ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Innovation Small Grant

Country/Region: Chile
Project Title: Comprehensive multi-energy isolated system for community-based food security in the Chilean Patagonia
Thematic Focal Area: Food security
Implementing Entity: Chilean International Development Cooperation Agency (AGCID)
AF Project ID:
IE Project ID: **Requested Financing from Adaptation Fund (US Dollars):** 249,900
Reviewer and contact person: Rywon Yang **Co-reviewer(s):** Alyssa Gomes
IE Contact Person:

Technical Summary:	The project aims to design, install, and apply multiple energy supply technology solutions together with an integrated energy management system to cover the electrical and thermal needs of the target community to ensure food provision. This will be done through the three components below: Component 1: Socialization phase (USD 5,000); Component 2: Project definition (USD 5,000); Component 3: Project implementation (USD 208,000). Component 4: Consolidation phase (USD 20,000). Requested financing overview: Project/Programme Execution Cost: USD 0 Total Project/Programme Cost: USD 238,000 Implementing Fee: USD 11,900 Financing Requested: USD 249,900 The initial technical review finds that the proposal is not sufficiently developed. It is unclear from what perspective the idea of introducing multiple renewable energy technology solutions and integrated energy management

	systems is innovative or whether it will be localized or customized in an innovative way. Above all, while the project objective sets out to ensure food provision for the target community, the current project activities do not contain any related adaptation actions. The proposal needs further development altogether. A number of clarification requests (CRs) and a few corrective action requests (CARs) have been raised by the technical review.
Date:	

Review Criteria	Questions	Comments
Country Eligibility	1. Is the country party to the Kyoto Protocol?	**Yes.**
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	**Yes.** As per the Endorsement letter dated 1 August 2022. **CAR 1**: Please correct the date from August 05 2022 to August 01, 2022 (which is the actual date of the endorsement as per the attached letter) on page 13, A. Record of endorsement on behalf of the government. Response:
	2. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?[1]	**Not cleared.** The proposal states that it aims to design and install different renewable energy technologies and an integrated energy management system to supply

[1] *A concrete adaptation project/programme is defined as a set of activities aimed at addressing the adverse impacts of and risks posed by climate change. The activities shall aim at producing visible and tangible results on the ground by reducing vulnerability and increasing the adaptive capacity of human and natural systems to respond to the impacts of climate change, including climate variability. Adaptation projects/programmes can be implemented at the community, national, regional and transboundary level. Projects/programmes concern activities with a specific objective(s) and concrete outcome(s) and output(s) that are measurable, monitorable, and verifiable.* (Source: Operational Policies and Guidelines, amended October 2017)

		energy for thermal and electrical needs for food provision. The project is unclear what adverse impacts and risks of climate change it is tackling and in what way it contributes to climate resilience and enhances the adaptive capacity of the target community. While the project objective targets enhancing food security, it is unclear how the project activities will achieve this objective. **CR 1:** Please clarify the project objective to be more aligned with the Adaptation Fund's strategic objective and the themes that it supports for climate change adaptation. Response: The project background and context section has been updated to better explain the project objective and its alignment to the AF goals. **CR 2:** Kindly reformulate the project objective by focusing on concrete adaptation activities. According to the AF operational policies and guidelines, a concrete adaptation project is defined as "a set of activities aimed at addressing the adverse impacts of and risks posed by climate change". Response: The project objective has been accordingly reformulated. **CR 3:** Please explain further what are the climate vulnerabilities that the target community is facing in terms of food security and how the project activities will address these problems.

