

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Accelerating low-emission and resilient community energy in Argentina

Region

Argentina

GEF Project ID

11073

Country(ies)

Argentina

Type of Project

FSP

GEF Agency(ies):

UNEP

GEF Agency ID

N/A

Executing Partner

National organization

Executing Partner Type

Government

GEF Focal Area (s)

Climate Change

Submission Date

4/6/2023

Project Sector (CCM Only)

Technology Transfer/Innovative Low-Carbon Technologies

Taxonomy

Focal Areas, Climate Change, Climate Change Mitigation, Renewable Energy, Influencing models, Demonstrate innovative approach, Deploy innovative financial instruments, Transform policy and regulatory environments, Stakeholders, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Private Sector, Capital providers, Financial intermediaries and market facilitators, Individuals/Entrepreneurs, SMEs, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender results areas, Capacity, Knowledge and Research, Capacity Development

Type of Trust Fund

GET

Project Duration (Months)

48

GEF Project Grant: (a)

4,701,497.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

446,642.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

5,148,139.00

Total Co-financing

32,000,000.00

PPG Amount: (e)

80,000.00

PPG Agency Fee(s): (f)

7,600.00

PPG total amount: (e+f)

87,600.00

Total GEF Resources: (a+b+c+d+e+f)

5,235,739.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: Yes

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Argentina’s energy sector is its highest emitting, with 186 MtCO_{2e} annual emissions, or 51% of total country emissions. Within it, the energy industries subsector emits 59.5 MtCO_{2e} annually, or 16% of national emissions. The energy sector’s absolute emissions show an upward trend over time and represent an increasing share of total emissions, due to an increasing demand for electricity driven by small and household consumers, in a context where the stressed national transmission network lacks the capacity to incorporate more renewables and dispatch available renewable power at peak demand times. The intertwined nature of the investments needed in renewable generation and its corresponding transmission infrastructure would require large amounts of capital and time to change this trend.

Grid-integrated low-emission community energy can help revert this trend by coupling distributed energy technologies with innovative business, management and asset property models, accelerating the decarbonization of the electricity sector at the local level. While the Argentinean national and provincial governments and other key national stakeholders have taken steps to address this challenge, the country faces four key barriers to transitioning to low-emission community energy. These are:

1. An absence of integrated and coherent national-provincial-local public policy and government actions for promoting low-emission community energy;
2. A lack of evidence in the country of the economic, social and environmental viability of low-emission community energy as a means to provide reliable electricity to consumers;
3. An insufficient knowledge of business models, market scale and catalyzing financial instruments available to cooperatives and their suppliers to scale up and ensure sustainable community energy operations;
4. Insufficient knowledge and capacity to promote the development of low-emission community energy.

This project aims to address this global environmental challenge by promoting the decarbonization of the electric energy sector in Argentina through an innovative combination of public policies and technologies to accelerate the expansion of low-emission community energy. This objective will be achieved through four components that directly address the four key barriers:

1. Creating an enabling environment for low-emission electricity generation through community energy. The expected outcome from this component is that federal, provincial and local governments increasingly

adopt a gender responsive strategy on low emission community energy aligned with the UNFCCC long-term strategy.

2. Demonstrating the economic, social and environmental feasibility of Low-Emission Community Energy. The expected outcome of this component is that national, provincial and local governments gradually implement low-emission community energy solutions.
3. Financing for a sustainable transformation to low emission electricity generation through low-emission community energy. The expected outcome of this component is that the government and public and private financiers develop and start implementing a national financing strategy, aligned with the National Climate Finance Strategy, for establishing, scaling up, incentivizing and supporting economic and financial operations of low-emission community energy.
4. Knowledge management and capacity building. The expected outcome from this component is that Provincial and local stakeholders demonstrate increased gender-sensitive knowledge of low-emission community energy.

Through achievement of the four outcomes above, the project is expected to be transformative in supporting Argentina to implement its nationally determined contribution and UNFCCC long-term strategy and achieve a net-zero electricity sector by 2050. The project is expected to achieve greenhouse gas emissions mitigation over the project's lifetime of 560,000 tonnes of CO₂eq.

Indicative Project Overview

Project Objective

Accelerate the uptake of grid-integrated low-emission community energy in Argentina for implementing the NDC and achieving long-term carbon neutral and resilient development

Project Components

1. Enabling environment for grid-integrated low-emission community energy

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
600,000.00	1,500,000.00

Outcome:

1. Federal, provincial and local governments in Argentina increasingly adopt a gender responsive strategy on low emission community energy aligned with the UNFCCC long-term strategy

Output:

1.1 A gender-responsive national strategy on low-emission community energy, aligned with the UNFCCC long-term strategy, is made available to government stakeholders at the national, provincial and local level

1.2 Recommendations to enhance the distributed energy generation law (N° 27.424) for promoting low-emission community energy are submitted for consideration by Federal Ministries

1.3 A low-emission community energy regulatory and implementation guide (including toolkit) is made available to provincial and local governments and other stakeholders, drawing upon national and international experiences, good practices and lessons learned

1.4 Greater awareness, public policies, regulatory change and action on low-emission community energy is promoted among local governments through existing multi-level, multi-sectoral and multi-stakeholder alliances

1.5 Integrated low-emission community energy development and implementation plans are made available for application by three (3) local proponent groups

2. Demonstration of the feasibility of low-emission community energy

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
2,627,616.00	10,000,000.00

Outcome:

2. National, provincial and local governments gradually implement low-emission community energy solutions

Output:

2.1 Participative pilots in Argentina provinces demonstrate the technical, social, environmental and economic viability of low-emission community energy to local, provincial, and national stakeholders

2.2 A monitoring and evaluation system is established to measure the impact (social, economic, and environmental) of the low-emission community energy pilots

3. Finance for a sustainable transformation to low emission community energy

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
500,000.00	17,400,000.00

Outcome:

3. Government and public and private financiers develop and start implementation of a national financing strategy, aligned with the National Climate Finance Strategy, for establishing, scaling up, incentivizing and supporting economic and financial operations of low-emission community energy

Output:

3.1 A national financing strategy, aligned with the National Climate Finance Strategy, for establishing, scaling up, incentivizing and supporting economic and financial operations of low-emission community energy is developed for application by federal, provincial and local governments and public and private financiers

3.2 Cooperatives, NGOs, and micro-, small- and medium-sized enterprises are supported with gender-responsive training, information and technical assistance to develop business models for facilitating sustainable operation of low-emission community energy, including through consideration of energy-as-a-service (EaaS) models

3.3 Banco Nación, YPF and other banks, public enterprises and public and private financiers strengthen financial instruments for accelerating investment in low-emission community energy

4. Knowledge management and capacity building

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
500,000.00	1,500,000.00

Outcome:

4. Provincial and local stakeholders demonstrate increased gender-sensitive knowledge of low-emission community energy

Output:

4.1 A gender- and culturally sensitive stakeholder engagement strategy is implemented with key stakeholders to promote the co-creation of low-emission community energy and related enabling conditions

4.2 An open-source platform on experiences, good practices and lessons learned on low-emission community energy is made available to federal, provincial and local stakeholders

4.3 Provincial and local key stakeholders (communities, governments, private sector) are trained on technical and financial aspects of low-emission community energy through a gender-responsive capacity-building program

4.4 Innovation public and private stakeholders are able to draw upon tools, networks, working groups and information for accelerating technology development, innovation, deployment and transfer of low emission community energy

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
250,000.00	75,000.00

Outcome:

The GEF project is effectively monitored and evaluated

Output:

Monitoring and evaluation products are delivered

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)

1. Enabling environment for grid-integrated low-emission community energy	600,000.00	1,500,000.00
2. Demonstration of the feasibility of low-emission community energy	2,627,616.00	10,000,000.00
3. Finance for a sustainable transformation to low emission community energy	500,000.00	17,400,000.00
4. Knowledge management and capacity building	500,000.00	1,500,000.00
M&E	250,000.00	75,000.00
Subtotal	4,477,616.00	30,475,000.00
Project Management Cost	223,881.00	1,525,000.00
Total Project Cost (\$)	4,701,497.00	32,000,000.00

Please provide justification

Note that tables A, B, D, E and F refer to a total GEF financing of 5,235,739.00, as indicated as the limit by the GEF portal (required for validation of the project in this portal). The letter of endorsement and attached PIF in word format refer to total GEF financing of 5,240,000 as indicated as Argentina's CCM allocation in accordance with GEF/C.63/Inf.05: Initial GEF-8 STAR Country Allocations. The country and GEF Agency understanding is that the total GEF financing of the project is the latter, in accordance with the GEF policy document.

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

The global environmental problem in Argentina, system elements and trends

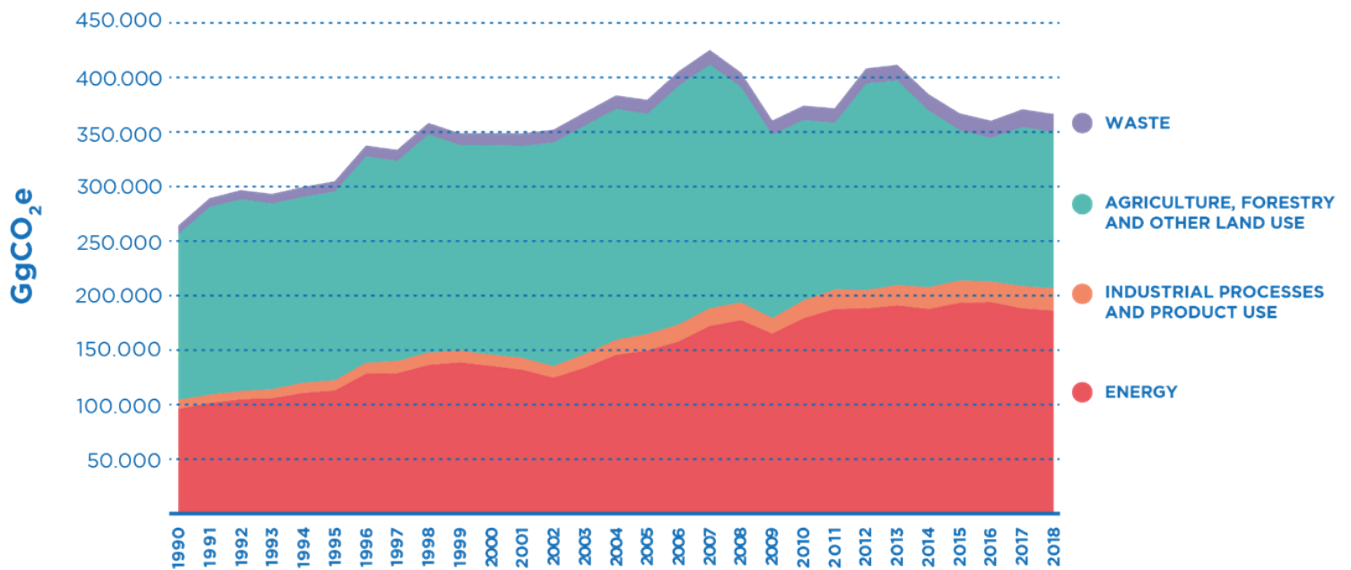
In 2021, emissions from the world's power plants reached their highest level ever.^{[1]¹} Electricity and heat production had the biggest increase in CO₂ emissions by sector in both 2021 and 2022,^{[2]²} increasing by more than 900Mt or 6.9%. This increase was driven by an increase in global electricity demand of 2.7% in 2022 that, although it was partly satisfied by the biggest ever increase in renewable power, was also covered by increased fossil fuel generation, as well as fuel-switching from gas to coal resulting from the conflict in Ukraine. The conflict created a global energy crisis in 2022, increasing the prices of fossil fuels and their subsidies, and the use of coal and oil for electricity generation.

These trends meant that greenhouse gas emissions reached a new peak in 2022, although their rise was less than initially feared as renewables, EVs, heat pumps, efficiency and other factors reined in the CO₂ rise.^{[3]³} CO₂ emissions grew 0.9% in 2022, compared to 6% growth in 2021. However, emissions need to be reduced rather than rise to achieve the Paris Agreement's goals. Policies and pledges currently in place point to a 2.8°C temperature rise by the end of the century.^{[4]⁴}

Argentina is a party to the Paris Agreement and through its second NDC set an unconditional target of peaking economy-wide greenhouse gas emissions at 349 million MtCO₂e in 2030, maintaining a level similar to that of 2019. This target is 27.7% more ambitious than the one set at its first NDC. Furthermore, in its second NDC Argentina notes its objective of "achieve carbon neutral development by 2050."

A key environmental challenge that Argentina faces in implementing its NDC and long-term climate goals is in increasing the resilience and decarbonizing its energy sector. According to its latest national greenhouse gases inventory, the energy sector is the primary emitting sector of the country, emitting 186 MtCO₂e and representing 51% of national emissions. Furthermore, such emissions are rising annually. Between 1990 and 2016 the energy sector demonstrated an upward trend in greenhouse (GHG) emissions.

Figure 1 – GHG emissions in Argentina by sector, 1990 – 2016



Source: Argentina 4th BUR[5]⁵

Within Argentina’s energy sector, energy industries are the biggest emitting sub-sector. GHG emissions from this subsector are equal to 59.5 MtCO₂e or 16% of national emissions. This is because more than 56% of total electricity supply comes from thermal generation due to the combustion of fossil fuels, resulting in a national grid emission factor of 0.459 tCO₂/MWh[6]⁶. Although renewable energy sources grew by 10.9% in 2022, they supplied only 13% of total electricity. Combustion of natural gas is a primary source of electricity generation in Argentina. However, increases in the global and national price of natural gas in 2022 led to its partial substitution with gas oil and fuel oil over the last year, leading to increasing emissions.

