

TC ABSTRACT

I. Basic Project Data

▪ Country/Region:	ARGENTINA/CSC - Southern Cone
▪ TC Name:	Water-Energy Nexus: Improving efficiency and leveraging renewable energy opportunities of Agua y Saneamientos Argentinos S.A.
▪ TC Number:	AR-T1206
▪ Team Leader/Members:	OYAMADA KROUG, JORGE RUBEN (INE/WSA) Team Leader; SASAKI, KEISUKE (INE/WSA) Alternate Team Leader; MORENO MORENO, HENRY ALBERTO (INE/WSA); GONNELLI, GUSTAVO VICTOR (INE/WSA); MACHADO, KLEBER B. (INE/WSA); MALAGON ORJUELA, EDWIN ANTONIO (INE/ENE); HARATSU, MISA (INE/ENE); MUNOZ CASTILLO, RAUL (INE/WSA); LOPEZ, LILIANA M. (INE/WSA); CHAVERRI-SUAREZ, ALONSO J. (LEG/SGO)
▪ Taxonomy:	Operational Support
▪ Number and name of operation supported by the TC:	WATER AND SANITATION PROGRAM FOR THE BUENOS AIRES METROPOLITAN AREA AND CONURBATION-AR-L1195 - 3.Support for the Execution Water and Sanitation Program for the Buenos Aires Metropolitan Area and the Districts in the First, Second, and Third Rings of the Buenos Aires Conurbation"-AR-L1257 - 3.Support for the Execution
▪ Date of TC Abstract:	21 May 2018
▪ Beneficiary:	Agua y Saneamiento Argentinos S.A.
▪ Executing Agency:	INTER-AMERICAN DEVELOPMENT BANK
▪ IDB funding requested:	\$ 750,000.00
▪ Local counterpart funding:	\$ 0.00
▪ Disbursement period:	30 months
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	Water & Sanitation
▪ Unit of Disbursement Responsibility:	Country Office Argentina
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	Yes
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality ; Climate change

II. Objective and Justification

- 2.1 This TC would aim to analyze the situation of drinking water and sanitation systems in the Metropolitan Area of the City of Buenos Aires and the Buenos Aires Conurbation operated by AYSA and evaluate alternatives for the reduction of Non-Revenue water, to improve the energy efficiency of systems and renewable energy alternatives.
- 2.2 Argentina has set ambitious targets for the water and sanitation sector in its National Water and Sanitation Plan developed in 2016, whose investment requirements add up to US\$13.3 billion in the first four years alone. In line with the Sustainable Development Goals No. 6, the country plans to move towards universalization of water and sanitation services, and, concretely for 2019, aims at achieving coverage ratio of water service of 100% and that of sanitation services of 75%, compared to 87% and 58% respectively in 2015.

- 2.3 Agua y Saneamiento Argentinos S.A. (AySA) is the water and sanitation utility for the Buenos Aires Metropolitan Area, specifically, the Autonomous City of Buenos Aires and surrounding 26 districts. In these 26 districts, service coverages are well below the national averages (in 2015, 69% and 42%, respectively, for water and sanitation) and there are critical needs to serve the important number of people without access to water and sanitation (3.4 million and 6.4 million inhabitants, respectively). In 2008, the Bank approved the first conditional credit line for investment projects (CCLIP) for AySA (namely AR-X1013) to accompany its effort in the implementation of its Plan for Expansion and Improvement of Water and Sewer Services 2008-2017. Following success of AR-X1013, the second CCLIP was approved in 2017 (AR-O0004). This new CCLIP is intended to assist AySA in expanding access to and improving the quality of the services within its now-immense service delivery area, and in this context it's worth noting that there is a wide gap in terms of existing services, between the Autonomous City of Buenos Aires and the surrounding districts (and, in particular, the nine new districts).
- 2.4 In order to be able to provide universal services in an affordable manner, it is crucial for AySA to make more use of existing systems and lower the systems' lifecycle cost, thereby increasing effectively the service provision capacity and generating efficiency gains. For this purpose, main means identified are as follows: (i) high non-accounted-for water ratio currently estimated at around 40%, (which comprises of physical loss and commercial loss), which entails large losses in terms of water, and thus energy for production and pumping; (ii) high energy cost associated with inefficiency in energy use (for example, inefficient pumps); and (iii) process of sludge treatment and disposal, which currently involves long distance transportation (on average approx. 100km) for landfarming.
- 2.5 The TC is consistent with the Institutional Strategy Update 2010-2020 (GN-2788-5) and aligns with the challenges of productivity and innovation development. This will be done through the promotion of actions for improving efficiency and leveraging renewable energy opportunities, which will result in optimizing the lifecycle cost of infrastructure. It also aligns with the cross-cutting area of climate change and environmental sustainability. The TC is also consistent with the Country Strategy 2016-2019, in the priority area of "poverty and inequality reduction," which includes as one of its strategic objectives: habitat improvement and access to basic services in low-income regions. The CT is aligned with the strategy "Sustainable Infrastructure for Competitiveness and Inclusive Growth" in particularly the priority area of "supporting the construction and maintenance of socially and environmentally sustainable infrastructure, thus enhancing quality of life."