		Response: We have considered this comment in the reformulation of the project background and context, together with more detailed specific objectives. **CR 4:** Please provide details on the economic, social, development, and environmental context in which the project would operate in the target community. Response: Part B of section Project Justification has been updated to cope with this comment. We present the global effects of climate change in the area and how the project looks at integrating local energy resources to foster their economic activities.
	3. Does the project encourage or accelerate development of innovative adaptation practices, tools and technologies?	**Not cleared.** The project only plans the application of a mitigation technology i.e. combining different renewable energy technology which is not new regardless of whether it is to cover both electricity and thermal needs. In the current form, it is unclear what adaptation practices, tools, and technologies are proposed. **CR 5:** Kindly the justify the adaptation potential and identify what innovative adaptation practices, tools, and technologies will be provided by the project. Response: The proposed energy management system (EMS) for integrating diverse energy sources is a novel technological solution that is not available in the market. The EMS is a software-based automatic controller that communicates with the energy resources and operates their operation both in the short (minutes) and medium-term (days). This is an innovative technological solution that can facilitate the integration of the already existent energy resources.

		Part C of the Project Justification section has been reformulated to better explain this. **CR 6:** Please include additional information on the kind of renewable energy technologies are contemplated to tackle the target area's climate change problem, and how this will be related to improving the adaptive capacity of the target community. Response: Component 1 of the project justification section has been reformulated to incorporate this comment. In fact, resources that are considered are wind turbines, photovoltaic panels, biodigesters. To integrate these technologies, energy storage systems might also be needed. Parts A, B, and C of the Project Justification section have been reformulated to include this comment.
	4. Does the project help generate evidence base of effective, efficient adaptation practices, products or technologies, as a basis for potential scaling up?	**Not cleared.** In its current form, the project does not generate evidence of effective, efficient adaptation practices, products, or technologies. **CR 7**: Please elaborate further the climate adaptation problem that the target community is facing. Response: The new formulation of the project background and context, and Part B of the Project Justification Section are specifically dealing with this comment. **CR 8**: Please clarify what innovative adaptation practices, products or technologies will tackle the identified climate adaptation problem.

		Response: The proposed integrated energy management system is the innovative technology proposed to deal with the climate adaption problem
	5. Does the project engage, empower and/or benefit the most vulnerable communities and social groups?	**Not cleared.** The proposal aims to improve the food security of isolated communities and especially women who are the most vulnerable group in the community. However, it does not provide sufficient information on the target community and expected beneficiaries of the project. **CR 9:** Please provide more information on the target community, disaggregated by gender. Response: It is expected that at least 70% of the community involved in the project are woman. This is now clarified in Part B of the Project Justification section. **CR 10:** Please explain further who the direct beneficiaries are and quantify direct and indirect beneficiaries. Response: There are a few communities in the region available and interested in the project, but only one community can be the direct beneficiary. Since the funding is not yet secured, by responsibility there is no community that is already selected. Yet, one a-priori one of the potential beneficiaries correspond to an indigenous community that commercializes agricultural products in a small market with a local plantation. The market is run by 9 women and 1 man, and the client size can be estimated as 100 per month. This characteristic is similar to the other potential communities.

	6. Does the project advance gender equality and the empowerment of women and girls?	**Not cleared** The project identifies women as the most vulnerable group in the target community and that they will be the main focus of the project. **CR 11:** Please explain how women will benefit from the project. Response: As explained in Parts B and C of the Project Justification section, woman will participate in the design and implementation of the energy system, thus being trained to use and operate it. Plus, they will be trained to ensure the replicability of the project, as explained in Part D of the Implementation Arrangements section. **CR 12:** Please clarify what role women will take in the project activities. Response: Part A of the Project Justification section now identifies how the projects is co-constructed together with the community (mainly women). Indeed, as indicated in the Implementation Arrangements section, the community will be constantly involved in the whole process, taking part of all proposed activities. **CR 13:** Please explain the objective and contents of the training that will be provided to the women in component 4. Response: The main objective is to ensure the replicability of the project in other potential communities. Please note the objective written in Part D of the Project Arrangements section “Define and

