applied by them to the most favoured States or international development organisations with which they have relations.

For the purpose of determining the most-favoured-nation (MFN) treatment, account shall not be taken of arrangements applied by the ACP State concerned to other ACP States, or to other developing countries.

#### **Addendum**

In some cases also a Template for Addendum as required from EC Contracts will be used. The Template is only mirroring a practice in construction projects. The Addendum shall form an integral part of the Contract.

### **B3. Tender Documents for Site Supervising - EC Procedures**

Following consequently procedures and a Standard Tender Documents of an EC a NISPAcee methodology is divided into chapters as stated in a Table of Contents with relevant Annexes.

#### **General**

Comparing the Standard Tender Documents of EBRD and EC for Standard Procedures there are differences also for Site Supervising joined primarily with several financial resources and modalities for financing for EC projects.

Therefore EC Standard Documents offers possibilities for financing either from EC Budget or EDF projects resources. Based on a possible different resources and different Contracting Authorities prepared and submitted documents offer more possibilities and varieties.

As a relevant support to all EC Tendering Procedures is common used PRAG (Practical Guide) for EC financed investment projects with a lot of useful remarks and notices. The procedure shall base on two-stage Tendering Procedure (see a part Section II. - Theoretical framework in Tendering Procedures) with shortlisting of Tenderers.

Each of a presented Tender Documents consists of more packages based on different methodology of Tender incorporated: Call for Tender, Tender Data, Tender Security Form, Price Schedules Documents, Contract in a form of General Conditions, Specific Conditions, Appendix to Tender, as well as different templates for Guarantees, List of Subcontractors etc. **however dividing into any Volumes in EC Documents - for better overview and to work with - is missing.**

### **Site Supervising**

Tender Documents will be presented with tailor-made Templates to be used by Municipalities also for Supervising of Construction Works. However there are only a few differences between TD for Design Works and TD for Site Supervising as explain below.

### **Differences in Documents for Design Works and Site Supervising**

Differences compare to previous sample TD for Design Works belongs generally only to following chapters and/or Articles of Standard TD:

- i) Requirements on Experts;
- ii) ToR for Site Supervising
- iii) Specific Contract Conditions,

### **Requirements on Experts**

Due to a character of Services and Client's requirements a team consists of 4 Experts with previous experience with preparation and implementation of projects in water sector. Previous experience from FIDIC based projects and/or other relevant practice is required - this is mandatory. Specific professional experience represents extensive broad experience in WWTP Design Works Contract administration, evaluation of Contractor's Claims and Service as a Project Engineer on WWTP construction Contracts of comparable magnitude.

### **ToR for Site Supervising**

The Consultant shall conscientiously fulfil, to the highest professional standards, the role of the delegated powers by the Contracting Authority's Representative to supervise the construction of the Works and to ensure that they are executed in accordance with the Conditions of Contract, Contracting Authority's requirements, Specifications and any Amendments thereto.

The Consultant's activities for **Site Supervising** are divided into following tasks:

- e) general Project Management related functions;
- f) pre-construction activities including review of Design Works (design of Design company, Contractor's Design Works);
- g) activities during implementation of tasks - Site Supervising ad related activities;
- h) reporting.

### **B. General Project Management related functions**

The Consultant is responsible for the activities described in appropriately details in related ToR



### **C. Pre-construction activities including review of Design Works**

#### **Design Audits, Design review comments**

The Consultant shall prepare design audits and design review memoranda as required **during the pre-construction phase**, depending on the needs to address Contracting Authority requirements and specific points related to the tasks of Designer.

### **D. Activities during implementation of tasks**

#### **Inspection and testing at the Contractor's Works**

The **Consultant** with the Contracting Authority's participation shall undertake to implement the following:

1. Review and approval of quality assurance control plans and delivery schedules of the Contractor;
2. Regular review of production schedules and delivery schedules of the Contractor;
3. Review and approval of factory testing procedures and factory test results submitted by the Contractor - if any;
4. Witnessing of laboratory tests of the field activities and preparation of corresponding records as per the Requirements of the Contracting Authority;
5. Review of test reports on laboratory test results submitted by the Contractor.

