



RENEWABLE ENERGY INTEGRATION PROGRAM

Design Document



Revision History

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1. Introduction

1. To achieve global climate goals, the energy sector needs to shift from fossil fuel-based to zero-carbon before the second half of this century. At its heart is the need to reduce energy-related CO₂ emissions to limit climate change. Decarbonization of the energy sector and corresponding sectors requires urgent action on a global scale, while ensuring energy security and affordable access to those living in areas where large shares of population lack reliable supply of electricity and affordable modern cooking fuels.
2. Global energy consumption grew by 2.3 percent in 2018, nearly twice the average rate of growth since 2010, driven by a robust global economy as well as higher heating and cooling needs in some parts of the world.¹ Renewables met around one-quarter of the growth in total primary energy demand. Despite growing at double-digit pace, largely thanks to the expansion in electricity generation, the growth in renewables is still not fast enough to meet the increase in demand for electricity around the world.² To meet the Paris Agreement goals and provide access to modern energy sources, the share of renewables in the power mix needs to rise to two-thirds in 2040 and continue to increase through 2050. For this to happen, several flexibility sources³ need to be harnessed in all sectors and planned well to make a cost-effective shift from a fossil fuel-based energy system toward one dominated by renewable energy.
3. The following key drivers and emerging trends can influence the path toward energy system transformation⁴:
 - **Policy and regulatory-related drivers**, including targets to meet national and international commitments
 - **Economic drivers**, like technology learning curves and progressive reduction of costs of energy storage
 - **Social drivers**, such as changing social preferences, increases of demand for transparency, and rural-urban gaps in access
 - **Technology drivers** that support decentralization of electrical systems
4. The integration of variable renewable energy into power grids and energy systems poses unique challenges and is emerging as a key barrier to the scaling up of renewable energy. Solar, wind, and other forms of renewable energy produce variable and uncertain electricity that most power grids are not designed to accommodate. The impact of, and challenges associated with, variable renewable energy generation depend on the level of deployment, the context, and the size of the power system,⁵ including the geographic dispersion of generating facilities and the technology used, market design, regulation, and supply and demand.

¹ IEA (2018). [Global Energy & CO₂ Status Report 2018](#).

² Ibid.

³ Flexibility refers to technical and operational aspects. Technical flexibility sources refer to a set of supply-side, demand-side and grid-related measures, including energy storage, demand-side management programs, and transmission networks-related interventions. Operational flexibility refers to how the assets in the power system are operated. Beyond the constraints associated to each technology's capabilities, it is dependent on the regulatory and market environment that surrounds the physical system and drives system operations. (Source IRENA (2018). [Power System Flexibility for the Energy Transition](#)).

⁴ DNV GL (2018). [Energy Transition Outlook](#).

⁵ See <https://www.iea.org/topics/system-integration-of-renewables>.

5. A power system must be able to cope with the variability and uncertainty that solar and wind energy introduce at different time scales to avoid curtailment of power from these variable renewable energy sources and reliably supply all customer energy demand.⁶
6. A diverse range of emerging technologies is already available to enhance the flexibility of energy systems, such as smart grids, energy storage, demand response, and hydrogen. Demand management solutions also offer significant opportunities to increase grid flexibility. Several energy applications, such as pumping, heating, and cooling, can be managed to better match the profile of availability from variable renewable electricity generation.
7. A range of solutions suitable for off-grid applications to enhance energy access in lower income countries is also available. Decentralized systems, led by solar photovoltaic (PV) in off-grid and mini-grid systems, are considered the least-cost solution for three-quarters of the additional connections needed to provide universal electricity for all.⁷
8. While tools, technologies, and services to address key challenges to the integration of variable renewable energy exist, they fail to attract enough investment by both public and private actors because of several barriers, illustrated in Figure 1. Market rules need to be overhauled to consider new technologies, and market design and new financial instruments need to be deployed to manage energy price volatility risks.

Figure 1: An overview of key barriers to investments in renewable energy integration



9. In certain developing markets, typically those with sub-investment grade ratings or without well-developed financial markets, inadequate availability of non/limited-recourse project financing prevents investments in relatively more capital-intensive clean technologies, such as energy storage, to be competitive. While business models for technologies that support renewable energy integration are still emerging, there are specific technical challenges involved in integrating renewable energy generation into the grid, such as impacts on reactive power control, advanced metering standards and control communications, and bespoke connection infrastructure.
10. Clean energy investments will prove vital to the COVID-19 economic recovery. Renewable energies are, for example, an engine for job creation. IRENA estimates that the renewable energy sector could employ as many as 42 million people globally by 2050.⁸ One study of government spending on energy technologies showed that spending on renewables creates

⁶ IRENA (2019). [Innovation Landscape for a Renewable-powered Future: Solutions to Integrate Variable Renewables](#).

⁷ IEA (2018). *World Energy Outlook 2018*.

⁸ IRENA (2020). [Measuring the Socio-economics of Transition: Focus on Jobs](#)

five more jobs per million dollars invested than spending on fossil fuels.⁹ Clean energy also boosts local economies as decentralized, off-grid energy systems can help small businesses thrive and offer potential sources for additional income. The potential for large-scale renewable energy projects remains largely untapped in many developing countries and economies due to structural issues. Today's electricity networks are unprepared for a more electrified future in which wind and solar account for a rising share of power generation. While most existing initiatives focus on accelerating the deployment of renewable energy generation itself, there is an opportunity for new CIF programs to respond to the growing need to deal with underlying technical, operational, regulatory, and financial barriers relating to renewable energy integration. This can support countries in reducing the carbon footprint of their electricity sectors as their economies recover from COVID-19.

11. The **CIF Renewable Energy Integration Program (CIF RE Integration)** seeks to address system-wide barriers to the integration of higher shares of intermittent renewable energy generation into the grid and take advantage of the opportunities arising from the energy transition.

2. Purpose and Objectives

12. CIF RE Integration aims to enhance the flexibility of energy systems for a smooth integration of higher shares of variable renewable energy generation into the grid and increase off-grid access to renewable energy.
13. There is an urgent need to demonstrate, at scale, the integration of high volumes of variable renewable energy into power systems in a way that maintains safety, reliability, and security of energy supply while establishing alternative investment pathways that are consistent with a 1.5 °C warming scenario.
14. In the current energy sector context and the goals of the Paris Agreement, accelerating the energy transition requires a full package of measures to enhance flexibility in energy systems and, to this end, concessional capital to push boundaries and increase the penetration of renewable energies in the energy mix.
15. The program supports the integration of renewable energy into power systems through different flexible solutions. It will provide concessional climate finance through its partner Multilateral Development Banks (MDBs) to support developing and emerging countries in accelerating the deployment of an integrated mix of supply/demand-side flexibility measures according to the best combination of technology pathways that balance the need for different infrastructure requirements across the sector. The explicit focus of the program is to address underlying technical, operational, and financial barriers hindering the integration of renewable energy generation into power grids, rather than focusing on accelerating the deployment of renewable energy generation itself. Areas that are supported by this program include:
 - Enabling technologies
 - Enabling infrastructure
 - Electrification and demand management

⁹ Heidi Garrett-Peltier. "Green versus brown: Comparing the employment impacts of energy efficiency, renewable energy, and fossil fuels using an input-output model," *Economic Modelling*, Elsevier, vol. 61(C), 439–47.

- Market design and system operations improvement

16. The program responds to the growing need to address underlying technical, operational, and financial barriers hindering the integration of renewable energy generation into energy systems and power grids. It is the only major initiative with this explicit focus. Experience in countries around the world with growing shares of renewable energy generation shows that unless these integration barriers are tackled, they can inhibit and discourage investment in renewable energy generation at the speed needed to achieve global climate change goals.

3. Governance

17. The Trust Fund Committee of CIF's Strategic Climate Fund (SCF) is the decision-making body that oversees the operations and activities of SCF. Responsibilities include approving establishment of SCF programs and the scope, objectives, and eligibility criteria governing the use of the funds under SCF programs; ensuring that the strategic orientation of SCF is guided by the principles of the goals and objectives of the Paris Agreement; establishing an SCF Sub-Committee for each SCF program or group of SCF programs and designating who may participate in the SCF Sub-Committee; approving allocation of SCF resources for administrative budgets; reviewing reports from the Trustee on the financial status of SCF; and exercising such other functions as the SCF Trust Fund Committee may deem appropriate to fulfill the purposes of SCF.¹⁰
18. The SCF Trust Fund Committee has established a single Sub-Committee, the Global Climate Action Programs Sub-Committee (GCAP Sub-Committee), to oversee the operations and activities of the new strategic programs, including CIF RE Integration. The roles and responsibilities of the SCF Trust Fund Committee and the GCAP Sub-Committee can be found in the [Governance Framework for the Strategic Climate Fund](#),¹¹ and the procedures for conducting committee meetings can be found in the [Rules of Procedure for the Meetings of the Trust Fund Committee of the Strategic Climate Fund](#).¹² These documents may be updated from time to time as needed.
19. The rules of procedures for meetings of the SCF Trust Fund Committee will apply, mutatis mutandis, to the proceedings of the GCAP Sub-Committee.