		implement a training program for ensuring the replicability of the solution in other places." **CR 14:** Please clarify if there will be other vulnerable social groups to be included in the project. Response: Only one community will be considered in the project. Note that the communities are mainly composed by indigenous women.
Resource Availability	1. Is the requested project funding within the parameters for small grants set by the Board?	**Yes** (USD 249,900). **CAR 2:** Please correct the 'total amount of financing requested' on page 2 from 250,000 USD to 249,900 USD. Response: Thank you, this has been corrected.
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project budget before the fee?	**Yes** (USD 11,900, equivalent to 5%).
Implementation Arrangements	1. Is the project submitted through a National Implementing Entity accredited by the Board?	**Yes.** Chilean International Cooperation Agency (Agencia chilena de Cooperacion internacional para el Desarrollo) is an accredited NIE of the AF.
	2. Is the timeframe for the proposed activities adequate?	**Not cleared.** The information provided on the project objective, scope, and activities is insufficient to determine whether the timeframe is adequate at this stage. Response: The proposal authors are not sure whether this must be responded. Yet, the timeframe is similar to other projects in the experience of the team.
	3. Is a summary breakdown of the budget for the proposed activities included?	**Not cleared.** **CAR 3:** The budget cost of the last line of the table in Part III. D (page 12) should be corrected from 5,000 to 20,000.

		Response: Thank you, this has been corrected. **CAR 4:** the current monitoring and evaluation arrangement does not include deliverables such as audit report, final report, project performance reports. Please rectify. Response: Thank you for the correction. The deliverables now indicate the project reports. **CAR5:** Please correct the difference of USD 100 between amount requested on components and cover page. Response: Thank you, this has been corrected. **CR 15:** the budget breakdown does not sufficiently explain the execution costs of the activities. It needs further breakdown or further explanation. Response: The activities breakdown is detailed in Part D of the Implementation Arrangements section. An indication of the associated project objective (PO) has been added to the budget. **CR 16:** Please explain the reason for the absence of project execution cost. How the monitoring and evaluation, audit activity will be conducted? Response: The execution cost is considered as the “Project Implementation” item in the budget. The audit will be realized with the NIE Management Fee. **CR 17:** Please include information on the baseline and means of verification in the result framework table

		(Part III. C., page 10) Response: A baseline and a means of verification column has been added to the result framework table.

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
1818 H Street NW
MSN P4-400
Washington, D.C., 20433
U.S.A
Fax: +1 (202) 522-3240/5
Email: afbsec@adaptation-fund.org

ADAPTATION FUND

PROGRAMME ON INNOVATION: SMALL GRANT PROJECT PROPOSAL

PART I: PROJECT INFORMATION

Country: Chile
Title of Project: Comprehensive multi-energy isolated system for community-based food security in the Chilean Patagonia
National Implementing Entity: Chilean International Cooperation Agency
Executing Entity/ies: Universidad Austral de Chile
Amount of Financing Requested: 249,900 USD

Project Background and Context:

Chile is one of the countries worldwide that has more vulnerabilities to climate change. Indeed, its main economic activities are strongly dependent on the availability of water and energy resources. In this context, the agricultural sector is one of the economic sectors more prone to be affected by climate change, putting at risk the food security of a large numbers of farmers and small communities whose main economic activity is the small-scale agriculture, usually located in remote/rural areas.

In this sense, the project aims at designing, sizing, and piloting a technological solution for small-scale agriculture in remote/rural areas that integrates different available local energy resources to cover both thermal and electrical needs. The solution should also incorporate technologies for water capturing and its efficient consumption, to guarantee the agricultural production despite the effects of water scarcity, changes in temperature, and rain regimes.

The project focuses on communities that have an economic activity related with food provision, so that the synergies between the community energy-needs and food provision can be covered holistically. Indeed, articulating the food production with its sustainable transformation (using local energy resources) and local commercialization is also considered in this proposal. In this way, we expect to diversify the economic activities of the benefited communities by adding value to their agricultural products, while adapting their economic activity to the effects of climate change.

Project Objectives:

The main objective of the project is to increase the adaptive capacity and to build resilience of small-scale agricultural producers in the face of the impacts of climate change and climate variability by developing a technological solution that facilitates the integration of diverse small and local energy resources to cover, simultaneously, the electrical and thermal, together with technologies for water capturing and its efficient consumption, to ensure the food provision of a pre-defined community.

