December 2018

PROGRAMME ON INNOVATION:
SMALL GRANTS PROJECTS THROUGH DIRECT ACCESS MODALITY

REQUEST FOR PROJECT FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project must be fully prepared when the request is submitted.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat
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ADAPTATION FUND

PROGRAMME ON INNOVATION: SMALL GRANT PROJECT PROPOSAL

PART I: PROJECT INFORMATION

Country:	Chile
Title of Project:	Sustainable Corridors. Adapting electricity transmission infrastructure to the climate crisis through nature-based solutions in the Antofagasta Region.
National Implementing Entity:	Agencia Chilena de Cooperación Internacional para el Desarrollo (AGCID)
Executing Entity/ies:	Ministry of Energy; Regional Ministerial Secretariat - Energy, Antofagasta; Antofagasta Regional Government.
Amount of Financing Requested:	250,000 (in U.S Dollars Equivalent)

Project Background and Context

Chile is highly exposed and vulnerable to the effects of the climate crisis. Its geographic diversity projects a significant variation among consequences from north to south. At a general level, science projects warmer days and higher average temperatures, less rainfall, more frequent droughts, and more frequent and intense extreme events.

The energy sector is affected by the impacts of climate change which has direct effects on the resilience, reliability, and proper functioning of the national energy system. The sector's main concerns at a national level are the low availability of water resources or prolonged droughts, rising temperatures and more frequent heatwaves, and the increase in the frequency and intensity of extreme events (Ministry of Energy, 2018). In addition, national and international experience shows that climate change will affect the availability of energy resources, generation infrastructure, and the transportation of both electricity and fuels and their end use, including, for instance, increased variability in the availability of water for hydroelectric generation, effects on transmission lines and fuel logistics systems due to phenomena such as storm surges, floods, and fires, among others.

A particular case of that is the vulnerability of electricity infrastructure to the negative effects of climate change at all stages (generation, transmission, and distribution in the case of electricity or transportation in the case of fuels). Among the main impacts studied at the international level is the decrease in transmission capacity and efficiency

in the face of an increase in temperature and a greater buckling of cables. In addition, transmission lines are especially vulnerable to extreme events that will be exacerbated by climate change, such as winds, floods, and floods, that damage infrastructure, increase interruptions of electricity supply (generating energy insecurity in the population) and raise maintenance/operation costs, implying a possible increase in tariffs for final customers.

The energy sector in Chile is the largest emitter of greenhouse gases (77% of total GHG), so the decarbonization of this sector has special preponderance in meeting the carbon neutrality goal by 2050, mandated by the Framework Law on Climate Change, and other climate commitments, such as:

- Long-Term Climate Strategy (LTCS): By 2050, 100% of the energy produced for electricity generation in the country comes from zero-emission energy sources. By 2030, 80% of the energy produced for the country's electricity generation comes from renewable energy generation, emphasizing that the electrical systems must be prepared to achieve this.
- Nationally Determined Contribution (NDC): Retirement of 5,500 MW by 2040 from thermal power plants.
- National Energy Policy (NEP): 60% less annual GHG emissions in the energy sector by 2050, compared to 2018, which will allow reaching carbon neutrality before 2050.

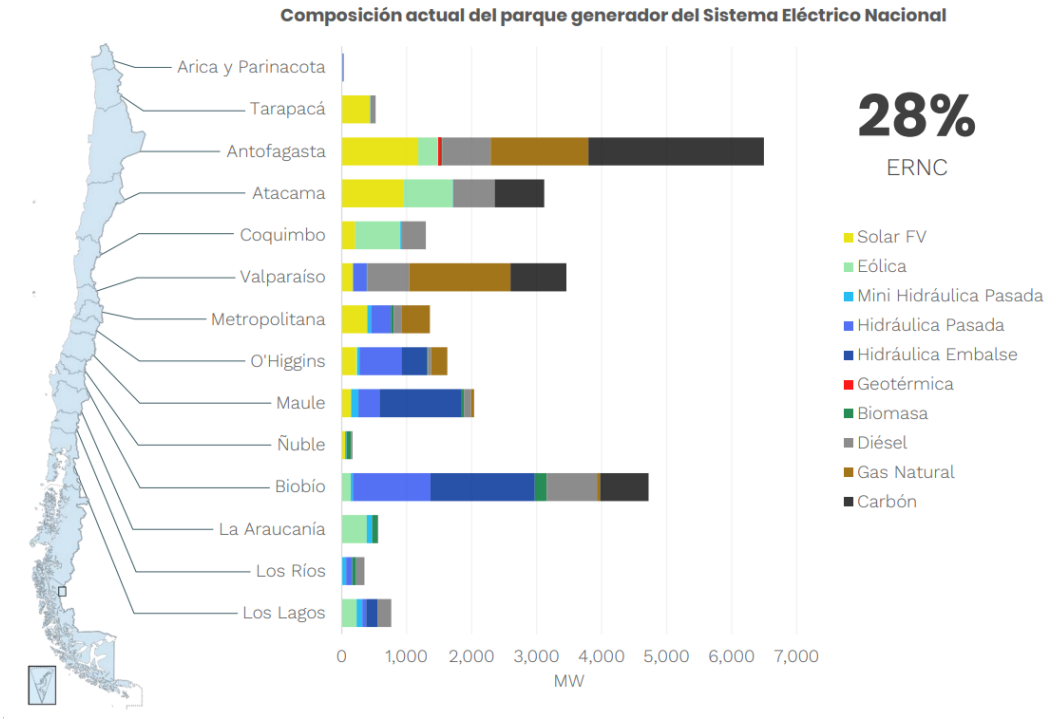

Figure 1. The current composition of the National Electric System's generating park (28% NCRE)

This vulnerability and responsibility are combined, in addition, with the fact that currently and worldwide, there is a paradox regarding the energy transition, since the greater the impulse and growth of renewable energies -necessary for the decarbonization of the matrices- the greater the requirement for the expansion of the transmission system[1]. Chile has more than 35,000 km of transmission lines (as of March 31, 2020)[2] and, as of 2021, 44 transmission expansion works have been identified[3].

However, the construction and operation of transmission lines are not exempt from impacts and potential conflicts. Some of the impacts of the lines include landscape disturbance; negative effects on agriculture; archaeological damage and losses at historical sites; cultural conflicts; impact on native or protected species of flora and fauna, as well as water resources; noise; problems with landowners (individuals or communities); fragmentation and edge effect; risk of fires, among others.

In Chile, an energy planning process is being developed that provides the possibility of identifying in advance those territories that will have an important development of renewable projects over time, known as "Development Poles", where -through a Strategic Environmental Assessment- the best sustainable solutions for the connection of these projects to the National Electric System are defined. To identify these zones, criteria are used that respond to social, environmental, technological and territorial criteria, as well as economic and technological ones. Through the 2023-2027 planning process, carried out by the Ministry of Energy, the provinces of Antofagasta and Tocopilla, located in the north of the country in the Antofagasta region, were identified.

Additionally, Chile's National Green Hydrogen Strategy[4] identifies the Antofagasta region as one of the possible green hydrogen generation centers, where the country has positioned itself as one of the most competitive in this new industry, due to the low Levelized cost of renewable electricity (See Figure 2 below). This challenge will undoubtedly stress the electric transmission system (and other sectors), so having sustainable management also becomes imperative from the point of view of a new resilient development model.