Table 1 – GHG emissions from the energy sector by category, 2018

Category	Share	MtCO ₂ e
Energy industries	32%	59.52
Transport	27%	50.22
Other sectors	17%	31.62
Manufacturing and construction	18%	33.48
Fugitive emissions	6%	11.16
Total	100%	186.00

Source: Argentina 2018 National greenhouse gas inventory

Drivers of this global environmental problem in Argentina

As Argentina’s population, economy and middle-class grows, electricity demand continues to rise. Electricity demand grew by 3.6% in 2022 to 138,755 GWh, driven primarily by small and residential

users.^[7] In part, this is due to the adverse effects of climate change increasing the usage of air conditioning. To meet this increasing demand, the country has been increasing the consumption of fossil fuels to generate electricity, as well as importing electricity from neighboring countries, being a net importer of electricity during 8 of the last 10 years^[8], impacting its external balance negatively.

For example, 9 heat waves hit the country between November 2022 and March 2023.^[9] The 9th heat wave resulted in all-time record high temperatures registered in 22 cities; another 22 had the highest temperatures registered in the last 62 years.^[10] These events and further expected increases are increasing demand and usage intensity of electricity generation, and transmission and distribution systems, resulting in increasing blackouts.

These alterations in the behavior of the climate affect the operation of the generation, transmission and distribution of electrical energy system, negatively affecting the population life quality (and with possible disproportionate impacts and risks for women and men). This is explained by the fact that failures in the electrical system can leave the population without access to energy, or directly represent a threat to the physical integrity of people. The installation of grid-integrated renewable power generation systems near consumption points is a key measure to adapt the electrical system to these new climate change scenarios.

Argentina is conscious of this challenge that its energy industries sub-sector presents to achieving its NDC and in its second NDC set a priority line of action of developing renewable energy sources and distributed energy generation. In addition, in its National Plan for Adaptation and Mitigation to Climate Change by 2030 (PNAYMCC), Argentina proposes the energy transition as one of its strategic lines, which includes 34 measures, among which electricity generation from non-conventional renewable sources stands out, as well as the strengthening of existing electricity transmission and distribution networks to increase their resilience in the face of climate change. Although it is investing in renewable electricity generation capacity and transmission capacity, an acceleration of such is required to meeting increasing demand while at the same time reducing GHG emissions at the required speed.

The root cause of this is the current situation of the national high voltage transmission network. Called the Argentinean Interconnected Electric System (SADI for its acronym in Spanish), the network is currently at full capacity. As a result, the national grid can neither incorporate more renewable generation capacity to the system nor dispatch renewable power at times when the SADI is under stress. This is despite the fact that lower voltage local and provincial transmission networks do have capacity to manage increased supply, as there are no significant bottlenecks in the distribution and retail level, and they operate with good service quality within understood and well-functioning technical and regulatory frameworks. This situation is expected to continue as the investments required to upgrade the SADI will require large amounts of capital, infrastructure works throughout the extensive Argentine territory and the consequent time to do so.

In summary, the emissions challenge for the electricity generation sector can be summarized by five main factors:

1. Electricity demand continues to grow with significant reliance on fossil fuels for electricity generation;

2. New investments in renewable energy generation are restricted in some areas given the need to invest in the national high-voltage transmission network first;
3. The national network lacks sufficient capacity to transmit renewable-source electricity from energy-surplus areas to energy-deficit areas;
4. The intertwined nature of the investments needed in renewable generation and its corresponding transmission infrastructure require substantial amounts of capital and time, and its scale and investment mechanisms do not allow for small **distributors, investors and** households to invest in the system;
5. Argentina's centralized grid management in a context of transmission network stress increases system-wide vulnerability to growing variability in both supply and demand, particularly because of climate change-induced supply and demand variability.

Baseline – Argentina's current and future existing efforts to address this global environmental problem

To address this situation, Argentina has taken initial steps to promote the uptake of local grid-integrated distributed energy through the development of low-emission community energy (L-ECE). Such solutions harness the surplus capacity in the provincial and municipal low-voltage distribution networks to promote the generation and distribution of electricity from renewable energy sources such as solar PV and wind power. These solutions have the benefit of harnessing renewable energy resources at the local community's location, as well as developing possible new economic opportunities for them. Furthermore, these solutions ensure the provision of electricity at the user's location, thus reducing the investment required for upgrading the SADI and creating new centralized electricity generation plants, contributing to the adaptive capacity to the climate change effects. The solutions furthermore provide a way of accelerating the decarbonization of the national electricity generation system. Low-emission community energy thus presents itself as win-win solution for Argentina, as it may reduce heavy investment in high-voltage transmission, enhance energy supply, create new local economic opportunities and mitigate GHG emissions.

Low-emission community energy – an innovative way of accelerating local decarbonization

Community energy is an innovative model to manage and promote distributed renewable energy **generation and other energy resources, such as demand side management, energy efficiency measures, energy storage, etc. in an integrated manner. Low-emission community energy builds upon the previous model by exclusively using low emission technologies for electricity generation, such as solar or wind.** It allows small- and medium-sized energy users to generate their own electricity from renewable sources and inject their surpluses back into the low-voltage network, obtaining a benefit according to the applicable regulations, **while allowing L-ECE operators to integrate these surpluses with other demand side management tools to manage the whole generation-distribution-consumption system through a virtual power plant model.** Participants in these communities **that generate electricity** are referred to as "prosumers," as a portmanteau of producers and consumers, **but energy consumers can also participate in the integrated management system.** L-ECE has been having significant growth worldwide and is considered as a crucial tool in energy transitions (Porcelli & Martínez, 2018). In its *Coalition for action* initiative, *IRENA* promotes community energy identifying the main lines of action for developing

community energy and its organizational models: cooperatives, NGOs, associations, community trust funds, corporations and limited liability corporations. Two successful community energy experiences include the following:

Enercoop: France’s largest cooperative L-ECE supplier

Enercoop is a cooperative launched in 2005 that supplies 100% renewable electricity, serving 101,000 consumers in 2021 including household consumers, business and government clients. It purchases renewable energy from 354 independent local producers with an installed capacity of 355 MW. Given its cooperative model, it is owned by 55,000 members, including local public entities and financial institutions. Generating energy is not its only objective; it is also helping members reduce their electricity consumption by developing energy saving services coupled to decentralized energy production, helping them overcome the challenges of the energy transition on a local level.

Som Energía: Spain’s energy system L-ECE transformation

Launched in 2010, Som Energía is a non-profit L-ECE that is now the country’s largest, supplying 121,000 consumers with electricity from renewable sources. Its growth has been accelerated by including 75,000 members throughout the country, showing that L-ECE cooperatives do not need to be in a fixed location to thrive. It has a production of 63 GWh per year^{[11]¹¹}. As a cooperative, each member is required to contribute EUR 100 to join, which can be increased voluntarily to earn increasing dividends. The organization currently had in 2020 a turnover of EUR 70 million, highlighting the growth potential of L-ECE cooperatives.

Key institutional framework

The key policies and regulations related to promoting low-emission community energy are the following:

- **Nationally determined contribution.** In its updated second NDC, Argentina notes as part of its vision 2030 that “*in 2030 the generation of electricity from renewable sources will have increased significantly, and there will be a growing distributed generation infrastructure.*” The generation of distributed is also part of the energy priority lines of action (pages 75 and 76).
- **National wholesale electricity market Law N° 24.065.** Enacted in 1992, it represented a deep reform of the national electricity sector that introduced competition into the electricity market, giving preference to private actors to generate, transmit and distribute electricity. This Law also created the wholesale electricity market and the National Electricity Market Entity, which regulates it.
- **National Climate Change Adaptation and Mitigation Plan (PNAyMCC).** Within its 6 strategic lines of action one is specifically centered in energy transitions. Particularly it seeks the decarbonization of the energy matrix as a long-term goal, implying structural change in the energy supply and usage systems. Additionally, it establishes that this transition must be just, affordable and sustainable. For this, the plan states that the path towards decarbonization must be based on the country’s technological and production capacities, its macroeconomic possibilities, the energy resources it has available and its social context, promoting the active participation of local stakeholders in the process. These factors are considered necessary to make planification and

implementation of climate change adaptation and mitigation just, aligned with energy security and with economic and techno-industrial development.

The PNAyMCC considers that Argentina's energy transition must be a fair process that guarantees access to energy at an affordable price and at competitive costs, prioritizing active policies in terms of energy saving and efficiency. At the same time, the transition is considered as an opportunity to promote local development through the development of new industries, jobs and value chains that promote an energy matrix that supplies safe, affordable and competitive energy. In this context, it is essential that the energy transition and technological scaling promote quality jobs in a federal dimension. This transition process also represents an opportunity for women and diversities to be protagonists of the development process. The patterns of female labor inclusion in the energy sectors -which are considered strategic- and the development of focused policies of an incremental nature must be modified to insert women and diversities into them. Seeking to guarantee access to energy services in all homes, the PNAyMCC proposes the expansion of access to energy in rural and urban populations, especially in the most vulnerable sectors, where there is an overrepresentation of women. In sum, the energy transition process established in the PNAyMCC will seek to increase the production and distribution of low emission energy in a dependable, sustainable, and affordable way, accompanying productive and population growth, and strengthening adaptation mechanisms to climate change, in line with the principle of *common but differentiated responsibilities and respective capacities*. As such, distributed energy is an opportunity fully aligned with Argentina's decarbonization, social and economic development goals.

- **National Law N° 27.520:** *Minimum budgets for Climate Change mitigation and adaptation.* Approved in 2019, it establishes the minimum budgets for environmental protection to guarantee adequate actions, instruments and strategies for adaptation and mitigation of climate change throughout the national territory. The law reaffirms the climate commitments assumed by the country at the international level and promotes the design and institutionalization of tools, instruments, and actions to address the issue at the national and subnational levels. It provides a formal framework for institutional linkage for the preparation of any national, regional or international document on climate change mitigation and adaptation, among which the PNAyMCC and jurisdictional Response Plans stand out, to be designed and executed by the provinces and the Autonomous City of Buenos Aires
- **National Law N° 27.424:** *Regime for the Promotion of Distributed Generation of Renewable Energy integrated into the Public Electricity Network.* Approved in 2017 and regulated in October 2018, the law facilitates the incorporation of distributed renewable energy into the SADI, as well as create the Fund for the Distributed Generation of Renewable Energies (FODIS). As Argentina is a federal republic, the law serves as a guidance to Argentina's provinces and municipalities rather than a law. In accordance with its 1994 constitution, Argentina is a federal republic divided into 23 provinces, the Autonomous City of Buenos Aires and more than 2200 municipalities. Each province has the right and duty to determine its own constitution, respecting the same principles as the national one. Although municipal autonomy is enshrined in the national constitution, the relative autonomy of municipalities within each province is specified in different ways in provincial constitutions. Provinces that do not adhere to the Law can have their own regulations regarding distributed generation, while provinces that adhere to the National Law have to enact their own provincial Law and regulatory Decree.

- **Low-emission community energy**

- Federal level. Argentina has not yet incorporated community energy explicitly into existing federal policies or regulations, although law 27.424 does open the door for the development of such. At the start of 2023, in Argentina there are 14 of the 24 jurisdictions that adhere to the national Law (see below for information on why some jurisdictions do not adhere). In these provinces that adhered to the national Law, there are 216 cooperative electricity distributors operating. However, these cooperatives do not generate electricity and only operate low voltage electricity distribution networks, shipping SADI-transmitted electricity to consumers. Additionally, in these provinces there is an incipient (compared to the total market of 138,755 GWh) group of 1074 prosumers with 18 MW of installed capacity in community energy, although not necessarily low-emission. Current national regulation does not consider electricity cooperatives as a community energy operator, nor does it explicitly call community energy to be low-emission. However, these facts highlight the opportunity of electricity cooperatives entering the L-ECE market, as they are already operating in areas where there is a growing interest in community energy.

Argentina energy cooperatives as opportunities for accelerating the uptake of low-emission community energy

In Argentina, there are 1,167 utility cooperatives, providing services such as electricity distribution, water distribution, sewage infrastructure and natural gas. Approximately 600 of those are electricity cooperatives, supplying 7.6 million people with electricity.^[12] Their history started in the 1920s, when utilities operated by large private companies did not find smaller towns attractive to operate as a result of the high investment costs and low profitability. In that context, in 1926 the first electricity cooperative was created in Punta Alta, Buenos Aires, as a response to the restricted service provided by private utility *La Industria Eléctrica*.

Currently, electricity cooperatives do not generate electricity and only operate low voltage electricity distribution networks, shipping SADI-transmitted electricity to consumers. These cooperatives operate electricity distribution monopolies in their influence areas, similar to how other types of electricity utilities work in the country. In total, energy cooperatives manage 11% of the total market, representing, if combined, the biggest energy distributor in the country.

