**TERMS OF REFERENCE**

**Object: Consultancy for Studies of Tariff Subsidies Structure and Benchmarking Indicators**

**Thematic Chamber of Rates and Regulation**

**Brazilian Association of Regulatory Affairs - National ABES**

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**1. Current Situation and Motivation Project**

1.1 Short history of sanitation in Brazil

In the past three decades, Brazil has achieved substantial progress in the coverage of sanitation services, being largely the result of this effort the National Sanitation Plan (PLANASA). In urban areas, access to safe drinking water increased from 50% in 1968 to 91% in 1997, while the coverage of sanitation increased from 25% to 43% in the same period. When compared with its Latin American neighbors, Brazil has high levels of water supply. However, when it is about sanitation, the cover is lower than of neighboring countries. Furthermore, only 20% of collected wastewater is treated - which has a noticeably negative impact on the environmental quality of many urban watersheds, as well as impacts on the health of populations exposed to pollution.

There is a big gap between the levels of coverage of sanitation services in Brazil between the north and south of the country in general, and between low-income and high-income in particular. Despite the significant progress already made, much remains to be done in the sanitation sector to improve efficiency and increase service coverage in order to ensure access to all citizens and minimize negative impacts on the environment.

The current state of sanitation services in Brazil shows that the universalization of these services should be seen as a priority for the development of the country. The lack of investment in basic items such as sanitation services has great impact on people's health and the environment.

The sanitation sector has gone through a difficult period in recent years: the lack of a National Policy and its repercussions in the states and municipalities, the low level of allocated resources; successive contingencies of FGTS financing funds are some examples of the difficulties the sanitation sector has undergone.

The new National Environmental Sanitation Policy (Federal Law No. 11.445/07) brings good prospects for the sector. However, the possibility of regulating the referred law can bring impacts not studied adequately yet.

Gradually, we are witnessing the return of funds to the water sector - FGTS has been used by providers of public sanitation since 2003 - an achievement that should be celebrated by all who fought for the release of these resources. However, are not defined in a structured and permanent mechanism to ensure that, over the coming years, the universalization of sanitation services with equity for all.

Despite advances, environmental sanitation, which includes water supply, sanitary sewage and solid waste and urban drainage, still presents many challenges.

Moreover, pricing policies below the actual needs may undermine the sustainability of the sector. If there is no accounting of wearing away assets (depreciation), even a suitable strategic planning to replace the assets in the economically opportune time could be compromised.

1.2 Regulatory Framework

Federal Law 11.445/07, which establishes national guidelines for sanitation advocates, among others, the fundamental principles of universality and completeness, demanding discussions on necessary innovations to the sector (BRAZIL, 2007). The existing hegemonic model, especially with regard to universal in socially vulnerable areas located within and outside urban areas, it is not able to answer the questions of how to implement it in a sustainable way in financial, technical and environmental terms.

Two arguments support this assertion.

The first relates to contracts between the operator and the municipality, called Program Contracts. Due to the grantor be the municipality, in areas outside of the metropolitan areas, the contracts signed after 2007 based on the premise that the economic and financial balance must be obtained separately throughout the contract period, i.e., by means of tariffs, whose revenue is invoiced accounts of users of public services within the urban area of ​​the municipality that hired the utilitieship. This methodology broke the cross-subsidy between municipalities.

The second concerns the avoidance of large users, motivated by rationing and rate increases over the past ten years have incorporated alternative sources of water supply, pointing to the utility provider as less feasible by the high prices charged. According to data from the Department of Water and Power (DAEE), from 1992 to May 2011, there was an increase of 57,820 grants in the state of São Paulo, the users who consumed above 500 m3 per month (JULIANO et al. 2012B).

Likewise, the estimates made from Cardoso et al. (2008), it is expected that due to the number of wells drilled annually in Brazil is 10,800 units in 2008, which was held this projection, represent 545,600 wells drilled in Brazil by 2020.

The values ​​derived from the use of alternative source of each of these grants that are no longer collected demonstrate the avoidance of the financing agent and represent lack of the previewed contribution preconized in the grant feasibility study that would be necessary for the production and distribution of water and sanitation for users who are parts of the contractual goals of universal basic sanitation services in the State of São Paulo, and are in need of addressing subsidies (JULIANO et al., 2012B).