4. Country Eligibility and Selection of Pilot Programs

20. All countries that meet the following criteria can express their interest in becoming a CIF country under CIF RE Integration:
- a. Country must be eligible for Official Development Assistance (ODA)¹³ at the time of the call for the Expression of Interest (Eoi) under the program¹⁴

¹⁰ <https://www.climateinvestmentfunds.org/sites/default/files/SCF%20Governance%20Framework-FINAL.pdf>

¹¹ Available at: <https://www.climateinvestmentfunds.org/sites/default/files/SCF%20Governance%20Framework-FINAL.pdf>

¹² Available at: https://www.climateinvestmentfunds.org/sites/default/files/meeting-documents/scf_rules_of_procedure_for_tfc_meetings_revised_2014_0.pdf

¹³ The Organization for Economic Co-operation and Development/Development Assistance Committee's (OECD/DAC) list of ODA recipients for 2020 and 2021 is available on the OECD web site: [DAC List of ODA Recipients](#). The DAC revises the List every three years. The next review of the DAC List will take place in 2023. In instances where a country graduates from one lending category to another, new pricing may apply. See the *CIF Pricing Policy* [forthcoming] for additional information.

¹⁴ A country would be deemed eligible for CIF concessional resources if the country holds ODA-eligibility status at the time of the relevant CIF governing body inviting a country into a CIF program. To abide by the CIF principle of a dependable funding

- b. Country must have an active lending program with at least one of CIF's partner MDBs¹⁵
- 21. In recognition of the presence of multi-national drivers and pressures of climate change, and that addressing systemic barriers to low-emission and climate-resilient development pathways can require multi-country partnerships and actions, a country can also express interest on behalf of a group of ODA-eligible neighbor countries in their region to receive CIF concessional resources through a regional intervention.
- 22. Additional information regarding the country selection process and eligibility can be found in *Country Selection Process for the Climate Investment Funds' Strategic Programs*,¹⁶ which describes in depth the following:
 - a. Details and procedures on recipient countries eligibility and how they can prepare and submit an EoI to access funding under one or more new programs
 - b. Details and procedures on how independent expert groups will be identified and selected to review EoIs for each program and make recommendations to the relevant SCF governing body on the countries to invite to participate in the new CIF programs
 - c. The criteria and selection process by which countries that have submitted an EoI will be assessed

5. Design Principles, Financing Modalities and Types of Investments

- 23. CIF RE Integration program follows CIF's business model with the following characteristics:
 - Country-led programmatic participatory approach
 - Risk-appropriate financing tools at scale
 - Ability to target new sectors and technologies for transformational impact
 - Flexibility
- 24. CIF's programmatic approach encompasses the development and implementation of a country-led investment plan—supported by MDB collaboration, informed by multi-stakeholder consultation, and associated with a predictable and flexible resource envelope—that sets out strategically linked investments, unified by a transformative vision.
- 25. The programming of CIF concessional resources includes the following steps:
 - a. Diagnostic and investment action planning at the regional/national/sub-national/sector-level
 - b. Development of a coherent intervention package
 - c. Implementation of strategically-aligned interventions
- 26. These steps will be undertaken on an as-needed basis, depending on context-specific circumstances and recipient countries' requirements. With a view of enhancing the cost-

window being available for recipient countries, this eligibility will be honored for all projects under preparation, even if the country graduates from ODA eligibility during the course of programming. Should a country graduate from ODA, any projects being submitted to the Committee for approval will be subject to relevant pricing policy rates, as specified in the *CIF Pricing Policy* [forthcoming].

¹⁵ African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, International Finance Corporation, and the World Bank

¹⁶ Available at: https://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/country_selection_process_for_the_climate_investment_funds_new_strategic_programs_scf.pdf

and time-efficiency in the programming of CIF's resources, these steps will harness, where available, existing regional/national/sub-national/sector-level programs, plans, or frameworks, including MDBs' country strategies. Section 6 describes in detail how concessional resources under the program will be deployed while principles and guidelines for using CIF concessional resources are provided in Annex 1.

- 27. The diagnostic and investment planning phase** will include at least one joint mission led by the relevant government entity working together with the respective MDBs. Solid pre-work will ensure the joint mission is inclusive and involves engagement with a wide range of stakeholders, including representatives from relevant government agencies, private sector groups, other development partners, non-governmental organizations (NGOs), academia, youth organizations, women organizations, Indigenous Peoples' organizations, organizations for marginalized peoples, particularly marginalization based on gender, sexual orientation, or gender identity and other community-based and civil society organizations (CSOs). This phase will result in the formulation of an investment plan that will set the foundation for subsequent development of strategically aligned program and project pipelines, as well as strategies for mainstreaming climate risk and opportunities into countries' and other entities' decision-making processes and mobilizing resources from other public and private sector entities. The investment plan will be submitted to the GCAP Sub-Committee for review and endorsement as a basis for preparing program or project proposals for CIF funding. Ideally, the country's Ministry of Finance or Planning will submit the investment plan, which will identify how it will seek to mobilize finance from other public and private sources (particularly private sector ones) and define how CIF support will help the country boost its ambition in accelerating climate action.
- 28. Dedicated private sector window (DPSW).** Private sector engagement will be critical to driving transformational change in the renewable energy integration space. Under the RE Integration program, a dedicated private sector window (DPSW) can support a programmatic approach that will enable private sector and MDB operations to work together to identify priority thematic and technology-based private sector funding opportunities in all countries deemed eligible for CIF funding by the relevant governing body. This approach seeks to harness CIF's comparative advantage in enabling innovation by supporting MDBs in pursuing frontier approaches in difficult contexts. Transformational change dimensions and guiding questions as provided in Annex 1 should be used when designing DPSW programs and projects. Additionally, the dedicated private sector windows should drive significant mobilization, particularly from the private sector. To that end, each DPSW project will require a private sector co-finance ratio of at least 1:2 for investments in CIF's Tier 3 countries, and a 1:1 co-finance ratio in CIF's Tier 1 and 2 countries; exceptions to this ratio will only be considered on an exceptional basis and with sufficient justification.¹⁷

¹⁷ CIF offers concessional public sector loans on three sets of terms: Tier 1, Tier 2 and Tier 3: Tier 1 Terms: A country classified as an IDA-only Country and/or a Small State Economy under IDA classifications, or the CIF MDB implementing entities' equivalent; b. Tier 2 Terms: A country classified as a Gap Country or a Blend Country, except Small State Economies, under IDA classifications, or the CIF MDB implementing entities' equivalent; and c. Tier 3 Terms: A country which holds Official Development Assistance (ODA)-eligibility status, but does not fall under the CIF Tier 1 or Tier 2 classifications. See Section 4 and Annex 2 of the [CIF Financial Terms and Conditions](https://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/joint_ctf_scf_cif_financial_terms_and_conditions_nov_10_0.pdf) policy for additional information. https://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/joint_ctf_scf_cif_financial_terms_and_conditions_nov_10_0.pdf.