With business structures and operational models more diverse and flexible than the traditional energy distributor and generator, these cooperatives present significant opportunities for transforming themselves into low-emission community energy, which may build upon such structures. Additionally, electricity cooperatives represent a unique opportunity in aligning interests with L-ECE, as their current operation is exposed to supply cuts from SADI-dispatched electricity and have no means to hedge against them. By integrating L-ECE, electricity cooperatives can provide uninterrupted energy and integrate other resources

such as demand management, while creating new business opportunities and access new financing from their clients. The responsibilities and attributions determined for each player in electricity markets in the Argentinean legal framework, including the separation between transmission and distribution, allows deployment of L-ECE in Argentina avoiding vested interests.

It is important to note the difference between distributed energy, community energy and energy cooperatives:

- Distributed energy refers to installing generation capacity at the local level, generally at the same point of consumption. Distributed energy generators, called prosumers, may or may not be connected to a grid to inject surplus energy back into it;
- Community energy builds upon distributed energy, and refers to an innovative operational model for managing distributed energy resources at a community level so that surplus energy prosumers can supply energy deficit consumers;
- Energy cooperatives are a particular way of organizing energy distribution companies in Argentina where the property of the company is within its members (and not shareholders) and that are not oriented towards profit.
- Community energy can incorporate other measures, such as demand side management, energy efficiency measures, energy storage, etc. in an integrated manner, while promoting the adoption of measures such as smart meters, that further strengthen the electricity transmission and distribution networks as a whole.

- Provincial level. As noted previously, currently 14 of the 24 provinces adhere to law 27.424.

The development of distributed energy in Argentina is recent and started from provincial initiatives. At the provincial level, the first regulations were approved by approved by Santa Fe's provincial energy company in 2013 as the *Procedure for treating island or parallel generation requests to the EPESF network* (PRO-103-101). From 2013 to 2015, the provinces of Salta, San Luis, Neuquén and Mendoza took steps to allow, regulate and promote distributed energy although not necessarily low-emission. In 2015, the Santa Fe province promoted community energy by launching the PROSUMIDORES program, which provided a more attractive tariff (feed-in tariff) to the energy produced by prosumers and injected into the low-voltage network to accelerate investment by making its returns more attractive.

Currently, three provinces have their own laws and regulations regarding community energy, while at the same time there is a cooperative operating a community energy deployment in a province that does not have community energy regulation. Mendoza regulated their functioning through Law 9084 in 2018, creating the user/generator *collective*. Córdoba regulated the creation of a legal figure called *Community distributed renewable energy generation integrated to the electricity network* through resolution 01/2021. It also advanced with pilot experiences of community energy through the signing of specific agreements

between the provincial government (ERSEP[13]¹³) and cooperatives EPEC[14]¹⁴, FECECOR[15]¹⁵ and FACE[16]¹⁶. Finally, Santa Fe created by decree in 2020 the “Renewable Energy for the Environment Program” (ERA) with the goal of promoting: (i) renewable energies in community energy, (ii) smart electricity networks and (iii) their efficient usage. Since 2021 it is also promoting a program called ERA Collaborative Energy, developing a regulatory framework for L-ECE from the pilot experiences.

Beyond the five provinces noted above, there are nine other provinces that do adhere and 10 provinces that currently do not adhere to the national law. There is no key legal or regulatory barrier that restricts provinces from deploying low-emission community energy. The provinces can be categorized in three groups: 1. Those that adhere to the law; 2. Those that don't adhere because they created regulation prior to the federal law that is similar in nature (i.e. conducive legal frameworks are in place for facilitating deployment of distributed energy); 3. Those that don't adhere because they have found it technically challenging to develop regulations at the provincial level that are consistent with the federal law. This means that all provinces can deploy low-emission community energy, but the provinces are at different stages in terms of regulating it. Addressing this is a key focus of this GEF project. Further examination of this baseline situation and a mapping of all provinces will be undertaken during the project detailed design phase, with the aim of identifying in greater detail the capacity challenges that provinces face.

Low-emission community energy experiences in Argentina

There are two incipient experiments in L-ECE cooperatives in Argentina that, although not supported by the current regulatory and financial frameworks, show their potential for decarbonizing electricity generation.

PRIER[17]¹⁷ Project

The project *Distributed renewable energy: technological, social, environmental, and economic contributions of their application to Armstrong's intelligent network* (PRIER) created a public-private consortium between the National Technology University – Rosario Regional Faculty (UTN-FRRo), the National Industrial Technology Institute (INTI) and the Armstrong Public Works and Services Cooperative (CELAR), informally also including the Electric Wholesaler Market Administrator Company (CAMMESA). The project started in 2014 with financing from the Ministry for Science, Technology and Innovation through a call for projects in partnership with National Agency for Science and Technology Promotion (ANPCyT). Through this consortium, the project installed 60 solar PV (between 1.5 kW and 2 kW each) on household rooftops, 200 kW at an industrial park and 10 low-power wind power generators. CELAR had previously installed 100 intelligent energy meters in partnership with CAMMESA to pilot these power meter systems, which were used for the PRIER Project. The savings in wholesale electricity

costs that the Armstrong cooperative generates through L-ECE are used to expand the project in more household rooftops, as was decided by a participatory process of the electricity cooperative's members.



City of Armstrong

Tandil Popular Plant – Solar Communities

The Solar Communities project is implemented by the Tandil Popular Plant, an electricity cooperative in the city of Tandil in Buenos Aires, as a stand-alone business unit in association with the cooperative's members-users, to generate renewable energy. Conceptually, member-users purchase anticipated clean energy, avoiding maintenance and operating costs of the solar PV panels as well as avoiding malfunctioning risks. Through this project, users purchase solar PV modules at USD 1,000 each through a preferential exchange rate financial facility provided by Banco Nación. The investment allows users to have 190 kWh of energy per month for 10 years included in their energy bills at the price set by CAMMESA each month. This mechanism allows users to access renewable distributed energy at a much lower initial investment.



City of Tandil

Key stakeholders

Key stakeholders promoting the decarbonization of the energy grid, the uptake of community energy, the creation of low-emission community energy, and organizations working in crosscutting issues such as inclusiveness and gender in energy, include:

-
- Federal Government: Ministry of Economy (Energy Secretariat), Ministry of Environment and Sustainable Development, Ministry of Women, Genders and Diversity,
 - National agencies and public companies: YPF, INAES[\[18\]](#)¹⁸, INTI[\[19\]](#)¹⁹
 - Financial institutions: Banco Nación, the National Bank of Investment and Foreign Trade (BICE), Federal Investment Council (CFI)
 - Energy suppliers, electricity distribution network operators: EPE[\[20\]](#)²⁰, EPEC[\[21\]](#)²¹
 - Provincial governments
 - Energy market regulators: ERSEP[\[22\]](#)²²
 - Non-government entities: Argentinean Federation of Electricity Cooperatives and Other Public Services, National Institute for Associativism and Social Economy, AMES[\[23\]](#)²³, FECCAFE[\[24\]](#)²⁴, Energizar Foundation, Bariloche Foundation
 - Local electricity cooperatives: CELAR[\[25\]](#)²⁵, FECOOSER[\[26\]](#)²⁶, FACE[\[27\]](#)²⁷, FESCOE[\[28\]](#)²⁸, FECESCOR[\[29\]](#)²⁹, Tandil Popular Plant
 - Universities and academic institutions: National Technology University – Rosario Regional Faculty (UTN-FRRo), Argentinean Energy and Sustainability Observatory
 - Local distributed energy technology suppliers
 - Local commerce and industry SMEs

Relevant financial instruments

The following table highlights financial instruments available in Argentina related to L-ECE. From the table below current limitations on financing for L-ECE can be noted: the BICE instrument is only available for provinces that adhere to the national law. This excludes some provinces that have their own instruments. Other financial instruments are limited to a certain jurisdiction, but would provide information on relevant experiences, good practices and lessons learned for financial institutions to build upon. As a result, the financial instruments currently available are of insufficient scale and coverage to take advantage of L-ECE's potential in the country.

Table 2 – Relevant financial instruments available in Argentina to allow L-ECE growth

Initiative	Financing entity	Description	Timeframe
Soft credit line within the Law No. 27,424: Distributed generation framework	Federal Secretary of Energy, Argentinean Bank of Investment and Foreign Trade (BICE)	<p>Soft credit line within the framework of Law No. 27,424, which created the Fund for the Distributed Generation of Renewable Energies (FODIS). Financial conditions:</p> <ul style="list-style-type: none"> • Term: Up to 60 months • Grace period: Up to 24 months • Currency: Pesos • Rate: Private Badlar + 600 bp. For SMEs, a fixed rate cap of 59% during the first 24 months • Rate discount: 18 annual percentage points throughout the term of the credit • Amortization system: French or German • Guarantee: subject to BICE approval <p>Subject of the credit: Individuals and/or legal entities and/or National, Provincial, Municipal, Public or Private Dependencies or Organizations of the jurisdictions adhering to National Law 27,424 “Regimen for the Promotion of Distributed Generation of Renewable Energy Integrated into the Electric Network Public”, currently: Catamarca, Chaco, Chubut, Autonomous City of Buenos Aires, Córdoba, Corrientes, La Pampa, La Rioja, Mendoza, Neuquén, Río Negro, San Juan, Tierra del Fuego and Tucumán.</p> <p>Eligibility: Granted by the Ministry of Economy (Energy secretariat). https://www.bice.com.ar/generacion-distribuida/</p>	Since 2023
Financing for wind and solar equipment	Government of Río Negro through the Federal Investment Council (CFI) and the Ministry of Production and Agroindustry	Amounts vary depending on the characteristics of the applicants, up to ARS 30,000,000, with a maximum term of 84 months, with up to 6 months of grace. Rate caps vary between 15% and 30%. At a first stage ARS 150,000,000 are available, and will be renewed once the fund is exhausted	Since 2022

<p>Financing for renewable energy</p>	<p>Government of the Province of Santa Fe with the Federal Investment Council (CFI)</p>	<p>Goal is to increase access to renewable energy for neighbors, MSMEs and in the province of Santa Fe. The credit is made up of two lines for the purchase and installation of photovoltaic solar systems within the framework of the ERA Program and the purchase and installation of solar water heaters.</p> <ul style="list-style-type: none"> Planned Amount: ARS 400,000,000 Beneficiaries: MSMEs, self-employed, dependent workers Amounts: up to ARS1,000,000. Term: up to 48 installments, with a 3-month grace period. Financing: up to 80% of the investment to be made. Bases and conditions: Solar water heaters Inquiries: financiaciónrenovables@santafevirtual.edu.ar <p><u>Renewable Energy Line for the Environment (ERA)</u></p> <ul style="list-style-type: none"> Beneficiaries: EPE users and Electric Cooperatives adhered to the ERA Program of the Province of Santa Fe. Self-employed and people in a dependency relationship, micro-enterprises and SMEs. Amounts: Up to ARS 1,000,000, ARS 3,000,000 and ARS 20,000,000 depending on the type of beneficiary. Term: Up to 48 or 60 months depending on the type of beneficiary, with a 6-month grace period. Financing: up to 80% of the investment to be made. https://www.santafe.gov.ar/index.php/web/content/view/full/243943 https://www.santafe.gov.ar/index.php/web/content/download/268247/1401409/ 	<p>Since 2022</p>
<p>Financing for renewable energy</p>	<p>Government of the Province of La Pampa together with the Federal Investment Council (CFI)</p>	<p>Aimed at companies located in the Province for the acquisition of new solar and wind technology equipment for the production of electrical energy. Conditions:</p> <p>Up to ARS 20,000,000 (ARS 30,000,000 w/ guarantee)</p> <p>Variable TNA capped at 30% (For projects up to ARS 1,000,000 the rate is reduced to 15%)</p> <p>Maximum term: 84 months (Micro-SMEs up to 48 months)</p> <p>Maximum grace period: 6 months</p> <p>Up to 80% of the total investment is financed</p> <p>Guarantees: Personal, Real, small business.</p> <p>https://produccion.lapampa.gob.ar/financiamiento-energias-renovables-generacion-para-inyectar-a-la-red.html</p>	<p>Since 2023</p>

Additionally, Argentina is advancing in with other baseline investments and initiatives related to the promotion of low-emission renewable electricity generation and transmission, demand-side management (primarily energy efficiency) and long-term planning. Although none of them is designed to address the barriers identified in this project document directly or promote L-ECE, they do serve as important foundations from which this GEF project for L-ECE can build upon to promote the adoption of L-ECE at scale.