The address the main objective, the following specific objectives are defined:

1. Enhance the resilience of small-scale agricultural producers of the south of Chile, vulnerable to climate change by identifying, adapting, and implementing appropriate technological solutions (e.g., greenhouses).
2. Strengthen energy and water independence of small-scale agricultural producers to mitigate the effects of climate change in their activities using local energy resources (including waste-to-energy approaches), the integration of water/rain capture technologies, and management systems for the efficient use of both energy and water, and therefore guarantee the food provision.
3. Identify alternatives for the diversification of the economic activities of communities of small-scale agricultural producers by adding value, in a sustainable way, to their local products and for defining strategies for their local commercialization in a context of climate change.
4. Improve the capacities at the territorial level for decision making and management of the implementation of adaptation measures and actions to address the effect of climate change and variability in small-scale agricultural production in the south of Chile.

Project Components and Financing:

Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the INSTRUCTIONS FOR PREPARING A REQUEST FOR PROGRAMME ON INNOVATION: SMALL GRANTS PROJECTS THROUGH DIRECT ACCESS for a detailed description of each term.

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Socialization phase	Celebration of meetings with presentation of general ideal and team	Community engagement and creation of working group	5,000
2. Project definition	Identification of energy needs and renewable resources potential	Participative definition of resources, location, and uses	5,000
3. Project implementation	Installation of energy resources and control equipment	Identification of skills and services needed to deploy such projects	172,900
4. Consolidation phase	Adopted skills in the community to manipulate the system	Training program to extend the experience in other places	20,000
5. Project Execution cost	0		39,600
6. Total Project Cost			242,500
7. Project Cycle Management Fee charged by the Implementing Entity (if applicable)			7,500
Amount of Financing Requested			250,000

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project Implementation	April 2023
Project Closing	September 2024
Terminal Evaluation	December 2024

PART II: PROJECT JUSTIFICATION [1]

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

Component 1. Socialization phase. Adaptation is fostered through raising awareness in the community of the effects of climate change and variability in small-scale agricultural production, and how these effects could be reduced by taking advantage of local energy resources such as wind, solar radiation and waste (e.g. by biogas production and utilization); and how water capture and energy and water management help to efficiently use these resources to meet their production needs and move towards energy and water independency and thus towards food security. It contributes to climate resilience by making people active in the process of supplying their energy, water, and food needs.

Component 2. Project definition. Adaptation is fostered by the participative methodology to define the project. The idea is to jointly (community plus implementation team) identify the challenges posed by climate change and variability in small-scale agriculture, and which technologies can be used to reduce the impacts of these challenges and foster the adaptation of the community production to the new climate conditions. In this process the energy and water demands are computed so that the food provision is secured. Furthermore, additional energy/water demands for adding value to the agricultural products are identified as well as the water and energy resources to fulfill the total energy and water needs. Here, solar radiation, wind and waste-to-energy are explored as main energy sources, and rain and environmental humidity are explored as main sources of water.

Component 3. Project implementation. Adaptation is fostered by the involvement of the local community in the implementation. That is, the community will develop skills to install and operate the solution.

Components 2 and 3 contribute to climate resilience by using renewable-energy resources to cover the energy needs.

Component 4. Consolidation phase. Adaptation is fostered by installing capacities in the population to optimize their energy use and maximise energy efficiency.
It contributes to climate resilience by making the population capable of extending their new skills to other locations.

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

[1] Parts II and III should jointly not exceed 10 pages.

or mitigate negative impacts, in line with the Environmental and Social Policy of the Adaptation Fund.

