

Responses from IDB and CIF AU to Switzerland Questions on Colombia Investment Plan

Questions and Comments	Responses from IDB and CIF AU
Priorities and Supported Activities	
<p>1a. (Q) The scope of supported activities is very broad and there is no indication on the fund allocation on the different types of projects or activities. How will the projects be prioritized during their selection?</p>	<p>Projects to receive concessional financing under Colombia's CIF-REI program IP will be selected on a first come - first served basis by Bancoldex and FDN as long as: i) they align with one or more of the four project categories defined under the IP:</p> <ul style="list-style-type: none"> a) Rural electrification with Non-Conventional Renewable Energy (NCRE). b) AMI, transmission, and grid support infrastructure c) Transport Electrification d) Green hydrogen, offshore wind and other NCRE technologies <p>and ii) meet the following eligibility criteria:</p> <ul style="list-style-type: none"> 1) Justify the need for concessional resources 2) Demonstrate contributions to the reduction of GHG emissions and the achievement of a just and inclusive energy transition, in terms of gender equality and vulnerable communities 3) Demonstrate the integration of climate risk assessment to ensure resilient infrastructure; 4) Show the potential to generate transformational change through the incorporation of NCRE in Colombia's generation matrix; and 5) Comply with applicable environmental and social standards. <p>The categories of potential projects, and the selection criteria will be an integral part of the projects to be designed with Bancoldex and Financiera de Desarrollo Nacional (FDN) and will be included in the Operation Manuals of the respective operations.</p> <p>Bancoldex and FDN already have a pipeline of potential projects that could be co-financed with CIF REI resources, but we will have a more concrete idea of the specific projects to be financed under the two operations once we start the formal preparation.</p>
<p>2a. (C) We acknowledge that the priorities and proposed activities are in line with the REI program design document and thus worthy to be supported. However, at the stage of project selection for support, a special focus should be put on the specific way the project enhances the integration of renewable energy sources into the power systems.</p> <p>i. In this sense, transmission system extensions, interconnections or</p>	<p>We agree with the comment and confirm that in the selection of projects to be co-financed by CIF-REI funds through Bancoldex and FDN, a direct linkage on how each specific project enables or enhances the integration of renewable energy sources into the power systems shall be demonstrated. This requirement will be included in the project documents and the operation manuals.</p>

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<p>reinforcements should be directly linked to needs related to existing or projected additions of NCRE-based electricity generation sources into the concerned power grids.</p> <p>ii. Power systems flexibility should not be valued as an objective on its own but in relation to its impact on increasing the systems capacity to integrate NCRE.</p> <p>iii. Likewise, projects under the NIZ (rural electrification) should focus on the systems enhancements rather than just adding NCRE-based generation capacities.</p>	
<p>2b. (C) Transport electrification will only lead to decarbonization if the sources of power generation are renewable energy-based. Thus, enhancing the readiness and capacities of power systems to integrate NCRE-based electricity should come before transport electrification. Also, the electrification of public transport systems appears more attractive with regards to efficiency and control (possibility to oversee and direct the deployment).</p>	<p>Transport electrification projects aiming to receive CIF-REI's funding will be required to demonstrate a direct linkage on consumption or management of variable generation (this could be achieved, for example, by requiring that the electricity that is used by those transport projects is generated from variable renewable energy). To this end, electric transport system PPAs for energy procurement, EV charging hourly management capabilities, or other similar elements or features involving the integration of variable renewable based generation shall be embedded within the projects to be financed.</p>
<p>2c. (C/Q) Hydropower has a strong potential to enable NCRE-based power generation and Colombia already has a large installed hydropower capacity. Hydropower-related activities, such as changes in operation of existing plants, are explicitly foreseen in the REI design document. It is thus surprising that these are not</p>	<p>Based on REI Program's Design Document by CIF, this specific area was discussed with relevant stakeholders throughout the scoping mission celebrated in February 2022 (including the Ministry of Mines and Energy, the Electric Market Operator (XM), the Regulator (CREG), and the Energy Planning Unit (UPME). However, this specific area was not prioritized by the GoC for CIF-REI support as the market operator (XM) already has the expertise on how to operate a hydro/NRCE system. The problem in Colombia is the lack of grid flexibility that would allow for a more efficient operation of the grid and to rapidly dispatch NCRE.</p>