Table 3 - Key projects, investments and initiatives in low-emission community energy

Title	Entity	Description	Duration
Collaborative solar PV project for water cooperatives	Ministry of Economy, Production Development Secretary, public-private partnership	The design of a photovoltaic plant is currently under development to collaboratively supply the energy demand for water purification of 10 cooperatives and communes in the province of Santa Fe. The plant will be in one of the participating towns and the energy will be shared between a consortium especially set up for this purpose. It is implemented in the province of Santa Fe within the framework of the collaborative ERA program. The project for the design, participatory processes and energy democratization is financed by an ANR and the investment for the acquisition of the plant is made by the water cooperatives through a financing program for cooperatives part of INAES (National Institute of Associations and Social Economy)	Starting in 2023
Collaborative ERA program	Santa Fe Government	The collaborative ERA program establishes the technical, legal and economic framework to develop collaborative energy projects. It provides a differential feed in tariff for the energy injected into the network by prosumers so that the investment is more attractive.	Started in 2022
Support for clean, just and sustainable energy transition	Ministry of Economy, energy secretary IDB	Support for the development of the Energy Transition Plan and strengthening the planning capacities of the energy sector to contribute to the achievement of Argentina's climate commitments.	2022-2023
Social housing energy efficiency and renewable energy program (GRT/FM-15083-AR)	Ministry of Land and Habitat Development Ministry of Environment and Sustainable Development GEF	The Program's main objective is the reduction of (GHG) emissions in Argentina by through energy efficiency and energy consumption reduction in new social housing, through incorporating bioclimatic design (DB) strategies, energy efficiency standards (EE) and renewable energy (RE). The specific objective of the project is to develop minimum housing standards through DB, EE and ER measures for the construction of social housing, based on the results of social housing prototypes with DB, EE and ER built and monitored during the project. These standards will be incorporated into new housing projects. The Program provides for the design and construction of 128 social housing prototypes (PVS) with Bioclimatic Design (DB), Energy Efficiency (EE) and Renewable Energy (RE) and their monitoring over a year. The results will be compared with a control group of 640 social houses which do not have DB, EE or ER measures in their design, provided by the Argentina government.	2016-2024
Policy scenarios towards a just energy transition in Argentina	Energy Secretary Euroclima+	The project aims at the improvement of the policy design process in the Energy sector linked to the implementation of a just energy transition in Argentina, strengthening energy modeling capacities.	2021-2023

GHG mitigation and climate change adaptation in Latin America by strengthening energy efficiency in strategic sectors of Argentina and Chile	Energy Secretary Euroclima+ Joint project Argentina-Chile	The project aims to contribute to the reduction of emissions of GHG through strengthening energy efficiency measures included in Argentina's and Chile's NDCs	2020-2024
Sustainable energy municipal buildings	National University of La Plata (UNLP) EUROCLIMA+	Promotion of public policies and management capacities in energy efficiency through innovative tools, pilot projects, energy audits and training at the municipal level, aiming for replicability and scalability at the national and regional level.	2021-2023
Support to the Decarbonization and Resilience Program of Argentina	Ministry of Economy Energy secretary IDB	The technical cooperation's objective is to support Argentina in implementing its NDC and in designing its long-term decarbonization strategy to 2050 (LTS) with the following specific objectives: (i) facilitate the participation of national stakeholders to understand how resilience and decarbonization can help advance macroeconomic and sectoral development goals to strengthen ownership by national actors; (ii) evaluate options to achieve net zero emissions, inform the design of sectoral paths towards net zero emissions and prepare analytical inputs and indicators, particularly in key sectors such as agriculture & forestry, financial markets, transport and energy, urban development; (iii) map existing relevant policies and create a policy roadmap to inform relevant decision makers implementing the NDC and LTS supporting the policy-based loan (AR-L1351) (iv) strengthen national analytical capacity to meet NDC and LTS goals and share lessons learned	2022-2025
Investments to promote decarbonization of the energy sector in Argentina	Ministry of Economy Energy secretary IDB	The general objective of the credit is to contribute to the decarbonization of the energy sector, improve the quality of life of citizens and promote the economic development of the country, through investments that allow a sustainable, reliable and efficient electricity supply.	2022
Enhancement to the energy sector's contribution to a green and resilient economic recovery	Ministry of Economy Energy secretary IDB	The objective is to support Argentina in building resilience in power sector planning, operations, and investment to support near-term recovery and enable long-term power system resilience against future threats.	2022
Support for the development of a Sustainable Energy Agenda in Argentina II	Ministry of Economy Energy secretary IDB	The general objective is to implement studies, consultancies and support activities that allow continuing a strategic planning process of the Argentinean energy sector, promoting energy efficiency (EE) and the development of renewable energy (ER), contributing to Argentina's consolidation of a sustainable energy agenda in the medium and long term.	2019-2023

Key barriers to addressing the global environmental problem

Although there do exist efforts for promoting renewable energy in Argentina and some incipient initiatives are related to low-emission community energy, these are still nascent, fragmented and are experiencing challenges in being executed. By analyzing the problem and the projects and initiatives related to the topic in the country, four main barriers were identified that need to be overcome so that Argentina can address the root causes and move towards carbon neutrality, reducing electricity costs and increasing electricity supply reliability for consumers while reducing global GHG emissions.

B1. Absence of integrated and coherent national-provincial-local public policy, strategic planning and regulatory guidance for promoting low-emission community energy

Despite the existence of a federal law on distributed energy, it is not necessarily low-emission, not all provinces adhere to the law, and nor do they have the needed local regulations in place. Additionally, neither the national law nor the majority of the local regulatory packages in provinces recognize community energy or the alternative business models to deploy and manage L-ECE. Energy cooperatives, which already operate in the country and are potential L-ECE operators, lack the tools and capacities needed to become L-ECE companies. These focus only on distributing electricity. Although distributed energy and by extension community energy is recognized in Argentina's NDC as a priority action line, and electricity cooperatives have a long history operating in the country, currently there is no long-term strategy that would facilitate accelerated L-ECE development through alternative ownership-management models, such as cooperatives, in line with Argentina's LTS. Furthermore, implementation of L-ECE cooperatives at the local level currently depends on local government policies, but many such governments lack the knowledge, capacities and experience in promoting these innovative initiatives. In the specific cases where electricity cooperatives exist and are distributing energy where there is a fostering enabling environment, they lack the knowledge on how to transform their businesses into a L-ECE model.

B2. Lack of local evidence as to the economic, social and environmental viability of L-ECE as a means to provide reliable electricity to consumers

Although numerous electricity cooperatives operate in the country and distributed energy is recognized by the federal and some local governments as a means to develop the electricity sector in a net-zero pathway, there are currently no electricity cooperatives developing L-ECE. In part, this is due to a lack of evidence as to the viability of low emission community energy models in the Argentine context. Without such evidence, local, provincial and national governments, as well as to cooperatives themselves and electricity consumers, are hesitant to make the necessary investments. As there are no experiences operating, there is no data on their economic, social and environmental benefits available to stakeholders. Local prosumers are a key element of L-ECE, but to transform electricity consumers into prosumers that are part of a L-ECE, these consumers need to know the benefits of investing in electricity generation capacity and joining a L-ECE as a prosumer.

B3. Insufficient financial instruments, business model knowledge and market scale available to cooperatives and their suppliers to scale up and ensure sustainable community energy operations

While distributed renewable energy technologies, such as solar PV and wind turbines, are close to market competitiveness in Argentina, local communities lack finance to make the necessary upfront investments for establishing and operationalizing a low-emission community energy operational model. In some cases, there is also a lack of investment for the necessary hardware of the system (i.e. solar PV), in other cases what is missing is the elaboration of an operational and business model which identifies management systems and financial structure for ensuring technical and financial viability. Existing energy cooperatives and other potential local communities for establishing community energy face a lack of understanding not only of how to structure such operational models but also as to the financial, technical and social feasibility.

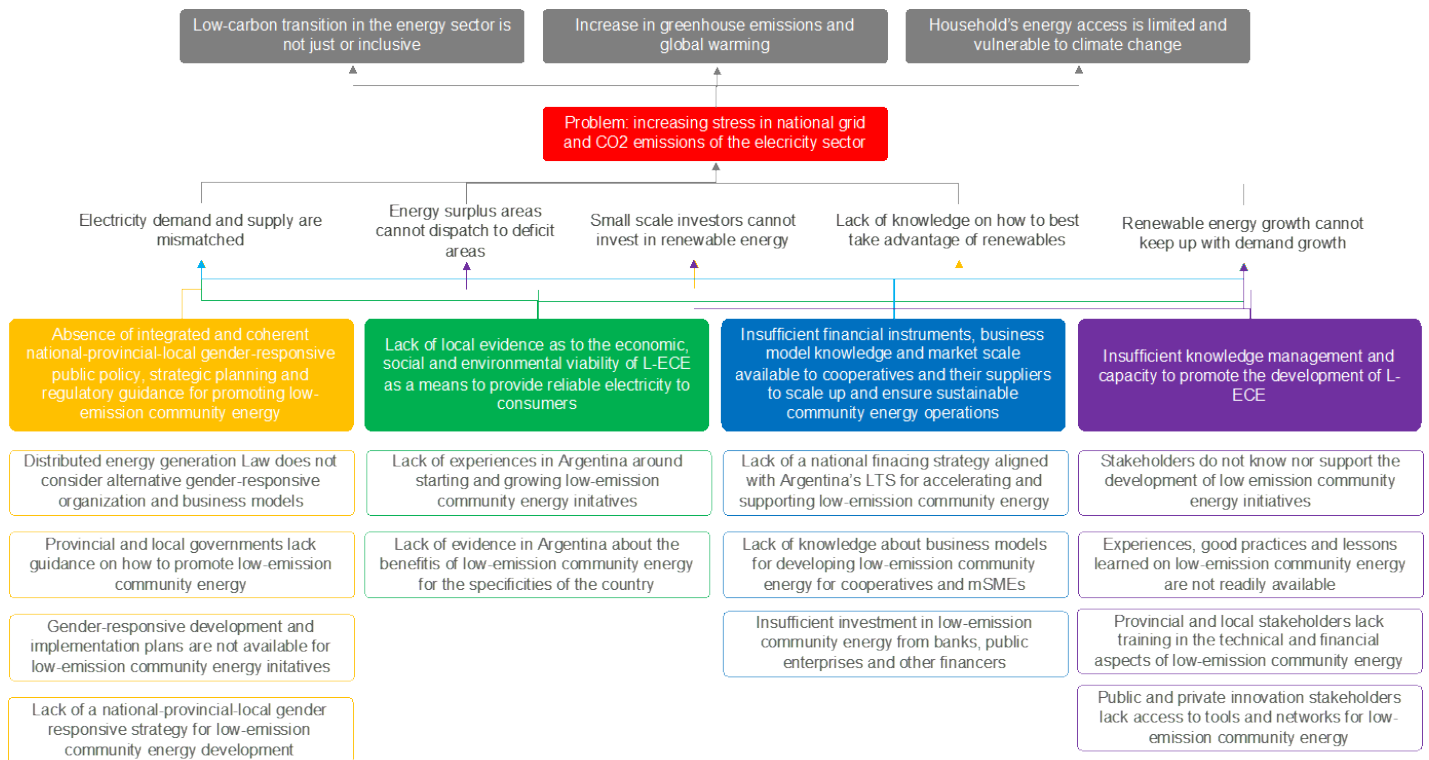
Argentina's long-standing external trade policy restricts imports to alleviate the dollar shortage in the country, and is expected to continue into the foreseeable future. As a result, L-ECE development depends on local suppliers for its growth and development. Despite the considerable potential for the development of L-ECE and its value chain of local suppliers, its incipient development in Argentina means the current market is small for both community energy deployments and its suppliers. As L-ECE and its value chain of local suppliers lack scale, the volume of financing for the whole chain is small. Argentina has a strong and enterprising industrial sector with deep local linkages that create technologies adapted to the country's realities and needs. However, this industrial sector has not entered the L-ECE market massively as the current potential for growth as a L-ECE supplier is small, limited by the current small L-ECE market itself. As a result, there is a need to scale up financing through a coordinated public-private strategy to support and foster L-ECE cooperatives' (and its suppliers') growth.

B4. Insufficient knowledge management and capacity to promote the development of L-ECE

Another barrier identified is the related lack of knowledge of key stakeholders on L-ECE, its implementation through electricity cooperatives, their growth paths and the regulatory frameworks that can support and foster their growth. There is a need for engaging with local communities and electricity consumers to promote their conversion into prosumers, their joining to a L-ECE and the required behavioral changes to promote energy efficiency aligning their electricity consumption to the technical characteristics of L-ECE while maintaining their level of comfort and productivity.

Additionally, there is a lack of knowledge available to national, provincial and local governments, the private sector and civil society about how to start up and scale up L-ECE cooperatives. Specific capacity building is also not available to those actors, limiting their options to access the required knowledge to promote L-ECE. As such, greater exchanges are also necessary between academia and training institutions, local and national governments, technology suppliers, so that research and development tailored to L-ECE in the national circumstances of Argentina is accelerated to increase productivity and growth.

Problem tree



Socio-economic benefits

In addition to the importance of decarbonizing the Argentinean electricity sector to achieve the goals of the Paris Agreement, such efforts also present significant potential socioeconomic benefits for the country, especially in the context of a global energy crisis. Key such benefits include:

1. Increase household and business access to energy
2. Increase the electricity grid's resilience to climate change
3. Develop a local value chain of renewable energy technology suppliers, contributing to the promotion of a just transition to a low-carbon economy in Argentina

Deploying L-ECE in homes increases access to energy, reducing the risks to health and comfort identified in the PNAyMCC due to lack of access to electricity from intense rainfall or other threats affecting local distribution networks, as well as blackouts resulting from heat waves or other threats to the transmission and distribution networks. As L-ECE allows a part of electricity to be consumed at the point of generation, it reduces demand to the already overdrawn SADI and consequently reduces the probability of transmission network failures due to the variability in electricity demand (for example during heat wave events) or variability in supply (for example during drought events). Additionally, L-ECE in industries allows continuing production during blackouts resulting from weather events affecting transmission and distribution networks, reducing the

risk of loss of income to production and tourism activities. Finally, developing the local value chain of renewable technology suppliers for L-ECE can not only accelerate its deployment, but also create opportunities for workers and companies for a just transition to a low-carbon economy in the country. These factors make L-ECE an ideal alternative to face the challenges in electricity sector decarbonization and electricity access in Argentina, while allowing for other initiatives that reinforce the system as a whole, such as investments in the transmission network and initiatives promoting energy efficiency, to continue symbiotically with L-ECE deployment.