In order to accelerate the dedicated private sector window pipeline, it is proposed that CIF use a sealed pipeline approach.¹⁸

29. **Dedicated Climate Ventures window (CCV).** The CIF Climate Ventures (CCV) window will provide MDBs with the flexibility, incentive, and risk capital required to support innovative and potentially transformative climate initiatives that they would otherwise be unable to undertake with their resources alone. By targeting frontier innovations in technology, business models, and market approaches, the financing and support provided by the CCV window could prove to be a game changer for many nascent low-carbon sectors in developing countries, leading to potentially transformative impacts. The operational modalities, including governance arrangements, types of technologies/initiatives supported, and other details can be found in the ‘Proposal for the CIF Climate Ventures Window’ document.¹⁹

5.1 Financial Terms and Conditions

30. The financial terms and conditions for this program are governed by the [Climate Investment Funds Financial Terms and Conditions](#),²⁰ which includes information on:
- a. The principles and guidelines for using CIF concessional resources under the program
 - b. The financing modalities supported
 - c. The financial terms and conditions for public sector concessional loans, grants, and guarantees
 - d. The financial terms and conditions for private sector projects
 - e. Eligibility for concessional funding
31. The *Financial Terms and Conditions* policy will be updated annually to reflect changes to lending/guarantee rates, eligibility for concessional funding, and other information. The policy will be reviewed biennially to address policy-related matters, such as emerging topics like increased local currency lending and risk mitigation measures, pertaining to financial terms and conditions and country eligibility criteria.
32. For each CIF RE Integration program submission, in line with the principles mentioned in paragraph 30 and elaborated on in the *Financial Terms and Conditions* policy, MDBs will be required to:
- a. Provide the level of concessionality at the project level (see Annex for details),²¹
 - b. Provide a rationale on the need for concessionality for the given project/program, and

¹⁸ Since 2016, CTF has used a sealed pipeline approach, wherein CIF AU works with the MDBs to maintain a list of prioritized projects/programs whose funding requests in aggregate do not exceed the available resources for commitment. Projects and programs not part of the sealed pipeline may be eligible for funding subject to resource availability, and can be moved to the sealed pipeline during the periodical MDB pipeline review and update.

¹⁹ https://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/scf_tfc.15_inf.4_cif_climate_ventures_proposal.pdf. Note that as of September 2021, this document is still under discussion with the SCF TFC and has yet to be approved.

²⁰ Available at: https://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/joint_ctf_scf_cif_financial_terms_and_conditions_nov_10_0.pdf.

²¹ Due to the nature of private sector operations under CIF, this information will need to be provided ex-post after approval of each relevant private sector subproject

- c. Provide an explanation for the type of instrument being used (e.g., grants, loans, guarantees, etc.), taking account of the need to ensure both minimum concessionality at the project level and the importance of maximizing immediate climate action.²²

33. **MDB Co-financing.** To maximize the impact of CIF concessional resources, they must be implemented alongside an adequate²³ volume of MDBs' own resources and with additional co-financing from other public and/or private entities. In exceptional circumstances, (e.g., for countries in debt distress / at risk of debt distress), a stand-alone CIF funded program or project may be allowed for a.) public sector operations, or b.) private sector CCV operations only, subject to justification from the country and/or relevant MDB.

5.2 Investment Criteria

34. With a view to maximize the impact of CIF's resources, each program/project proposed for CIF financing shall demonstrate how it will meet the following criteria:

- a. Potential for transformational change
 - Relevance (strategic alignment)
 - Systemic change
 - Speed²⁴
 - Scale
 - Adaptive sustainability²⁵
- b. Potential for GHG emissions reduction/avoidance
- c. Potential to significantly contribute to the principles of just transition
- d. Financial effectiveness
 - Value for Money
 - Mobilization Potential
- e. Implementation potential
- f. Gender equality and social inclusion impact
- g. Development impact potential

²² In the case of private sector projects, MDBs can provide a more high-level, preliminary assessment at the TFC program approval stage, with more in-depth information provided ex-post after approval of each relevant subproject

²³ CIF's experience with the Clean Technology Fund (CTF) and Scaling Up Renewable Energy Program (SREP) shows an average CIF:MDB financing ratio of 1:2.67

²⁴ The speed dimension refers to the need to accelerate or decelerate outcomes and impacts to achieve the appropriate speed of change. The speed dimension was added in 2021 to emphasize the closing window of opportunity for making the transformations needed to avert the catastrophic impacts of climate change while simultaneously ensuring a just transition.

²⁵ Adaptive sustainability refers to transformational changes that are robust, resilient, and long-lasting, as well as adaptive to evolving contexts and able to balance social, economic, and environmental factors. Please see Annex 1 for further elaboration of the transformational change dimensions.

35. The specific ways in which projects are expected meet these criteria should be clearly and consistently included in cover sheets and other project documents when they are submitted for Trust Fund Committee approval. See Annex 1 for details on the investment criteria. Guidance on summarizing the criteria will be provided, along with a template for project cover sheets, in the Program Implementation Document.

5.3 Environmental Impact

36. All CIF financed projects will follow their respective MDB guidelines and procedures for environmental and social safeguards.

6. CIF Programming

37. CIF's programmatic approach is embedded in the program's focus on both policy and investment barriers. It is intended to offer a holistic approach to renewable energy integration in national power grids, beginning with long-term decarbonization planning, assessment of business models for encouraging renewable energy integration, translating these models into legal and regulatory frameworks, and providing investment support to deal with commercial and financial barriers to public and private sector investment.
38. Accelerating the energy sector transformation and ensuring continued system efficiency and reliability requires efficient institutional dialogue and long-term coordination and planning between national, regional, and local governments and with other stakeholders of the energy system. CIF's programmatic approach is well suited to facilitate such dialogue and coordination with a view of providing long-term market signals that can accelerate decommissioning of fossil fuel generation and replacement by large-scale renewables.
39. Mobilizing private capital at scale (for example, by piloting new blended finance solutions) calls for CIF's toolbox of flexible cost and risk-bearing instruments. Meeting context-specific investment needs and achieving risk-return profiles attractive to private investors requires a wide array of tailored financial and non-financial instruments.
40. To achieve long-term decarbonization goals, national governments must put in place ambitious, flexible, and feasible decarbonization policies and underlying regulatory frameworks. Absent such government direction, investors will not be able to deploy capital at the speed and volume necessary to deliver on those goals. It is therefore expected that up to five percent of the program resources will be deployed as a non-reimbursable technical assistance to provide policy reform, market design, and system operation support to client countries. Technical assistance resources will also be needed to support pipeline and project preparation and structuring.
41. The program aims to address the key barriers for greater variable renewable energy integration. Given the different stages of country policy development and capacity, needs vary greatly and one size does not fit all. As such, the program aims to address the specific needs of a country that are aligned with the objective of enhancing renewable energy integration. Examples of possible TA funded activities are shown in Table 1.

Table 1: Possible activities to be supported under non-reimbursable technical assistance resources

Facilitating sector policy level activities	<ul style="list-style-type: none"> ▪ Technical and market studies for preparing pilot bankable projects
	<ul style="list-style-type: none"> ▪ Policy targets and roadmaps for deep decarbonization (low-carbon pathway for energy and related sector)
	<ul style="list-style-type: none"> ▪ New or improved auctions/procurement mechanisms for renewable energy
Promoting market and system design and operations	<ul style="list-style-type: none"> ▪ Advanced weather forecasting and training on renewable energy integration for grid operators ▪ Enhanced STEM²⁶ education and internship training to expand women's employment in energy utilities, including in managerial roles
	<ul style="list-style-type: none"> ▪ Increased time and space granularity in electricity markets
	<ul style="list-style-type: none"> ▪ Country diagnostics, studies, and recommendations regarding market structures or policy frameworks to create regulatory/market frameworks for innovative services (e.g., balancing market/ancillary services, capacity market, energy storage, etc.)
	<ul style="list-style-type: none"> ▪ Net billing schemes and social impact assessments of these, with consideration of both tariffs and subsidy design, particularly on women's access to energy services
	<ul style="list-style-type: none"> ▪ New roles of distribution companies
	<ul style="list-style-type: none"> ▪ Renewable certificate (iREC)
	<ul style="list-style-type: none"> ▪ Long-term contracting of energy or hedging strategies

42. The program will address areas previously underserved by traditional financial instruments. It seeks to enhance MDBs' ability to innovate how concessional finance is delivered on the ground by supporting them in the design and implementation of new financing strategies.

43. Given the rapid technological changes occurring in the variable renewable energy and energy system spaces, the program is designed to be flexible with respect to the types of investments it will cover. As such, the program will be executed in close coordination with other MDB financing to pair program operations with appropriate MDB projects that can maximize its effectiveness.²⁷ Table 2 lists examples of activities that could be funded. This is not a comprehensive list of activities and other types of investments could be eligible for the program. A more expansive list of technologies and activities eligible for support is available in the Program Implementation Document. This list may be subject to periodic updates, determined by CIF AU, the MDB Committee, and the Trust Fund Committee, based on changes in technology and/or conditions on the ground in participating countries, or other factors.