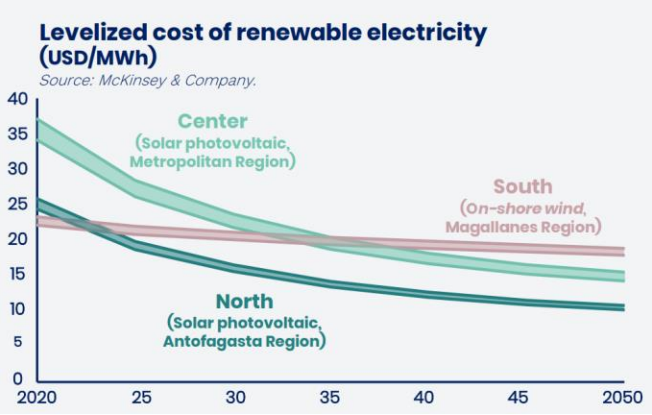

Figure 2. Levelized cost in Chile (National Green Hydrogen Strategy)

[1] Along this document, power lines and transmission lines are used interchangeably, i.e., between 500 kV-60kV.
[2] 2020 Yearbook, National Energy Commission
[3] Final technical report. Annual Transmission Expansion Plan 2021, National Energy Commission.
[4] Available here: https://energia.gob.cl/sites/default/files/national_green_hydrogen_strategy_-_chile.pdf

Given all this, it is relevant to move towards sustainable management of electricity transmission, which allows compliance with carbon neutrality, decarbonization, and renewable electricity matrix, while increasing the social legitimacy currently enjoyed by the transmission lines, necessary for this change, and building relationships of trust between the communities or inhabitants of the territories of the lines with companies, local governments, and central government through participatory processes around sustainable management.

Antofagasta is a region located in northern Chile. It is the second largest in surface area and ninth in population. It is the region with the highest GDP per capita because its main economic activity is mining. It is internationally known for being located in the driest desert in the world (Atacama Desert), but also its geographical conditions make it diverse in flora, fauna, and vegetation. Figure 3 presents a region map and a summary table of its main characteristics.

Region	Antofagasta
Capital	Antofagasta
Coordenadas	23°38′39″S 70°24′39″O
Weather	Arid/Desert/Coast desert
Main economic activities	Mining
Energy	It is the region with the highest energy generation in the country. It has the largest number of coal plants, but also a large presence of NCRE (especially solar, as shown in Figure 1).
Surface area	126,049.1 km²
Population	607,534 hab
Density	4,8 hab/km²
Vegetation and hydrogeography	There are 11 vegetation levels in the region. The most representative floors in the study area are the low Andean tropical scrub of *Mulinum crassifolium* and *Urbania pappigera* with 24% of the occupied surface. +40,000 ha of wetlands and the largest river in Chile (Loa).
Flora and fauna	The region is characterized by marked endemism of flora and fauna species, especially vascular plants and reptiles. Approx 224 species of fauna. The region has 17 areas with some degree of official protection.

Figure 3. Antofagasta Region, map and main characteristics

As for its climatic characteristics, the region has a cloudy coastal desert climate (BWn) in which its average annual rainfall exceeds 3 mm and is concentrated mainly in the winter months (June-August). The average temperature is lower than in the regional capitals located further north, with a maximum of 20°C in summer and a minimum of 14°C in winter. As expected, extreme temperatures have the same behavior, with average maximum temperatures decreasing to 24°C in summer and 16°C in summer, while minimum temperatures are 16°C and 11°C, respectively[5].

[5] Barton et al., 2014. Adaptación urbana al cambio climático: Propuesta para la Adaptación Urbana al Cambio Climático en Capitales Regionales de Chile.

Regarding climate threats in the Antofagasta region, according to the Climate Risk Atlas (ARClim[6]) of Chile, the region will be the most affected in terms of the increase in the average daily maximum temperature (See Figure 4 below), it will also be the region that will experience the most heat waves, having the least encouraging projections in the country, as well as negative impacts in most of the risks analyzed in the atlas.

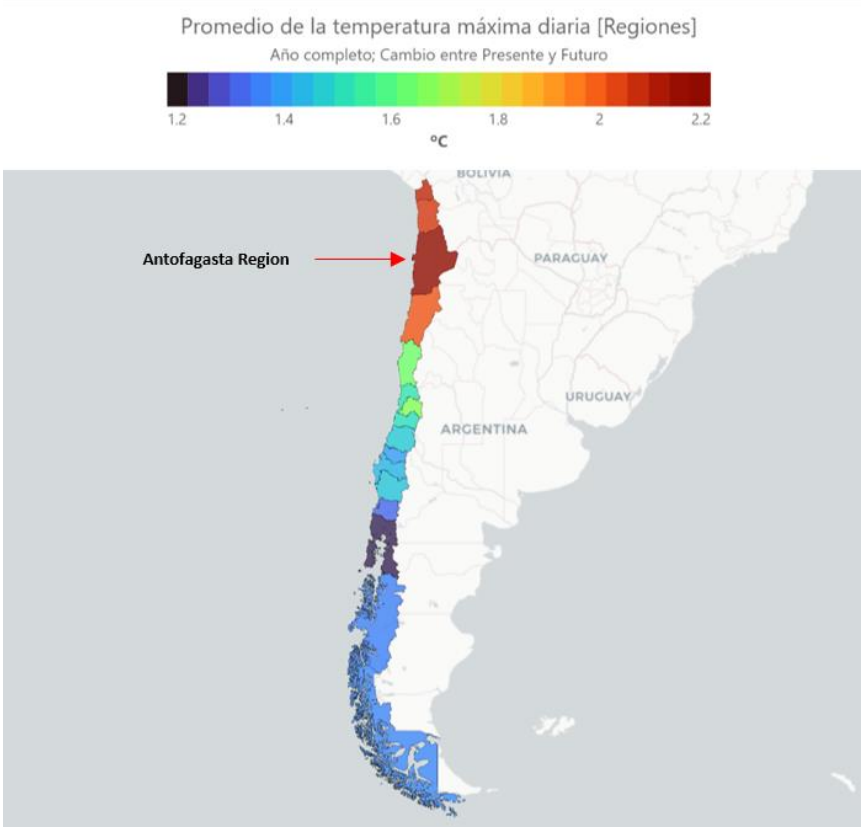

Figure 4. Average daily maximum temperature by region of Chile (Reference: ARClim)

In fact, the city of Antofagasta (regional capital) has been classified by national studies as one of the regional capitals most vulnerable to the effects of climate crisis impacts, as detailed and compared in the table in Figure 5. This is due to a combination of multiple factors, such as climate, geography, and economic activities, among others. Therefore, it is essential that the region can advance in concrete solutions that allow it to make adjustments in the different systems present (ecological, social, human, infrastructure, economic) to respond correctly to the stimuli or negative effects that climate change will present, briefly stated in this postulation, but that undoubtedly can be deepened and better analyzed in the short term (For example, through the development of the Regional Action Plan on Climate Change that is currently being developed in the region of Antofagasta, and where the Ministry of Energy is actively participating).