Resilience to future changes in drivers

The L-ECE approach is selected over other potential options because it ensures resilience to future changes of the drivers by adopting a people-driven approach to technology deployment and innovation. This social structure to technology development and deployment ensures that user needs and priorities are incorporated into the solution, rather than a top down solution being imposed on a community. Not only are new electricity generation technologies promoted, but by its very nature this process is participatory and democratizing, involving the population it serves. Furthermore, this solution is resilient to future changes in drivers as it directly addresses the core barrier: the absence of a stable and reliable supply of electricity at the user end. This community-driven approach to deploying low-emission electricity solutions focuses on alleviating energy poverty: the integrated management of supply and demand within a L-ECE provides energy services (i.e. hot water) at a low cost by aligning the interests of the consumer with those of the system. As explained previously, a by-product of this integrated management is increased resiliency to climate change effects in both supply and demand of electricity, further improving household welfare.

Project objective

This project aims to accelerate the decarbonization and resilience of the electric energy sector in Argentina through the promotion of grid-integrated low-emission community energy in local communities, supporting Argentina to achieve the goals of the Paris Agreement. With support from the GEF and UNEP, Argentina seeks to address key barriers to the adoption of low-emission community energy for accelerating towards a national net-zero electricity generation matrix. The project aims to mitigate greenhouse gas emissions from the electricity sector, increase adaptive capacity, strengthen resilience and decrease vulnerability to the effects of climate change, promoting grid-integrated low-carbon community energy through enhancement of policy and institutional frameworks, technology demonstrations and deployment, value-chain and business model development, and capacity building and dissemination of good practices. Although Argentina has taken steps towards expanding participation of renewable energy in its electricity generation matrix, the project focuses on the additional support necessary to promote the adoption of innovative technologies coupled with new management and business models to further decarbonize electricity generation adapted to the local realities of the Argentinean electricity systems. The use of community energy is an innovative approach to solving a key environmental, social and economic challenge that Argentina faces with regards to decarbonizing its electricity grid. While community energy has some uptake in Europe and the United States of America, it is still a nascent concept with few examples of success in Latin America.

[1] <https://www.iea.org/reports/global-energy-review-co2-emissions-in-2021-2>.

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- [2] <https://www.iea.org/reports/co2-emissions-in-2022>
- [3] <https://www.iea.org/news/global-co2-emissions-rose-less-than-initially-feared-in-2022-as-clean-energy-growth-offset-much-of-the-impact-of-greater-coal-and-oil-use>
- [4] <https://www.unep.org/resources/emissions-gap-report-2022>
- [5] <https://unfccc.int/sites/default/files/resource/4to%20Informe%20Bienal%20de%20la%20República%20Argentina.pdf>
- [6] <https://datos.gob.ar/el/dataset/energia-calculo-factor-emision-co2-red-argentina-energia-electrica>
- [7] <https://microfe.cammesa.com/static-content/CammesaWeb/download-manager-files/NovedadesHome/Resumen%20Ejecutivo%20Ene%20a%20Dic%202022%20vs%202021%20VF.pdf>
- [8] <https://cammesaweb.cammesa.com/informe-anual/>
- [9] https://www.smn.gob.ar/sites/default/files/informe_oladecolor_2802a10703_2023.pdf
- [10] https://www.smn.gob.ar/sites/default/files/informe_oladecolor_2802a10703_2023.pdf
- [11] <https://www.somenergia.coop/es/produccion/>
- [12] https://www.aciamericas.coop/xxiconferencia/wp-content/uploads/2019/12/01_Ángel-Echarren_FEDECOBA.pdf
- [13] Acronym in Spanish for Córdoba Province’s Public Services Regulator
- [14] Acronym in Spanish for Provincial Energy Company of Córdoba
- [15] Acronym in Spanish for Public Services and Works Federation of Cooperatives of Córdoba
- [16] Acronym in Spanish for Argentinean Federation of Electricity Cooperatives
- [17] Acronym in Spanish for Distributed renewable energy: technological, social, environmental, and economic contributions of their application to Armstrong’s intelligent network
- [18] Acronym in Spanish for National Institute of Associativism and Social Economy
- [19] Acronym in Spanish for National Institute of Industrial Technology
- [20] Acronym in Spanish for Provincial Energy Company of Santa Fe
- [21] Acronym in Spanish for Provincial Energy Company of Córdoba
- [22] Acronym in Spanish for Córdoba Province’s Public Services Regulator
- [23] Acronym in Spanish for Association of Women in Renewable Energy
- [24] Acronym in Spanish for Santa Fe Federation of Cooperatives and Water Communes
- [25] Acronym in Spanish for Armstrong Public Works and Services Provider Cooperative

[26] Acronym in Spanish for Buenos Aires Federation of Public Services Cooperatives

[27] Acronym in Spanish for Argentinean Federation of Electricity Cooperatives

[28] Acronym in Spanish for Santa Fe Federation of Works, Electricity and Public Services Cooperatives

[29] Acronym in Spanish for Public Services and Works Federation of Cooperatives of Córdoba

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Introduction

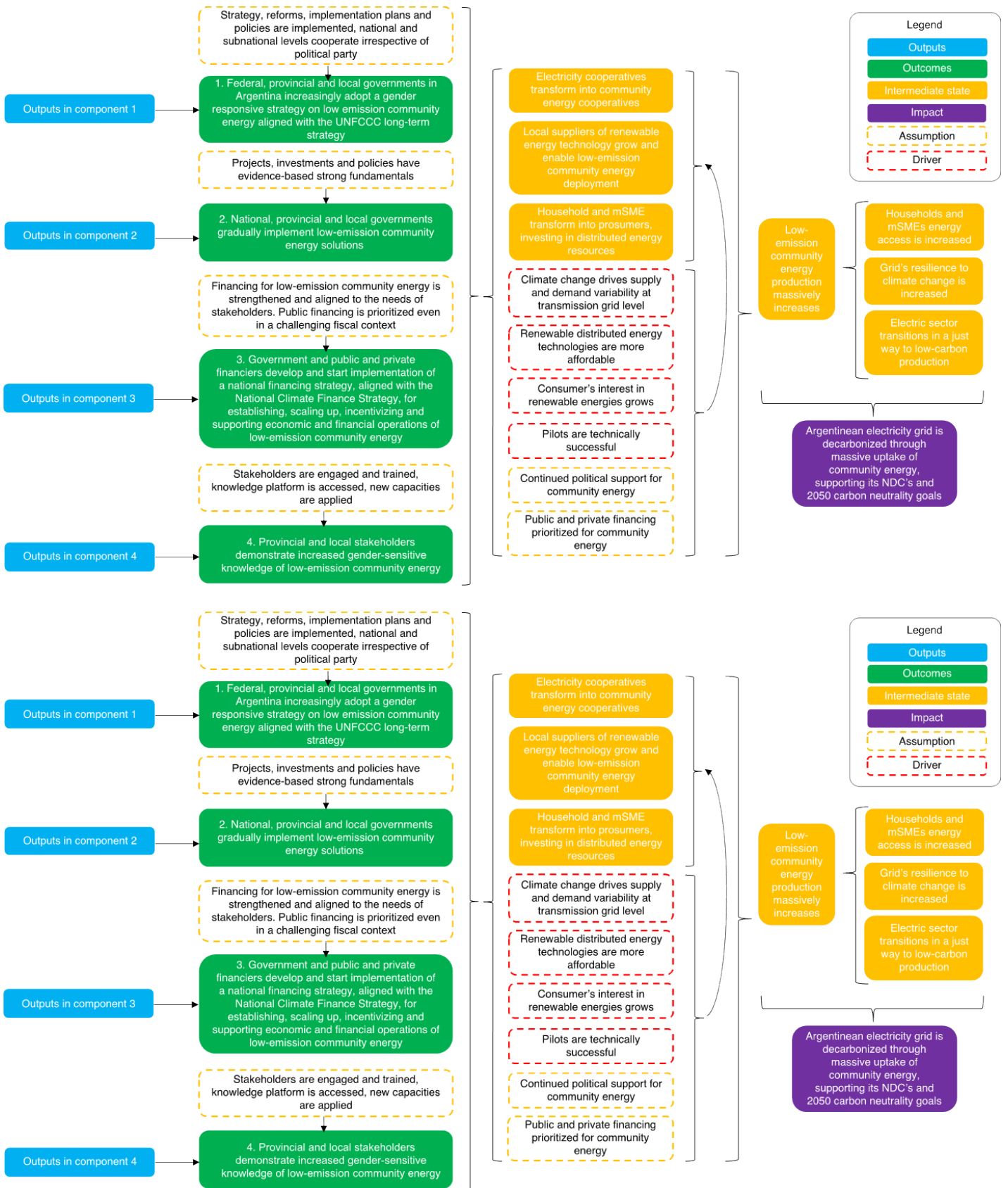
To achieve the project's objective described in the previous section, four project components will address each one of the key barriers aforementioned. **Component 1** will create an enabling environment for accelerating the transition to net-zero electricity through low-emission community energy. Through **Component 2**, key national, state and local decision-makers, including governments, public and private financiers, and civil society, will obtain catalyzing experiences to kick-start investment in low-emission community energy, founded on data on its social, economic and environmental feasibility under various delivery models, such as cooperatives, NGOs, and enterprises. In **Component 3**, the project will support leading national financiers and energy companies, including Banco Nación and YPF, to incentivize investment and innovation in low-emission community energy, ensuring a sustainable and long-term transition to net-zero electricity generation. This component will also support cooperatives, NGOs, micro-, small- and medium-sized enterprises to develop low-emission community energy at the local level through innovative business models. Finally, **Component 4** will promote co-creation of low-emission community energy initiatives through gender- and culturally-sensitive stakeholder engagement, and ensure effective knowledge management of national and international experiences, good practices and lessons learned from efforts to accelerate the development of low-emission community energy, as well as build the capacity, in collaboration with key partners, of low-emission community energy actors, local governments and building operators.

In addressing the key barriers described previously, the project aims to achieve four outcomes:

1. Federal, provincial and local governments in Argentina increasingly adopt a gender responsive strategy on low emission community energy aligned with the UNFCCC long-term strategy
2. National, provincial and local governments gradually implement low-emission community energy solutions

3. Government and public and private financiers develop and start implementation of a national financing strategy, aligned with the National Climate Finance Strategy for establishing, scaling up, incentivizing and supporting economic and financial operations of low-emission community energy
4. Provincial and local stakeholders demonstrate increased knowledge of low-emission community energy

Theory of change



Component 1: Enabling environment for low emission electricity

This component aims to support Argentina in establishing an enabling environment for facilitating the transformation to a decarbonized and resilient electricity generation sector.

Outcome 1: Federal, provincial and local governments in Argentina increasingly adopt a gender responsive strategy on low emission community energy aligned with the UNFCCC long-term strategy

Barrier addressed: B1 An absence of integrated and coherent national-provincial-local public policy, strategic planning and regulatory guidance for promoting low-emission community energy.

Output	Title
1.1	A gender-responsive national strategy on low-emission community energy, aligned with the UNFCCC long-term strategy, is made available to government stakeholders at the national, provincial and local level
1.2	Recommendations to enhance the distributed energy generation law (N° 27.424) for promoting low-emission community energy are submitted for consideration by Federal Ministries
1.3	A low-emission community energy regulatory and implementation guide (including toolkit) is made available to provincial and local governments and other stakeholders, drawing upon national and international experiences, good practices and lessons learned
1.4	Greater awareness, public policies, regulatory change and action on low-emission community energy is promoted among local governments through existing multi-level, multi-sectoral and multi-stakeholder alliances
1.5	Integrated low-emission community energy development and implementation plans are made available for application by three (3) local proponent groups

Through output 1.1, Argentina will establish a gender-responsive national strategy for achieving countrywide deployment of grid-interactive L-ECE, aligned with its UNFCCC LTS, NDC and PNAYMCC. The strategy will be developed through a multi-ministerial and multi-stakeholder co-creation process, and will include a concrete roadmap and policy-coherence action plan for achieving the project’s impact, including prioritization of actions and an investment plan. Elements of the strategy will include:

- Mission and vision for 2050, including identification of the potential of L-ECE to mitigate GHG emissions and support Argentina’s climate goals;
- Objectives and targets;
- Technological action plan and investments to decarbonize the electricity sector and increase its resilience and adaptation to climate change through L-ECE;
- Key actions, including promoting behavior change to increase support for L-ECE and energy efficiency as a means of managing and containing investments in electricity supply infrastructure

Output 1.2 will deliver recommendations to Federal ministries for their consideration of enhancing Law 27.424 **to explicitly recognize L-ECE**. The current law is an important step forward in promoting distributed energy resources (its current focus). **Through this project, recommendations will be developed to enhance**

the law, building upon the experiences, good practices and lessons learned from the project, so that it can more directly facilitate and promote it in addition to distributed energy generation (its current focus) and through alternative types of organizations for L-ECE, such as cooperatives, NGOs, etc. Enhancing the law to focus directly on L-ECE may also facilitate more direct financing for such through federal financing entities and the private sector (due to the market signal provided by the federal government through the law). Currently in Argentina energy cooperatives are numerous and effective in delivering electricity distribution and other related services, and they are a prime example on possible new management arrangements for accelerating L-ECE deployment and adoption. Given that reforming a law can require a time-consuming process, it is important to note that not achieving reform quickly does not hamper the development of the rest of the project, as under the Argentinean legal framework local governments can promote L-ECE regardless of the national law. Reforming the national law undoubtedly can accelerate these processes through a catalysing effect and direct focus on L-ECE as a viable solution.