#### **Other Consultant activities represent:**

- Construction Supervision and Management
- Inspection, acceptance meeting and Acceptance Tests
- Technology transfer and training of Contractor's Authority's Staff
- Environmental management aspects
- Taking Over Certificate
- Performance Certificate
- Final Certificate of Payment

### **E. Reporting**

#### **Deliverable Reports**

An inception report shall be submitted within four (4) weeks from the commencement of the Consulting services. It shall include the proposals how the Objectives of the Services are to be achieved. In addition, it shall also include an implementation schedule highlighting the milestones to be met in order the Project can be executed smoothly.

In their Methodology Statement, the Consultant shall provide a fixed layout for all the reports to be submitted. Types of related Reports based on a detail description under the ToR.

#### **Operation & Maintenance Manuals**

The Consultant shall review and approve in consultation with the Contracting Authority, the Operation & Maintenance Manuals submitted by the Contractor, within 4 (four) weeks before the commencement of the commissioning.

Furthermore the Consultant shall prepare and submit a Reference Manual for the Project providing recommendations of the Consultant with cross references to related documents along with the approved Operation & Maintenance Manual.

## **Section V. - EIA Procedures**

### **1. General**

One of the effective tools for water resources protection and ensuring sufficient quantity and quality of water for the population is the *Environmental Impact Assessment*, hereinafter referred to as "EIA".

Assessment of the effects of projects on the environment in the European Union is currently legislated by:

- a) The Directive of European Parliament and Council 2011/92/EU of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (Codification Wording)
- b) The Directive of European Parliament and Council 2014/52/EU of 16 April 2014 amending the Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

hereinafter referred to as “EIA Directive”.

Environmental Impact Assessment is a process performed before granting a project development consent for a project within the direct and indirect significant effects of the project on the environment, including a comparison with existing environmental conditions in the place where the project and in its range of expected impacts are identified, described and assessed in an appropriate manner and in each individual case.

A part of the assessment process is:

- ❖ Elaboration of an assessment report
- ❖ Examination of the information stated in the assessment report, the additional information submitted by the developer and information obtained through consultation with the concerned authorities
- ❖ Consultation with the concerned authorities and departmental authorities
- ❖ Consultations with the public
- ❖ Drawing up conclusions from the EIA process and their inclusion in the decision concerning the project development consent.

## **2. The impact of selected infrastructure projects (sewage, Wastewater Treatment Plant) on the environment**

The basic function of sewerage infrastructure and wastewater treatment is to protect the environment and population health from the adverse effects of produced wastewater (municipal and industrial). Drainage and sewage treatment plants must respect the principles of sustainable development, environmental protection and comply with the requirements resulting from generally binding regulations and policy requirements of water management.

The status of settlements sewerage and wastewater treatment is generally insufficient. The development of sewerage and wastewater treatment often lags behind the development of providing drinking water through the public water supply. Facilities for drinking water supply (public water mains) are built without the fact that the wastewater has been drained through the public sewage system into adequate facilities for the treatment of wastewater (sewage treatment plant).

In those cases, even if the sewerage and sewage plant’s capacity is built and the effectiveness of the cleaning is often inadequate, also waterproof sewer networks are insufficient, causing the inflow of ballast water (drained groundwater) into the system for the Wastewater Treatment Plant, which unnecessarily increases the volume of the treated wastewater. Special problems during the operation are dissolving the sewage sludge as well as the rodent control and disinfection of sewer systems.

The development of public sewerage requires a combination of environmental, technical and economic aspects.

When planning the construction of sewerage projects, there must be all the determining requirements of optimum functionality, operational stability, adequate investment intensity, adequate operational performance, the impact of the entry site of the recipient, and more respected.

The functional requirements of sewer systems shall be designed in such a way, that when taking into account the total costs (capital and operating) drainage and effluent wastewater without serious adverse impacts on the environment, risks to public health or the operating personnel will be ensured. The impact of canalization on the recipient must comply with generally applicable legislation.

### **3. EIA procedures in Georgia**

Procedures and methodologies of EIA are determined by the Law on Environmental Impact of Georgia (N56.02-14/12/2007). The Law sets out in which cases the EIA is needed and what technical regulations need to be followed, how the EIA and related public discussion shall be done and how the results should be reflected in license documents. The comparison of this C2 manual with the Georgian legislation shows that this manual sets higher standards than the Georgian legislation. The paragraph 11 of the Law of Georgia defines that an organization may be fully freed from the environmental impact assessment and the decision is made by the Ministry of Environment and natural resources protection of Georgia.

In case the EIA is requested, the implementing agency is responsible for organizing and conducting the EIA, the EIA methodology is approved by the Minister's order and the methodology is implemented by the Ministry.