[6] Available here: https://arclim.mma.gob.cl/

Threat	Threat component											
City	Sea level rise	Floods	Flooding coastal edge	Drought	Thunderstorm	Cold waves	Heat waves	Wildfires	Mass removals (alluvions, etc)	Swells and heavy waves	Exposure	Vulnerability
	a	b	c	d	e	f	g	h	i	j	E	V
Arica	2	3	2	2	2	1	1	1	2	2	18	0,76
Iquique-Alto Hospicio	2	2	2	2	3	1	1	1	2	2	18	0,76
Antofagasta	2	3	2	2	3	1	1	1	3	2	20	0,84
Copiapó		3		3	3	2	2	1	3		17	0,72
La Serena-Coquimbo	2	2	2	3	3	1	1	1	3	2	20	0,84
Gran Valparaíso	2	3	2	3	3	1	1	3	3	3	24	1,00
Gran Santiago		3		2	3	2	3	2	3		18	0,76
Rancagua-Machalí		3		2	3	2	3	2	1		16	0,69
Talca		3		2	3	2	3	1	1		15	0,65
Gran Concepción	2	3	2	1	3	1	1	2	3	3	21	0,88
Temuco-P. las Casas		3		1	3	2	2	1	1		13	0,57
Valdivia		2		1	3	1	1		1		9	0,41
Puerto Montt	2	2	2	1	3	1	1	2	3	1	18	0,76
Coyhaique		2		1	1	2	2	2	1		11	0,49
Punta Arenas	2	3	2	1	1	1	1	1	3	3	18	0,76
Threat incidence	16	40	16	27	40	21	24	21	33	18	256	

1 Not very likely
2 Likely
3 Very likely
No data/Not applicable

Figure 5. Vulnerability of regional capitals to climate hazards (Reference: Romero, 2016)

Project Objectives:

The main objective of the project is to implement a sustainable transmission pilot in the Antofagasta Region, which has been declared a “transmission development pole” according to the country's Long-Term Energy Planning. This pilot will consist of a small-scale sustainable corridor that allows evaluation of this solution, with a focus on adapting it to the long-term and national scale.

The pilot itself will be evaluated, defined, designed, and implemented with the project, i.e., which particular solution will be implemented. However, international experience provides some preliminary ideas on some options (developed in the following sections), but in any case, it will aim to increase the adaptive capacity of the transmission system to the effects of climate change. For example, it is known that one of the main impacts of this energy sub-sector is heat waves, therefore, it is expected that the development of the pilot will allow management at the ecosystem level in order to mitigate the temperature increase. Another way could be through risk management for extreme events that currently affect transmission lines and that will be increased by climate effects, which could be achieved, for example, through sustainable management of the land of the easements under the transmission lines. Although these examples are concrete, they are by no means exhaustive, and it is precisely one of the project's objectives to develop them in depth.

To achieve this, the following components are proposed to be developed during the execution of the fund with a provisional activity list for each:

- Contributing to the development of an energy transition that is just, secure, and resilient[7].
    - Identify the main climate risks in the Region that affect the electricity transmission infrastructure, either directly or by exacerbating current risks.
    - Develop a set of vulnerability indicators for the transmission segment with a focus on the study region.
    - Identify and adapt high resilience standards for the energy sector and, in particular, the transmission segment with a focus on the study region with the ultimate goal of ensuring the reliability of the electricity supply.
    - Propose a concrete alternative for a sustainable corridor based on international experience and the local context of the study area.
    - Design the proposal of the previous point, with evidence based on science and with broad technical consensus, considering its innovative feature.
- Driving innovation in sustainable electricity transmission in Chile.
    - Build a pilot of up to 100 m2 to evaluate the relevance, scope, costs and benefits, potential and improvements that could be implemented to scale up the solution.
    - Increase the adaptive capacity of the energy sector by reducing exposure to climate hazards in the transmission segment by implementing a nature-based solution through one of the existing international sustainable corridors applicable to the study region.
- Promoting local energy development.
    - Transform the study region into a national climate adaptation hub.
    - Train professionals and key actors in the energy sector at the regional level to become agents of change in climate change adaptation issues to address a paradigm shift from the study region.
- Empowering communities, with a focus on women, in energy management.
    - Involve the people who are members of a community in the energy issues of the area to increase community energy development in the study region.
    - To develop training, workshops, activities, and other training, information, and networking activities to strengthen associativity through participation in energy issues.
    - Involve more women in energy issues, following the commitments and policies of the Chilean Ministry of Energy through its *Energy+Women*[8] program.

[7] The activities listed below will focus on the pre-study and feasibility study.
[8] More information here: https://energia.gob.cl/Energ%C3%ADam%C3%A1sMujer

Project Components and Financing:

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Contributing to the development of an energy transition that is just, secure, and resilient	Implement a solution for better management of transmission lines	Increase resilience and adaptive capacity of transmission systems	$ 141,400
2. Driving innovation in sustainable electricity transmission in Chile	Develop an innovative sustainable corridor pilot	Decrease the negative impacts of transmission lines once the innovation is scaled up nationally	$ 45,800
3. Promoting local energy development	Develop localized information on the transmission sector in the region (Antofagasta)	Increase participation of local governments and entities in the public policy-making process	$ 20,000
4. Empowering communities, with a focus on women, in energy management	Involve communities living in the area of the transmission lines in the pilot project	Advance community participation in the energy projects	$ 11,500
6. Project Execution cost			$ 18,800
7. Total Project Cost			$ 237,500
8. Project Cycle Management Fee charged by the Implementing Entity (if applicable)			$ 12,500
Amount of Financing Requested			$ 250,000

Projected Calendar:

Milestones	Expected Dates
Start of Project Implementation	02 May 2024
Project Closing	01 March 2026
Terminal Evaluation	02 May 2026

PART II: PROJECT JUSTIFICATION

A. Describe the project components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience.

Sustainable (or green) corridors are linear elements of the landscape, planned or unplanned, that allow multiple uses of an ecological, social, cultural and any other compatible with sustainable land use (Jack Aher, 1995). Ahern's work raises the possibility of transforming them into corridors that are components of the natural landscape, such as natural watercourses or disused railroad tracks, among others, through restoration or construction processes. International experience has shown the possibility of creating green corridors under overhead power lines (Belgium and France) where various innovative actions are carried out to enhance biodiversity and raise public awareness of natural habitats and species linked to this linear context.

In general terms, the objective of a green corridor is to link important natural areas of territory through a strip or corridor characterized by extensive vegetation. In this way, a sort of skeleton is created, capable of articulating cities or greener and healthier spaces (See Figure 6 below). In its interior, recreational areas, cultural spaces, sports facilities or urban gardens can be developed.

Some of the restoration actions that have been carried out, according to international experience, in green corridors in transmission lines are: edge zones, peat bogs, moorlands, orchards, grazing, and native species (flora and fauna), among others.