This behavior of big users breaks the mechanism of cross-subsidies between categories (social, residential, commercial and industrial) and users (small and large). In this sense, it’s hard to know how business management and public policy respond to the challenges of universal sanitation facing this disassembling mechanism.

One should also consider that, in a country of Brazil size, with rates of urbanization and poverty very high, irregular settlements on the outskirts and in many cases, merged to the "cool city", are almost a corollary. Beside the huge demand for housing in 323 municipalities, according to the 2010 census, 11.4 million people live in substandard clusters in Brazil (Brazilian Institute of Geography and Statistics, IBGE 2011). This number only shall be considered on goals and targets for the provision of public water supply and sewage after the regularization of these areas. Accordingly, the increase in demand for subsidies that will be needed for low-income families of the "illegal city" has not been computed nor included sub dimensioning calculations made from official databases, as mentioned below.

1.3 Challenges of Tariff Revisions

a. Contract Renewal

Since 2007 the concessionaires of public sanitation services are making a great effort for the renewal of the concession contracts with the municipalities where it operates. In this process, the Company is committed to investment plans for each municipality and maintenance costs of austerity, a new contractual framework based on goals for the operation of the business in those geographic units. This scenario will become even more important in the coming years with the legal obligations for the implementation of the regulatory framework, such as renegotiating new contracts, delegation of services to a regulator. This new environment will have direct effects on the structure and amount of fees for services, a challenge that must be addressed in conjunction with State regulatory agency.

Another aspect that should be emphasized is that the process of renewal of contracts is changing the old scene of subsidies in the sanitation sector, motivated by the new legal framework. How to deal with this issue will be a major challenge for the new tariff structure to be proposed.

b. Distortions in Tariff Structures

The current tariff structures have certain characteristics that should be evaluated and improved, especially with regard to its excessive complexity and potential distortions between categories of use and consumption ranges.

An example is the excessive progressivity of consumption ranges. The existing structure is progressive, with marked increase in tariffs for large volumes of water consumed in the month. This has been promoting the escape of large users to alternative sources of supply in terms of large values ​​of a cubic meter of water. The avoidance of large residential, commercial, industrial or public repeats throughout the state. In this situation, there is a potential imbalance in the grant structure between users and categories.

Rate adjustments are occurring in several states / municipalities. Still, it is essential that a new tariff structure ensures the remuneration of services more competitive in this segment, as it is essential to maintain the levels of investment required to universal service goals and contractual investment and revenue for the city, beyond the levels efficiency required for the sector. The existence of customers with regulated prices and a growing segment of large customers with freedom of pricing is another aspect that must be addressed together.

1.4 Relevant activities undertaken and ongoing

Tariff Study for Water Conservation - IDB in São Paulo

In 2004, a study entitled "Tariff Study for Water Conservation" was hired with funds from the Inter-American Development Bank for the State of São Paulo, municipalities operated by SABESP. This work, completed in 2006, was aimed at developing a Restructuring Project Tariff. In this study, we calculated the cost-effective long-term service provided by SABESP in its granted area, by municipality and step, from the estimate of planned investments, the value of existing assets, the definition and calculation of their costs and efficient expenses and estimate of cost of capital applicable to the company.

From these results, it was proposed a new pricing structure for the services of water supply and sanitation, and a new geographical grouping of tariffs. Similarly, we proposed a new mechanism for the periodic adjustment of the values ​​of rates. In parallel, was studied and proposed a new scheme of subsidies to low-income users, based on information compiled and socioeconomic classifications SEADE with criteria from CadÚnico.

Due to the existence of these and previous results, several studies have been conducted in Brazil, but the results were not successful because they depend more than an analysis of the more strategic aspects related to tariffs and subsidies, depends on changes of the National Sanitation Policy. Moreover, matters key to the regulatory agencies, which as executors of Public Policy, exhaust themselves in studies on criteria to be adopted in the definition of a new model of periodic review of the rates charged by concessionaires within a model cross subsidies no longer as robust as before.

Although the study has a significant advance in the discussion of a new pricing structure and subsidy policy, this project will include studies conducted in the states and the discussions between the various actors of a mechanism for subsidies. For this task, particular attention is paid to two complementary backgrounds: recent experiences of models regulated in sanitation and utilities in other countries, as well as the methodology and criteria used in the tariff regulation of electric utilities and gas in Brazil.