Connected to this, output 1.3 will deliver a L-ECE regulatory and implementation guide for provincial and local governments as well as private sector actors on good practices for facilitating the uptake of L-ECE in local jurisdictions. This will include regulatory recommendations, toolkits and key technical information, building upon national and international experiences, good practices and lessons learned. In accordance with the Argentine constitution, provincial and local governments have responsibility for legislation on electricity distribution and generation, so this output complements output 1.2 but does not require it to be completed. Output 1.3 aims to promote policy coherence and vertical alignment between the different levels of government through a set of common good practices and regulatory guidelines aligned with law 27.424 (and its enhance version through the project). Elements of the guide will include:

- Regulatory packages for provinces considering different local circumstances and starting points;
- Technical protocols and other technical features of a L-ECE;
- Technical recommendations on the alternative generation devices and their organization according to the different circumstances of provinces (for example provinces where wind is abundant will need different solutions to places where photovoltaic generation is more viable);
- Climate risk evaluation of local low-voltage grids and how L-ECE can serve as a risk management tool for local grids;
- Management models for L-ECE according to different local circumstances and ownership arrangements;
- Financing options available for L-ECE for each ownership and management model.

As L-ECE needs to be strongly encouraged at a local level to engage with potential prosumers, output 1.4 will promote awareness, public policies, regulatory change and action on low-emission community energy among local governments through the strengthening of existing multi-level, multi-sectoral and multi-stakeholder alliances. These mechanisms will help to develop a national community of practice and the sharing of experiences, good practices and lessons learned between different community energy initiatives.

Finally, output 1.5 will deliver integrated L-ECE development and implementation plans for application by three (3) local proponent groups, drawing upon the previous outputs in this component to develop concrete implementation plans. These will also serve to scale-up the demonstrative pilots in component 2. The local proponent groups will be selected through a participatory process according to, inter alia, their potential to highlight L-ECE's ability to respond to local and national challenges. These plans will include an identified and developed operational model, such as the implementation of community energy within an existing energy cooperative or the decentralized deployment of resources coupled with centralized management through a *virtual power plant* management model.

Component 2: Demonstration of the feasibility of low-emission community energy

Through this component, Argentinean stakeholders will develop awareness of and confidence in L-ECE innovative technologies, management models and solutions adapted to the Argentinean context, for developing and growing L-ECE in different Argentinean provinces. The knowledge, experiences and lessons learned through these pilots will be a valuable input for sharing through the tools in component 4 of the project.

Outcome 2: National, provincial and local governments gradually implement low-emission community energy solutions

Barrier addressed: B2. Lack of local evidence as to the economic, social and environmental viability of L-ECE as a means to provide reliable electricity to consumers.

Output	Title
2.1	Participative pilots in Argentina provinces demonstrate the technical, social, environmental and economic viability of low-emission community energy to local, provincial, and national stakeholders
2.2	A monitoring and evaluation system is established to measure the impact (social, economic, and environmental) of the low-emission community energy pilots

Through output 2.1, investment in three to four (3-4) low-emission community energy pilots will be made with the objective of demonstrating the feasibility of L-ECE. The pilots will consist of technological and system demonstrations in three to four communities in Argentina. The project will fund, inter alia:

- The design of a viable L-ECE system for the chosen community, including the technical feasibility, supply ecosystem, business model, infrastructure, legal clearances and training requirements. The design will be developed through a co-creation process with all key stakeholders. The specific design will greatly depend on the local conditions of the sites chosen;
- The identification of potential pilot co-financers (e.g. provincial and local governments and federal investors) and, where possible, elaboration of cooperation agreements for co-financing the pilots;

- The purchasing of L-ECE infrastructure, including renewable energy technologies (primarily solar photovoltaic panels with an estimated capacity of 100kW), energy storage, smart meters, other demand management technologies (energy efficiency technologies) and the IT system (including payment system);
- The operationalization of the L-ECE system, including testing, debugging and full operating of the system, including its business model;
- Elaboration of agreements and protocols for the post-project long-term operation (including maintenance) of the L-ECE pilot with the provincial or local government;
- Education and training of local and provincial stakeholders of the L-ECE system, including governments, investors, the community itself (including youth, gender and indigenous peoples), academia and broader civil society.
- Monitoring and evaluation of the pilots and comparison to baseline communities (i.e. existing standard cooperatives). This is undertaken through output 2.2.
- Diffusion of the pilot impact and capturing of the pilot's experiences, good practices and lessons learned through quarterly technical reports to governments and cooperatives, information on the open-source platform (output 4.2) and through communication products (output 4.1).

The proponents will be chosen through an open competitive process (the same as that of output 1.5), based on elements including **the community's possible:**

- Climate mitigation potential
- Social-economic benefits
- Replicability potential
- Political viability (e.g. local regulatory support)
- Long-term post-project financial sustainability
- Potential co-financing (incrementality)
- Gender- and cultural-sensitivity of the proposal
- Alignment with national policies, including the NDC and LTS
- Nature-positive potential

The pilots will be elaborated in greater detail during the full project design phase.

Through the project, the pilots will support the co-creation with all local, provincial and federal stakeholders (including government, private sector, academia and civil society – youth, gender and Indigenous), of the community energy operational model. It will also finance the operationalization of the model and the installation of related infrastructure (which may include IT systems, renewable energy technologies, and payment systems).

To ensure that the viability of L-ECE with innovative technologies, business and management techniques are demonstrated by real data, output 2.2 will develop an monitoring and evaluation system that will deliver high-frequency data on electricity generation and consumption, grid reliability, emissions and costs of the community energy pilot and compare it with potential national grid solutions. It will also monitor the economic results of the system for all stakeholders. Whenever possible, the data collected will be sex-disaggregated to understand the impacts of the pilots for women vs men. Data collection will be performed by L-ECE participants, including the L-ECE operators, prosumers, consumers and the low-voltage grid services provider, with the support of the academic sector. The data will be open-source and connected to the knowledge platform in output 4.2 in real time, with quarterly reports prepared to be shared with stakeholders at the local, provincial and national level.

Component 3: Finance for a sustainable transformation to low emission community energy

L-ECE implies developing decentralized energy resources and a centralized management structure. However, it also requires a local value chain of renewable energy technology suppliers and low-voltage grid services providers, meaning that different stakeholders with various financial profiles will require access to financing to accelerate integrated L-ECE deployment. To that end, and complementing efforts to strengthen the enabling environment (component 1) and generate evidence and data (component 2), component 3 will focus on working with the finance sector to catalyze finance for ensuring a sustainable transition to net-zero electricity generation post-project.

Outcome 3. Government and public and private financiers develop and start implementation of a national financing strategy, aligned with the National Climate Finance Strategy, for establishing, scaling up, incentivizing and supporting economic and financial operations of low-emission community energy

Barrier addressed: B3. Insufficient financial instruments, business model knowledge and market scale available to cooperatives and their suppliers to scale up and ensure sustainable community energy operations.

Output	Title
3.1	A national financing strategy, aligned with the National Climate Finance Strategy, for establishing, scaling up, incentivizing and supporting economic and financial operations of low-emission community energy is developed for application by federal, provincial and local governments and public and private financiers
3.2	Cooperatives, NGOs, and micro-, small- and medium-sized enterprises are supported with gender-responsive training, information and technical assistance to develop business models for facilitating sustainable operation of low-emission community energy, including through consideration of energy-as-a-service (EaaS) models
3.3	Banco Nación, YPF and other banks, public enterprises and public and private financiers strengthen financial instruments for accelerating investment in low-emission community energy

Through output 3.1, Argentina will develop a climate-just national financing strategy for setting a coherent vision of government, the financial sector and technology providers on how to accelerate investment in L-ECE to achieve the national L-ECE strategy (output 1.1), the NDC, the PNAyMCC and the LTS. Drawing

upon national and international good practices, it will identify potential roles of different key actors, potential financial incentives and the required financial mechanisms. Effort will be made to ensure that such can accommodate the different regulatory, climatic, economic and social conditions of the different provinces.

Output 3.2 focuses on developing **gender-responsive** operational and financial models that can provide entities operating L-ECEs with systems to ensure financial sustainability of community energy. Cooperatives, NGOs and MSMEs will receive support for developing their business structures, reducing uncertainty and fostering their growth as L-ECE providers, **as well as opportunities to mainstream gender in their approach**. Consideration under this output will also be given to ways to promote technology providers and technology service providers for the delivery of the needed renewable energy technologies. This will include consideration of innovative energy-as-a-service models to increase access to their services and their potential markets.

Finally, output 3.3 will focus on supporting key public and private financiers and energy companies, such as Banco Nación and YPF, to strengthening financial instruments and products for enhancing access to finance and expanding investment in L-ECE deployment and its growth. Leveraging the project’s knowledge on innovative business models developed through output 3.2, this output will support financiers to derisk L-ECE investments through supporting them to develop deeper operational and financial knowledge of L-ECE, including as related to its risks, potential cash flow and expansion potential.

Component 4: Knowledge management and capacity building

This component aims to facilitate effective knowledge management on low-carbon community energy, by sharing experiences, good practices and lessons learned from local, provincial, national and international experiences. Furthermore, the component will also build capacity of key actors and facilitate the development of sustainable capacity-building instruments for promoting a long-term capacitation of stakeholders.

Outcome 4: Provincial and local stakeholders demonstrate increased gender-sensitive knowledge of low-emission community energy

Barrier addressed: B4. Insufficient knowledge management and capacity to promote the development of L-ECE

Output	Title
4.1	A gender- and culturally sensitive stakeholder engagement strategy is implemented with key stakeholders to promote the co-creation of low-emission community energy and related enabling conditions
4.2	An open-source platform on experiences, good practices and lessons learned on low-emission community energy is made available to federal, provincial and local stakeholders
4.3	Provincial and local key stakeholders (communities, governments, private sector) are trained on technical and financial aspects of low-emission community energy through a gender-responsive capacity-building program

4.4

Innovation public and private stakeholders are able to draw upon tools, networks, working groups and information for accelerating technology development, innovation, deployment and transfer of low emission community energy

Output 4.1 will deliver a gender- and culturally sensitive stakeholder engagement strategy for L-ECE. Stakeholder engagement is a critical component of this transition as, in community models, a diverse group of stakeholders play a key role in the models' design, operationalization and sustainability. Cultural change is also needed for successful L-ECE adoption and growth. Awareness and engagement of the public and private sectors, as well as academia and civil society, are further required to stimulate and support regulatory reform and adoption. As a result, this output will include developing and implementing a gender-responsive communications strategy and campaign to support the execution of the project, i.e. for outreach, awareness raising and dissemination of results. This communication campaign is conceived as a two-way dialogue between the project and the relevant stakeholders, particularly considering stakeholders directly involved in the demonstrative pilots as a means to pre-empt other dialogues with a broader set of stakeholders.

Knowledge management is a core element of this GEF project and critical to accelerating L-ECE deployment and increase the adaptive capacities of communities in order to reduce their vulnerability to the climate change effects. Through output 4.2, the project will create a knowledge platform to facilitate the management of experiences, good practices and lessons learned garnered nationally and internationally in the promotion L-ECE. It will also include gender-related lessons learned and good practices (gender mainstreaming, women's empowerment) for low-emission community energy initiatives. The module will house all information of the products developed by the project and also contain the real-time data of the L-ECE pilots implemented through the project. Where possible, this platform will be linked to existing networks and alliances promoting L-ECE.

Given the innovative nature of L-ECE from a technology, business and regulatory perspective, output 4.3 will train provincial and local communities, governments and private sector actors on the technological, operational and financial aspects of L-ECE through a gender responsive program tailored to each type of actor's needs and roles in the L-ECE ecosystem, which will contribute to reducing the population's vulnerability. Training will support consumers to understand the innovative management, business and technology involved in L-ECE, particularly as they might become prosumers and supply energy to the community. Furthermore, training will promote behavioral change beneficial to consumers and prosumers in operating a L-ECE, such as shifting electricity consumption hours or investing in energy efficiency within their households. Gender will be a focus in developing this training as women bear a majority of household work, much of it requiring energy consumption. Training will also be provided to actors in the value chain to visualize the potential of L-ECE for stimulating market demand for locally developed renewable energy technologies. In providing the above trainings, the project will focus on training and skills development to promote the participation of women in technical and non-technical roles in L-ECE, as well as increase women's role in decision-making and their access to finance for promoting community energy.

Finally, output 4.4 will support the development of an innovative and competitive local value chain of renewable energy suppliers and L-ECE developers. It will achieve this by making accessible to actors in the innovation space tools, networks, working groups and information for accelerating technology development, innovation, deployment and transfer of low emission community energy. Of key focus here will be to draw upon international experiences, good practices and lessons learned and adapt them to the specific local circumstances (technical, social, financial, climatic) of the Argentine provinces.

Component 5: Monitoring and evaluation

In this component, project monitoring and evaluation will be undertaken in accordance with GEF and UNEP policies.