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<p>mentioned among the supported activities. Is there a particular reason for this or was that just an omission? It looks like a potentially missed opportunity.</p>	
<p>2d. (C) Green hydrogen (GH2) seems to be a high priority in the REI Investment Plan for Colombia. Yet, NCRE-based power generation in Colombia is still marginal (<1%) in the energy mix. As hydrogen production by electrolysis is highly energy intensive, the use of green hydrogen, essentially as a storage medium, makes most sense in places with excess electricity generation from RE sources or seasonal deficits. Thus, while we fully support the USD 2 million grant contribution to the +H2 Colombia Program (component 2 of the IP), consisting of technical assistance in view to develop Colombia's Hydrogen roadmap and to prepare GH2 projects, we strongly recommend caution with actual GH2 investments under component 1, at this stage.</p>	<p>Colombia is currently undergoing the development of more than 3.6 GW of PV and Wind projects that will increase the share of variable generation in the generation matrix of the country by 10% by 2026 (and 17% by 2030), especially in La Guajira, where hydrogen energy storage could play a strategic role in the medium to long-term by providing storage capabilities for intermittent generation as well as other services to the grid. Even though large green energy storage hydrogen projects are not expected to be developed in the country in the short-term, there is potential/interest to develop small scale projects in the next couple of years. In addition, there are various pre-feasibility and feasibility studies being prepared for the development of e-fuels including green hydrogen for the transportation sector that could also be potentially supported by the CIF-REI funds.</p>
Budget and expected objectives	
<p>3a. (C) We take note that Colombia intends to request the maximum REI contribution of USD 70 million. In relation to the size of the country/economy and the demonstrated readiness for the REI program, we support this intention.</p>	<p>We highly appreciate this support.</p>
<p>3b. (Q) What is the share of the national development banks</p>	<p>Based on preliminary discussions with Bancoldex and FDN, it is expected that the two banks will co-finance with their own funds approx. 15-30% of each project</p>

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(Bancoldex and FDN) loans in the USD 195 million expected from other sources? How much is expected from private equity and commercial loans (from private lenders)?	(depending on the specific project to be financed); about 10-20% will come from private equity; and about 50-75% from commercial loans and/or co-financing from IFC, IDB invest or other international development agencies.
3c. (C) We consider that the leverage factor of 1:4 is low for an upper-middle-income and OECD member country, notably in relation to the CTF (1:10) but also to SREP (1:5), which addresses low-income countries. We strongly recommend (and may request) that the level of ambition for co-financing is significantly increased (e.g. to 1:6 or 1:8).	Even though a conservative estimate of 1:4 leverage has been proposed in this IP (taking into account that some type of projects (distributed generation in non-interconnected areas) could have a lower leverage of resources and other eligible projects could have a larger leverage (i.e. electrification of transport, transmission and energy storage), this is proposed as the minimum threshold to be achieved but will be most likely surpassed. All efforts will be carried out by both the IDB and IEs to achieve 1:6 to 1:8 leverage levels. In addition, IDB co-financing could be much higher depending on the needs of Bancoldex and FDN and their pipeline of projects. For example, in preliminary discussions with FDN, they have expressed their interest in borrowing up to \$220 m from IDB's ordinary capital.
3d. (C) Likewise, the level of ambition regarding emission reductions or avoidance seems low in relation to the requested REI funding and other programs.	GHG emissions reductions to be directly derived from projects co-financed under Colombia's CIF-REI IP were conservatively estimated to be in the order of 110 kT CO ₂ eq / year by 2030 and an overall 1.6 MT CO ₂ eq throughout project lifetime, with an average expected lifetime of 16 years. This is a conservative estimate based on a potential basket of projects from the 4 areas prioritized by the GoC, however, this estimate will be reviewed during project preparation. In addition, the emission reductions could vary significantly depending on the types and size of projects financed by Bancoldex and FDN. For example, if most of the financing is channeled to the electrification of the transportation sector, the GHG emission reductions will be much higher than if most of the financing is channeled to small scale distributed generation or energy storage projects).
3e. (C) Finally, we generally miss quantified information (objectives), regarding the transformational impact of the program as outlined in the IP, including in particular its Integrated Results Framework (IRF in Table 6). The expected long-term impact (objective) is not quantified, which would be expected at least for indicators CIF1, CIF3 and CIF4.	The IP includes minimum estimated targets based on a basket of projects (comprised of projects from the 4 categories defined within the IP). In this sense indicators CIF1, CIF3 y CIF4 as included within the IRF in Table 6 correspond to Impacts determined by CIF considering different programs or projects, and to which Colombia's CIF-REI IP will make a contribution which has been quantified by indicators REI CORE 1, 2, 4, 6, 7 and 9 as described within the table. During the preparation of component 1, those indicators will be further refined.