On 4<sup>th</sup> October, 2011 by the order N14 of the Minister of Environment Protection of Georgia the methodology of EIA was approved which is in general based on the Law of Environment Protection. However, the logic of Law establishes only minimum requirements and in no way limits setting the higher standards when doing the EIA work in case this standard is agreed with the special council on environmental impact assessment at the Ministry of Environment and natural resources protection of Georgia. Accordingly, the procedures prescribed in this manual can be easily adapted in case the commission on infrastructural works will agree the current manual with the special council on EIA.

## **Section VI. - Audit Trail - Implementation Procedures**

### **1. General**

The purpose of Audit Trail is to provide assurance to the Donor on the effectiveness of governance, risk management and controls supporting the UWSCG procurement and contracting activities.

The Government of Georgia is responsible for overseeing compliance with the Donors Acts, which covers the personal information-handling practices of government departments and responsible implementing agencies of foreign funds.

An implementing agency UWSCG is committed to achieving organizational excellence, applying sound business management practices, and continually improving its performance for Audit Trail. With respect to procurement and contract activities, UWSCW implements and respects set up Audit Trails in a manner that does not compromise their independence.

The audit trail consists of two things:

- (1) Information about the actual data generated. It's the who, what, where, what kind, how long, and how many of the implementing processes. One can often do this in a table so it doesn't take up more pages and pages.
- (2) Information about how was analysed the data. This might be the actual workings or it might be a sample of transcript, codes and themes and so on - whatever is appropriate for the methods chosen.

### **2. Audit trail procedures in Georgia**

The Law on State Procurement of Georgia N 1388 -18.05/2005 is in line with the EU regulations and in general it hardly corresponds the regulation of international organizations. That might be the reason that the paragraph 4 of the article 1 of the Law on State Procurement of Georgia defines that during the implementation of the state procurement the procurement procedures defined by WB, UN, EBRD, Asian Development Bank, KFW, EIB can be applied in case these organizations are the legal party of the procurement processes. In case these organizations are not the legal party of the procurement processes then their procedures can be applied only in case of the decree of the Government of Georgia. The

norms prescribed in this manual can be easily applied on those projects implemented in Georgia, which are financed by any of the above mentioned organizations.

The norms prescribed in this manual can be easily applied on those projects implemented in Georgia, which are financed by any of the above-mentioned organizations. In public sector audit procedures are defined by the Law of Georgia on the State Auditing N880-26/12/2002. The mentioned Law sets the rules, structure, methodology and the basis of Auditing. The field of state auditing is the Georgian State Government organs (both central and local) as well as organizations spending the public finances. State audit is carried out by the CCG (the Chamber of Control of Georgia) and it is only used in terms of public finances, while the donors' money is being audited by rules and bodies as defined by the donor.

The current manual could be used by the internal audits of the specific donors as well as by the implementing organizations in case the source of financing is not the State Budget of Georgia. The agreement on audit rules and procedures in this manual represents a completely discretionary form and can be used by mutual consent of the parties.

### 3. Audit Trail Methodology

This section explains how the audit subsystem functions, what criteria are used to collect data, and how audit requirements affect system performance.

There are four privileges associated with the audit subsystem:

- The **configaudit** authorization allows the audit parameters for all users of the system to be set.
- The **writeaudit** authorization allows specific information to be recorded in the audit trail.
- The **suspendaudit** authorization prevents any auditing.
- The **audittrail** secondary subsystem authorization allows users to generate audit reports on their own activities. When a user is assigned this authorization, they can access the **Report** selections of the **Audit Manager**.

### 4. Audit Events

A.	Startup/Shutdown	B.	Login/Logoff
C.	Process Create/Delete	D.	Make Object Available
E.	Map Object to Subject	F.	Object Modification
G.	Make Object Unavailable	H.	Object Creation
I.	Object Deletion	J.	DAC Changes
K.	DAC Denials	L.	Admin/Operator Actions
M.	Insufficient Authorization	N.	Resource Denials
O.	IPC Functions	P.	Process Modifications
Q.	Audit Subsystem Events	R.	Database Events
S.	Subsystem Events	T.	Use of Authorization

An administrator can selectively collect and reduce audit data based on these event types. The audit subsystem interface lets you build a list of event types for either the audit subsystem or the data-reduction program. The subsystem uses event types to determine whether an audit record should be written to the audit trail. As the audit administrator, UWSCG have full control over what events get audited.

