**TECNICAL COOPERACION ABSTRACT**

**I. Basic project data**

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| Country/Region: | MEXICO/CID - Istmo y RD |
| TC Name: | Energy efficiency (EE) for water operators in Mexico |
| TC Number: | ME-T1500 |
| Team Leader/Members: | RIQUELME, RODRIGO (INE/WSA) Líder del Equipo; CAROLINA ALCALA (INE/WSA); MARTINEZ LAGUNES, RICARDO (INE/WSA); SUBER, STEPHANIE ANNE (INE/ENE); BARRAGAN CRESPO, ENRIQUE IGNACIO (LEG/SGO); LOPEZ, LILIANA M. (INE/WSA); GUERRERO RIVERA, MARILYN IVETTE (INE/WSA) |
| Indicate if: Operational Support, Client Support, or Research & Dissemination. | Apoyo al Cliente |
| If Operational Support TC, give number and name of Operation Supported by the TC: | N/A |
| Date of TC Abstract: | 24 Nov 2022 |
| Beneficiary: | CONAGUA |
| Executing Agency and contact name | INTER-AMERICAN DEVELOPMENT BANK |
| IDB Funding Requested: | US$500,000.00 |
| Local counterpart funding, if any: | US$0.00 |
| Disbursement period (which includes execution period): | 36 meses |
| Types of consultants (firm or individual consultants): | Empresas |
| Prepared by Unit: | INE/WSA - Agua y Saneamiento |
| Unit of Disbursement Responsibility: | INE/WSA - Agua y Saneamiento |
| Included in Country Strategy (y/n)  TC included in CPD (y/n) | Sí Sí |
| Alignment to the Update to the Institutional Strategy 2010-2020: | Productividad e innovación; Sostenibilidad ambiental |
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**II. Objective and Justification**

2.1 The general objective of this TC is to support the efforts of the Mexican government to improve the efficiency of water operators through their improvement in energy efficiency. Through these actions there will be also support on the compliance with National Determined Contributions (NDC) by reducing GHG as a result of the operation of drinking water and sanitation systems.

2.2 The National Water Commission (CONAGUA) has defined a national strategy to improve the water services based on efficiency improvement of water operators. Water operators could significantly improve their service quality if they improve their commercial and operational practices in order to increase revenue and reduce operation costs, respectively. The most significant operational cost for a water operator after personnel salaries is energy expenditures. The high levels of energy consumption could reach up to 35% of the operational costs. With pumps, motors, and other equipment operating 24 hours a day, seven days a week, water and wastewater facilities can be among the largest consumers of energy in a community—and thus among the largest contributors to the community’s total Green House Gases (GHG) emissions. The reduction in energy costs via an energy efficiency program will have high impacts on cost savings and avoidable emissions. The National Water Commission (CONAGUA) and the Secretary of Finance and Public Credit (SHCP) have already identified an opportunity to develop a national program of energy efficiency.

**III. Description of activities and outputs**

3.1 **Componente I: Component 1. Energy Audits.** Carry out energy audits with a selected group of water operators that will enter in the program. These energy audits will include a study on the critical assets responsible for the main portion of energy consumption in the water operators. The expected results are state of the assets, asset life, replacement cost, tariff study, new scenarios with adequate operation and maintenance, return periods. The component will include mitigation estimates for the new infrastructure and its impact on GHG.

3.2 **Componente II: Component 2. Business Model.** This component will include the development of a business model for water operators under an energy efficiency program. The model will define scenarios including legal and financial feasibility. The component will include studies in institutional capacity, private sector participation and socio-economic benefits.

3.3 **Componente III: Component 3. Implementation Scheme.** Develop an operational plan for the execution of the schemes including indicators and monitoring activities This component will include guidance manual that will include selection criteria, appraisal methos, financial appraisal and a route map for implementation of an energy efficiency program. The scheme will include all the relevant institutional stakeholders and other relevant parties including Conagua, State Water Commissions (CEAs), municipalities and water operators.

**IV. Budget**

**Indicative Budget**

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| --- | --- | --- | --- |
| **Activity/Component** | **BID/Fund Funding** | **Conuterpart** | **FTotal** |
| Component 1. Energy Audits | US$140,000.00 | US$0.00 | US$140,000.00 |
| Component 2. Business Model | US$280,000.00 | US$0.00 | US$280,000.00 |
| Component 3. Implementation Scheme | US$80,000.00 | US$0.00 | US$80,000.00 |
| **Total** | **US$500,000.00** | **US$0.00** | **US$500,000.00** |

**V. Executing agency and execution structure**

5.1 Water and Sanitation Division (INE/WSA) through the IDB office in Mexico.

5.2 The TC will be executed by Conagua. However, due to federal budgetary reasons in the country the TC will be executed by the bank. The tendering documents will be agreed with Conagua and the execution will be co-supervised with Conagua’s International Cooperation office. Monitoring will be carried out by the Bank’s technical team with the support of the Country Office and individual consultants, through the review of the progress and final reports prepared by the consultants contracted to carry out the activities of this TC. This will be a permanent process through the execution of the TC. The progress will be promptly reported in the Bank’s system (Convergence) with details on product achievement, technical notes and press cuts. This will be done at least each semester.

**VI. Project Risks and issues**

6.1 The major risk during the execution of this TC is the potential delay in execution of the consulting services due to a lack of coordination between Conagua, states, and water operators. Several lessons learned about coordination with these stakeholders have been acquired by IDB and Conagua specially with ME-L1176 and ME-L1295 which will mitigate this risk.

**VII. Environmental and Social Classification**

7.1 The proposed operation was classified by ESG as "indefinite".