²⁶ STEM stands for Science, Technology, Engineering and Mathematics

²⁷ For example, coordinating with the CIF-funded Global Energy Storage Program

Table 2: Activities to be supported with investment and blended finance operations

Scaling up renewable energy-enabling technologies	<ul style="list-style-type: none"> ▪ Energy storage technologies, such as batteries, pumped hydro, and hydrogen, which can back up the variability of renewables and provide various services to the grid
	<ul style="list-style-type: none"> ▪ New technologies for real-time grid management that enhance electricity system flexibility and facilitate distributed generation, such as advanced metering systems, wireless network control, and demand side management, including outreach to women and men users
	<ul style="list-style-type: none"> ▪ Technologies that enable electrification of other sectors, such as electric vehicle charging infrastructure, to open doors to new markets for renewable generation and new ways to store the generation surplus
	<ul style="list-style-type: none"> ▪ Green fuels/e-fuels in sectors like transportation or heating
Enhancing infrastructure to be renewable energy-ready	<ul style="list-style-type: none"> ▪ Grid interconnection to integrate regional markets and increase their flexibility
	<ul style="list-style-type: none"> ▪ New and smart grids, both large and small scale, that complement each other and enable new ways to manage variable renewable energy generation.
	<ul style="list-style-type: none"> ▪ Changes in the operation of existing hydropower plants to accommodate more penetration of variable renewable energy
Supporting renewable energy innovation²⁸	<ul style="list-style-type: none"> ▪ Business models that empower women and men consumers, turning them into active participants in demand-side management
	<ul style="list-style-type: none"> ▪ Innovative schemes that enable renewable energy supply, in both off-grid and connected areas
Enhancing system and market design and operation	<ul style="list-style-type: none"> ▪ New regulations in the wholesale markets that encourage flexibility from market participants, better signal firming power supply's value, and properly remunerate their grid support services
	<ul style="list-style-type: none"> ▪ Design and regulatory change in the retail market that stimulate flexibility on the consumer/prosumer side, including on pricing structures
	<ul style="list-style-type: none"> ▪ New operation procedures that improve predictability of renewable energy, such as advanced weather forecast procedures

²⁸ This proposal acknowledges that in some regions like Asia-Pacific, direct investment in solar PV and wind (onshore and offshore) may still require concessional support subject to the degree of maturity of the renewable energy market in that specific country or region, especially in the case of small island developing states (SIDS).

6.1 Pipeline Management and Cancellation Policy

The [*CIF Pipeline Management and Cancellation Policy*](#)²⁹ ensures the efficient and effective implementation of programs and projects and disbursement of approved funds in order to maximize the use of available resources under the program over time. The policy sets out the core criteria guiding the commitment of CIF concessional resources for programs and projects developed under the program. It also establishes deadlines and timeframes for each of the steps in the project cycle and identifies the procedures to be followed in case an extension of those timeframes is required and/or there are any changes in the Investment Plans or projects.

7. Monitoring and Reporting

44. Over the past 10 years, CIF has been a pioneer in climate finance monitoring and results reporting. It employs a unique participatory monitoring and reporting system that fosters a programmatic approach from investment planning to implementation to completion. Working through a transparent, country-led process that engages a range of stakeholders—including government ministries, CSOs, Indigenous Peoples and local communities, the private sector, and the MDBs—the process builds capacity and country ownership. It integrates with existing monitoring and evaluation systems at the country level and aligns with national monitoring and reporting systems.
45. CIF monitoring and reporting systems ensure in-country stakeholders and implementing MDBs have roles in tracking the performance of CIF-backed investments to ensure accountability, learning, progress, and results in advancing climate-smart development. This inclusive, programmatic approach is time intensive but serves to enrich the entire process for best results. It links a series of actions and investments that mutually reinforce each other and contribute to national development goals and existing programming and partnerships.
46. As the delivery of climate financing continues to evolve, so does the requirement to capture, analyze, and learn-from empirically robust data in real time. This is relevant to ensure that the program stays committed and accountable to core objectives, informs decision-making, and demonstrates progress toward national, regional, and international goals. It is also relevant to ensure that the activities pursued under the program can self-assess, course correct, and maximize impacts for the most urgent issues and most vulnerable populations.
47. CIF approaches Monitoring Evaluation and Learning (MEL) in an integrated way that is reflected in a common set of principles, integrated results frameworks, and collaboration and coordination across MEL activities. When implemented in complementary ways, these activities build on one another to produce compelling evidence, knowledge, and learning opportunities for key stakeholders in support of CIF's overall goals and program objectives. The principles and approaches articulated in the CIF MEL policy can thus serve as a critical tool for advancing effective climate finance delivery in developing countries, leading to enhanced transformational impact. Given the increasing scale and urgency of the climate

²⁹ Available at: https://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/joint_ctf-scf_tfc.23_4_cif_pipeline_management_and_cancellation_policy.pdf

crisis, CIF's commitment to rigorous and strategic, evidence-based MEL as described in its new policy is an essential and integral part of its program delivery model.

48. The program's monitoring and reporting framework will be guided by CIF's MEL policy and move the needle both on how climate investments explicate scientifically rigorous theories of change, and on how they approach and treat the corresponding data while striving towards transformational change. The Integrated Results Framework is using a new approach to results measurements for the CIF RE Integration program that is laid out in a holistic manner, including the aspects of monitoring, reporting, evaluation, learning, gender, SDGs, just transition, transformational change, and co-benefits into a single integrated results framework. Results from all CIF programs (and by extension, projects) will also feed into the highest level of impact for the CIF (through 4 CIF-level indicators).
49. The monitoring and reporting framework will also build on current successes that have redefined the results measurement landscape in climate change. CIF's participatory stakeholder-driven approach to monitoring and reporting has allowed greater integrity, ownership, inclusiveness, empowerment, integration, and usability of the data that is collected and, therefore, also of the lessons learned. Enhancing the ability for climate finance to deliver the greatest impact per-dollar requires that financing entities can produce genuine findings that inform real-world challenges in deploying projects. This remains the foundational driver of CIF's monitoring and reporting frameworks.
50. The new monitoring and reporting framework will operate to ensure the program aligns with CIF objectives on two tiers:
 - a. Strength-of-fit with new programs, assessing the rationale behind a project's requirements for CIF concessional financing, and its ability to create long-term, viable, and inclusive systemic change that shifts into an improved low-emission environment and climate-resilient development. The integrated results frameworks at this overarching program level will tag projects to key aspects under the four primary transformational change parameters (relevance, systemic change, scale, and sustainability) using qualitative measures.
 - b. Strength-of-fit with programmatic objectives, tracking a project's ability to deliver on core climate-change objectives. At the program level, the framework will carry core indicators that underpin the primary drivers of the financing window. Each program area will report against a set of pre-established core indicators. At the national level, country information will be assessed using a country led process as well as MDBs reporting on set program outcomes. At the project level, the framework will draw on the MDB project log-frame indicators that define more specialized indicators tracking sector-, country-, or population-specific (including gender-specific) metrics that are also fundamental to assessing impact delivery. The frameworks will be built to track results at different levels and timeframes of decision-making and tie in with CIF's research on development co-benefits.
51. To meet these goals, a detailed integrated results framework, monitoring and reporting guidance tools, and quality at entry measures of indicators and results system set-up will be established for the program.

8.Resources for Country Engagement and MDB Support

8.1 Investment Plan Preparation Grant

52. Funding in the form of Investment Plan Preparation Grants (IPPGs) will be provided to countries that are invited to prepare an investment plan under the Program, to enable them to take a leadership role in working with the MDBs to develop their investment plan. These resources may be made available to the selected countries for additional work, including stakeholder engagement and planning sessions. Funding would be made available up-front to complete the investment plan preparation process.

8.2 MDB-Coordinated Country Engagement

53. Funding is provided to MDBs to support their costs related to investment plan preparation, monitoring and reporting by countries at investment plan level, in-country stakeholder engagement during investment plan implementation, gender mainstreaming, and the development of regional or country knowledge products or south-to-south learning activities. Details of these activities are as follows.

- a. **MDB support for investment plan preparation:** These resources will facilitate the process of agreeing, at the outset, the respective roles, division of tasks, and overall approach between the MDBs. The implementing principles of collaboration between MDBs will promote lessons sharing and a consistently wide scope of consultations. These resources will also be used to undertake other activities associated with investment plan preparation, such as missions, studies, and consultancies. Eligible activities include:
 - Travel expenses for scoping, joint missions, and other technical missions relating to the preparation of the investment plan, including support for virtual events and/or trainings
 - Supporting countries in the stakeholder engagement process, including outreach to vulnerable communities, women’s organizations, youth groups and marginalized groups due to gender, gender identity, or sexual orientation and efforts to expand participation of all genders in the consultation process
 - Cost of hiring local and international consultants to support the investment plan preparation or the country programming process, including on gender
 - Activities aimed at sensitizing MDB country teams on the spirit of CIF collaboration and on CIF guidelines and procedures
 - Cost of staff time for MDB sector and gender specialists based in-country and at headquarters³⁰
 - Other stakeholder meetings and events held to ensure that CIF investment plans are prepared under a joint framework, coordinated by the MDBs, and under the leadership of CIF countries
- b. **Other country engagement activities post-investment plan endorsement:** This will include funding for gender mainstreaming activities, monitoring and reporting at the

³⁰ Staff time for CIF focal points are covered under the CIF Administrative Services Budget

investment plan level, South-South learning, convening of stakeholder reviews of investment plan implementation progress and completion, integrating CIF lessons, and promoting the application of learning studies and activities. Activities will be implemented and coordinated by the MDB focal point teams, in response to demand from CIF countries.

