

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

PROGRESS DOCUMENT TO: AUGUST 2023

**‘WIND FARM CONSTRUCTION PROJECT IN RÍO
GRANDE, TIERRA DEL FUEGO, ANTARCTICA
AND THE SOUTH ATLANTIC ISLANDS’**

**‘ENERGY TRANSITION SUPPORT
PROGRAM’**

ACRONYMS AND ABBREVIATIONS

AIIB	Asian Investment and Infrastructure Bank
EIAS	Environmental and Social Impact Study
HVL	High voltage line
NGO	Non Governmental Organization
WP	Wind Project
UEPPEPAT	Project Implementing Entity
SET	Transformer Power Substation
SEP	Stakeholder Participation Plan

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1.1 INTRODUCTION AND OBJECTIVES

The Environmental and Social Management Plan (ESMP) of the Project as a management instrument based on a legal and institutional diagnosis, methodologies, and procedures, allows to ensure adequate socio-environmental management during the Project implementation.

The following are some of the specific objectives,

- a) To carry out a diagnosis of the norms, laws and regulations that must be taken into account within the socio-environmental theme, and identify the institutions that will be involved in the Project.

- b. To develop an easy and efficient methodology for the categorization of the Project based on the level of socio-environmental risk, in order to identify the socio-environmental studies required to comply with both, national and provincial environmental legislation, as well as with the Environmental and Social Policies of the AIIB;
- c. To design a series of instruments for internal use and that must be developed in each of the phases of the project cycle, to ensure the incorporation of environmental and social variables.
- d. To Identify responsibilities and define the socio-environmental management procedures that must be applied throughout the project cycle; and
- e) To submit a Plan for Strengthening Environmental and Social Management, where a series of activities that must be developed during its implementation are identified.

It should be noted that this instrument must be flexible and dynamic, so as to adapt to the needs and particularities of the Project and gradually incorporate new elements that allow improving socio-environmental management during the implementation of the Project.

1.2 Scope of this ESMP

This ESMP has been designed for the use and application of the Project Implementing Entity and the competent provincial and municipal organizations that intervene in the execution of the Project, in order for them to be aware of the environmental and social management that must be carried out during its implementation.

It is planned to develop a series of activities for the promotion and disclosure of this instrument, to ensure its use and application at the beforementioned levels.

1.3 Responsibility for the implementation of the ESMP

The contractor company that is awarded the contract must comply, throughout the contract period, with all Argentine environmental, social, labor, occupational risk and occupational safety and hygiene regulations and, with all applicable legislation, in force at the award date, whether or not it is indicated in the bidding documents, particularly the ESMP.

Likewise, it must comply with the rules and regulations that may be issued during the development of the contract, both of the 3 institutional levels of Argentina, and of the Environmental and Social Policies of the AIIB. The contractor company must also comply with the observations, requirements or sanctions made by the national, provincial and/or municipal Control Authorities and Organizations, assuming the costs, taxes, rights and/or fines for any concept on its own.

Prior to installing: workshop/camps, machinery, eventual fixed mixing plant, the Contractor must carry out the pertinent technical studies to verify and re- determine , if necessary, the environmental and social baseline (ESB) of the place in order to carry out the recomposition of all the affected factors at the end of the project. It will be solely responsible for mitigating and correcting the environmental liabilities generated by the work. This requirement is fundamental for the reception of the works.

The Contractor must hold the Principal harmless against any judicial or extrajudicial claim for non-compliance with environmental and/or social regulations in the tasks for which it is responsible, and will provide all collaboration if required in the event of any claims.

The Contractor must be responsible, from the beginning of the Work Contract - for the analysis and evaluation of climatic data and the situation of surface water courses and groundwater levels, to establish alert and action mechanisms against contingencies that could affect works, people and assets, leaving potential damages due to climatic contingencies at their exclusive risk. It will keep the Client informed regarding the data obtained.

The Principal will not accept, under any circumstances, make additional payments or accept extension of the delivery terms of the Work, due to non-compliance with the aforementioned points.

The Contractor has the obligation to allow the Inspection team free access to all work sectors: camp/workshop, laboratory, materials deposit, collection of common and special waste, during the execution of the work.

The contractor must present a Final Report of the results of the application of the Environmental and Social Management Plan of the Construction Phase, based on the experience accumulated during the execution of the project, said documents must be delivered with the Provisional Acceptance of the Work. .

The contractor must concentrate efforts on generating skills and jobs in which the local and regional population participate as a priority, encouraging the participation of women.