Issues such as the required revenue sufficient to cover cost efficient and prudent investments, plus the return on the investment within the payment ability of a given population in a given county social vulnerability are variables in this analysis. Compensation of assets, largely depreciated over useful accounting and WACC that is capable of attracting investments to the sector are object definitions in tariff revisions in progress throughout the country.

2. Project Objectives

This Terms of Reference is to provide consulting services to meet the following objectives.

a. Studying the main models of economic regulation which can be used in branches and at utilities, identifying strengths and weaknesses of each.

b. Recommend to regulatory agencies a model of economic regulation as the typology of the region.

c. Study and recommend to the regulator a new pricing structure that can be applied at utilities.

d. Discuss the proposals in structured regulatory agencies for tariff revision, participating in public hearings and consultations on the subject.

e. Develop Technical Notes on the main issues to be addressed in the tariff revision, such as capital cost, base fee, subsidy policy and rates of water loss, among others.

f. Perform benchmark with other water utilities and other sectors to support discussions with the regulatory agency.

g. Structure in ABES the data sheets and simulation for discussion and tariff calculations.

h. Define transition plan and support in the implementation of a pilot approved tariff model.

**3. Project Scope**

a. Analysis of Grants Studies available

At the beginning of the project it should be reviewed and discussed the criteria, results and recommendations of the studies of existing subsidies, with meetings to discuss methodologies and results. This process will aim to identify the points that support the methodological proposals made in this study and identify strategic issues already addressed by the company in defining a new tariff policy and subsidies.

It will also be the object of this step the overall organization of the project: discussion of methodologies, detailed schedule and allocation teams.

b. Key indicators benchmark for performance comparison

The consulting firm hired should research and organize data to compare agencies performance.

Detailed operational data should be collected to ensure consistent database for productivity discussion with the regulatory agency. This basis will be the fundamental role for the discussion and argumentation in any calculation of the productivity 'X Factor'.

The database developed should contain the internal company data, including geographic region and functional authorities (human resources, marketing, etc.), sanitation utilities national and international data, as well as data of comparable companies in other sectors as energy and gas. The collected data must be operational, financial and administrative. Some examples are: physical and commercial losses of water, number of employees for each type of service / staff, energy expenses, default levels, among others.

The data and methodology of the above mentioned study rates should be evaluated and used as the starting point for this item.

First delivery: 1. Report on the national and international benchmark. 2. Spreadsheet with the benchmark data that allows productivity simulations. 3. Presentation file.

c. Reference Costs

The work includes the identification of actual costs and efficient operators several characteristics, using actual data and the benchmark, and structuring regional calculation of efficient costs. Costs should be determined by municipality and region. This study aims to evaluate the concessionaires’ relative efficiency and serve as the basis for the model consistency analysis.

Second delivery: 1. Report on efficient costs 2. Spreadsheets with simulations of efficient costs

3. Presentation file.

d. Structuring Database for systematization and simulations of Efficiency Indicators.

The consultant should organize the sources of information to enable the development of this work, including necessary updates.

Third delivery: 1. Spreadsheet / database with the information that will be used throughout this work.

e. Possible structures for sanitation subsidies

The contractor will analyze the studies and submit to ABES alternatives to subsidy policy, considering the recommendations of the available subsidies studies and do additional ones.

The definition of the target group should be indicated by updating the database, the subsistence consumption and tariffs geographic aggregation (in the case of financing through cross-subsidies between users in different municipalities), the fundamentals to support the made recommendation and the available alternatives should be considered, according to the theory and international practice. In the analysis of these topics is essential to have an update of the estimated costs and potential subsidies funding sources and municipalities groups with viability for adding tariffs (geographic subsidies), beyond the identification of the municipalities that are self-sustaining (that enable the grouping with others). The following items should be evaluated, among others:

Definition of the target audience and consumption level to be subsidized

Definition of services to be subsidized: potable water, sanitary sewer, connections, etc..

Subsidy to the offer (sunk) or demand.

In the case of subsidies to the demand advantages and disadvantages of the main forms of application should be analyzed, i.e., cross-subsidies and direct subsidies (focused).

Regarding cross-subsidies groups of users that can finance the subsidies should be evaluated;

For alternative of geographical cross- subsidies should be examined and the identification of possible groupings self-sustaining and not self-sustaining municipalities;

Procedures and mechanisms to change the subsidy policy

Fourth delivery: 1. Technical report on alternative subsidies, including difficulties of implementing each alternative.

f. Identify the attributes the model should have to promote the intended goals

The consultant shall perform strategic analysis of the involved agents in a possible change of the tariff structure and the desired attributes for each agent. Therefore, the consultant should participate in structured meetings with the parties, particularly with agencies.