## **Annexes**

### **1. How to use Annexes in Tender Documents**

Due to a variety of possible Appendixes to a Contract, “typical Appendixes” for WWTP project were chosen in a form of Appendix 1. - Appendix 12 (see EBRD projects). Recommended “full version” of Appendixes or Annexes in a form of table is presented below in a Sub-Article Appendixes comparing FIDIC Contract Conditions. In this Volume there are all related Annexes to be used for all different types of infrastructural projects in Georgia for the Works for both sample Tender Procedures.

Specific project conditions, as well as local conditions must be taken for all Annexes into consideration during the procedure of choosing the exact and appropriate Annex, first of all to minimise the Employer’s contractual risk.

### **Priority of Documents**

For all Annexes to be used priority of Documents is given under the Contract Clause 1.5 [Priority of Documents] under the FIDIC conditions. Generally all Annexes to the Contract are divided into following categories due to the reason for which they will be used:

- i) Technical Annexes
- ii) Commercial Annexes
- iii) Other Annexes.

Generally all technical Annexes shall be prepared by the Designer, whereas commercial and other Annexes shall be a scope of the Work of the Employer. However a full table with recommended responsibilities for related Annexes is listed below.

### **3. List of recommended Annexes**

Especially for FIDIC Conditions there are differences due to a fact, that both mainly used Conditions - YB as well as RB could be used as a Contract base for EBRD related Contracts. These differences are shown in a table below.

No.	Annex	YB	RB	Remarks
1.	Annex 1 - Specific Contract Conditions I.	x	x	
2.	Annex 2 - Specific Contract Conditions II.	x	x	
3.	Annex 3 - General Contract Conditions	x	x	Only resource where to obtain the FIDIC C.
4.	Annex 4 - The Technical Specifications	x	x	Divided into construction, HVAC, Plant etc.
5.	Annex 5 - Standards of Materials	x	x	Description of materials and alternatives
6.	Annex 6 - Drawings	x	x	List of related drawings
7.	Annex 7 - Time Program	x	x	In a form of Basic Time Program
8.	Annex 8 - Guaranteed Performance Parameters	x	x	Prepared by Designers
9.	Annex 9 - Requirements on Contractor's Drawings	x	x	Extension of Clause 5 (Design)
10.	Annex 10 - Bill of Quantities		x	Prepared by Designers
11.	Annex 11 - Template of Cost Breakdown	x		Prepared by Designers
12.	Annex 12 - Payment Conditions for IPC and FPC	x	x	Modification due to a Contract Conditions
13.	Annex 13 - Payment Schedule and Milestones Under	x	x	Prepared by Designer + Employer
14.	Annex 14 - Advance Payment Guarantee	x	x	FIDIC template
15.	Annex 15 - Performance Security	x	x	FIDIC template
16.	Annex 16 - Retention Money Guarantee	x	x	FIDIC template
17.	Annex 17 - Performance Certificate	x	x	Template
18.	Annex 18 - Taking-Over Certificate	x	x	Template
19.	Annex 19 - List of Documents for Approval or Review	x	x	
20.	Annex 20 - Site Yard Facilities	x	x	Including requirements on Employer's office
21.	Annex 21 - Site Inspection Protocol	x	x	
22.	Annex 22 - List of Nominated Subcontractors	x	x	If any - primarily due to Plant technology
23.	Annex 23 - List of Subcontractors for Works	x	x	Template

24.	Annex 24 - List of Subcontractors for Design Works	x	x	Template
25.	Annex 25 - Requirements on Maintenance and Operation	x	x	Template
26.	Annex 26 - Requirements on Insurance	x	x	
27.	Annex 27 - Requirements on Spare Parts	x	x	Prepared by Designers
28.	Annex 28 - Key Personnel Template	x	x	Template
29.	Annex 29 - Requirements on Project Manual	x	x	Template - for large projects only
30.	Annex 30 - Variation Order for Design Works	x	x	Template
31.	Annex 31 - Variation Order for Works	x	x	Template
32.	Annex 32 - Requirements on HES Program	x	x	Template
33.	Annex 33 - Requirements on Packing, Forwarding and	x	x	
34.	Annex 34 - Requirements on Performance Tests	x	x	
35.	Annex 35 - Progress Report Requirements	x	x	Extension of Clause 8.3. of Contract
36.	Annex 36 - Training of Employer's Staff	x	x	

Intersection of responsibilities of participants due to different resources is presented below in a form of table.