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Project selection and implementation modalities	
<p>4a. The IP foresees the channelling of REI funding and the project selection through the two national development banks (Bancoldex and FDN).</p> <p>i. (Q) What is the rating of these development banks?</p>	<p>Current long-term rating for Bancoldex is AAA according to both Fitch and Standard & Poor's ratings (https://www.bancoldex.com/en/about-bancoldex/about-us/risk-ratings-4148)</p> <p>Current long term rating for FDN AAA according to Fitch and BB+/Stable according with Standard & Poor's ratings (https://www.fdn.com.co/es/la-fdn/informacion-inversionistas/calificaciones)</p>
<p>ii. (Q) What is the track record of these development bank with energy and in particular NCRE projects?</p>	<p>Bancoldex, one of Colombia's National Development Banks (NDB), has progressively increased their role in filling major financing gaps and developing long-term financing. Colombia has a limited project finance market and thus, infrastructure financing needs have been traditionally met through corporate loans or by a small set of commercial banks. Local commercial banks and local investors are not very familiar with clean energy and electromobility projects. Bancoldex, as a multipurpose first- and second-tier banking institution could play a key role in financing and co-financing long term sustainable and bankable clean and inclusive energy transition projects and help mitigate it associated risks, such that a track record for private investments can be established in the clean energy sector in Colombia.</p> <p>Bancoldex has a long-track record of working with the IDB Group, and specifically, has implemented projects that: (i) financed the acquisition of clean technology vehicles for Bogotá's public transportation system through a concessional credit line administered by Bancoldex and funded with resources from the Clean Technology Found (CTF); (ii) provided guarantees to six energy distribution companies in Colombia so that these companies serving mainly remote areas of the country could meet their contractual commitments under the power purchase agreements signed during the renewable energy auction; (iii) support and promote the investment in energy projects, mainly through energy efficiency interventions and small scale NCRE in areas not connected to the grid and energy efficiency projects. Since 2020, Bancoldex can also provide direct financing to public and private project developers and is building its capacity to provide project finance to energy transition projects. At present, Bancoldex has a pipeline of 6-8 medium and large scale NCRE and associated transmission line projects that are expected to reach financial closure before the end of the year.</p> <p>In addition, Bancoldex has provided financing for various small scale hydropower projects, transmission lines and electromobility projects.</p> <p>Regarding FDN, it has a solid track record in structuring and financing NCRE projects including various solar farms in different regions of the country (Yumbo, Bolivar, Chicamocha, Valledupar), small-scale hydropower projects transmission lines, and electric buses, etc).</p>
<p>iii. (Q) How dynamic have been so far the credit lines</p>	<p>These types of projects (credit lines for financing energy transition projects through national development banks) are new to the country. IDB approved the</p>