The contractor with the reception of the work will have to incorporate into the Operation and Maintenance Manual, Programs for the good management of the environmental and social system, within the framework of the applicable legislation and contemplate it for the entire useful life of the project.

All works within the framework of the 'Energy Transition Support Program' of Tierra del Fuego, Antarctica and the South Atlantic Islands must have an Environmental and Social Manager (ESM) responsible for the implementation of the ESMP. The ESM will have a university degree, knowledge and experience in similar positions and comply with the enabling provincial and/or municipal rules and regulations. Only when the Client and the Socio-Environmental Technician of the Project Implementing Entity consider it necessary due to the social complexity of the project will an additional Social Responsible (SR) be included, whose requirements to be met will be equivalent to those of the ESM, although specific to social requirements. The ESM –or eventually the Environmental Manager (EM) and the RS— will make the presentations, before the National, Provincial, Municipal Government Authorities and Control Organizations, and will be the one(s) who must be responsible for its compliance throughout the development of the works. Likewise, they

will act as interlocutor(s) in all environmental and social aspects between the Contractor, the Inspectorate, the Government Authorities and the local and regional communities. The ESM will carry out diagnostic audits at all stages of the work, to measure the degree of compliance with the provisions of the ESMP and all other applicable regulations. It will raise (n) a monthly report to the Inspectorate designated by the Principal.

Responsible for Occupational Safety and Hygiene (ROSH). It will be his/her obligation to carry out the functions established in the current legislation, such as preparing the Technical Work Sheet, and updating, throughout the development of the construction, records, investigation reports and statistics, such as: work accidents, fires, spills, operator training, delivery of personal protection elements, fire load study, grounding measurement study, and everything related to your concern.

Similarly, the Contractor will have an Occupational Medicine Service (OMS) according to local regulations to keep throughout the development of the construction, on-site records about relevant aspects such as diseases, medical examinations, referrals in case of contingencies, statistical documentation, health training courses, measures corrective measures, etc., that arise or develop during the Project work. These records will remain available on site.

Both the person in charge of Safety and Hygiene and Medicine Service will be appointed by the Contractor and must have the necessary suitability in their respective areas of responsibility, accredit a university degree and registration that qualifies them for their functions, be registered in the respective(s) Professional record(s) of the specialty(s), especially in the jurisdiction corresponding to the project. The Contractor must submit their CVs, for approval by the Inspection.

The responsibility of implementing the ESMP is that of the Contractor during the work and that of the responsible beneficiary or other corresponding provincial institutions.

During the works, the Contractor will carry out environmental and social monitoring and control through the ESM;

During Construction, Operation and Maintenance, provincial agencies, beneficiary organizations and other agencies or institutions may participate, according to the particularities of the project and the capacity of these agencies to carry out the inspection and/or supervision.

The Inspectorate is empowered to verify compliance with contractual obligations, and to request the Contractor through service order (OS) the pertinent adjustments and modifications. In turn, the Contractor is obliged to adapt what the Inspection observed, without this giving rise to claims or extending the delivery terms.

Prior to the authorization to execute the work, the Contractor must have the feasibilities issued by the competent bodies, be they technical, sectoral, environmental or social.

2. Preliminary location of the Wind Farm

From the information obtained in the wind map of Tierra del Fuego and considering the closest place with access to the city's electrical distribution network, the area of the Salesian Congregation is selected for the site of the proposed wind farm.



1.4. Environmental and Social Management Plans (ESMP) Budget

An estimated general budget for Environmental and Social Management Plans (PMAS) is presented. It has been prepared taking into account the investment costs necessary for environmental and social follow-up and monitoring, the delivery of workshops and training on the subject, and the preparation of reports and documents with the objective of socializing the actions.

Se presenta un presupuesto general estimado para Planes de Manejo Ambiental y Social (PMAS). El mismo se ha elaborado tomando en cuenta los costos de inversión necesarios para el seguimiento y monitoreo ambiental y social, el dictado de talleres y capacitaciones en la temática y la elaboración de informes y documentos con el objetivo de socializar las acciones.