8.3 Annual Administrative Budget Support to MDB Focal Point Teams

54. The focal point teams for the MDBs receive an annual budget related to coordination costs for managing their CIF portfolio. Core administrative costs for the MDB focal point teams, as it relates to the new programs will be submitted in the annual CIF business plan and budget.
55. Focal point teams within each MDB coordinate CIF financing within their organizations and provide guidance to task team leaders in implementing CIF projects and programs. The focal point teams work closely with the Trustee and the CIF Administrative Unit to achieve the following:
 - a. Overall coordination and advisory support to leverage best practices across CIF programs
 - b. Participate in CIF governance through MDB Committee meetings, preparation and review of policy documents, and participation in CIF events
 - c. Support investment plan preparation and other country engagement activities across CIF programs
 - d. Support the project and program approval process by responding to questions and comments from Committee members
 - e. Conduct financial reporting to the Trustee based on the requirements of the Financial Procedures Agreements (FPAs)
 - f. Provide mid-term review and reporting on projects to track underperforming projects, and advise teams on restructuring and other changes to approved projects
 - g. Monitor and report on risks and overall risk management of the portfolio
 - h. Manage communications on the MDB portfolio and support knowledge management and analytics across CIF in terms of publications, seminars, fora, community of practices, regular dissemination of best practices and lessons learned across the portfolio
 - i. Engage across MDB institutions to leverage partnerships and additional funding to existing CIF programs
 - j. Identify synergies and complementarities between climate funds, including the Green Climate Fund (GCF), Global Environment Facility (GEF), Adaptation Fund (AF), and explore possibilities for upscaling CIF investments

8.4 MDB Project Implementation and Supervision Services

56. MDB Project Implementation and Supervision Services (MPIS) will reimburse MDBs for the incremental staff, consultant, travel, and related costs of project development, appraisal, implementation support, supervision, and reporting. While CIF operations are largely integrated into MDBs' own operations to minimize additional workflow and transaction costs, there will be some incremental costs to the MDBs for staff, due diligence, and

reporting, which will be recovered through the MDB fee. Such costs can include, for instance:

- Additional financial analysis to justify the need and role of CIF's concessional financing
- Inclusion of strategic program specialists and/or blended finance specialist in operations teams
- Monitoring, reporting and evaluation according to CIF's results measurement system
- Additional cost of legal, loan and accounting services to administer CIF's concessional resources

9. Risk Management

57. The GCAP Sub-Committee will determine the program's risk appetite, which will be codified in a related corresponding risk appetite statement by the CIF Administrative Unit. In many cases, the degree of CIF's risk appetite will influence its ability to deliver transformational change.
58. The GCAP Sub-Committee should be particularly focused on risks that could affect the program's strategy and ability to meet its objectives, as well as risks that could damage the program's reputation.
59. The way risk-related information can flow within the program's governance and organizational structures affects the nature of risk-related discourse and risk-based decision-making within the program. The program's governance and organizational structure involves four primary parties: GCAP Sub-Committee, CIF Administrative Unit, MDBs, and the Trustee. Together, they carry out the four integral tasks to the risk management function: identifying, assessing, monitoring, and reporting, and mitigating and controlling risks.
60. Appetite or tolerance for a given risk may be classified as either Low (which includes risks for which there is no appetite/zero tolerance), Medium, or High. The level of risk to which the program is exposed, is determined based on the combination of the risk's likelihood and severity.
61. Risk exposures depend on the characteristics of a program, as well as its level of maturity. They can include credit risk, currency risk, resource availability risk, implementation risk, fraud risk, sexual exploitation and abuse, and the risk of external events. Each risk will be assessed relative to its corresponding risk appetite as codified in the program's risk appetite statement and reported to the program's governing body regularly through the program's risk dashboard and risk report.

10. Gender and Social Inclusion

62. The '[CIF Gender Policy](https://www.climateinvestmentfunds.org/sites/cif_enc/files/knowledge-documents/joint_ctf-scf_17_4_rev1_cif_gender_policy_rev1_2_final.pdf)³¹ and the [CIF Gender Action Plan Phase 3](https://www.climateinvestmentfunds.org/knowledge-documents/cif-gender-action-plan-phase-3)³² structure CIF's approach to gender mainstreaming in its programming. These documents outline key requirements and resources in the areas of inclusive consultation during investment plan and project

³¹ Available at https://www.climateinvestmentfunds.org/sites/cif_enc/files/knowledge-documents/joint_ctf-scf_17_4_rev1_cif_gender_policy_rev1_2_final.pdf

³² Available at: <https://www.climateinvestmentfunds.org/knowledge-documents/cif-gender-action-plan-phase-3>

design and implementation, CIF Administrative Unit gender technical upstream support and review, monitoring and reporting, and CIF governance.

- 63. Gender-representation in design and implementation process:** Consultations for investment plans preparation under CIF RE Integration should include relevant women's organizations and diverse gender-related CSOs, private sector stakeholders working to promote gender inclusion, the ministry in charge of women's affairs, and gender focal points of relevant line ministries. Efforts to consult with CSOs representing interests of other groups that are likely to face barriers to inclusion in project-related activities, such as Indigenous People, youth, persons with disabilities, and consultations with local communities in the project areas are also encouraged. Joint mission teams for investment plan development will include gender expertise (e.g., a gender specialist) from concerned MDBs. Liaison with the country gender focal point of UNFCCC is also encouraged. Participatory, gender-inclusive monitoring and reporting scoring workshops, to include CSO representation, particularly of women's organizations, will assess investment plan implementation regularly and during any investment plan revision processes. Some CIF countries have adopted the good practice of identifying gender focal points for investment plan implementation, as well as separate budget line items for gender work under the plan; and such practice is highly encouraged under RE Integration. All the efforts to reach out and include women and other social groups in project design and implementation should be described in the project documents, and issues and concerns raised by them clearly reflected in gender and social inclusion analysis.
- 64. Gender equality and social inclusion analysis:** Project design should include explicit analysis of gaps between men and women, as well as also strive to identify other groups that might face exclusion barriers regarding specific project activities – youth, Indigenous people, persons with disabilities etc. Such analysis should look at differences in access to services, productive assets and resources, employment and income levels, skills, and capacity. It should also consider context-specific roles and norms, affecting their participation in decision making and leadership roles, as well as gender-responsiveness of policies. Based on the results of such analysis, specific actions to reduce those gaps and ensure distribution effects for women and other social groups should be identified in the proposal and include indicators to monitor progress. CIF AU has begun the provision of upstream technical gender review inputs based on demand by MDBs to strengthen gender integration in CIF project design. This will continue and interested MDB task teams are encouraged to engage with CIF AU early on during project and investment action plan design to seek gender technical review inputs. As outlined in the CIF Gender Action Plan Phase 3, CIF AU will track the number and % of new Investment Plans and projects that have received technical support on gender from CIF AU or other facilitated mechanism (such as Gender Groups of MDBs) prior to TFC submission for approval.
- 65. Gender and social inclusion monitoring and reporting:** Gender reporting under Phase 3 of the CIF Gender Action Plan includes a range of reporting streams, including on a set of gender indicators on the plan overall, project reporting on program core indicators (including beneficiary tracking), and reporting on any gender-related indicators that teams have developed for their MDB project results frameworks. Reporting on "gender performance" ratings on CIF-financed projects present in MDB internal gender reporting systems (e.g., under gender tag or gender marker systems) will be consolidated to aid CIF reporting on gender performance trends. Additionally, disaggregated reporting on impact

for other groups that are likely to face inclusion barriers is encouraged whenever relevant and feasible.

