

## TC Document PE-T1523

### I. Basic Information for TC

▪ Country/Region:	PERU
▪ TC Name:	Sector Market Booster- Energy: Market transition to low carbon and energy efficiency technologies
▪ TC Number:	PE-T1523
▪ Team Leader/Members:	Gomez, Jose Ramon (INE/ENE) Team Leader; Baskovich, Jele (CAN/CPE); Jorge Luis Malpartida (INE/ENE); Navacerrada Busquets, Pablo (INE/ENE); Okuma Agüena, Alexis Ricardo (CAN/CPE); Paredes, Juan Roberto (INE/ENE); Patricia Elliot (INE/ENE); Vila Saint-Etienne, Sara (LEG/SGO); Ziza Machado (INE/ENE) Team Leader; Baskovich, Jele (CAN/CPE); Jorge Luis Malpartida (INE/ENE); Navacerrada Busquets, Pablo (INE/ENE); Okuma Agüena, Alexis Ricardo (CAN/CPE); Paredes, Juan Roberto (INE/ENE); Patricia Elliot (INE/ENE); Vila Saint-Etienne, Sara (LEG/SGO); Ziza Machado (INE/ENE) Etienne, Sara (LEG/SGO)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	08 Jul 2022.
▪ Beneficiary:	Ministry of Energy and Mines (MINEM) and Supervisory Agency for Investment in Energy and Mining (OSINERGMIN)
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	United Kingdom Sustainable Infrastructure Program(SIP)
▪ IDB Funding Requested:	US\$750,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	21 months
▪ Required start date:	January 2023
▪ Types of consultants:	Firms
▪ Prepared by Unit:	INE/ENE-Energy
▪ Unit of Disbursement Responsibility:	CAN/CPE-Country Office Peru
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2020-2023:	Environmental sustainability; Productivity and innovation

### II. Objectives and Justification of the TC

- 2.1 The objective of this TC is to provide technical assistance to the Ministry of Energy and Mines to develop an Energy Transition Agenda that is essential to fulfilling the country's climate change commitments.
- 2.2 In 2016, Peru became the first Latin American country to ratify the Paris Agreement, committing to a 30% reduction in projected greenhouse gas emissions by 2030, which limits net emissions to a maximum of 208.8 MtCO<sub>2</sub>eq by 2030b (unconditional goal).
- 2.3 In 2020, the Peruvian State updated and stepped up its commitment in relation to compliance with the country's Nationally Determined Contribution (NDC), committing to further limit by 2030 its greenhouse gas emissions to a maximum of 179.0 MtCO<sub>2</sub>eq. This represents a reduction

in emissions of 40%, depending on the availability of international external financing and the existence of favorable conditions.