ENVIRONMENT AND SOCIAL MANAGEMENT PLAN

ACTIVITIES	COST (in USD dollars)
1.4.1 Recruitment of specialist technicians in ESMP monitoring	\$49.740,93
1.4.2 Logistics for monitoring and follow-up of the ESMP (Fuel, transportation, office supplies, and meeting expenses)	\$8.290,16
1.4.3 Execution of specific technical assistance activities to participating entities- Workshops on specific topics-Logistic expenses for training	\$14.507,77
1.4.4 Documentation and socialization (Preparation of reports, meetings)	\$10.362,69
TOTAL AMOUNT	\$82.901,55

3. Preliminary Environmental and Social Management Plans (ESMP) during the construction and operation stage

The main objective of the measures proposed is prevent, to mitigate and/or correct the impacts that could be generated by the project activities (construction and operation), thus achieving the least possible impact on environmental quality.

Its scope understands all the activities that will be part of the stages of construction and operation and closing of the Wind Farm project.

The measures to be implemented, oriented to prevent, mitigate and/or correct the impacts negatives potentials will be described below and will be detailed in "Management Sheets", where the objectives and goals of the management measures are described.

For the approach of management measures, international environmental management guides and recommendations in the construction and operation stages will be considered.

In the same way, the environmental monitoring program will be established to verify and guarantee the protection of the environment, through monitoring records.

Table 1: Management of geofoms and erosion control

Component: Geofoms and processes of erosion		Sheet No. 1	
Sheet: Driving of geofoms and control of erosion			
Main Objective	Specific objectives		
To mitigate impacts related to landform modifications and erosion control	<ul style="list-style-type: none"> ✓ To Minimize the modification of geofoms. ✓ To Check and avoid to the maximum the erosion of the soil because of the interventions carried out. 		
Goal			
Achieve 100% of the activities proposed			
Stage of the project			
Construction	x	Operation	
Activities	Impacts to be considered	environmental rating	
<ul style="list-style-type: none"> ✓ Preparation of the WP land, construction site, HVL work site (in trace) ✓ Qualification workshop ✓ Mobilization of equipment, machinery, and materials. ✓ Transport of wind turbine components . ✓ Motion of soils. ✓ Adequacy of access and construction internal roads. ✓ Construction of works of art and drainage, foundations, platforms, operations building ✓ Mounting of wind turbines ✓ Construction of the grid electrical internal PE, grounding system and communications link. ✓ Construction SET and THE T ✓ Cleaning and conditioning of the terrain 	Modification of the geofoms of the terrain	<u>Negative</u>	
	Increase in erosive processes		Moderate
			moderate significant
Type of measure	Place and/or stage to apply		
Prevention and mitigation	Areas identified with civil temporary and permanent work		
Description			
It is recommended prior to the construction of the wind farm to carry out the study of soils (geotechnical), the calculation of the stability of the slope and the study of the erosion potential of the study area .			

During the opening of excavations, it is important to identify and store the topsoil separately. It should be kept moist but protected from water erosion. Alternatively, you can use the remains of vegetation from the tasks of clearing for cover it a time willing in his place of storage.

During the closing of the excavation, it will have as fraction of land final, the topsoil layer.	
The tasks of mobilization of soils will be performed with favorable weather conditions to reduce the effect of detachment of particles by action of water and/or wind.	
During leveling of the land and the opening and the closing of the excavations, it will be affected by the system of runoff hydric superficial. By the time it finished, it shall eliminate any depression or elevation that has been made or generated, which may obstruct the natural drainage of water towards the natural collectors.	
In how much to the recovery of the structure of the soil, the extent it applies during the progressive closing of the trench. As for the runoff, immediately after of the closing of the ditch and the lifting of the workshop.	
The time in which the soil is uncovered, after the installation of the HVL (in the section to be built up to the point of interconnection (PDI), should be minimized.	
Staff required	Responsible
Site Manager Personnel technician- workers	Coordinator of construction site Responsible of the wind farm

Table 2: Conservation of the soil resource

Component: Soil				Sheet No. 2
Sheet: conservation of the resource soil				
Objective		Specific objectives		
To Mitigate the negative impact generated on the soil resource		✓	Counter the compaction of the soil	
		✓	Reduce the degradation chemistry and biological from the ground	
Goal				
Achieve 100% of the activities proposals				
Stage of the project				
Construction		x	Operation	
Activities		Impacts to be considered		environmental rating
✓	Preparation of the land PE, construction site SET, HVL work (in trace)	Alteration of properties _ physical of the soil		<u>Negative</u>

