

TC Document

I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Energy prices in Latin America and the Caribbean and their relationship with decarbonization
▪ TC Number:	RG-T4531
▪ Team Leader/Members:	Yepez-Garcia, Rigoberto Ariel (VPS/VPS) Team Leader; Balza Angulo, Lenin Humberto (INE/ENE) Alternate Team Leader; Reyes-Tagle, Gerardo (IFD/FMM) Alternate Team Leader; Loo-Kung Agüero, Rudy Joel (IFD/FMM); Mendoza Benavente, Horacio (LEG/SGO); Arias Marin Karla Michell (INE/ENE); Delgado, C. Raul (CSD/CCS); Pineros Cely Ana Maria (INE/ENE); Altamirano Montoya Alvaro Jose (SCL/LMK); Vila Saint Etienne, Sara (LEG/SGO); Arias Marin Karla Michell (INE/ENE); Delgado, C. Raul (CSD/CCS); Pineros Cely Ana Maria (INE/ENE); Altamirano Montoya Alvaro Jose (SCL/LMK); and Vila Saint Etienne, Sara (LEG/SGO).
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	01 May 2024.
▪ Beneficiary:	Regional.
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC SDP Window 2 - Infrastructure(W2B)
▪ IDB Funding Requested:	US\$365,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	April 22, 2024
▪ Types of consultants:	Individual firms and consultants
▪ Prepared by Unit:	VPS-VP - Sectors & Knowledge
▪ Unit of Disbursement Responsibility:	VPS/VPS-VP - Sectors & Knowledge
▪ TC included in Country Strategy (y/n):	N/A
▪ TC included in CPD (y/n):	N/A
▪ Alignment to the Institutional Strategy 2024-2030:	Environmental sustainability

II. Objectives and Justification of the TC

- 2.1 **Objective.** The broad objective of this Technical Cooperation (TC) is to analyze the impact of fossil fuel subsidies in Latin America and the Caribbean (LAC) and develop strategies for their gradual phase-out. This TC aims to generate evidence-based policy recommendations to support the economic and social transformations necessary for reducing reliance on fossil fuel subsidies. The main added value of this TC will be: (i) the updating and generation of data and knowledge on the magnitude of subsidies, taxes, and pricing structures of fossil fuels in LAC; and (ii) the identification and evaluation of effective strategies for phasing out fossil fuel subsidies while mitigating impacts on low-income households.
- 2.2 **Justification.** The countries of the LAC region have adopted the Paris Agreement (PA) with its objective of keeping the global average temperature above 2°C with respect to

pre-industrial levels and continuing efforts to limit this temperature to 1.5°C.¹ According to the evidence offered by the Intergovernmental Panel on Climate Change (IPCC), achieving this objective implies reaching zero-net Greenhouse Gas (GHG) emissions by the middle of the 21st century.² This decarbonization process, in turn, implies three profound transformations in the energy sector: (i) electricity generation from renewable energy sources (which implies an increase in electricity storage or other flexibility measures); (ii) energy efficiency; and (iii) the electrification of uses that depend on fossil fuels today.³

- 2.3 Although these three transformations are associated with different benefits, which far exceed their costs, they do not occur to meet the objective of the PA at the necessary pace and scale because of a series of barriers, such as the intensive use of internal combustion vehicles, unfavorable rules of the electricity market, lack of enabling infrastructure to reduce the use of fossil fuels, subsidies for fossil fuels, and uses in highly polluting activities such as cement production, among others. To eliminate these barriers, governments might implement a set of policies and actions.⁴
- 2.4 Concerning the prices of fossil fuels, it is common practice for national governments in most countries to offer subsidies, while some other countries impose taxes on them. Also, some countries offer targeted subsidies, which means that the same fuel can have different prices, for instance, a special subsidy may be applied to diesel for fishing boats, or a limited number of Liquefied Petroleum (LP) gas tanks may be offered to low-income households. This situation demonstrates that fuel prices have a relevant impact on deep transformations in the energy sector because the lower the prices of fossil fuels, the lower the incentives for electricity generation by renewable energies, energy efficiency, and electrification.
- 2.5 Many countries in LAC acknowledge the problems of these subsidies and the potential benefits of Price-Based Mitigation Policies (PBMPs), like carbon tax to deter GHG emissions.⁵ However, numerous countries face significant challenges in raising energy prices, resulting in high energy subsidies and low-effective carbon rates in LAC.⁶
- 2.6 **Recent evolution of subsidies.** Explicit subsidies for fossil fuel consumption worldwide skyrocketed in 2022, exceeding US\$1 trillion for the first time, according to estimates by the International Energy Agency (IEA). This was mainly due to the interest of national governments in mitigating the impact of increases in fuel prices in international markets on national economies. Indeed, the record subsidies in 2022, amid the global energy crisis caused by the Russian invasion of Ukraine, doubled their levels compared to 2021, which were already almost five times the ones observed in 2020.⁷
- 2.7 In this context, calls have been redoubled to alert governments that increasing subsidies represent a barrier to decarbonization. At the 26th session of the Conference