Output	Title
5.1	Monitoring and evaluation products are delivered

Potential for innovation and scaling-up

The project fosters innovation at the environmental, regulatory, business model and technology adoption levels by integrating those aspects under a new energy delivery scheme that builds upon existing legal and business structures, while overcoming current limitations in the electricity system in Argentina. Currently, L-ECE is not widely deployed in Argentina. By addressing the regulatory, economic and coordination factors that limit L-ECE development, and particularly by allowing cooperatives to become L-ECE operators, incorporating small-scale electricity generation, and making electricity consumers an active part of the demand-supply match in electricity markets, a new business opportunity for producing and delivering electricity is created for cooperatives to unlock their potential as a massive decarbonization agent in the electricity sector in Argentina.

This new market is ripe for incorporating renewable electricity generation technologies as they have a good technological fit to the required conditions in L-ECE. Local and national regulations can be improved to accelerate this deployment, generating a positive feedback loop reinforcing L-ECE expansion. As there are currently more than 600 cooperatives in Argentina supplying 7.6 million people with electricity, the potential for scaling up of this project is quite considerable. By fostering the development of renewable electricity technologies locally and for the specific local conditions, innovation is further incentivized throughout the supply chain of equipment supply, electricity generation and delivery in Argentina. Finally, social innovation is promoted by the very nature of L-ECE: a participatory and community driven approach that makes beneficiaries into decision makers as well.

Contribution to improved alignment of national policies

The federal context of Argentina means that provinces have independence in creating the local regulatory environments for markets, including electricity markets. This project will foster national-provincial-local regulatory alignment by providing required knowledge and capacity building, a clear strategy to follow and, most importantly, by demonstrating the benefits of L-ECE to relevant stakeholders. At the national level, it will also allow Argentina to reach its decarbonization commitments, continuing local-provincial-national alignment into the international level.

Outputs that support improved alignment in national policies are 1.1 (A gender-responsive national strategy on low-emission community energy, aligned with the UNFCCC long-term strategy, is made available to government stakeholders at the national, provincial and local level), 1.2 (Recommendations to enhance the distributed energy generation law (N° 27.424) for promoting low-emission community energy are submitted), 1.3 (A low-emission community energy regulatory and implementation guide (including toolkit) is made available to provincial and local governments and other stakeholders, drawing upon national and international experiences, good practices and lessons learned), 1.4 (Greater awareness, public policies, regulatory change and action on low-emission community energy is promoted among local governments through existing multi-level, multi-sectoral and multi-stakeholder alliances), 3.1 (A national financing strategy, aligned with the National Climate Finance Strategy, for establishing, scaling up, incentivizing and supporting economic and financial operations of low-emission community energy is developed for application by federal, provincial and local governments and public and private financiers), 3.3 (Banco Nación, YPF and other banks, public enterprises and public and private financiers strengthen financial instruments for accelerating investment in low-emission community energy), 4.1 (A gender- and culturally sensitive stakeholder engagement strategy is implemented with key stakeholders to promote the co-creation of low-emission community energy and related enabling conditions), 4.2 (An open-source platform on experiences, good practices and lessons learned on low-emission community energy is made available to federal, provincial and local stakeholders) and 4.4 (Innovation public and private stakeholders are able to draw upon tools, networks, working groups and information for accelerating technology development, innovation, deployment and transfer of low emission community energy).

Global environment benefits

The GHG emission reductions expected to be achieved are indicated below in the core indicators section.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

The Ministry of Environment and Sustainable Development (MAyDS), as the ministry with federal mandate on climate change policy, will be the project's executing agency and governmental project lead. It will work closely with the Ministry of Economy (ME), Energy Secretariat, that leads on energy policy, to ensure a coordinated and coherent promotion of low-emission community energy. This close collaboration will also ensure complementarity between this GEF project and other related transformative initiatives promoting low-emission development in the energy sector and beyond. For instance, coordination between the GEF project and initiatives such as the *Collaborative solar PV project for water cooperatives*, *Investments to promote decarbonization of the energy sector in Argentina* and *Support for the development of a Sustainable Energy Agenda in Argentina II* (see further information in the baseline section). ME will participate in the project's steering committee led by MAYDS.

The MAYDS Climate Change, Sustainable Development and Innovation secretariat, together with the Ministry of Women, Genders and Diversity, will engage with provincial and local actors in a gender-sensitive way in developing the project's national-provincial-local strategies and policies. The National Technology University,

Rosario Regional Faculty (UTN-FRRo) and its Argentinean Energy and Sustainability Observatory, will lead the technical aspects of community energy development, particularly protocols, technologies and business models knowledge. MAYDS and UTN-FRRo will consult with cooperatives groups, energy tech companies and energy market regulators to understand the issues cooperatives and other organizations face in transforming their businesses into community energy to deliver tailored solutions.

As the project will be led by MAYDS and draw on the participation of the actors mentioned above, the project has potential to co-location and existing expertise and staffing. For instance, the MAYDS executes the GEF-7 sustainable cities project, with all staff located on the Ministry’s premises – a similar execution modality is envisioned here.

UNEP is the project implementing agency. UNEP has considerable experience in supporting the promotion of renewable energy and energy efficiency interventions around the world. In implementing this project it will build upon assessments conducted under the framework of the Climate and Clean Air Coalition, country assessments of energy efficiency savings potential undertaken by the United for Efficiency programme, efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies, the Global Cooling Stock-take Report under development with the IEA, World Bank, SEforALL, Ozone Secretariat, and UNEP’s OzonAction programme. Furthermore, it will draw upon existing partnerships under the Global Alliance for Buildings and Construction, District Energy in Cities Initiative, Climate and Clean Air Coalition, Partnership on Sustainable and Low Carbon Transport, Sustainable Energy for ALL, the Cool Coalition, REN21, the Energy Efficiency Global Alliance, Share the Road, the Basel Agency for Sustainable Energy, and the Frankfurt School of Finance and Management. It will also draw upon its experience in implementing in Argentina GEF projects (such as the GEF-7 sustainable cities and GEF-6 CBIT projects) and GCF readiness projects on electric mobility.

This project is part of UNEP’s Decarbonization Programme Coordination Project, which is a logical link between the higher-level structuring of the mitigation parts of UNEP’s 2022-2025 Medium-Term Strategy and Programme of Work and UNEP’s individual projects (such as this one). In particular, will directly support UNEP in implementing its Programme of Work outcomes 1.4, 1.6, 1.7, 1.8 and indicators i, ii and v.

UNEP will ensure that the GEF project draws upon national and international experiences, good practices and lessons learned during the project preparation grant phase and project execution. For example, this may include the IEA’s and UNEP’s Digital Demand-Driven Electricity Networks Initiative (3DEN), launched at the Pre-COP 26 in Milan, to obtain international best practices and state of the art knowledge in technology, business models and governance models for upscaling community energy in Argentina.

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	1120	0	0	0
Expected metric tons of CO₂e (indirect)	560000	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	1,120			
Expected metric tons of CO₂e (indirect)	560,000			
Anticipated start year of accounting	2025			
Duration of accounting	20			

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	606			
Male	594			
Total	1200	0	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

GHG emission reductions

The project is projected to achieve greenhouse gas emission reductions during the project lifetime, as global environmental benefits which would not have accrued without project interventions, as follows, in accordance with Guidelines on the Implementation of the GEF-8 Results Measurement Framework (GEF/C.62/Inf.12/Rev.01), page 17:

- Lifetime direct emission reductions, supervised implementation period of four years. GHG emission reductions obtained through 3-4 low-emission community energy pilots and their subsequent operation, as per component 2;
- Lifetime direct emission reductions, post supervised implementation period of 20 years:

- o Regulatory interventions: development and execution of national strategy and financing strategy (outputs 1.1 and 3.1), recommendations for enhancing law N° 27.424 (output 1.2), and an implementation guide on regulations and scale-up actions for by local, state and federal governments (output 1.3).
- o Financial facilities: enhancement of Banco Nación, YPF and other financial entity credit instruments (output 3.3) and the development and execution of business models (output 3.2).
- Lifetime indirect emission reductions, post supervised implementation period of 20 years:
- o Capacity building under output 4.3;
- o Innovation under output 4.3.

Based on the above, an estimate was made of the project’s contribution to reduction of national emissions in the energy industries sub-sector due to an increase in the number of energy cooperatives generating and distributing grid-integrated distributed renewable energy and an overall increase in the percentage of renewable energy in the national grid. An estimate was made for the project’s lifetime 2025-2045, with a causality factor of 0.20% applied.

Project beneficiaries

Project direct beneficiaries were calculated as electricity consumers turning into prosumers through the community energy pilots. Argentina has approximately 600 electricity cooperatives, supplying approximately 7.6 million people with electricity, averaging 12,500 consumers per electricity cooperative. Currently there are 1,072 electricity prosumers connected to 216 local electricity distributors or cooperatives, although not under a community energy model, averaging almost 5 prosumers per distributor. Of the 1072 prosumers, 635 are households, 379 are commercial/industrial, and 58 other types. The pilots will focus on up to 4 cooperatives, with an estimate that each cooperative will consist of 100 households, with each household containing 2.5 individuals. Thus it is estimated that the total number of beneficiaries from the pilots will be 1,000. Furthermore, it is estimated that there will be 200 beneficiaries from the project’s capacity building activities. Although the traditional energy sector is male-dominated, as this project is focusing on households it was estimated that the general gender division of Argentina applies.

Risks to Project Preparation and Implementation

Summarize risks that might affect the project preparation and implementation phases and what are the mitigation strategies the project preparation process will undertake to address these (e.g. what alternatives may be considered during project preparation such as in terms of consultations, role and choice of counterparts, delivery mechanisms, locations in country, flexible design elements, etc.). Identify any of the risks listed below that would call in question the viability of the project during its implementation. Please describe any possible mitigation measures needed. (The risks associated with project design and Theory of Change should be described in the “Project description” section above). The risk rating should reflect the overall risk to project outcomes considering the country setting and ambition of the project. The rating scale is: High, Substantial, Moderate, Low.

Risk Categories	Rating	Comments
Climate	Low	Risk: Extreme climate events, particularly extreme wind and rain events, delays execution of the project pilots. PPG mitigation strategy: Develop project workplan so that pilot construction is undertaken in typically low extreme weather seasons of the year (i.e.

		<p>autumn or spring). Incorporate buffers in the workplan to account for possible delays and budget buffers to account for minor damage to work materials. Project execution mitigation strategy: Adjust workplan as needed to avoid construction during heavy weather events. If needed, postpone construction or change pilot locations if extreme weather events impede progress.</p>
Environment and Social	Moderate	<p>Risk: Installation of renewable energy generation equipment may entail shipping of voluminous parts as well as construction for its installation. It will also employ consultants and procure necessary inputs. PPG mitigation strategy: Undertake a detailed analysis for construction and employment risks in project implementation and develop, together with UNEP’s Safeguard Unit, a management plan for their minimization Project execution mitigation strategy: Implement the employment and construction risks management plan. Monitor its development.</p>
Political and Governance	Moderate	<p>Risk: National, provincial and local elections in 2023 and 2025, result in changing national and local political priorities and less political support for project pilots. PPG mitigation strategy: Undertake deep consultations with the provincial government, the national government, electricity cooperatives and academic stakeholders to ensure ownership at all levels which will be unaffected by changes in 2024. Develop the workplan to ensure buffers for a possible change in governments in 2024. Project execution mitigation strategy: Develop a multi-stakeholder pilot</p>

		steering committee, with representation, inter alia, of Federal, provincial, cooperative, academic and local entities, ensuring ownership and continuity over election periods. Furthermore, addressing the national grid's deficit, including through distributed and community energy, has been and continues to be a key priority of Argentinean federal government.
Macro-economic	Moderate	Risk: A financial crisis reduces credit availability to prosumers to invest in renewable energy generation, affecting project progress to achieve its objective. PPG mitigation strategy: Co-design the project activities with the federal government to safeguard its political commitment to reducing emissions in the electricity sector as an effort to achieve its NDC and decarbonization target. Also co-design the project activities with key financiers, BICE, CFI, Banco Nación. Structure the workplan so that activities focusing on strengthening community energy business models are undertaken in the project's first two years. Project execution mitigation strategy: Hold monthly meetings to track project progress vis-à-vis macroeconomic challenges and adjust workplan as needed to ensure credit lines are in-place early in the project execution phase.
Strategies and Policies	Low	Risk: The federal government is hesitant to or does not fully adopt the national strategy on low-emission community energy and its alignment with the UNFCCC long-term strategy, leading to policy uncertainty and a lack of project progress and impact. PPG mitigation strategy: Undertake deep and broad

		<p>consultations with all key ministries involved to understand their concerns and challenges related to this strategy. Co-design with them a process for strategy adoption that will take into account their concerns (such as developing supporting studies and feasibility analyses for ministry consideration to facilitate adoption). Leverage Ministry of Environment and Sustainable Development project leadership to ensure UNFCCC long-term strategy alignment. Project execution mitigation strategy: Hold quarterly meetings of the project steering committee involving representatives of multiple ministries to ensure continued project ownership and addressing of concerns.</p>
Technical design of project or program	Low	<p>Extended external consultations have already been undertaken with the National Technology University – Rosario Regional Faculty (UTN-FRRO), Ministry of Environment and Sustainable Development, and cooperatives FACE , FESCOE , FECESCOR with regards to the project’s technical soundness. Furthermore, community energy initiatives have proven technically successful in other countries.</p>
Institutional capacity for implementation and sustainability	Low	<p>MAYDS has demonstrated high institutional capacity for managing the execution of GEF projects. Furthermore, addressing the national grid’s deficit, including through distributed and community energy, has been and continues to be a key priority of Argentinean federal government.</p>
Fiduciary: Financial Management and Procurement	Moderate	<p>Risk: Due to changes in macro-economic conditions, including changing prices, MAYDS faces challenges in facilitating effective</p>