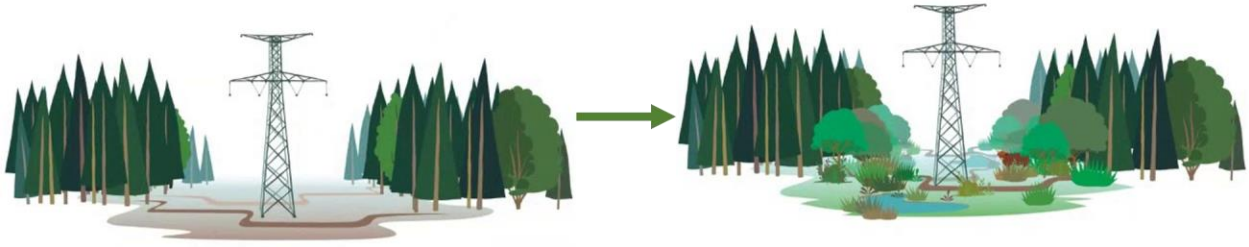

Figure 6. Scheme of a green corridor in transmission lines (Reference: LIFE-ELIA)

The LIFE-ELIA project provides an important basis of information about lessons learned from nature-based solutions, even though it is a different ecosystem, the benefits will be the same since they are related to an adequate management of the corresponding ecosystem. With the preliminary review of LIFE-ELIA, in the framework of the application, it can be considered as the main benefit granted by the nature-based solutions developed in the different forms of the proposal, is the improvement of climate resilience by increasing biodiversity. The above is mainly due to:

- The implementation of native vegetation under transmission lines can improve climate resilience by providing shade and cooling, reducing the exposure of the lines to high temperatures, and helping to prevent overheating and loss of energy efficiency. The election of appropriate species, irrigation management and regular maintenance are essential to ensure the success of this solution.

- Water management in sustainable corridors can also improve climate resilience by acting as corridors for water management. Vegetation can help absorb and retain water in the event of heavy rainfall, or water scarcity in the case of the Antofagasta region, an ecological balance can be maintained thanks to groundwater.
- Promoting biodiversity and ecosystem services, the restoration and preservation of natural habitats under transmission lines can increase local biodiversity and foster the provision of essential ecosystem services, such as pollination and pest control, which in turn contribute to greater ecosystem resilience. In this case, climates such as Bwk or Bwh warm or cold deserts like those of Antofagasta, despite having a lower density of species, have a high diversity.

For the implementation of the sustainable corridor in the area, an analysis of the biotic environment of the area and the vegetation components of the territory will be carried out (during the pre-study activity developed in the following sections, among other topics).

Regarding the vegetation to be implemented, it is important to consider that, at the regional level, the study area is located in the *Desert Region, Absolute Desert Subregion, and Inland Desert Vegetation Formation* (Gajardo, 1995). This subregion and vegetation formation corresponds to the part of the desert where precipitation is insignificant and the water supply is local, coming from the presence of groundwater or occasional alluvium that descends from the Andes Mountains. Some herbaceous species potentially present and common are: *Atriplex atacamensis (cachiyuyo), Baccharis juncea (suncho)* and *Baccharis petiolata (chilca), Flaveria bidentis (dasdaqui), Pluchea chingoyo (Chingoyo), Lycopersicon chilense (Tomatillo), Heliotropium curassavicum (Pata de gallo), and Tessaria absinthioides (Brea).* Some tree species present in the area are: *Prosopis chilensis (Algarrobo), Prosopis tamarugo (Tamarugo), Geoffroea decorticans (Chañar), Myrica pavonis (Pacama)* and *Schinus molle (Pimiento)*.

These species have a high resistance to drought and temperatures. They can create all the bioecological benefits of a corridor, in addition to erosion control and soil protection, and maintenance of the quality of water resources in the region. This considering particularly relevant in areas prone to soil degradation due to human activity and extreme climatic conditions.

The components of the project are:

- **Contributing to the development of an energy transition that is just, secure, and resilient.**

Currently, the vulnerability of transmission lines is a growing problem (in Chile and the world) since it has not been possible to incorporate concrete solutions for multiple reasons, such as information gaps, lack of financing, the regulatory inability of countries to include the cost of solutions in the bidding processes, increase in the cost of tariffs for the incorporation of solutions, lack of coordination between the public, regulatory and private sectors, among others. For this reason, particularly in Chile, there is a need to advance toward solutions so that the electricity transmission sector can make the necessary adjustments in the system (technical, economic, social, and environmental) to be able to respond to the negative changes that are expected in the country due to

the climate crisis. Improved transmission is vital for the decarbonization of Chile because the renewable generation points are not in the poles of highest consumption given the geography and demography of the country, so advancing solutions that allow adapting this sector to the climate crisis will ensure the reduction of GHG while reducing the exposure, risk and vulnerability of the lines against imminent negative effects (mainly temperature rises and extreme events).

In this component will be conducted two main processes or analyses fundamental for the development and implementation of the project: 1) Pre-study on sustainable corridors in Antofagasta Region, and 2) Feasibility study of a sustainable corridor under the electric transmission lines in the Antofagasta Region. Both of them will allow determining a series of strategic decisions and the development of key information for the construction of the pilot, such as: the specific location of the corridor (i.e., the physical segment where the pilot will be built or in other words geographic coordinates), analysis of natural threats, risks and vulnerabilities and exacerbated by climate change in the project development area, type of NbS to develop, MRV framework for the solution and project, projection of the increase in the adaptive capacity of electricity transmission, of the population and of the ecosystem, a list of the direct beneficiaries, dimensions, and construction takeoff of the pilot, budget (capex and opex), among others.

Thus, sustainable corridors are presented as a solution because they could allow a natural or planned protection (through vegetation, ecosystems and collaborative work with the community) of the infrastructure against these impacts. For example, a correct, planned and regulated increase of vegetation around the lines could act as a buffer against heat waves or protect the soil against alluvium/rainfall, prevent fires, etc. On the other hand, correctly planned management together with the community could allow avoiding risks that today occur due to lack of security (for example, illegal houses around the high-tension towers, which put people and infrastructure at risk).

To develop this, from an ecological engineering point of view, will be evaluated native species of the Antofagasta Region that are suitable to be integrated under the transmission lines, designing, and implementing a revegetation plan considering the strategic distribution of those species identified. And, finally, for good management, monitoring and maintenance of vegetation will be establishing a regular program to ensure the sustainable development of native vegetation in the zone of study.

- **Driving innovation in sustainable electricity transmission in Chile.**

At the international level, advances in sustainable transmission are becoming more and more relevant, as they allow addressing a wide range of problems from an innovative perspective. A sustainable corridor is an infrastructure with a significant presence of vegetation that connects natural areas of a certain zone or area and, in the particular case of electricity transmission, it can help reduce the fragmentation of ecosystems where a line is located, as well as reduce the edge effect on forests, recover native flora and fauna, promote ecosystem conservation, among other more specific issues depending on the territory where they are implemented.

This is a highly innovative solution because it presents a new way of thinking about the transmission system in the energy sector. In particular, at the national level, a

sustainable corridor has never been implemented and transmission lines have been historically opposed by communities, civil society, and academia. Thus, implementing a sustainable corridor in Chile will be understood as a nature-based solution to mitigate GHG in the energy sector through the contribution to decarbonization, while increasing the adaptive capacity of the sector.

On the other hand, more sustainable management of transmission makes it possible to promote productive uses that are relevant to local stakeholders, as well as to protect biodiversity and promote the conservation of ecosystems in the territories.

It will also contribute to the biodiversity gain in the areas where it is located, contributing to the food sovereignty of the communities and the promotion of wildlife.