Component: Soil		Sheet No. 2
Sheet: conservation of the resource soil		
<ul style="list-style-type: none"> ✓ Qualification workshop. ✓ Mobilization of equipment, machinery and materials. ✓ Transport of wind turbine components . ✓ Motion of floors. ✓ Adequacy of access and construction internal roads. ✓ Construction of works of art and drainage, foundations, platforms, operations building ✓ Mounting of wind turbines ✓ Construction of the grid electrical internal PE, grounding system and communications link. ✓ Construction SET and THE T ✓ Cleaning and conditioning of the terrain. 	(structure of the soil).	Moderate moderate significant
	Affection of soil quality (chemical-biological properties of the soil).	
	Erosion of the soil	
	Decrease of infiltration of water by waterproofing surfaces .	
Type of measure	Place and/or stage to apply	
Mitigation	temporary and permanent civil works.	
Description		
The clearing tasks will be limited only to those strictly necessary areas. He Removed plant material will be used to cover the topsoil that is stored.		
The tasks of leveling and compaction will limit only to the strictly necessary areas.		
The superficial layer of the soil will be removed and stored separately, which can be easily identified by presenting a darker color than the rest of the extracted land fractions. It must be kept moist and protected from erosion by external agents. Whenever possible, the superficial layer of the soil with its herbaceous cover can be extracted. original for your conservation. Alternatively, it you can use the remains of vegetation from clearing tasks to cover it once it is placed in its storage place.		
Accumulate and preserve the organic soils removed, to use them later in the recomposition of the coverage vegetable in the places where corresponds. The areas of Temporary storage must be properly delimited and, if possible, covered.		
It will be controlled that the minimum area established in the Project that will be occupied by each Foundation, with the end of avoid clearing unnecessary and disturbances of the soil further there of the planned.		
In case of need material for stuffed, it shall check his origin for avoid the incorporation of potentially contaminated material.		
During the tasks of elevation and facility of the towers it has to procure affect the smaller surface possible in the surroundings of the foundations, of manner of degrade t he soil and the		

Component: Soil		Sheet No. 2
Sheet: conservation of the resource soil		
vegetation in the minor surface possible, compatible with this task and the length of the towers.		
It is recommended that the roads internal follow the line of the wind turbines		
It is recommended to carry out a adequate provision of the fuels and lubricants in the different stages of the project, in order to reduce the probability of soil contamination.		
The facility of the workshop has to perform, inside of it possible, in a place of the property already disturbed.		
Assign the tasks of transport of fuel and products chemicals to staff qualified and properly trained.		
Verify that in zone of storage HE find available the Leaves of Product Safety (Material Safety Data Sheets) to know the proper way to proceed in case of contingencies due to spills.		
During the Actions of trenching HE shall avoid that the ditches remain a lot open for a long time, so that they do not channel rainwater runoff or become traps due to occasional animal falls.		
The intervened areas that are not used again during the operation stage (workshop, platforms of mounting of the wind turbines and affected areas to the tasks of Assembly the towers of support and lying of the line) shall be restored a time finished the construction work.		
During the tasks of construction and operation of the park wind and the line electrical HE must restrict the transit of vehicles and personnel through the internal roads and the easement road exclusively, avoiding at all times the opening of new roads and the affectation of adjacent areas.		
Staff required	Responsible	
Site Manager Personnel technician-workers operators	Coordinator of construction site Responsible of the wind farm	

Table 3: Management of vegetation cover

Component: biotic		Sheet No. 3
Sheet: coverage vegetable management		
Objective	Specific objectives	
Minimize the negative effect about the local vegetation	<ul style="list-style-type: none"> ✓ Reduce the affectation that it can introduce about the vegetation present in the area of influence of the project. ✓ Foment the connectivity ecological in he area of influence of the project. 	

Component: biotic		Sheet No. 3
Sheet: coverage vegetable management		
Goal		
Compliance of 100% of the activities proposed		
Construction	x	Operation
Activities	Impacts to be considered	environmental rating
<ul style="list-style-type: none"> ✓ Preparation of the ground WP, work SET, construction site (in trace) ✓ Qualification workshop. ✓ Mobilization of equipment, machinery and materials. ✓ Transport of wind turbine components . ✓ Motion of soils. ✓ Adequacy of access and construction roads internal. ✓ Construction of plays of art and drainage, foundations, platforms, operations building ✓ Mounting of wind turbines ✓ Construction of the grid WP internal electrical, grounding system and communications link. ✓ Construction SET and HVT ✓ Cleaning and earthworks. 	Loss of the coverage low-carrying vegetable	<u>Negative</u> Moderate moderate significant
	Modification of ecological relationships for fauna and flora.	
	Changes in the composition and the ecological structure by implementation in the levels of wind speed and noise.	
Type of measure	Place and/or stage to apply	
Prevention and Mitigation	Project in general	
Description		
Clearing tasks will be limited only to the strictly necessary areas, restricting clearing to larger shrubs that hinder mobility in the rest of the surface that must be intervened. The removed plant material will be used to cover the surface layer of the soil that is stored		
In the areas in that a recomposition of the coverage vegetable by processes of natural revegetation, no tillage should be carried out.		
Promote a vegetation management program that includes the removal of species (in case of be required), its preservation during the transfer, the overseeding and the supervision and		

maintenance of the actions.