66. **Entry points for gender and social inclusion in RE Integration:** CIF is committed to gender mainstreaming and enhancement of gender equality outcomes across its programming and operations. It also increasingly places emphasis on social inclusion both through procedural justice and distributional impacts in the context of just transition. To ensure CIF delivers on its gender and social inclusion commitments, each program and project proposed for CIF RE Integration funding will articulate the process used to identify, evaluate, and address existing context-specific barriers and gaps in gender equality and social inclusion, including use of participatory approaches and climate-smart planning that include women's and organizations for marginalized peoples, particularly marginalization based on gender, sexual orientation, or gender identity organizations. CIF projects should also ensure equitable outcomes with particular attention to vulnerable groups, particularly people marginalized by gender.
67. The program hosts myriad opportunities to reduce gender gaps and expand inclusion, including in areas related to energy pricing, affordability, and linkages of energy services to productive use applications in which women specifically can benefit, such as in small-scale processing, trade, and manufacturing. Program contents include a mix of technologies and design elements, including demand-side management and market design that reaches all users (i.e., women and men, producer, and consumer groups). Gender entry points in this program area include support for activities like impact assessments of tariff and subsidy design on women's access to energy services, demand-side management among all users for real-time grid management of distributed generation (and use of advanced metering), and the role of women and men in the energy value chain as consumers, workers, and entrepreneurs.

11. Communications

68. Communication is a central component of CIF partnerships, amplifying CIF's visibility and enabling the effective dissemination of the successes and challenges stemming from one of the world's largest climate finance mechanisms.
69. Communications activities of the CIF Administrative Unit and MDBs under CIF RE Integration will be guided by the forthcoming CIF Visibility and Branding Policy. This policy provides guidelines on how MDBs and other partners involved in the new CIF programs are expected to brand information and communication material resulting from any projects under the new CIF programs. The policy covers the following:
- How the CIF logo is used in communication products (including printed materials and digital products)
 - How disclaimers and copyright texts should be used for CIF-related communications products
 - How milestone news and press-releases should be managed and executed for CIF projects
 - How events regarding CIF projects should be handled with respect to CIF and its partner MDBs

70. CIF stakeholders recognize the value that communications, media, art, and storytelling can play in all phases of operations, including early-stage investment planning. The CIF Administrative Unit, MDBs, and other key stakeholders will explore how such communication tools can be incorporated into the development and delivery of investment plans and programs under the program.

12. Stakeholder Engagement

71. CIF has a five-pronged approach to stakeholder engagement that includes 1. country-led multi-stakeholder planning; 2. inclusive and transparent governance structure; 3. capacity strengthening; 4. research, knowledge products, and evaluation; and 5. support to the Stakeholder Advisory Network on Climate Finance (SAN).
72. CIF's business model hinges on a country-led programmatic participatory approach and strong consideration for social cohesion at the outset and throughout the project cycle. Independent evaluations and results from consultations confirm that such a business model cannot be honored without attention to an inclusive and transparent decision-making process that brings together both contributor and recipient countries as well as non-state actors from civil society and the private sector as observers. The latter have a stake in the transparent and accountable use of climate finance and in ensuring that resources reach the most climate vulnerable communities at the grassroots level.
73. From its establishment, the CIF has maintained commitment to a stakeholder engagement approach that welcomes CSOs, private sector entities, and Indigenous Peoples organizations as an integral part of its governance and operational delivery. Upstream engagement of stakeholders in the project design cycle has helped CIF countries consider multiple needs and perspectives and more strategically plan for climate action. CIF's inclusive model has reinforced integrated multisectoral investment plans comprising mutually reinforcing investments.
74. The CIF's Stakeholder Observers program, which has been in existence for 10 years, enables over 40 observers representing CSOs, the private sector, and Indigenous Peoples and local communities to participate in CIF governance committees at the global level, contribute to formulating climate strategies at the global and national level, and monitor climate projects at the local level. CIF also consults frequently with stakeholders on all three levels, carries out joint research, and facilitates capacity building efforts of stakeholders. The CIF also supports the SAN, a platform for convening past and present observers from across five climate and environment funds (GCF, GEF, AF, FCPF, and CIF) to promote cross-pollination and capacity strengthening in the global climate finance community.
75. CIF provides the platform, tools, and resources to effectively engage stakeholders in investment planning, project implementation and monitoring and reporting. These are key to securing the transparent, accountable, and sustainable use of funds at the national and local levels. While engagement of non-state actors at the global level has demonstrated replicable examples for other climate funds, study findings indicate that engagement at the national and local levels could be further strengthened. Based on experience, the CIF stakeholder engagement program of activities will further reinforce adoption and use of stakeholder mapping tools, provide tailored capacity building training, carry out country-level policy dialogue and consultation sessions to better engage marginalized and

vulnerable communities, and enhance local stakeholder constituency representation at the CIF governance and policy-making level.

13. Knowledge, Evaluation, and Learning

76. Robust knowledge, evaluation and learning are critically important within the new CIF programs to maximize the impact of investments and ensure that emerging lessons are used to inform ongoing course corrections as well as the design of future projects. In particular, the new programs and related investment models represent frontier areas where existing evidence is scarce and robust learning activities can have wide influence, both within CIF and the wider climate finance sector. CIF's mandate as a learning laboratory for scaled up climate finance and dedicated efforts in this area in recent years have provided strategic and operational insights to inform decisions on many levels and have demonstrated the value of investing early in evidence-based learning activities.
77. CIF's Evaluation and Learning (E&L) Initiative uses demand-driven, user-centric approaches to collectively prioritize and undertake a range of evaluative studies and learning activities relevant to the new program areas. This includes, for example, cross-cutting thematic or program-level independent evaluations, sector-specific learning reviews, case studies, and facilitated learning events at the global, regional, and country level. Current priority learning themes, such as transformational change, development impacts of climate finance, just transition, private sector investment, and local stakeholders, are pertinent and timely to both the new programs and the COVID-19-influenced global context. In line with the E&L Business Plan and more specific annual work plans, the E&L Initiative will work together with MDBs, countries, and other stakeholders to develop and implement these activities as they relate to the new programs. MDBs and countries will be consulted in the development of these plans and will be expected to engage in studies and learning activities as relevant according to the annual work plans. This may include, for example, sharing relevant information and facilitating field visits and other contact points with program implementers, as well as engaging productively with third-party evaluators and other entities.
78. Other related knowledge and learning efforts will entail similar expectations with regards to MDB and country partners within the program. This includes, for example, engagement with future Global Delivery Initiative (GDI) and Development Impact Evaluation (DIME) studies, as well as program-level knowledge management products, initiatives, and learning events, such as regional or global learning forums or cross-visits. These will also be prioritized and implemented in consultation with MDBs, countries, and other partners and stakeholders (including through country engagement activities and budgets).

Annex 1. Investment Criteria under the CIF Renewable Energy Integration Program

1. CIF RE Integration aims to enable the smooth integration of higher shares of intermittent renewable energy generation into the grid and increase off-grid access to renewable energy.
2. To these ends, each program/project proposed for CIF financing shall seek to accelerate the deployment of an integrated mix of power grid flexibility measures in the following areas:
 - Enabling technologies
 - Enabling infrastructure
 - Electrification and demand management
 - Market design and system operations improvement.
3. With a view to maximizing the impact of CIF's resources, each program/project proposed for CIF financing shall demonstrate how it will meet the following criteria:

1. Potential for transformational change

4. Transformational change requires attention to five dimensions – Relevance, Systemic Change, Speed, Scale, and Adaptive Sustainability. The specific emphasis and significance of these dimensions are context dependent. Ultimately, attention to these dimensions should support fundamental system change, with large-scale positive impacts, that shift and accelerate the trajectory of progress toward climate-neutral, inclusive, resilient, and sustainable development pathways. The following descriptions and questions should guide the initial assessment, design, implementation, and evaluation of RE Integration programs and projects for transformational climate action. The 'what' questions below pertain to what the change needs to be, while the 'how' questions pertain to how the change is brought about.

1.1. Relevance

5. Each program/project proposed for CIF financing shall demonstrate Relevance to advancing the strategic objectives and transformational change goals of CIF RE Integration through the alignment of context, goals, and action. Programs/projects will consider the alignment of context (e.g., environmental stress, technology/finance challenges, economic development, social justice, policies, etc.), goals (e.g., RE Integration program strategic objectives, national development plans, low-emission goals, and commitments, etc.), and action (e.g., specific programs, projects, etc.). This may include, for example, investments in technologies, infrastructure, electrification and demand management or market design and system operations improvement in alignment with countries' NDCs and/or other energy transition or national development priorities, including as related to social inclusion; creating or leveraging specific market and technology opportunities; and ensuring coherence with other relevant partners, stakeholders, and investments.

What	What are the fundamental changes and large-scale positive impacts relevant to RE Integration in this context that we wish to bring about?
How	Context: How is the intervention relevant to RE Integration in this context, including existing assets, barriers to change, and complementary existing efforts?