- **Promoting local energy development.**

Antofagasta is a key region in terms of energy transition, as presented in the previous section. It is also a region that is highly vulnerable to the effects of climate change and, therefore, the energy infrastructure is threatened in several ways. For this reason, promoting energy development not only from a renewable energy perspective (as has been very well promoted in the region in recent years) but also from the logic of resilience and climate adaptation is considered highly relevant.

The main objective of this component is to contribute to the development of knowledge and capacities of key actors in the energy sector at the regional level. This is, specifically, to develop workshops and training for a group of professionals that are fundamental in the sector, such as: regional officials of the energy institutions (Ministry of Energy and Superintendence of Electricity and Fuels), workers of the electric companies, mainly transmission companies that are present in the region and academics that are specialized in these topics in Antofagasta, what would be a preliminary list of potential beneficiaries.

The link between this component and the project in general (the construction of a sustainable corridor pilot) lies in the need to build capacities, knowledge, and a network not only for the implementation of the project but also for its maintenance, promotion and scaling up. The weaving of a strengthened network around climate resilience through a concrete (constructed) pilot is fundamental to advance in the goal of the proposal: to increase the adaptive capacity of both the energy sector (transmission segment) and the benefited population (inhabitants of the area and professionals of the regional energy sector, in the particular case of component 3).

In addition, this proposal is focused on the direct participation of local stakeholders (from the Antofagasta region) in the execution of the project, which allows the development of capacities and technical knowledge in professionals working in different sectors linked to energy issues (public, private, academia, civil society, etc.).

Among the preliminary stakeholders considered for this pilot are:

- Private sector:
    - Chilean transmission companies' guild: Transmisoras A.G.
    - Transmission companies with activities in the region
- Academia:

    - University of Antofagasta
    - Catholic University of the North
    - Schools and technical institutes
- Civil society:
    - Local NGOs of Antofagasta Region
    - NGOs specialized in energy
    - NGOs specialized in ecological management
- Public sector:
    - Regulatory entities from energy sector: Superintendency of Electricity and Fuels
    - Regulatory entities from the environmental sector: Superintendency of Environment and Environmental Evaluation Service
    - Local authorities: Municipalities, Regional Government of Antofagasta, Regional Ministerial Secretaries of Energy and Environment

This allows the implementation of a bottom-up approach to energy management in the region, where those directly involved will participate in the different processes and developments of the project. The success of the project may set a precedent on the importance of addressing the challenges of the electricity sector from a local perspective, which will allow institutions, such as the executing institutions, to advance in these solutions and scale up the project to the national level.

- **Empowering communities, with a focus on women, in energy management.**

First, a general characterization of the population of the Antofagasta Region is provided below (a more thorough and detailed characterization of the specific project site area can be developed once the location is defined):

Population (2021)	Houses	Poverty	Average SAIDI 2019-2021
704,000 people 3,3% Rural; 13,6% Indigenous people; 49,7% Women	177,000 1,016 without electricity	8.4% Income poverty 13.1% Multidimensional poverty	11.5

The project strengthens its social and environmental legitimacy mechanisms, where citizens can participate in decision-making processes by considering early transparent information on projects that will be key to the country's energy transition. This is achieved through the development of public consultations, participatory processes, training, and technical workshops to develop local and communities' knowledge.

A specific example of this, would be the collaboration with indigenous communities in the selection of native species, maintenance of green areas and promotion of environmental education due to the ancestral knowledge of indigenous people. Considering that is demonstrated and widely studied that an active participation of the communities will increase the sense of ownership and long-term sustainability of the corridors or any project. The inclusion of communities living and developing in the chosen territory in the design and implementation of the pilot, with a special focus on

vulnerable sectors (homeless people living in illegal camps near transmission lines) and women.

Finally, adaptation to climate change is addressed by the project through risk management on transmission lines, while climate resilience is achieved through the following points: Capacity-building in communities and local governments to increase adaptation to undesired events, especially linked to climate crisis effects, gathering information on climate risks in the energy sector, focusing on the Antofagasta region, to provide inputs to local decision-makers for better management, and manage risks associated with transmission lines, such as fires, through preparation and work with the communities living around this infrastructure.

The activities of this component will be organized, developed and implemented by a specialist team hired for this purpose and supported by the technical teams of the Ministry of Energy, in particular the Office of Gender, Education and Human Rights, as well as the Climate Change Unit and the Unit of Dialogue, Consultation and Indigenous Participation Processes. The contents will be developed along the same lines, including the necessary international guidelines and standards in each case. Finally, the beneficiaries will be determined in the study phase of the project, with the support of key organizations in the Antofagasta Region, so that this can be developed in a decentralized and locally relevant manner. However, it is preliminarily considered that people living in the area or areas surrounding the construction of the pilot project, civil society organizations in the region, and indigenous peoples living in the region[9] will participate.

B. Describe how the project provides economic, social, and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project will avoid or mitigate negative impacts, in line with the Environmental and Social Policy of the Adaptation Fund.

Economic benefits: more sustainable management of the ecosystems where transmission lines are located could translate into a reduction of maintenance costs in the transmission companies' easements, as well as a reduction of inaction costs for public entities (related to adaptation and risk management). Sustainable corridors would increase the resilience of the transmission system to natural disasters and extreme weather events, such as storms and droughts. By protecting transmission lines and minimizing the risks of disruption, costs associated with recovery and reconstruction after adverse events would be reduced. It should be noted that the property rights under and around the transmission lines (easements) can be of two types: private of the transmission companies or a concession of fiscal land.

Social benefits: Empowerment of communities, the active participation of local communities in the design, implementation and management of sustainable corridors would provide them with a greater sense of ownership and empowerment. Involving communities in decision making strengthens their capacity to influence the sustainable development of their environment and protect their natural resources. Capacity building

[9] Indigenous people in the region: Atacameño (principal), Quechua y Licanantay.

around the energy sector and with a focus on women, would allow communities to acquire technical and practical knowledge, which would open up options for them to become involved in renewable energy projects, environmental conservation, and other areas related to sustainable development. Labor insertion of marginalized groups through work or obtaining benefits from sustainable corridors (for example, through work and generation of economic activity from community gardens that function as sustainable corridors).

Environmental benefits: reduction of the impacts presented by the construction and operation of transmission lines, such as fragmentation, edge effect, loss of ecosystems and biodiversity, deterioration, and change of land use, conservation and restoration of ecosystems, protection of biodiversity, protection of water resources, restoration of habitats and native species, promotion of climate resilience, among others.

In addition, both the positive impacts/results and the lessons learned from the project will be shared through a nurturing exchange of knowledge and best practices with CPDAE. It may be of special interest for international cooperation that the Chilean pilot will seek to have multisectoral participation, including not only the public sector and communities but also the private sector, through companies and associations related to the subject and with whom the Ministry of Energy has previously worked in this line.

C. Describe how the project encourages or accelerates the development of innovative adaptation practices, tools or technologies and/or describe how the project helps generate an evidence base of effective, efficient adaptation practices, products or technologies, as a basis for potential scaling up.

The implementation of the first sustainable corridor pilot in Chile means a concrete innovative adaptation measure to address the challenge of climate change impacts in the electricity transmission sector. This, being a nature-based solution, is an existing development to solve a different problem, focused on increasing the resilience of the energy sector and promoting local energy development through capacity building and knowledge in professionals in the field, and communities, with a focus on the most vulnerable and women living in the territories where the transmission lines are located.