¹ Paris Agreement to the United Nations Framework Convention on Climate Change ([UN, 2015](#)).

² Sixth Assessment Report. Mitigation of Climate Change. Report of Working Group III ([IPCC, 2012](#)).

³ Achieving Net-Zero Prosperity: How Governments Can Unlock 15 Essential Transformations ([Fazekas, A., Bataille, C. and Vogt-Schilb, A., 2022](#)).

⁴ Idem.

⁵ Climate Change Challenges in Latin America and the Caribbean. Regional Economic Outlook: Western Hemisphere Background (IMF, 2021).

⁶ Effective Carbon Rates on Energy Use in Latin America and the Caribbean: Estimates and Directions for Reform ([IADB, 2023](#)).

⁷ Fossil Fuels Consumption Subsidies 2022 ([IEA, 2023](#)).

of the Parties (COP 26) in 2021, the Glasgow Climate Pact called on nations to phase out inefficient fossil fuel subsidies, a call endorsed at COP 28 in Dubai in 2023. The COP 28 Climate Change Conference concluded with an agreement marking a decisive shift away from fossil fuels, emphasizing rapid and fair transitions, deeper emission reductions, and increased financial support. The conference urged actions to phase out inefficient fossil fuel subsidies and transition energy systems away from fossil fuels, while considering energy poverty.

- 2.8 Evidence shows that there are opportunities to modify energy prices with several benefits, including lower fiscal costs, improved targeting of social spending, and decarbonization. Price changes must, however, be accompanied by a careful implementation strategy that includes, among other things, compensation measures, especially for the most vulnerable.
- 2.9 This TC seeks to help identify these opportunities by analyzing energy prices in LAC. Specifically, it seeks to (i) update information on the magnitude of subsidies, taxes, and pricing structures focused on fossil fuels in the region; (ii) determine its distributional impact on achieving the transformations necessary for decarbonization; (iii) analyze the feasibility of increasing prices or modifying pricing structures in order to contribute to decarbonization; and (iv) evaluate PBMPs and explore the impact of implementing carbon taxes in LAC to enhance our understanding of PBMPs' effects, contributing to environmental economics and policy development.
- 2.10 The primary beneficiaries of this TC will be economic policymakers across LAC region, particularly within ministries of finance and energy. These stakeholders will gain access to critical insights and policy recommendations that can guide the reform of fossil fuel subsidies. Additionally, academic and research institutions will benefit from the enhanced data and knowledge generated through this TC, contributing to a broader understanding of economic policies related to energy pricing in the region.
- 2.11 **Lessons Learned.** The Energy Division of the IDB (INE/ENE) has consistently supported significant progress across LAC in developing robust technical studies for sustainable energy projects. Reflecting on lessons from the TC Support for the Preparation of Energy Projects ([ATN/OC-18070-RG](#)), it's clear that thorough pre-investment studies are crucial, emphasizing that proper allocation of resources for their planning, monitoring, and closure is essential to the success and quality of energy projects. Moreover, experiences from the TC promotion of renewable energies ([ATN/OC-18386-RG](#)) reinforce the importance of diversifying energy sources. This operation highlighted the need for detailed baseline studies to evaluate energy resources comprehensively and explore policy alternatives and timelines for transitioning to greener energy matrices. Building on the foundation of these insights, this TC aims to update and expand upon previous studies concerning fossil fuel subsidies in the region. This initiative will draw upon methodologies and outcomes from TCs such as: Substitution of Fossil based Electricity Generation with Renewable Energy ([ATN/OC-14129-RG](#)), and Regional Climate Change Platform of Economy and Finance Ministries ([ATN/FC-19904-RG](#)), enriching the approach with the latest socioeconomic data and innovative policy mechanisms to foster a systematic phase-out of fossil fuel subsidies, ensuring that the transition considers the social and economic impacts on vulnerable populations.
- 2.12 **Strategic Alignment.** This project is strategically aligned with the IDB Group's Institutional Strategy: Transforming for Scale and Impact (2024-2030) (CA-631) by addressing its three core objectives. (i) By reducing poverty and inequality, the project