		<p>financial management and procurement. Additionally, MAYDS procurement may take time due to formal requirements as a result of being a public entity. PPG mitigation strategy: Work with MAYDS to develop a budget, workplan and project execution arrangements that build upon MAYDS experiences, good practices and lessons learned in executing GEF projects in the past, including with UNEP. MAYDS experience in procurement will be leveraged to develop a procurement plan considering ministry approval times and processes to deliver required goods on time for the project. Project execution mitigation strategy: UNEP to provide capacity building to MAYDS at the beginning of the project and on a yearly basis to build its capacity on financial reporting and procurement in accordance with GEF and UNEP policies, as required. Undertake budget revisions as required to adjust to the changing macro-economic context. Revise procurement plan quarterly to identify and prevent possible delays.</p>
Stakeholder Engagement	Low	<p>Risk: Insufficient stakeholder engagement leads to a lack of buy-in, reducing project effectiveness. PPG mitigation strategy: Undertake deep and broad stakeholder consultations to ensure a co-design of project deliverables for achieving ownership of project activities. Project execution mitigation strategy: Develop a project steering committee and a multistakeholder engagement strategy to ensure ongoing ownership of project activities. In addition, develop pilot steering committees.</p>
Other		

Financial Risks for NGI projects		
Overall Risk Rating	Low	

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

GEF-8 alignment

This project is aligned with the GEF-8 programming directions climate change focal area strategy, Pillar I: *promote innovation, technology development and transfer, and enabling policies for mitigation options with systemic impacts*; Objective 1.2: *1.2. Enable the transition to decarbonized power systems*. In particular, the project is aligned with paragraphs 481, 482, 483 and 484 of Objective 1.2. [\[1\]\[30\]](#)

Country alignment

This project is also aligned with country priorities related to the United Nations Framework Convention on Climate Change (UNFCCC). Promoting distributed renewable energy is a key priority of Argentina’s updated NDC (2022), in which it notes as part of its vision 2030 that “*in 2030 the generation of electricity from renewable sources will have increased significantly, and there will be a growing distributed generation infrastructure.*” The generation of distributed is also part of the energy priority lines of action (pages 75 and 76). Promoting distributed renewable energy through low-emission community energy is thus fully aligned with the NDC. The project’s focus on decarbonizing the country’s energy industries sub-sector is also aligned with the NDC’s emission reduction goals, as well as its aim of achieving GHG emissions neutrality in 2050 in accordance with its UNFCCC long-term strategy [\[2\]\[31\]](#).

As noted in the baseline section, the project is also aligned with country priorities on climate, in particular with measure TE-18 included in the National Climate Change Adaptation and Mitigation Plan (PNAyMCC), which seeks to promote distributed electricity generation from renewable energy integrated into the public electricity grid. In addition, the national law N° 24.065 on the wholesale electricity market and national law N° 27.424: *Regime for the Promotion of Distributed Generation of Renewable Energy integrated into the Public Electricity Network*. This is discussed in greater detail in the baseline section. Analysis and consultation during the development of this PIF has identified that subsidies to household electricity tariffs, a politically sensitive matter, may contradict the intended outcomes of this GEF project in the short term. This GEF project will

support Argentina in reducing those subsidies in the long term by increasing renewable electricity supply, which has marginal costs that approach zero at certain times of the day. By incorporating energy efficiency capacity building for consumers to the project, consumption can be aligned to times of generation, accruing zero-marginal cost renewable energy to substitute grid electricity, facilitating potential reduction in electricity subsidies in the medium- to long-term. The project will address this through various project outputs, including 1.1-1.5, 2.1, 3.1 and 4.3.

The GEF project is also aligned with the four strategic priorities of the UN Sustainable Development Cooperation Framework for Argentina 2021 to 2025: economic development, social development, governance and environmental sustainability. It is also aligned with the five pillars of the United Nations Framework Agreement for Sustainable Development (UNSDPF) 2030 agenda: People, Planet, Prosperity, Peace and Partnerships (five Ps).^{[3][32]} Its objectives include generating a positive impact to guarantee diversity and an inclusive society, adequate resource management, quality of life and multiple partnerships. UNEP will facilitate coordination with the UN Country Team and Resident Coordinator, ensuring they are informed of the project's progress and that it aligns with the Argentinean UNDAF.

[1] https://www.thegef.org/sites/default/files/documents/2022-04/GEF_R.08_29_Rev.01_GEF8_Programming_Directions.pdf

[2] <https://unfccc.int/sites/default/files/resource/Estrategia%20de%20desarrollo%20resiliente%20con%20bajas%20emisiones%20a%20largo%20plazo%20a%202050.pdf>

[3] <https://unsdg.un.org/es/resources/un-sustainable-development-cooperation-framework-argentina-2021to-2025>

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: No

Civil Society Organizations: Yes

Private Sector: No

Provide a brief summary and list of names and dates of consultations

This document has been prepared through a co-creation process with representatives of the Argentine Ministry of Environment and Sustainable Development (MAyDS) and academia:

Institutions	Description	Names of contact	Dates
Ministry of Environment and Sustainable Development	Multi consultations, working meetings, co-drafting of the PIF and co-creation of the project.	Cecilia Nicolini (Secretary of Climate Change, Sustainable Development and Innovation), Florencia Mitchell (Director of Climate Change), Martin Illescas (Director of Finance), Carlos R. Amanquez	December 2022-March 2023
National Technology University, Rosario Regional Faculty (UTN-FRRo) and its Argentinean Energy and Sustainability Observatory	Multi consultations, working meetings, co-drafting of the PIF and co-creation of the project.	Pablo Bertinat	December 2022-March 2023
Universidad Nacional de Río Negro	Consultations on the project concept with regards to the state of the art of community energy	Jorge Chemes	February 2023

Information was sourced from the following entities:

- Ministry of Economy (ME), Energy Secretariat and Industry and Productive Development Secretariat
- YPF S.A.
- Armstrong Municipality
- Santa Fe Government
- Buenos Aires government
- Argentinean Federation of Electricity Cooperatives (FACE)
- Santa Fe Federation of Cooperatives and Water Communes (FECCAFE)
- Universidad Nacional de Quilmes

A broader list of stakeholders and general guidelines for a stakeholder engagement plan to be developed in the project preparation phase, including information on grievance redress mechanism, are available in Attachment 3.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNEP	GET	Argentina	Climate Change	CC STAR Allocation: CCM-1-2	Grant	4,701,497.00	446,642.00	5,148,139.00
Total GEF Resources (\$)						4,701,497.00	446,642.00	5,148,139.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

80000

PPG Agency Fee (\$)

7600

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNEP	GET	Argentina	Climate Change	CC STAR Allocation: CCM-1-2	Grant	80,000.00	7,600.00	87,600.00
Total PPG Amount (\$)						80,000.00	7,600.00	87,600.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
UNEP	GET	Argentina	Climate Change	CC STAR Allocation	5,235,739.00
Total GEF Resources					5,235,739.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CCM-1-2	GET	4,701,497.00	32000000
Total Project Cost		4,701,497.00	32,000,000.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Environment and Sustainable Development	In-kind	Recurrent expenditures	600000
Recipient Country Government	Ministry of Economy	In-kind	Recurrent expenditures	300000

Recipient Country Government	Ministry of Public Works	In-kind	Recurrent expenditures	150000
Recipient Country Government	Ministry of Public Works	Public Investment	Investment mobilized	2000000
Recipient Country Government	Three Argentine provincial governments (to be determined during the PPG phase)	In-kind	Recurrent expenditures	300000
Recipient Country Government	National Technology University (Rosario Regional Faculty)	In-kind	Recurrent expenditures	150000
Recipient Country Government	Banco Nación	Public Investment	Investment mobilized	10000000
Recipient Country Government	Bank for Investment and Foreign Trade (BICE)	Public Investment	Investment mobilized	10000000
Recipient Country Government	YPF S.A	Public Investment	Investment mobilized	8500000
Total Co-financing				32,000,000.00

Describe how any "Investment Mobilized" was identified

Investment mobilized was identified through an initial analysis of baseline investments and key stakeholders, and consultations with the Ministry of Environment and Sustainable Development. Investment mobilized will be identified in greater detail during the project preparation grant phase.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

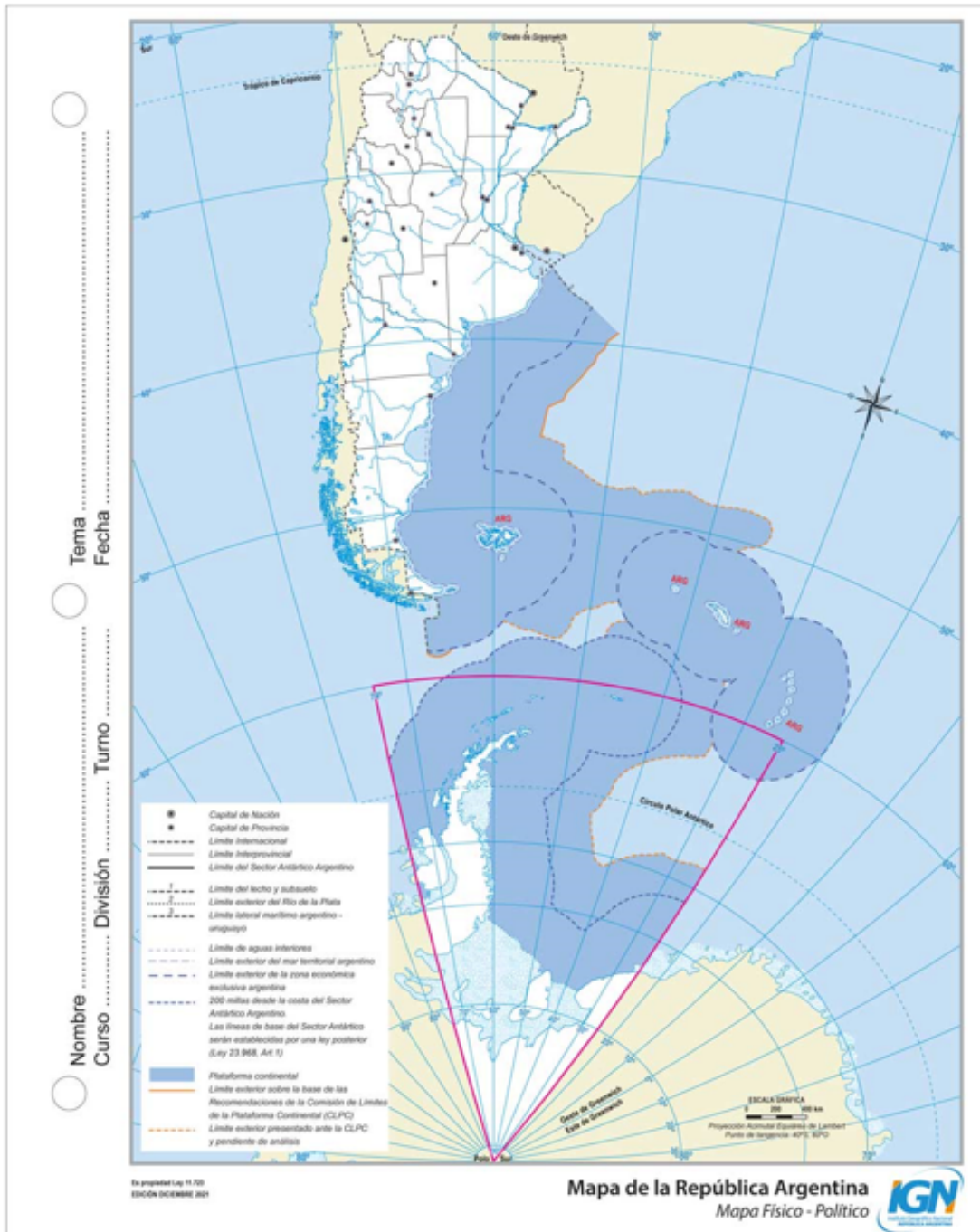
GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Victoria Luque Panadero				victoria.luque@un.org
Project Coordinator	Asher Lessels				asher.lessels@un.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Martin Illescas	General Director	Ministry of Environment and Sustainable Development	3/30/2023

ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place



Location	Latitude	Longitude
Argentina	-38.4192641	-63.5989206

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Principal Objective 2	Significant Objective 1	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
Influencing Models	Demonstrate innovative approaches	-	-
	Transform policy and regulatory environments	-	-
	Deploy innovative financial instruments	-	-
Stakeholders	Private sector	Capital providers Financial intermediaries and market facilitators SMEs Individuals/Entrepreneurs	-
	Civil society	Community Based Organization Academia Non-Governmental Organization	-
	Stakeholder engagement	-	-
Capacity, Knowledge and Research	Capacity Development	-	-
Gender Equality	Gender mainstreaming	Sex-disaggregated indicators	-
	Gender results areas	-	-
Focal Area / Theme	Climate change	Climate change mitigation	Renewable Energy
		Climate finance (Rio markers)	Climate Change Mitigation 2 Climate Change Adaptation 1