The objective of this being a sustainable corridor pilot is to test on a small scale whether this solution will open the possibility and public discussion on sustainable corridors at a national level and as a state policy, promoted by public entities linked to energy. Thus, one of the long-term objectives of the project is to lay the foundations (technical inputs, studies, concrete results, good practices, lessons learned, etc.), systematized in the different products that will emerge from the process to deliver a sustainable solution to electricity transmission that can be led and promoted by Chilean institutions related to energy and climate change, being also an example at regional (Latin America) and international level in the field, in terms of the safe and resilient energy transition.

The International Union for Conservation of Nature (IUCN) defines nature-based solutions as "actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, while simultaneously providing benefits for human well-being and biodiversity".

A sustainable corridor can take different concrete forms as a project, for example, some of the ideas that have been, analyzed for Chile is integrated vegetation management, which is a strategy designed to minimize the existence of tall vegetation, through the establishment of stable communities of low stature plants on transmission lines, by using complementary methods of control that maximize public health and safety, cost-effectiveness and environmental protection (Brockbank, R.).

Another form that a green corridor, such as the one proposed in this postulation, can take is the planting of orchards on transmission line towers or easements. Here, in forested areas, interventions are implemented with the same logic: planting low vegetation, and therefore safe, that will prevent the growth of trees that could endanger the lines, but where at the same time local species are used, which have a conservation value because they are protected, and allow the proliferation of local and economic activities around production.

Alternative forms, which also have positive results at the international level but which are identified as a more complex application for this project (due to the endemic vegetation and flora of the Antofagasta Region) are the planting and restoration of forest edges that can favor biodiversity, help integrate the lines into the landscape and protect the trees from the wind. However, this option cannot be ruled out if a correct analysis makes it feasible or if it could be evaluated for future projects or scaling up in other areas of the country, such as the south of Chile, which has significant vegetation and forests that are fragmented by the presence of transmission lines, consolidating the option of scaling up this project in the future.

D. Please confirm whether the project meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and is in line with the Environmental and Social Policy of the Adaptation Fund.

Yes, the project is aligned with the following regional, national, and international plans, policies or laws:

- (Regional) Regional Climate Change Action Plan, Antofagasta: Under development, and where the Ministry of Energy is actively participating.
- (National) Climate Change Framework Law: The Law mandates the elaboration of Sectoral Mitigation and Adaptation Plans by 2024. The Ministry of Energy is initiating these processes for the energy sector; therefore, this pilot will be aligned with them and will contribute to the measures included in them. In addition, this project would contribute to the Law's goal of achieving carbon neutrality by 2050 at the latest and increase the country's adaptive capacity and resilience.
- (National) Nationally Determined Contribution and Long-Term Climate Strategy: Through the contribution to the fulfillment of Chile's international commitments regarding GHG reduction, decarbonization, and carbon neutrality.
- (National) National Strategy on Climate Change and Vegetation Resources 2017-2025 (ENCCRV): Instrument of public policy in the field of the native vegetation resources of Chile, which orients and integrates the strategic activities and measures to be taken as a country to mitigate and adapt to climate change, as

well as to combat desertification, land degradation and drought. This strategy has a special adaptation component, as well as environmental and social safeguards to be considered during the project.

- (National) National Energy Policy 2050: The project contributes to the fulfillment of the goals of the guiding policy of the energy sector, which seeks to make it a resilient and efficient sector, as well as a protagonist of climate ambition.
- (International) Escazu Agreement: The project implementation processes will be governed by the guidelines of the Regional Agreement on Access to Information, Public Participation, and Access to Justice in Environmental Matters in Latin America and the Caribbean, which was signed in March 2022 by the Chilean Government.
- (International) Environmental and Social Policy, Adaptation Fund: as detailed in section F, the project is aligned with different components of the ESP.

E. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

Knowledge management will be carried out from different aspects:

- Systematization of the progress of the project, with a special focus on lessons learned, to be incorporated in the final report that will be publicly available.
- Dedicated workshops and other capacity-building activities with interested stakeholders.
- Elaboration of a guide for the development of sustainable transmission projects with a clear focus on climate resilient and adapted transmission infrastructure, together with the Chilean Environmental Assessment Service, which will be made public for the correct development of future projects such as the proposed pilot project.
- Incorporation of international knowledge and experiences in the development of the project, which will be collected from the CPDAE based on other energy projects or nature-based solutions that have been implemented under the Adaptation Fund.
- Along the same lines, all information, progress, lessons learned, and best practices will be presented to the CPDAE community through reports, guidelines, presentations, webinars, and other products or formats. Also, all the material will be available for use by other members of the groups, their teams and any other person who may be interested.

To capture, distribute, manage and effectively use the knowledge and information produced, enhanced and obtained from the execution of the project, the Ministry of Energy will develop a specific web page for this purpose. In fact, this is a process in which the institution has vast experience given the innovative and evidence-based processes it has developed in its more than 10 years of functions. An example that could be taken as a basis is the web page/repository of the Long-Term Energy Planning: https://energia.gob.cl/pelp

As evidenced in it, it includes not only a repository of information, but also highly user-friendly information visualization spaces.

Another process that is of interest for this project (due to the topic itself) is the web of the Ministry of Energy's strip studies (a process that allows the layout of transmission lines) and, in fact, the KM System could host at this same address to optimize resources and information: https://franjas.minenergia.cl/

F. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project. Describe how the project will engage, empower and/or benefit the most vulnerable communities and social groups, including gender considerations, in line with the Environmental and Social Policy of the Adaptation Fund.

Checklist	Assessment carried out	Potential impacts and risks
Compliance with the Law	The project complies with and is under the eaves of the laws, norms, regulations, and policies, both subnational, national, and international. It will comply, at all times, with Chile's legal framework, making correct and efficient use of natural resources, environment and people protection, as well as local development from different perspectives	**Risk: Low** **Potential Impact: High** There are no identified risks to legal compliance during project implementation. We will work with the Superintendence of Electricity and Fuels, which is the entity in charge of regulating the spaces for transmission lines.
Human Rights	The project will have unrestricted respect for the fundamental rights of the people living in the area where the pilot project will be located and of any other person in general who may be involved. Through the participatory processes of the project and the joint work with the Gender and Human Rights Office of the Ministry of Energy, the protection and avoidance of any impact on the basic rights of people will be ensured.	**Risk: Very low** **Potential Impact: Very high** The project is aligned with national, regional, and international human rights standards, and will be advised by professional experts.
Marginalized and Vulnerable Groups	The program seeks to work with marginalized and vulnerable groups (for example, illegal camps in the areas where the transmission lines are located) and aims to contribute to improving their conditions in two ways: - Safety: currently the communities put their safety at risk by living around high-voltage pylons. This project will also work with them to educate, raise awareness and improve their quality of life. - Local community development: The pilot corridor will allow the development of economic activities around an area that currently lacks them, for example, through small-scale agriculture, food cultivation, seed preservation, local trade, etc. The program will have no negative impacts on	**Risk: Very low** **Potential impact: High** The project's participatory process will focus on implementing socio-environmental safeguards, as well as identifying risks, needs, and potential conflicts, among others. The participatory process will be governed by the highest national, regional, and international standards. The project will consider a contingency plan, if necessary, after the process. In this context, the environmental and social safeguards of the Chilean National Strategy on Climate Change and Vegetation Resources (ENCCRV)[10] will be considered as a guideline