III. Description of Activities and Outputs

- 3.1 Component I. Diagnostics and improvement plans (US\$675,000). This component will support consultancies to develop studies, diagnoses and improvement plans for improving efficiency and leveraging renewable energy opportunities. It is expected that the following studies will be included: (i) detailed and reliable diagnosis on non-accounted-for water in a specific area, and an action plan based on such diagnosis, which also may include a study on modernization of its water management information system; (ii) exhaustive diagnosis on AySA's pumping systems (including both water and wastewater) and development of recommendations on pump efficiency improvements, as well as other studies on energy efficiency measures; (iii) pre-feasibility study on energy recovery from sludge generated from wastewater treatment plants to analyze opportunities for applying advanced technologies for sludge treatment and energy recovery; (iv) technological innovation applicable to productive systems, management, and information management; and (v) preliminary development of plans and projects in the aforementioned activities for presentation to potential financiers.

- 3.2 Component II. Training and Knowledge transfer and dissemination (US\$75,000). This component will finance activities necessary for trainings, as well as knowledge transfer and dissemination. Trainings will mainly aim at presenting to AySA the latest use cases of relevant technologies as well as a variety of contract modalities (e.g. performance based contracts). Knowledge development and dissemination will focus on putting together the lessons learned on the topics, and sharing the learnings to the region.
- 3.3 **Component I: Diagnostics and improvement plans.** This component will support consultancies to develop studies, diagnoses and improvement plans for improving efficiency and leveraging renewable energy opportunities.
- 3.4 **Component II: Training and Knowledge transfer and dissemination.** This component will finance activities necessary for trainings, as well as knowledge transfer and dissemination.

IV. Budget

Indicative Budget

Activity/Component	IDB/Fund Funding	Counterpart Funding	Total Funding
Diagnostics and improvement plans	\$ 675,000.00	\$ 0.00	\$ 675,000.00
Training and Knowledge transfer and dissemination	\$ 75,000.00	\$ 0.00	\$ 75,000.00

V. Executing Agency and Execution Structure

- 5.1 Inter-American Development Bank will be the Executing Agency.
- 5.2 AySA requested the Bank to be the Executing Agency for this TC, in order to expedite the selection, hiring and supervision of the consulting firm and individual consultants. AySA will help prepare and review the terms of reference for the consultancy and deliverables in conjunction with the Bank.

VI. Project Risks and Issues

- 6.1 The main risk identified is that the studies not leading to the implementation of actions. To mitigate this risk, the areas of studies will be defined in full consultation with AySA, prioritizing areas with potentially high financial attractiveness for the utility. In addition, the existence of the CCLIPs will facilitate the implementation of actions, by guaranteeing the availability of financing, as necessary.

VII. Environmental and Social Classification

- 7.1 The ESG classification for this operation is "C".