No.	Annex	Implementing Agency	Lawyer + Finance	Designer	Others	Remarks
1.	Annex 1 - Specific Contract Conditions I.					
2.	Annex 2 - Specific Contract Conditions II.					
3.	Annex 3 - General Contract Conditions					Only resource where to obtain the FIDIC C.
4.	Annex 4 - The Technical Specifications					Divided into construction, HVAC, Plant etc.
5.	Annex 5 - Standards of Materials					Description of materials and alternatives
6.	Annex 6 - Drawings					List of related drawings

7.	Annex 7 - Time Program					In a form of Basic Time Program
8.	Annex 8 - Guaranteed Performance Parameters					Prepared by Designers
9.	Annex 9 - Requirements on Contractor's Drawings					Extension of Clause 5 (Design)
10.	Annex 10 - Bill of Quantities					Prepared by Designers
11.	Annex 11 - Template of Cost Breakdown					Prepared by Designers
12.	Annex 12 - Payment Conditions for IPC and EPC					Modification due to a Contract Conditions
13.	Annex 13 - Payment Schedule and Milestones Under Penalties					Prepared by Designer + Employer
14.	Annex 14 - Advance Payment Guarantee					FIDIC template
15.	Annex 15 - Performance Security					FIDIC template
16.	Annex 16 - Retention Money Guarantee					FIDIC template
17.	Annex 17 - Performance Certificate					Template
18.	Annex 18 - Taking-Over Certificate					Template
19.	Annex 19 - List of Documents for Approval or Review					
20.	Annex 20 - Site Yard Facilities					Including requirements on Employer's office
21.	Annex 21 - Site Inspection Protocol					
22.	Annex 22 - List of Nominated Subcontractors					If any - primarily due to Plant technology
23.	Annex 23 - List of Subcontractors for Works					Template
24.	Annex 24 - List of Subcontractors for Design Works					Template
25.	Annex 25 - Requirements on Maintenance and Operation Manuals					Template
26.	Annex 26 - Requirements on Insurance					
27.	Annex 27 - Requirements on Spare Parts					Prepared by Designers



28.	Annex 28 - Key Personnel Template					Template
29.	Annex 29 - Requirements on Project Manual					Template - for large projects only
30.	Annex 30 - Variation Order for Design Works					Template
31.	Annex 31 - Variation Order for Works					Template
32.	Annex 32 - Requirements on HES Program					Template
33.	Annex 33 - Requirements on Packing, Forwarding and Shipment					
34.	Annex 34 - Requirements on Performance					
35.	Annex 35 - Progress Report Requirements					Extension of Clause 8.3. of Contract
36.	Annex 36 - Training of Employer's Staff					

## Resources

### Literature

#### (i) General Practice

- Oleriny, M. Contracts and Pricing in Overseas Construction, C. H. Beck Prague, 2004  
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#### (ii) Water resources

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Le Moigne, Giltner: A Guide to the Formulation of Water Resources Strategy, WB, 1994  
Young: Measuring Economic Benefits for Water Investments and Policies, WB, 1996  
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#### (iii) Monitoring & Evaluation Methods

- Handbook of Planning, Monitoring and Evaluating for Development Results, UNDP, New York, 2009  
Independent Review of The UNDP Evaluation Policy, UNDP, New York, 2010  
Framework Concept for The Evaluation of FEM-NGO Projects, IFA Berlin, 2010  
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Evaluation Policy of the EBRD, EBRD London, 2010  
DAC Evaluation Quality Standards, DAC-OECD, 2006  
UNEG Ethical Guidelines for Evaluation, 2008

#### (iv) EU Documents

- COM (1997) 599: White Paper: Energy for the future - renewable sources of energy, EC, 1997  
COM (2006) 545: Action Plan for Energy Efficiency: Realising the Potential, EU, 2006  
COM (2006) 105: Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy, 2006

#### (v) EBRD Standard Documents

- <http://fidic.org/node/747#sthash.zL0AjMnp.dpuf>  
<http://www.ebrd.com/work-with-us/procurement/project-procurement/standard-procurement-documents.html>

#### (vi) EU Standard Documents

- [http://ec.europa.eu/europeaid/funding/about-funding-and-procedures/procedures-and-practical-guide-prag\\_en](http://ec.europa.eu/europeaid/funding/about-funding-and-procedures/procedures-and-practical-guide-prag_en)