tackles barriers to clean energy adoption and evaluates the impacts of fossil fuel subsidies, which disproportionately benefit high-income households. (ii) In tackling climate change, the project emphasizes carbon pricing tools like carbon taxes to aid the shift toward low-carbon energy systems and support climate mitigation efforts. (iii) It also drives sustainable regional growth by pinpointing deficiencies in current energy pricing and subsidy frameworks and advocating for policies that support the transition to a low-carbon economy while mitigating adverse effects on vulnerable populations.

- 2.13 The project aligns with key sector frameworks and strategic goals. Under the Climate Change Sector Framework (GN-2835-13), it enhances climate data use, supports a multisector approach to climate action and supports the reduction of knowledge gaps regarding climate change. It aligns with the Energy Sector Framework (GN-2830-8) by advancing affordable energy access, promoting sustainable power generation, and increasing data transparency. The project also supports the Transportation Sector Framework (GN-2740-12) by fostering efficient and sustainable mobility and policy innovation. By focusing on energy pricing and policy, the project addresses climate change objectives, aiding the transition to low-carbon energy systems through effective carbon pricing mechanisms like carbon taxes, which are crucial for reducing greenhouse gas emissions and meeting PA targets. Additionally, it supports sustainable growth by identifying gaps in current energy pricing and subsidy structures and promoting policies for sustainable and inclusive infrastructure development, particularly in the context of regional integration.
- 2.14 This TC is also consistent with the operational emphasis on fostering regional integration and enhancing knowledge in the energy sector. It aims to improve understanding of the impact of energy pricing and subsidies on sustainable development and climate goals, contributing to more effective solutions and supporting environmentally and socially sustainable energy pricing policies.

III. Description of activities/components and budget

- 3.1 **Component 1. Identification and distributive impacts of subsidies and taxes on fossil fuels (US\$100,000).** This component will assess the distributive impacts of fossil fuels subsidies and taxes in the LAC region where updated income-expenditure surveys are available for analysis. The activities include: (i) determination of subsidies and / or taxes on fossil fuels in the LAC region; (ii) identification of the existing carbon pricing mechanisms in LAC, such as carbon taxes, feebates, and cap-and-trade systems; (iii) compilation of income-expenditure survey databases with disaggregated consumption of fossil fuels; (iv) determination of the share of fossil fuels in household expenditures and the regressive impacts of fossil fuel subsidies; (v) estimation of direct and indirect distributive impacts on household expenses in scenarios of rising fossil fuel prices or removal of subsidies; and (vi) estimation of the direct impact of subsidy reduction on households energy expenditure, providing a broader perspective on the economic implications of subsidy policies.
- 3.2 **Component 2. Social dimensions of fossil fuel subsidies (US\$100,000).** This component aims to delve into the social and political-economic aspects identified in the previous component. The activities of this component will include: (i) conducting two case studies addressing the socio-economic aspects of existing subsidy schemes; (ii) conducting an analysis of best practices for phasing out existing subsidies, including considerations of political economy such as timing, policy communication, and implementation of compensatory mechanisms, for example, energy social tariff, transfers to vulnerable groups, reduction of energy taxes, along with identifying

effective strategies to mitigate impacts on low-income households, as well as how to do it in the absence of data.