[10] Available here: https://www.conaf.cl/cms/editorweb/ENCCRV/ENCCRV-3a_Edicion-17mayo2017.pdf

	these groups.	that aims to "prevent potential risks and mitigate, reverse and/or compensate the socio-environmental impacts that could be generated with the implementation of the ENCCRV, maximizing the potential benefits and ensuring full respect for the rights of vulnerable groups, especially local communities and indigenous populations".
Gender Equity and Women's Empowerment	The project seeks to have a positive impact on gender equity and empowerment by working with women during its execution. This will be done from two perspectives: - Women in the energy sector: currently only 23% of the sector's workforce at the national level are women. For this reason, the project will seek that the teams are formed by +50% of women in the different stages and processes. The professional teams of the participating institutions must also include women, and gender criteria will be used for team selection. - Women in the beneficiaries: in the work carried out with the communities through the participatory process or the insertion of the groups in the project, there will be a special focus on incorporating women and gender criteria in the process, contributing to the development of capacities in the women of the communities, contributing to their economic development and empowering them as fundamental actors in the adaptation to climate change. All of the above will be designed and implemented together with the Gender and Human Rights Office of the Ministry of Energy	**Risk: Very low** **Potential impact: Very high** The project will have gender equity and women's empowerment as a fundamental pillar, ensuring it from project design to implementation, and with the professional support of experts in the field.
Protection of Natural Habitats	One component of the project aims to protect ecosystems, biodiversity, and natural habitats through conservation and the implementation of a nature-based solution.	**Risk: Very low** **Potential impact: Very high** The project team will include professionals dedicated to this issue, as well as previous studies to ensure the protection of ecosystems and, as mentioned in previous items, a large part of the efforts will be made to meet the objective of sustainable management of electricity transmission to reduce the negative impacts of this activity on the natural environment.
Climate Change	The project will not mean, in any case, and under any circumstances, an increase in greenhouse gas emissions. On the contrary, one of the consequences of the development of the project will be an increase in native flora and fauna, which in turn will create the conditions to become a carbon sink. This, added to the intrinsic component of adaptation to climate change, transforms the project into a multidimensional solution to the problem of the climate crisis.	**Risk: Very low** **Potential impact: Very high** The project, being a nature-based solution, combines the absorption of GHG emissions with adaptation to the climate crisis, in line with the objectives of the Paris Agreement.

G. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

The effects of the climate crisis jeopardize the decarbonization of the energy matrix and climate commitments, the security of supply and the resilience of the sector to different types of negative impacts. Currently, the preparedness of the energy sector is not sufficient in a country like Chile, which meets 7 of the 9 UNFCCC criteria of vulnerability to climate change. Thus, advancing concrete solutions to increase the adaptive capacity, while reducing vulnerability and strengthening the resilience of the energy systems is urgent and imperative for the sector to be properly prepared for the challenge of facing the adverse and undesired effects presented by climate change and which are of special interest for energy (heat waves, drought, extreme hydrometeorological events, sea level rise, changes in seasonal patterns, increased demand, among others). This will allow the sector to adapt to the climate crisis, while at the same time achieving a low-emission, fair, safe and responsible energy transition.

In this line, the project proposes the implementation of a sustainable corridor in an area of special relevance for electricity transmission, which would allow testing of long-term solutions to adapt the infrastructure to the impacts of the climate crisis, while obtaining other positive results, such as an improvement in local energy management, incident participation, and empowerment of local communities along with the development of information and capacities of the territory from an energy perspective. This pilot will also have the ultimate goal of evaluating the scaling up of the project to, in case of success, scale it up to regional, macro zonal and, eventually, national levels.

A project of this type requires that the Ministry of Energy and other public institutions can articulate the different actors (local governments, private sector, academia, communities, etc.) and the funding needed to develop a first pilot of these characteristics, which is currently unavailable. So, the Adaptation Fund solves this funding need by allowing the development of a nature-based solution to address the impacts of climate change in the energy sector and increase resilience to adverse effects that the country or the energy sector would be unable to address in the short term. Particular benefits of the fund include:

- Information gathering and capacity building around sustainable transmission at a multi-sectoral level.
- Reducing public investment costs in adaptation measures for the transmission sector
- Promote new nature-based solutions to increase the adaptive capacity of the energy sector and the country through tangible pilots.
- Develop participation, empowerment, and capacity-building programs for the most vulnerable communities that inhabit the territories where transmission lines are located, as well as for energy professionals in the region.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project/programme implementation.

The project will be implemented over 24 months, starting in 2023. The National Implementing Entity (NIE) will be the Chilean Agency for International Development Cooperation (AGCID, for its acronym in Spanish).

AGCID will work in conjunction with the Ministry of Energy (central level and Antofagasta Ministerial Secretariat) and the Regional Government of Antofagasta. AGCID's role under the project is fully in line with its institutional leadership role as a National Cooperation Agency, supporting the implementation of development programs at the national and international levels.

The Project Coordinator will be responsible for the coordination and monitoring of the project and will report to the Climate Change Unit of the Energy and Environmental Policies and Studies Division. Among the tasks led by the coordinator are:

- Articulation of the different actors involved in the project.
- Monitoring and follow-up on the development of the project, its components, and activities.
- Technical counterpart, together with the Ministry of Energy, of studies and other consultancies derived from the project.
- Coordination with the external audit unit.

AGCID will ensure performance improvement; and together with the Ministry of Energy, will approve the work plan and the procurement plan. In addition, both entities will closely monitor the work plan execution, led by the coordinator.

In addition, project implementation will occur in harmony with the private sector (companies and transmission guilds) and academia/education sector (higher education institutions and schools) with a participatory process involving the communities and civil society of the territory.

AGCID will provide the following implementation services for the project:

- Portfolio implementation monitoring and reporting on budget execution.
- Quality assurance and accountability for results and outputs in the development phase of the project, during implementation, and at the completion.
- Receipt, management, and disbursement of AF funds by financial rules and regulations.
- Oversight and quality assurance of project results evaluation processes and assurance that lessons learned/best practices are incorporated to improve future projects.

B. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

The project contemplates the development of a monitoring plan, which will include evaluation and will allow for monitoring compliance and success throughout the implementation period and -with special emphasis- at project closure to be incorporated

into the final evaluation along with good practices and lessons learned from the final report.

The monitoring plan will incorporate indicators to quantify progress as implementation progresses, as well as its success. It will be prepared by an external consultant and approved by AGCID and the Ministry of Energy, while monitoring and evaluation will be carried out by the project coordinator.

Upon completion of project implementation, an external audit will be developed to assess the proper functioning, as well as to incorporate transparency as a fundamental principle of project implementation.

The following reports derived from the monitoring plan will be considered and all must be approved by the NIE and the Ministry of Energy:

- Monitoring plan: a strategy for follow-up that will be available before the execution of activities.
- Bimonthly reports: progress reports on compliance with the indicators identified in the monitoring plan for each of the component activities.
- Final report: consolidated report on the follow-up of the process, with a special focus on the closure of activities, lessons learned, and recommendations for future implementation of similar projects.
- External audit report: based on the periodic financial statements, an external audit report will be prepared by the regulations established by the executing agency.