The project focuses on small-scale agriculture producers and on how climate change and variability affect them. Specifically, this proposal has interest in the producers of the south of Chile who are reducing their production per year due to changes in temperature and rain regimes (recently, lower temperatures during the winter season and higher temperatures during summer season have changed the timings for growing the agricultural products. This is accompanied by a significant reduction in the rains in the south of Chile). Consequently, food security of the communities composed by small-scale agricultural producers have been threatened. To adapt the production to the new conditions posed by climate change and variation, this project looks for the adaptation of technologies to the environmental conditions of the south of Chile that allow taking advantage of the local energy resources (solar radiation and wind mainly), waste-to-energy applications, water capture technologies, and energy and water management systems to guarantee the food production/provision and its transformation in a sustainable way to add value and diversify the sources of income of the community.

Due to the cultural aspects of the target population, women are usually in charge of food supply and are the most vulnerable group of the community since usually they need to give up formal jobs and well-paid positions. The project aims at making women the most important pillar of the community by fostering their participation in the definition and operation of the solution. Indeed, it is expected that at least 70% of people from the community involved in the execution of this proposal are women. Their activities will cover the definition of the pilot to be implemented, the implementation of several equipment, the growing of different agricultural products using the solution defined in the project definition stage, and the evaluation and further improvements to be done.

Additionally, the project looks at maximizing the energy, water, and food autonomy of the community in time, by strengthening the capabilities of its members to train new users of the energy solution.

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

The project pursues the transition of small-scale agricultural production towards its energy and water independency and thus towards food provision securement. For doing that, technologies for the regulation of environmental conditions for the production, for taking advantage of local energy and water resources, and a system for the efficient use of these resources are considered. Thereby, the project impacts one of the main issues at small-scale renewables integration: the difficulty of getting familiar with the technology. This goal is addressed by implementing a system that automatically coordinates the diverse energy resources to minimize the dependency of external

resources (or maximize autonomy). This is a technological solution that is only recently being proposed for electrical systems but has not been proposed for both electrical and thermal system.

Nota that, the considered local energy resources are variable in nature (i.e., not necessarily available when needed). Thus, the use of energy storage devices (both thermal and electrical) might be needed to facilitate the integration of these resources. Indeed, technologies such as Lithium-ion batteries, thermal reservoirs, electrolysers, and fuel cells (these last two for dealing with hydrogen) will be considered as potential technologies to be integrated in the energy management system.

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.

The project is fully aligned with the National Energy Strategy that fosters local solutions for energy independence. Although large-scale renewable generation if part of the solutions, the National Adaption Plan emphasises the need of local solutions of social, economic, and environmental sustainability.

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

The project explicitly defines one of the components with the goal of systematising a methodology to transfer the lessons learned throughout the project period. Indeed, there will be a person specifically hired for this matter.
Additionally, the project will be supported by the dissemination offices of both the NIE and the executing entity.

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 risk
Compliance with Law	The project will comply with the local laws for electrical and thermal installations.	Risk: Very low Potential impact: Very high
Access and Equity	The project is focused on communities that have little access to the standard energy infrastructure, so it explicitly helps to minimize energy poverty.	Risk: Very low Potential impact: Very high
Marginalized and Vulnerable Groups	Isolated communities in Chile are usually marginalized in the municipal development plans. The goal of this project is to give relevance to these communities in the energy plans.	Risk: Very low Potential impact: Very high
Human Rights	The project will be cautious at respecting human rights of people where the project will	Risk: Very low Potential impact: High