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that support renewable energy projects in Colombia and how has the experience of both development banks (Bancoldex and FDN) been in this segment?	first project of that type in December 2021 with Bancoldex, but it has not started implementation yet, as concessional resources are needed to reach financial closure of various types of eligible projects. This was anticipated and stated in the Project Document: “Moreover, additional concessional resources from the Climate Investment Fund’s Renewable Energy Integration Program (REI) ... are expected to be approved next year to further improve the financial conditions offered by Bancoldex to developers of energy transition projects and to generate confidence to private investors in these type of projects that, even though are not new in many countries, represent the first large scale NCRE, DER, energy storage, AMI and electromobility projects to be developed in Colombia”. In addition, Bancoldex is consolidating its energy transition project pipeline with 6-8 project under evaluation, which are expected to reach financial closure during 2023.
iv. (Q) How will the projects to be supported be selected?	The projects to be financed by Bancoldex and FDN with co-financing from CIF-REI must be aligned with one or more of the four project categories defined under said IP and meet the eligibility criteria (see section 1 A above). During the preparation of the two projects under Component 1, additional criteria could be included (for example a certain percentage of the CIF funds should be reserved for certain types of projects).
v. (Q) Are special proactive ways to reach potential projects to be funded needed and already foreseen? Which ones?	<p>Yes, the IDB Group is playing a proactive role in connecting project developers with Bancoldex. IDB Invest has been working on a couple of potential co-financing operations for NCRE that are expected to materialize this year. In addition, IDB has technical assistance resources available to support Bancoldex in strengthening its internal capacities in evaluating and or structuring energy transition projects, develop market studies, economic evaluations, among others. IDB Group is also actively promoting the credit line during sector events, meetings with sector agencies, sector associations and companies, and project developers.</p> <p>The same proactive support will be provided to FDN during project preparation and implementation.</p>
4b. (Q) In addition to the endorsement of the IP, is there a second stage of approval foreseen related to the proposed activities, in particular regarding component 1? In what format will this come, since it is not about project approvals?	Yes, once the IP is approved, the specific operations with Bancoldex and FDN, and the grant with FENOGE will be prepared following the project preparation guidelines of the IDB and will be presented to the Board of Directors for approval. In addition, before going to the IDB’s Board, the projects are submitted to CIF for approval.
4c. (Q) What is the role foreseen for the GCAP SC in the approval of the selected projects, or who makes sure that the project selections follow REI design and GCAP recommendations?	The GCAP SC will approve all projects brought forward under the Investment Plan, as is the practice across the CIF. CIF AU will review every project, as it also current practice, to ensure that the project conforms to the requirements for it to be submitted under the REI Program, which can include official decisions made by the GCAP SC. Recommendations on specific projects from individual GCAP SC members should be taken under advisement during the project design phase.

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Other	
<p>5a. (Q) What synergies do you see with other major energy and climate programs active in Colombia and in particular with the recently approved World Bank Green and Resilient Development Policy Loan (DPL) of US\$1 billion? How will these initiatives be articulated and by whom?</p>	<p>The IDB collaborates and coordinates its support to the energy transition in the country with other MDBs and bilateral donors through periodic joint meetings (for example, various multilateral and bilateral donors supporting the hydrogen agenda of the country meet regularly to coordinate their support in this area and avoid overlapping of activities) or through bilateral meetings. In addition, the support provided by the IDB Group is aligned with the priorities of the country for the sector and builds on the support provided by other initiatives to avoid overlaps.</p> <p>DPL-type loans disburse the resources based on achieved milestones agreed in a policy matrix included in the loan. In that sense, the WB recently approved and disbursed DPL included actions/policies/regulations that have already been adopted, developed, or implemented by the country. Most of the activities included in the policy matrix for the energy sector have also been supported by the IDB. For example, the IDB financed: the hydrogen roadmap and is financing various specific studies recommended in the roadmap; the Energy Transition Mission and its roadmap; energy efficiency and just transition studies; mechanisms to incorporate NCRE in the generation matrix, as well as multiple studies regarding energy access with NCRE, distributed generation and energy storage, among others. The IDB will continue coordinating its support to the energy sector in Colombia with other MDBs and international bilateral agencies.</p>
<p>5b. (C) We noticed that certain MDB programs we know are active in Colombia were not mentioned in the Annex IV. In particular, we missed ESMAP and IFC Sustainable Cities, which we expect to have synergies with REI. We trust that the IDB, as lead MDB for the REI program in Colombia, is fully aware of these programs and will seek to use synergies as far as possible or useful.</p>	<p>Not having included these programs certainly corresponded to an involuntary oversight. During the preparation of the IP, we asked the WB and IFC to include their related activities and initiatives in the document, but unfortunately those mentioned above were not included. With these being known, synergies will be procured in the areas supported by ESMAP and IFC Sustainable Cities.</p>
<p>5c. (Q) What is the proposed decision text?</p>	<p>We expect it will follow similar format as previous IP endorsement in other programs. You should expect that it will thank the Government of Colombia for its work on the IP, take note of the indicative allocation, and welcome any comments from the GCAP SC. Barring any objections, we expect the SC to approve the IP.</p> <p>Please see a recent example here.</p>