- 3.3 **Component 3. Evaluation of options for implementing price-based mitigation policies (US\$70,000).** This component aims to evaluate current PBMPs and explore the impact of implementing carbon taxes in LAC. We plan to review current carbon tax models, feebates, and emissions trading schemes, focusing on their most successful practices. A primary goal is to propose effective carbon tax strategies, backed by an analysis of their potential fiscal impacts. The activity of this component will consist of the elaboration of a working paper this analysis.
- 3.4 **Component 4. Capacity Building and Knowledge Sharing (US\$95,000).** This component focuses on capacity-building and knowledge-sharing activities that are critical for effectively managing the energy transition in the region. This includes organizing a series of workshops and seminars aimed at sharing best practices and enhancing skills related to innovative fiscal policies for sustainable mining and phase-out strategies for oil and gas countries. By creating a platform for policymakers, industry leaders, and academics to exchange ideas and experiences, this component aims to foster a community of learning and collaboration.
- 3.5 The following table depicts the project’s total budget (US\$365,000), which will be funded by the OC SDP Window 2 - Infrastructure (W2B). This TC is aligned with the Priority Area 1: Climate Change and Environmental Sustainability, as it supports the objective of (i) expanding the knowledge base on climate change mitigation, adaptation, and sustainable energy geared towards leveraging climate investment. It is also aligned with the Priority Area 5: Inclusive Social Development, since it supports the following objectives: (ii) strengthen public institutions’ efforts to become more effective and efficient in social programming, group targeting, and social sector project execution; and (iii) support IDB and clients to reduce poverty and inequality and foster social inclusion, gender equality, and diversity through projects and programs.

Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Total Funding
Component I	Identification and distributive impacts of subsidies and taxes on fossil fuels	\$100,000	\$100,000
Component II	Social dimensions of fossil fuel subsidies	\$100,000	\$100,000
Component III	Evaluation of options for implementing price-based mitigation policies	\$70,000	\$70,000
Component IV	Capacity Building and Knowledge Sharing	\$95,000	\$95,000
Total		\$365,000	\$365,000

IV. Executing agency and execution structure

- 4.1 The Bank, through the Vice Presidency for Sectors and Knowledge (VPS), will be responsible for the execution and supervision of activities, in accordance with the guidelines and requirements established in the Technical Cooperation Policy (GN24702) and the Procedures for the Processing of Technical Cooperation Operations (OP-619-4).

- 4.2 The activities to be carried out under this operation have been included in the Procurement Plan (Annex IV) and will be executed in accordance with the applicable policies and procedures for Bank Executed Operations (BEO). These procedures include: (i) individual consultants, as established in the document AM-650 - Complementary Workforce; and (ii) hiring of consulting firms for services of an intellectual nature and the contracting of logistics services and non-consulting services, according to GN-2303-33.
- 4.3 The knowledge products generated within this TC will be the property of the Bank and may be made available to the public under a creative commons license. However, at the request of a beneficiary, in accordance with the provisions of AM-331, the intellectual property of said products may also be licensed to one or more beneficiaries through specific contractual commitments that shall be prepared with the advice of the Legal Department.
- 4.4 Given the project's research orientation, sustainability will be achieved through the development and dissemination of policy frameworks, best practices, and actionable insights that can be integrated into national energy strategies or similar initiatives. This approach would involve engaging key stakeholders from the outset to foster ownership and commitment to applying the research findings. Additionally, establishing partnerships with academic and research institutions may provide a continuous platform for further study and refinement of the strategies developed during the TC. Such measures will help maintain the momentum and ensure that the insights generated have a lasting impact beyond the project's direct duration.

V. Major issues

- 5.1 The risk assessment carried out has identified two implementation risks and defined mitigation risks for each of them. First, it is possible that the findings and policy recommendations are not adopted by policymakers and practitioners. To that end, the project team will work closely with partners, policymakers, and stakeholders in all phases of the project to ensure findings resonate with policymaker's needs and priorities.
- 5.2 A second implementation risk is the scarcity and quality of reliable data and information. In this regard, the team will leverage IDB's relationship with governments and stakeholders in LAC to facilitate access to information. Project partners will engage with data collection agencies, civil society organizations, and relevant private firms to achieve its goals.

VI. Exceptions to Bank policy

- 6.1 No exception to the IDB's policy is requested.

VII. Environmental and Social Aspects

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

Required Annexes:

[Results Matrix_25028.pdf](#)

[Terms of Reference_55275.pdf](#)

[Procurement Plan_23472.pdf](#)