Fith delivery: 1. Meetings with key stakeholders 2. Stage Report

g. Definition and detailing of a new tariff structure

The contractor shall submit to ABES proposals for the new subsidies model, assessing the impact on the parties involved considering the following factors, among others:

Signal of shortage of water resources

Subsidy policy

Easiness of implementing changes

The impact of each alternative pricing should be very clear and settled for utilities and agencies.

Based on the analysis, findings and recommendations until this stage, should present the fundamentals to support the chosen option in this study and the existing alternatives, according to the theory and international practice best suited to local conditions.

In this phase, the consultant will conduct simulations of the new tariff structure application.

Sixth delivery: 1. Report with proposed new tariff structure and simulations of structure application.

h. Recommendation and proposal to be submitted to the regulatory agency

The final product of this activity will be the recommendation of the subsidies appropriate model to the balance conditions of the concession. The main conclusions of the previous steps should be summarized and put into perspective: adopted assumptions, model results, alternatives, subsidy policies, and especially the alternatives impact to the economic sustainability of the services, population ability to pay and ease deployment.

Seventh delivery: 1. Technical Note recommendation to the government. 2. Final presentation.

i. Discussions with the Key Actors

The consultant should assess the possible ongoing work and disclosed to the Ministry of Cities, Health, Welfare and Staff, with the aim of providing mutual contributions in studies for the best outcome for users of public water supply and sewerage. This activity includes the following products: reporting, presentation and diagnosis discussion with ABES technical team.

Based on the made diagnosis and the discussions with the technical staff of ABES and workshops, the consultant shall prepare the proposed adoption of a new subsidies model.

This activity includes the following product: reporting, presentation and diagnosis discussion with the technical staff of ABES and assistance in meetings with regulators, utilities, municipalities and the federal government, including the preparation of necessary materials and recommendations to be delivered to the Federal Government.

The consulting will subsidize ABES in examining the proposals of the government by performing the following activities:

1. Diagnosis of the material presented by ABES;

2. Consolidation with critical of developed studies;

3. Assistance ABES in preparing proposals and counterproposals, arguments and supports to be provided;

4. Drafting of the formal manifestation of ABES;

5. Simulation scenarios;

6. ABES Assistance in meetings with representatives of the legislative and executive branches participation.

7. This activity includes the following product: preparation of diagnostic reports, spreadsheets simulation, formal manifestation of ABES and monitoring in the discussions, and preparation of supporting documentation.

8. Give regulatory technical support with legal opinions that promote the model implementation.

The consultant will assist in the evaluation of the ABES decisions with the preparation of legal opinions.

This activity includes the following product: reporting results of diagnostic, technical support in the preparation of administrative resources and / or court, if necessary, and follow up in the discussions with the government.

j. Support the Implementation of the System Indicators

1. Preparation of Plan implementation and system training

An action plan with the objective of identifying the activities should be drawn up, deadlines and responsible needed to implement the new model of efficiency indicators. This plan will be discussed with ABES and advised by the contractor during deployment.

It’s part of the report one Technical Note to be delivered on the acceptance date.

First delivery: 1. Deployment plan. 2. Presentation of the plan.

2. Evaluation results of model indicators: resources and management information systems

Assessment of the changes to be made in the processes and information systems and support in the preparation of terms of reference for hiring companies to perform the necessary changes

Second delivery: 1. Evaluation report.

3. Schedule and Contract Term

The consulting work will be executed in 18 months as from the date of hiring of services. Each of the activities identified correspond to delivery of the products defined in the previous section.

Throughout the duration of the project, meetings should be held with the technical group of ABES for presentation and discussion of the partial results of the consultancy work for the discussion subject.

Integration monthly meetings should be held with the project management committee.

Payments will be in IDB systematic, technical approval must occur within 15 days. The works must be carried out with intermediate meetings to allow the products approval of each delivery in 15 calendar days, adding the deadline for payment processing.

4. Project Team

For the implementation of phases A and B, the consulting firm hired must allocate the main team project within 2 km of the dependencies of ABES-SP. For phases C and D, the staff allocation should be according to the process demand.