	<p>Alignment: How does the intervention align with the strategic objectives and expected development impacts of RE Integration including national development plans and GHG emission reductions commitments, greater equity and inclusion, just transitions, sustainable development, and ecological integrity?</p> <p>Proposed action: How is the intervention logic relevant to the fundamental change and transformational impacts required for, and resultant from, renewable energy integration?</p>
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1.2. Systemic change

6. Each program/project proposed for CIF financing shall demonstrate how it will lead to fundamental shifts in the structures and functions of renewable energy integration system by identifying and defining strategic systems, removing entrenched barriers, opening new opportunities or pathways, and shifting of power dynamics within and between key systems. This requires a process (e.g., systems mapping, market studies, stakeholder consultations, etc.) to identify the most strategic RE systems (e.g., national, regional, and local power grids, legal and regulatory frameworks, commercial and financial markets, technology systems, governance systems, financial and market systems, social systems, and ecosystems). Within those systems, the most significant barriers to RE integration (e.g., institutional, regulatory and policy failures; market failures and financial barriers; knowledge and technical capacity barriers) will need to be addressed, and opportunities (e.g., through new business models, supportive policy and regulatory frameworks, and improved risk perception) for change will need to be identified.

What	What are the systems where change is needed and what change is required between and within these systems to achieve RE Integration?
How	<p>Systems: How has the system, including system boundaries, related to RE Integration been identified and defined)?</p> <p>Barriers and Pathways: How does the intervention remove entrenched barriers and open new pathways for the systemic change required to ensure RE Integration?</p> <p>Power: How does the intervention elevate the influence of beneficiaries and other stakeholders, including marginalized and vulnerable groups, to contribute to and benefit from RE Integration?</p>

1.3. Speed

7. Each program/project proposed for CIF financing shall demonstrate how it will balance the speed of change required by the urgency of addressing climate change, while considering the time required for inclusivity and addressing system complexities. Accelerating the energy transition requires identifying and overcoming barriers to change while simultaneously identifying and enhancing enabling conditions (e.g., policy coherence, strategic planning, individual and institutional capacity, access to technology and funding).

What	What will it take to achieve RE Integration in a timeframe that aligns with the urgency and complexity of the climate crisis?
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How	Acceleration: How does the intervention accelerate progress towards REI? Complexity and Inclusivity: How does the intervention use safeguards, impact assessments, and socially inclusive processes to ensure adequate engagement with complex and contested issues associated with RE Integration?
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1.4. Scale

8. Each program/project proposed for CIF financing shall demonstrate how it will seek to deliver contextually large-scale impacts, such as explicit strategies for enabling subsequent scale-up or replication of the CIF-funded intervention and wider sustainability impacts. This may involve to a combination of vertical (e.g., policy/ implementation, such as), horizontal (e.g., numbers or geographic spread, such as reach of technologies for real-time grid management and electrification of different sectors, number of new jobs, volume of variable renewable energy in the power system, and geographical reach of energy systems) and depth (e.g., understanding and support, such as demand for renewable sources of energy, mobilization of private investment, etc.) scaling pathways within and beyond the intervention.

What	What contextually large changes need to be scaled within and beyond the project intervention?
How	Vertical scaling: How does the intervention support scaling within and across policy and implementation processes associated with RE Integration? Horizontal scaling: How does the intervention expand the number of people/ institutions or geographic areas engaged with or benefitting from RE Integration? Depth scaling: How does the intervention deepen understanding of and support for RE Integration?

1.5. Adaptive sustainability

9. Each program/project proposed for CIF financing shall demonstrate how it will seek to deliver transformational changes that are resilient and lasting over the long-term, after concessional finance support is terminated, as well as adaptive to evolving contexts. This involves building capacity (e.g., to understand, formulate, implement, maintain, and monitor climate strategies and activities) in relevant stakeholders and institutions. Interventions should enable experimentation (e.g., of new technologies, policies, and business models) and flexibility to learn and course correct during and after implementation. Programs should also support resilience from backsliding (e.g., creating demand for renewable energy through job creation and awareness building, development/support of environmental CSOs, budgeting support, etc.). These processes should progressively build, refine, and retain climate-neutral, inclusive, resilient, and sustainable development pathways.

What	What changes related to RE Integration, and the broader energy transition, are sustained and advanced beyond the intervention?
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How	<p>Capacity: How does the intervention build the capacity of stakeholders and institutions to advance and sustain RE Integration and a broader energy transition?</p> <p>Adaptability: How does the intervention enable experimentation and flexibility, including the ability to learn and course correct when necessary?</p> <p>Resilience: How does the intervention insulate RE Integration from backsliding due to endogenous and exogenous pressures or shock and enable recovery when required?</p>
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2. Potential for GHG emissions reduction/avoidance

10. Each program/project proposed for CIF financing shall demonstrate how it will contribute to achieving the objectives of CIF RE Integration by including, as applicable, an assessment of its contribution toward the following:
 - a. Increased share of renewable energy in the energy mix
 - b. Increased flexibility, reliability, and climate resilience of power networks
 - c. Increased access to affordable, reliable, and modern energy services
 - d. Reduction/avoidance of GHG emissions. Each program/project proposed for CIF funding will contain an assessment of direct CO₂-equivalent emissions savings over the lifetime of the proposed program/project. Emission reductions will be calculated by subtracting projected lifetime emissions of a CIF-financed intervention from the projected lifetime emissions of the business-as-usual program/project that would have otherwise been pursued. Each program/project interventions should seek to achieve the greatest GHG abatement opportunity available in the target context, providing a sizeable contribution towards the achievement of a country's climate goals, strategies, or plans and/or in rising ambitions.
 - e. Contribution to technology development. CIF's priority is to prioritize the deployment, diffusion, and transfer of low-emissions technologies that are at, or approaching, the "market take-off" phase and in sectors that make major contributions to GHG emissions. Each program/project proposed for CIF financing shall outline a given technology's stage of development and mitigation potential (tCO₂-equivalent/year) as well as on their ability to increase power system's flexibility, reliability, and resilience. CIF will not support technologies that are still in the research stage. CIF's concessional resources should be focused on technology deployment, which may include commercial demonstration of new low-emission technologies.
 - f. Enhanced integration of climate-related risks (transition risk) considerations in project stakeholders' decision-making processes, including through enhanced climate-related financial disclosures.

3. Potential to significantly contribute to the principles of just transition

11. Addressing climate change and achieving the Sustainable Development Goals requires deep and multi-dimensional change that will impact different segments of society in diverse ways. Consideration of the potential positive and negative impacts of the transition to low-

carbon and climate resilient economies, as well as the underlying causes of inequality, exclusion, and injustice, is needed to develop strategies for the mitigation of losses and the distribution of gains in the transition. CIF is committed to ensuring that those affected by these changes, particularly vulnerable and marginalized groups, be included and empowered in the decision-making processes that will affect their lives. Drawing on guidelines, tools and international standards, such as the International Labour Organization's Guidelines for a Just Transition. CIF projects should support a just transition through socially inclusive processes that seek to identify and address the distributional impacts of the transition for workers and communities.

4. Financial effectiveness

4.1. Value for money

12. Each program/project proposed for CIF financing will include:

- a. A detailed assessment of the need for concessionality and how the program/project meets the principles for using concessional resources. This includes a calculation of the level of concessionality at the project level.^{33, 34}
- b. An assessment of the cost-benefit ratio and/or other relevant indicators of cost-effectiveness.
- c. An assessment of the additionality of the project, and how the project complements existing efforts, with a focus on impact and leveraging of funds, as the basis for examination.
- d. An explanation for the type of instrument being used (e.g., grants, loans, guarantees, etc.), taking account of the need to ensure both minimum concessionality at the project level and the importance of maximizing immediate climate action.³⁵
- e. An analysis of the expected reduction in the cost of the technology due to technological progress and scale effect at the country, regional, or global level or through organizational learning and scale effects at the country level.³⁶

4.2. Mobilization potential

13. CIF aims to mobilize additional resources at scale to achieve rapidly and efficiently the objectives of CIF RE Integration . Each investment program/project proposed for CIF financing is expected to mobilize co-financing by MDBs and other public and/or private

³³ For public sector projects, the reference price should be taken to be the standard rate charged by the MDB for that country with the exception that concessionality does not need to be calculated for countries only eligible for concessional financing from the MDB. For private sector projects the IFC's methodology at https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/bf/bf-details/concessionality-calculation should be applied.