- 2.4 Along the same line of action, in 2022 the Peruvian government issued a Supreme Decree No. 003-2022-MINAM, declaring the climate impacts to be an emergency of national interest. The Decree, among other points, establishes mitigation and adaptation measures to reduce greenhouse gas emissions by 40% (the update of the NDC previously mentioned) and includes measures related to resilience in order to address the adverse effects of climate change, and to contribute to the reactivation of the economy, reducing socioeconomic gaps and poverty. Within this commitment, the country is projecting to achieve a 20% share of non-conventional renewable energies in the electricity generation matrix by 2030.
- 2.5 In this point, it is important to mention that Perú doesn't have a medium-term Decarbonization Plan, what exists are the commitments to reduce greenhouse gases that are reflected in the NDCs estimated for 2030. For this reason, it is considered necessary to have an Energy Transition Plan that allows for an integrated evaluation of how to achieve decarbonization and carbon neutrality by 2050.
- 2.6 Improving public services is of high importance for the country. According to Infralatam between 2008 - 2016, public investments in infrastructure in Peru were 2.96% (3.63% including the private sector) of the country's Gross Domestic Product (GDP) on average.
- 2.7 The Peruvian infrastructure gap can be seen as an opportunity to leverage private sector investment if bankable sustainable projects are delivered at scale. This TC contributes to the creation of a country platform to accelerate a transformational change for the Peruvian government to advance investments in sustainable low-carbon infrastructure.
- 2.8 The High-Level Dialogue (HLD) was an important milestone in the 2022 programming for Peru in which energy was presented as a strategic area and discussed between the Government of Peru, represented by the Ministry of Finance and Economy, the Ministry of Environment and Pro inversion and representatives from the IDB group, and the UK Government (Department for Business, Energy, and Industrial Strategy -BEIS- and the UK Embassy in Peru). The Peruvian UKSIP Country Platform was designed to mainstream sustainability upstream across the national, sectorial, and institutional upstream levels, as well as to increase institutional capacity, prioritize and, build sustainable low-carbon infrastructure bankable pipelines to mobilize private sector financing.
- 2.9 Given the context, the three specific objectives are to (1) develop a road map for the energy transition to a low carbon sector in Peru consistent with the long-term decarbonization plan (2050) and the country's low carbon strategies; (2) review and analyze the alternatives for the introduction and promotion of private participation in the development of new nonconventional renewable energy sources into the energy matrix; and (3) to support the Ministry of Energy and Mines (MINEM) in the training of new certified energy auditors, disseminating the benefits of energy audits and the implementation of the proposed improvements.
- 2.10 **Strategic Alignment.** This TC is consistent with the Bank's Institutional Strategy 2020–2023 (AB-3190-2) and is aligned with the development challenge of productivity and innovation, and the cross-cutting theme of climate change and environmental sustainability, by the promotion of Non-Conventional Renewable Energy (NCRE) in the Peruvian electricity matrix, the development of energy national strategy based on energy transition, and energy efficiency systems aimed to reduce Green House Gases (GHG) emissions. The TC is also consistent with (i) the Energy Sector Framework document (GN- 2830- 8) and the Climate Change Sector Framework (GN-2835-8) on sustainability and renewable energies, and (ii) the objective of the UK Sustainable Infrastructure Program (UKSIP) to support countries in LAC to deliver their NDCs to the Paris Agreement. The TC is in line with the IDB Group Country Strategy with Peru

2022-2026 (GN- 3110-1) in the strategic area such as: (i) achieving sustained growth, and (ii) climate change through cost reduction, competitiveness improvement of energy transition projects and reducing the gap of the women in the energy sector. Additionally, it will contribute to the Corporate Results Framework (CRF) 2020-2023 (GN-2727-12) in the performance indicators of climate change and environmental sustainability.

### **III. Description of Activities/Components and Budget**

- 3.1 **Component I. Energy Transition in Peru (US\$ 300,000).** Support the government of Perú in the process of a new national energy policy based on the principles of decarbonization of the economy by 2050. It is expected that this study develops the analysis that allows for defining a plan, with strategic objectives and goals that proposes a roadmap for the government of Peru to achieve carbon neutrality by 2050. Besides, this study must evaluate the objectives that can be achieved in the inclusion of renewable energy in the energy mix, electromobility, distributed generation, the role that green hydrogen, among other things. This study also has to estimate the reduction of greenhouse gases that could be achieved by meeting these objectives. Likewise, it must make recommendations for normative and regulatory modifications that make possible the fulfillment of the estimated goals. The expected result of this component is to achieve the Peru's National Energy Transition Plan
- 3.2 **Component II. Support the introduction of renewable energy into the Energy Matrix (US\$ 150,000).** This component has the objective to review and analyze the alternatives for the introduction and promotion of private sector participation in the development of new nonconventional renewable energy sources into the energy matrix. The component will develop studies that evaluate the potential of renewable energy projects, for example of concentrated solar power plants and the mechanisms to promote them. The studies will consider technical viability, the impact on tariffs, and implications to regulations. As a result of the implementation of this component, a study with technical information which allows the government of Peru to make a decision to promote of the development of renewable energy.
- 3.3 **Component III. Development of energy efficiency programs in Peru (US\$ 300,000).** The objective of this component is to support the MINEM in two items: (i) promoting the strengthening of the market of certified energy auditors. For this objective, training courses will be held to train new energy auditors. Additionally, the component will finance the dissemination of energy audits and the implementation of the proposed improvements and (ii) the implementation of programs to change the use of firewood, manure, coal, and among other polluting fuels, by other clean energy sources for domestic use.