	be implemented. The reason of the participation process is to ensure this.	
Gender Equity and Women's Empowerment	Women are the focus of the project, who are typically more vulnerable than men in the country.	Risk: Very low Potential impact: Very high
Core Labour Rights	The project will respect the labour rights of people that will take part of the development and operation of the system.	Risk: Low Potential impact: High
Indigenous Peoples	Many isolated communities in Chile are part of indigenous people. Therefore, the project will be taking especial care of these communities.	Risk: Very low Potential impact: Very high
Involuntary Resettlement	The project uses the local energy resources of the place where it will be located. Thus, no resettlement is considered.	Risk: Very low Potential impact: High
Protection of Natural Habitats	The project is respectful of the environment from design. That is, the main goal of the project is to use the available natural resources without damaging the habitat of species in the location.	Risk: Very low Potential impact: Medium
Conservation of Biological Diversity	The project is respectful of the environment from design. That is, the main goal of the project is to use the available natural resources without damaging the habitat of species in the location.	Risk: Very low Potential impact: Medium
Climate Change	The project will minimize the need of combustion of any kind (biomass or fossil fuels), changing the current technology which is typically diesel for internal combustion engines.	Risk: Very low Potential impact: Very high
Pollution Prevention and Resource Efficiency	The main objective of the energy management system will be to maximize the efficiency and minimize the use of energy devices that generate particle matter.	Risk: Very low Potential impact: Very high
Public Health	No impacts on public health are identified.	Risk: Very low Potential impact: Medium
Physical and Cultural Heritage	The participation of the community in the project is especially designed to avoid any impact on cultural heritage, by considering their voice in the design of the solution	Risk: Very low Potential impact: Very high
Lands and Soil Conservation	Since food security is the goal of the project, the use of land, the production of fertilizers with natural resources, and the water management are ensured.	Risk: Very low Potential impact: Very high

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

The total funding requested is 249,900 USD.

As indicated in Part I above, the project has 4 components: Socialization phase, Project definition, Project implementation, and Consolidation phase.

For the socialization phase and the project definition components, 3,000 USD are requested. This budget will fund the trips of the executing team to the location, the organization of meetings, and the salary of the people especially hired for the project which will be: 1 professional for the technological aspects and 1 professional for the social aspects. Both phases are planned to be 1-month long each.

For the project implementation component, lasting 10 months, 208,000 USD are requested. This budget will fund

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

Since the goal of the project is to maximise the energy autonomy of an isolated community, the planned activities will directly impact on the adaptation to climate change and improving climate resilience by making the community capable of smoothly integrating different energy resources to cover the energy needs. The main difference with existent projects is that the synergy of the different energy resource will be fully exploited, minimizing the overall *energy losses*.

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

The project considers one 100% hired person (project manager) to keep track on the activities, the definition and evaluation of KPIs, and the modification of tasks if needed. That is, a monthly salary of 2,000 USD.
The monitoring and evaluation plan is designed as follows:

1. Project definition report: 6 months after start
2. Project implementation report: 12 months after start
3. Final report: 16 months after start

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

The specific KPIs of the project will be defined collaboratively with the local community to account for their vision, restrictions, and desires.

A list of general KPIs is, therefore, here indicated. Milestones are indicated in months (for example, **M1** means Month 1).

Result	Milestone	Indicator(s)	Baseline	Target	Means of verification
Component 1: Socialization phase					
Outcome 1.1: Raise awareness	Working group (executing entity + community) definition. **M1.**	Number of participating people from the community	0	10 (ideally only women)	Project definition report
Component 2: Project definition					
Outcome 2.1: Demonstrated community engagement	Definition of location, type, and size of energy resources. **M2.**	Area to be used Local resources used / Local resources available	- (nonexistent) 10%	< 10 m2 > 90%	Project definition report
Component 3: Project implementation					
Outcome 3.1: Technology familiarization	Energy resources installed. **M7.**	kWh of produced energy (electrical and thermal)	0	> 2	Project implementation report
Outcome 3.2:	Energy resources	kWh of produced	0	> 50	Project

Installed capacity in the community	fully operational. **M12**.	energy (electrical and thermal) Energy efficiency	5%	5%	definition report
Outcome 3.3: Pilot of management system	Energy management system installed. **M15**.	kWh of produced energy (electrical and thermal) Energy efficiency	0 5%	> 200 > 5%	Project definition report
Component 4: Consolidation phase					
Outcome 4.1: Training programs defined	Implementation of training programs to other people/communities. **M18**.	Number of people trained	0	20 (ideally only women)	Final report