³⁴ Due to the nature of private sector operations under CIF, this information will need to be provided ex-post after approval of each relevant private sector subproject

³⁵ In the case of private sector projects, MDBs can provide a more high-level, preliminary assessment at the TFC program approval stage, with more in-depth information provided ex-post after approval of each relevant subproject

³⁶ Noting that such predictions can be challenging and sometimes not possible, MDBs should attempt to articulate the pathways through which expected cost reductions could be achieved with support from this program.

entities (e.g., governments, project sponsors, other bilateral and multilateral development partners, and philanthropic organizations).

4.3. Implementation potential

14. Consistent with standard MDB appraisal procedures, programs/projects proposed for CIF funding shall articulate how they will ensure successful implementation, including arrangements for long-term operations. Successful implementation implies identifying the institution(s) with the capacity and the responsibility for implementation' coordinating and collaborating with relevant stakeholders or initiatives; and addressing institutional, policy, or regulatory failures or market, financial, knowledge, or technical capacity barriers to achieve the program's/project's objectives.

4.4. Gender equality and social inclusion impact

15. CIF is committed to gender mainstreaming and enhancement of gender equality outcomes across its programming and operations, in line with its CIF Gender Policy. It is also committed to enhancing the representation and voice of Indigenous Peoples, local communities, and youth in identifying program investments. To ensure CIF delivers on its gender and social inclusion commitments, each program/project proposed for CIF funding shall articulate the process used to identify, evaluate, and address existing context-specific barriers and gaps in gender equality and social inclusion. Particular efforts should be made to consult with relevant diverse range of women's organizations and gender related CSOs, private sector stakeholders working to promote gender inclusion, the ministry in charge of women's affairs, and gender focal points of relevant line ministries. Efforts to consult with CSOs representing interests of other groups that are likely to face barriers to inclusion in project-related activities, such Indigenous People, youth, persons with disabilities, and local communities are encouraged. Conclusions of these consultations should be reflected in gender and social inclusion analysis in the project document. Expected gender equality and social inclusion outcomes in the context of planned investments clearly linked to the gaps identified should be included, with sex-disaggregated indicators included in the program/project results framework. Reporting on results specific to other social groups is also encouraged.

5. Development impact potential

16. CIF aims to demonstrate the potential for low-emission and resilient technologies and to contribute to achieving the Sustainable Development Goals (SDGs), particularly but not limited to the following:
 - SDG 1: No Poverty
 - SDG 5: Gender equality: Achieve gender equality and empower all women and girls
 - SDG 7: Affordable and clean energy: Ensure access to affordable, reliable, sustainable and modern energy for all
 - SDG 8: Decent work and economic growth
 - SDG 9: Industry, innovation and infrastructure
 - SDG 13: Climate action: Take urgent action to combat climate change and its impacts

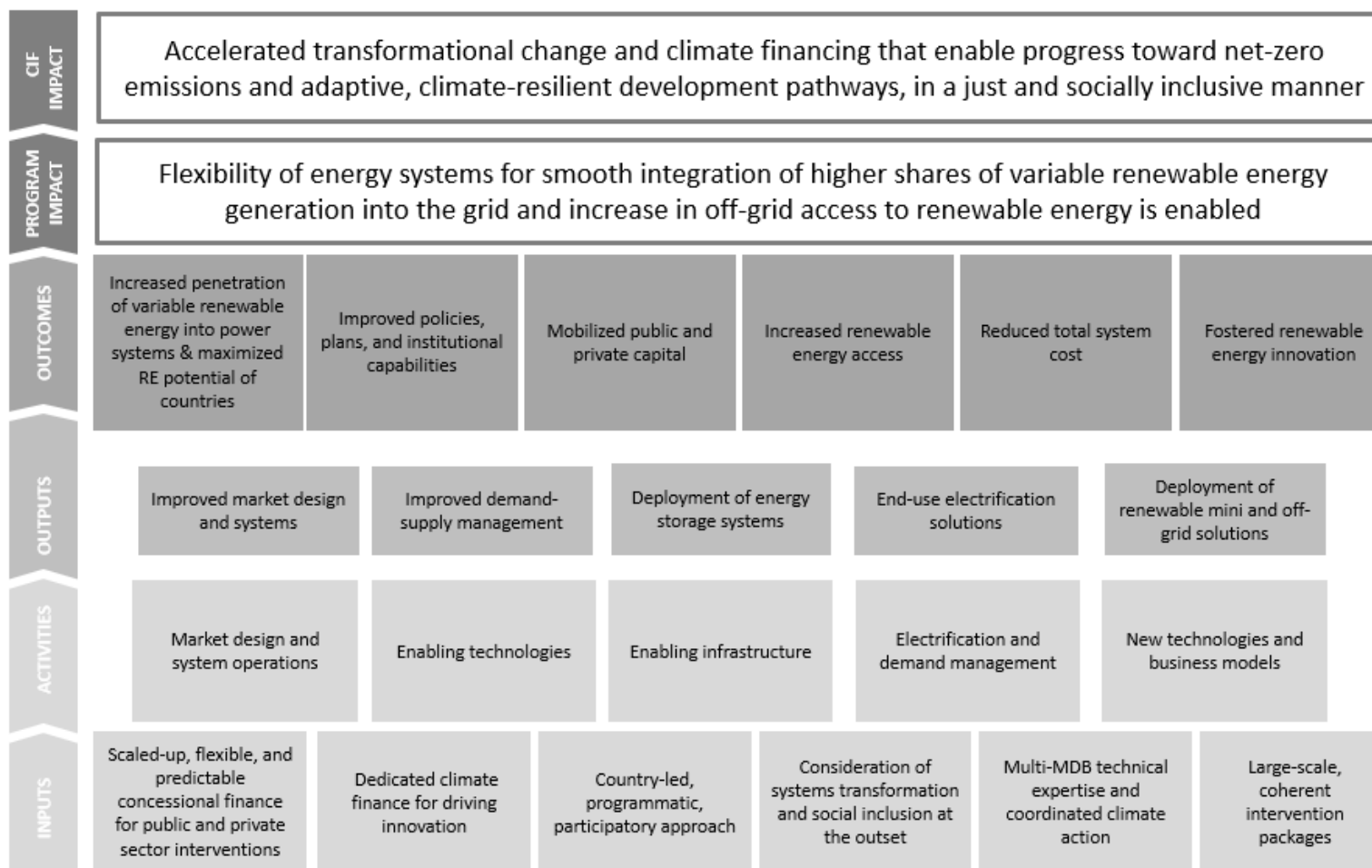
17. Each program/project proposed for CIF financing shall seek to demonstrate its potential development impacts (co-benefits) consistent with standard MDB appraisal criteria and for the case of CIF RE Integration with particular emphasis on the following:

- **Social impacts** relating to improvements in health outcomes such as reduction in air-pollution linked illness or deaths; improvements in livelihoods through increased or diversified earnings activities; increase in wealth due to new asset-building or protection; or improved access, quality, or affordability of essential services such as energy.
- **Economic impacts** linked to national indicators of economic growth or performance. For example, employment opportunities in sectors of investments and the value added of these sectors to the domestic economic (through payment of salaries and taxes as well as company profits) are frequently tracked economic impact indicators. These results may be calculated for direct, indirect, induced and/or forward effect (energy enabled) impacts.
- **Environmental impacts** relating to the conservation or improved use of natural resources. This could include improved water conservation, ecosystem or biodiversity conservation, improved soils or related crop productivity as a result of other program outcomes such as reductions in air pollution from transitions to fossil fuels to clean energy sources.
- **Markets or systems impacts** felt at the entire sector or national level and are broader than individual project outcomes. These include energy sector security and resilience, creation or expansion of national green energy or green finance markets, industrial competitiveness or development, and sector diversification/sector inclusiveness including factors affecting new entrants.

Annex 2: RE Integration Program Theory of Change

CIF Renewable Energy Integration Program Theory of Change

If CIF improves market design and system operations, provides enabling technologies and infrastructure, and develops new business models, countries will increase renewable energy penetration in their energy mix, achieve a more flexible and decentralized energy system, improve policies and capabilities mobilize capital, increase renewable energy access, reduce systems costs and foster renewable energy innovation, which will all contribute toward CIF's transformative impact.





The Climate Investment Funds

The Climate Investment Funds (CIF) were established in 2008 to mobilize resources and trigger investments for low carbon, climate resilient development in select middle and low income countries. To date, 14 contributor countries have pledged funds to CIF that have been channeled for mitigation and adaptation interventions at an unprecedented scale in 72 recipient countries. The CIF is the largest active climate finance mechanism in the world.

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