For the (i) activity this component will develop a program that supports MINEM in the development of a training program for new auditors that includes, as part of their training, the implementation of an energy audit for a public entity. Support will also be provided to MINEM, for the development of a technical study, that assesses a structure/mechanism for financing the recommendations arising from the energy audits.

For the (ii) activity the main delivery will be a study that evaluates the viability of the implementation of a program to replacement of Liquid Petroleum Gas (LPG) cookers and wood cookers with induction cookers.

The results from this component are a greater number of certified energy auditors, and to have a program to replace LPG and wood stoves with induction cookers to be later implemented government.

- 3.4 The total cost of this TC will be US\$750,000, financed by the United Kingdom Sustainable Infrastructure Program (UKSIP).

### Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Total Funding
Energy transition in Perú	Development of the national energy policy to 2050 based on energy transition	US\$300,000.00	US\$300,000.00
Technical studies for short, medium, and long term introduction of renewable energies into the Peruvian energy matrix	A study that evaluates the potential of concentrated solar power plants and the mechanisms to promote them. The main considerations will be around technical viability, the impact on the tariff, and regulatory implications.	US\$150,000.00	US\$150,000.00
Development of energy efficiency programs in Perú	(i) A program that supports MINEM in training new energy auditors; and (ii) a study that evaluates the viability of a program for the replacement of LPG cookers and wood cookers with induction cookers	US\$300,000.00	US\$300,000.00
<b>Total</b>		<b>US\$750,000.00</b>	<b>US\$750,000.00</b>

## IV. Executing Agency and Execution Structure

- 4.1 The TC will be executed by the IDB, upon the request of the MINEM, and will follow Appendix II (Procurement Criteria by the Bank) of the Operational Guidelines for TC Products (OP-619-4). The IDB will execute this TC to (i) avoid lengthy internal budgeting procedures that can jeopardize the achievement of its objectives by delaying the start of procurement of crucial studies and consultants' payments, and (ii) to facilitate coordination between the different public-sector entities (Ministry of Mines and Energy and OSINERGMIN).
- 4.2 The Energy Division (INE/ENE) will be responsible for its execution, in coordination with the IDB Country Office in Perú (CAN/CPE). The Bank will contract individual consultants, consulting firms, and non-consulting services in accordance with the Bank's current procurement policies and procedures: (i) the procurement process for consulting firms will follow the Bank Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN- 2765- 4) and the related Operational Guidelines (OP-1155-4), and (ii) the procurement of non-consultant services will follow the Bank Corporate Procurement Policy (GN-2303-28).
- 4.3 In compliance with the Operational Guidelines for Technical Cooperation Products Revised version (GN-2629-1), this TC is classified as Client Support. The technical responsibility is in INE/ENE.
- 4.4 The focal point designated and sector specialist responsible for executing and supervising this TC will be the Lead Energy Specialist based in Quito, Ecuador, with the support of the Bank Country Office in Perú (CAN/CPE) and the INE/ENE Team.
- 4.5 All knowledge products derive from this Technical Cooperation will be the Bank's intellectual property.

## V. Major Issues

- 5.1 No significant risks are expected during the execution of the TC. One minor risk is identified, related to eventual delays in the development of the studies due to possible difficulties in

coordinating the different counterparts involved or the availability of information. The execution of the INE / ENE, with the support of specialized consultants, will help mitigate this potential risk.

## **VI. Exceptions to Bank Policy**

- 6.1 No exceptions to the Bank's policies are requested.

## **VII. Environmental and Social Strategy**

- 7.1 This TC will not finance feasibility or pre-feasibility studies of investment projects associated with environmental and social studies; therefore, it falls outside the scope of the Bank's Environmental and Social Policy Framework (ESPF).

### **Required Annexes:**

[Request from the Client - PE-T1523](#)

[Results Matrix - PE-T1523](#)

[Terms of Reference - PE-T1523](#)

[Procurement Plan - PE-T1523](#)

\* If TC Document is sent for BOD approval, the only Annexes that need to be translated are the Results Matrix and the Procurement Plan. The Request from Client and the ToRs should be included as links and no translation is required.