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

Project Objective(s)[2]	**Project Objective Indicator(s)**	**Fund Outcome**	**Fund Outcome Indicator**	**Grant Amount (USD)**
PO1: Involve the local community of a pre-defined location, so that its vision and current capabilities are considered in the development of the project.	Number of participating people from the community	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	5,000
PO2: Implement a co-construction methodology to design (define the type, size, and location) the energy solution.	Local resources used / Local resources available	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	5,000
PO3: Install an energy solution that takes advantage of the local energy resources to cover both electrical and thermal needs, including an energy management system that coordinates the operation of a diverse set of devices.	kWh of produced energy (electrical and thermal)	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods	~~208~~172, ~~09~~00
PO4: Define and implement a training program for ensuring the replicability of the solution in other places.	Number of people trained	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 level.	20,000
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**

2 The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

Outcome 1.1: Raise awareness	Number of participating people from the community	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. of news outlets in the local press and media that have covered the topic	5,000
Outcome 2.1: Demonstrated community engagement	Local resources used / Local resources available	Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	5,000
Outcome 3.1: Technology familiarization	kWh of produced energy (electrical and thermal)	Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	1350,900 00
Outcome 3.2: Installed capacity in the community	kWh of produced energy (electrical and thermal) Energy efficiency			208,000
Outcome 3.3: Pilot of management system	kWh of produced energy (electrical and thermal) Energy efficiency			3022,000
Outcome 4.1: Training programs defined	Number of people trained	Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.1. No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	20,000

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

Activity	Unit	Number of units	Unit cost	USD
Component 1: Socialization phase				
Project presentation to community (PO1)	Presentation	2	1,000	2,000
Video of the project idea (PO1)	Video	1	1,000	1,000
Meetings to identify main concerns from the community (PO1)	Meetings	2	1,000	2,000
Component 2: Project definition				
Presentation of identified potential energy sources (PO2)	Presentation	1	1,000	1,000
Presentation of identified demand and synergies among energy sources (PO2)	Presentation	1	1,000	1,000
Working tables (PO2)	Meetings	3	1,000	3,000
Component 3: Project implementation				
Purchase of energy devices (biodigesters, storage devices, photovoltaic panels, water recirculation, electrolyzers, others), (PO3)	Technology to be defined	To be defined with community		172,900
Component 4: Consolidation phase				
Training programs (PO4)	1	4	5,000	20,000
Management fee				
NIE Management Fee (5%)	1	1	11,900	7,500
Project Execution Cost				
Project Coordinator	1	1	39600	39600
			TOTAL	**250,000**

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

Schedule disbursement	Upon signing contract	6 months after project starts	12 months after project starts	Amount (USD)
Schedule date	April 2023	October 2023	March 2024	
Project funds	100,000	100,000	2,900	202,900
Project Implementing Entity	7,500	0	0	7,500
Project Execution Cost	39,600	0	0	39,600
Total				**250,000**

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

A. **Record of endorsement on behalf of the government**[3] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials 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:*

Jenny Mager Santos Head of Climate Change Office, Designated Authority, Ministry of Environment	Date*: August, 01, 2022*

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 in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans in accordance with Chile's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by Climate Change 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.

[3] 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.

~~ENRIQUE O'FARRILL-JULIEN~~CARLA GUAZZINI GALDAMES Acting Executive Director Chilean International Cooperation Agency for Development (AGCID) Implementing Entity Coordinator	
Date: *August, 05, 2022*	Tel. and email:+56228275754 / ~~eofarrill@agci.gob.cl~~ cguazzini@agci.gob.cl
Project Contact Person: Marco Ibarra, Policy Analyst.	
Tel. And Email: +56228275759 / mibarra@agci.gob.cl	

Letter of Endorsement by Government

Letter N°223005/

Santiago, 01-08-2022

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: 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 project proposal: "Comprehensive multi-energy isolated for community-based food security in the Chilean Patagonia" 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 Adaptation Fund. If approved, the project will be implemented by AGCID and executed by Austral University.

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