C. Include a simple results framework for the project proposal, including milestones, targets, and indicators.

Outcome	Indicator	Baseline	Milestone	Means of verification
Component 1: Contributing to the development of an energy transition that is just, secure and resilient				
Outcome 1.1: Increase the resilience of electricity transmission	Number of risks mitigated or eliminated with pilot implementation	The project pre-study will concretely identify and quantify baseline risks	2	Pre-study conducted along with a final report with results comparing final and baseline scenarios
Component 2: Driving innovation in sustainable electricity transmission in Chile				
Outcome 2.1: Build a sustainable corridor pilot	Number of pilots built	No sustainable corridors exist in Chile	1	Built infrastructure Intermediate and final reports with results
	Number of people benefiting from new infrastructure	0	1,000	
Component 3: Promoting local energy development				
Outcome 3.1: Increase the	Number of trainings for professionals in the	0	5 (+30%	Participatory activities carried

capacities of the energy sector in the Antofagasta region	energy sector in the region		women)	out Photographs and videos Attendance lists
Outcome 3.2.: Increase the knowledge of the region's citizens on energy issues	Number of communication campaigns focused on the region	0	1	Number of campaigns launched Graphic and audio-visual records A document containing the communication strategy
Component 4: Empowering communities, with a focus on women, in energy management				
Outcome 4.1: Increase instances of participation and advocacy on energy issues with the communities in the project area	Number of participatory activities carried out (with +50% participation of women)	0	5 (50% of beneficiaries must be women)	Participatory activities carried out Photographs and videos Attendance lists
Outcome 4.2: Increase the involvement of women from vulnerable and marginalized social groups in energy and climate change issues	Number of trainings, focused on women, climate change, and energy	0	5	Participatory activities conducted Photographs and videos Attendance lists

D. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund

Project Objective(s)	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
1. Contributing to the development of an energy transition that is just, secure and resilient	Number of risks mitigated or eliminated with pilot implementation	Outcome 1: Reduced exposure to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	$ 141,400
2. Driving innovation in sustainable electricity transmission in Chile	Number of people benefiting from the new infrastructure	Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	$ 45,800
3. Promoting local energy development	Number of trainings for energy professionals in the region	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	$ 20,000

		Outcome 8: Support the development and diffusion of innovative adaptation practices, tools, and technologies	8. Innovative adaptation practices are rolled out, scaled up, encouraged, and/or accelerated at regional, national and/or subnational levels.	
4. Empowering communities, focusing on women, in energy management	Number of participatory activities carried out (With +50% participation of women)	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at a local level	3.1. Percentage of the targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	$ 11,500
Project Outcome(s)	**Project Outcome Indicator (s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Outcome 1.1: Increase the resilience of electricity transmission	Several risks mitigated or eliminated with the implementation of the pilot.	Output 1.1: Risk and vulnerability assessments conducted and updated	1.1. No. of projects or programmes that conduct and update risk and vulnerability assessments (by sector and scale)	$ 141,400
Outcome 3.1: Increase the capacities of the energy sector of the Antofagasta region	Number of trainings for professionals of the energy sector of the region	Output 2.1: Strengthened capacity of national and sub-national centers and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	$ 20,000
Outcome 3.2: Increase the knowledge of the region's citizens on energy issues	Number of communication campaigns focused on the region	Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders	
Outcome 2.1: Construct a sustainable corridor	Number of pilots constructed	Output 8: Viable innovations are rolled out, scaled up, encouraged, and/or accelerated	8.2. No. of key findings on effective, efficient adaptation practices, products, and technologies generated	$ 45,800

E. Include a budget, including a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

Category	Item	Unit price	Quantity	Total USD	Total USD
IE FEE	AGCID	$ 12,500	1	$ 12,500	$ 12,500
Execution	SCL-Antofagasta team trips	$ 950	4 trips x 12 months	$ 3,800	$ 18,800
	Follow-up plan. External consultancy	$ 5,000	1	$ 5,000	
	External audit	$ 10,000	1	$ 10,000	
Component 1 Contributing to the development of an energy transition that is just, secure, and resilient	Project Coordinator	$ 2,500	18 M	$ 45,000	$ 141,400
	Pre-study on sustainable corridors in Antofagasta Region	$ 30,000	1	$ 30,000	
	Feasibility study of a sustainable corridor under the electric transmission lines in the Antofagasta Region	$ 25,000	1	$ 25,000	
	Communication strategy	$ 3,000	1	$ 3,000	
	Communication strategy implementation	$ 500	18 M	$ 9,000	
	Journalist	$ 800	18 M	$ 14,400	
	Final analysis/report	$ 15,000	1	$ 15,000	
Component 2 Driving innovation in sustainable electricity transmission in Chile	Support Ecologist	$ 1,100	8 M	$ 8,800	$ 45,800
	Support Engineer or Architect	$ 1,500	8 M	$ 12,000	
	Construction of 100 m2 corridor	$ 25,000	1	$ 25,000	
Component 3 Promoting local energy development	Sustainable Corridors Guide Antofagasta	$ 12,000	1	$ 12,000	$ 20,000
	Workshops	$ 800	5	$ 4,000	
	Specialized training	$ 800	5	$ 4,000	
Component 4 Empowering communities, with a focus on women, in energy management.	Participatory workshops with the community	$ 500	15	$ 7,500	$ 11,500
	Workshops	$ 800	5	$ 4,000	
TOTAL				**$**	**250,000**

F. Include a disbursement schedule with time-bound milestones.

Schedule disbursement	Upon signing agreement	Inception workshop:	1 year after projects start	Grand Total (USD)
Schedule date	May 2024	July 2024	May 2025	
Project funds (Components 1-4)	72,900	72,900	72,900	218,700
Project Implementing Entity Fee	-	-	12,500	12,500
Project Execution Cost	5,000	5,000	8,800	18,800

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[11] *Provide the name and position of the government official and indicate the date of endorsement. If this is a regional project/programme, list the endorsing officials of all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

(Enter Name, Position, Ministry)	Date*: (Month, day, year)*

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number, and email address*

I certify that this proposal has been prepared by guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (……list here…..) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.
Name & Signature Implementing Entity Coordinator

[6] Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

Date: *(Month, Day, Year)*	Tel. and email:
Project Contact Person:	
Tel. And Email:	

Letter of Endorsement by Government

Letter N°223003/

Santiago, 01-08-2022

To: The Adaptation Fund Boardc/o
Adaptation Fund Board
SecretariatEmail:
afbsec@adaptation-fund.org Fax:
202 522 3240/5

In my capacity as designated authority for the Adaptation Fund in Chile, I confirm that the projectproposal: "Sustainable lines. Adapting electricity transmission infrastructure to the climate crisis through nature-based solutions in Antofagasta Region" is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Chile.

Accordingly, I am pleased to endorse the above project proposal with support from the AdaptationFund. If approved, the project will be implemented by AGCID and executed by the Ministry of Energy.

Sincerely,

Jenny Mager Santos
Head Climate Change Division
Ministry of Environment of Chile
Designated Authority of Chile

MJG/GSG/mrs
cc;
- AGCID
- International Affairs Office
- Archivo División de Cambio Climático
- Oficina de Partes