Component: biotic		Sheet No. 3
Sheet: coverage vegetable management		
Establish a program of isolation for individuals arboreal (in case of required) that are outside the construction area to avoid possible damage.		
According to the particularities in the study area, establish a program fire management.		
The prohibition of lighting fires in the construction sector must be implemented, due to the existing vegetation and the winds in the area.		
Establish criteria in the mobility of the waste.		
Adequacy of the zones of construction, establishing Actions for avoid he growth of weeds adjacent to the project area.		
After the adaptation of the soils of the affected areas, it will be possible to carry out the revegetation of the land with species native. This extent would accelerate he process of restoration of vegetation cover. This decision must be evaluated in each case. Revegetated areas should be kept isolated and It will be important to irrigate them during the first stage of recovery.		
Staff required	Responsible	
Staff technical and operational	Eng. Forest either related Responsible of the wind farm	

Table 4: Conservation of water resources

Component: Resource hydric		Sheet No. 4			
Sheet: water superficial (runoff) management					
Objective		Specific objectives			
Avoid altering the physical-chemical and biological properties of surface water (runoff).		✓	Minimize the amount of sediments that can modify the quality of runoff water.		
		✓	Reduce the risk factors for surface and groundwater contamination.		
Goal					
Achieve 100% of the activities proposed					
Stage of the project					
Construction		x	Operation		

Component: Resource hydric		Sheet No. 4
Sheet: water superficial (runoff) management		
Activities	Impacts to be considered	environmental rating
<ul style="list-style-type: none"> ✓ Preparation of the land WP, construction site SET, LAT work (in trace) ✓ Qualification workshop . ✓ Adequacy and construction of roads of access. ✓ Motion of soils ✓ Mobilization of equipment, machinery and materials ✓ Transport of components (wind turbines) ✓ Construction of foundations, platforms, buildings, drainage works, SET and HVL. ✓ Mounting of wind turbines 	Modification of the surface water system (runoff).	<p style="text-align: center;"><u>Negative</u></p> <p style="text-align: center;">Moderate</p> <p style="text-align: center;">Slight</p>
	Disturbance of the quality of surface water.	
Type of measure	Place and/or stage to apply	
Mitigation	Areas where exist Surface runoff susceptible to contamination.	
Description		
It shall restore the earrings modified and eliminate any depression either elevation that has been made or generated, which may obstruct the natural drainage of the land.		
Take surface runoff into account when installing the workshop, and thus minimize the risk of contamination.		
For the construction stage of the workshop, which involves weeding, cleaning, leveling and installation of the workshop, the use of chemical toilets that will be provided by companies in the field is foreseen. During the construction stage of the wind turbines and the SET inside the workshop HE foresees installation of bathrooms fixed with camera septic, litter filtering and well absorbent. In this last case the effluents will be retired periodically by a operator enabled to such end.		
To the final of each working day, carry out tasks of cleaning of all type of waste of construction site, verifying it is correctly ready in their containers, of accordance with each type of waste, as established in the waste management Sheet.		
Provide waterproofed areas for material storage areas and vehicle parking.		
Minimize the generation of waste and to stimulate he reuse.		
Apply proper management and disposal of waste and periodically audit the correct application.		
Staff required	Responsible	
Boss of construction site Staff technician-workers	<p style="text-align: center;">Coordinator of construction site</p> <p style="text-align: center;">Responsible of the</p>	

Component: Resource hydric		Sheet No. 4
Sheet: Driving of water superficial (runoff)		
operators	Wind Farm.	

Table 5: Air resource management

Component: Atmosphere				Sheet No. 5
Sheet: the air resource management				
Objective		Specific objectives		
Mitigate the impact generated by the construction and operation activities of the project on air quality.		<ul style="list-style-type: none"> ✓ Reduce the emissions of material particulate. ✓ Minimize the emissions atmospheric of contaminants ✓ Control level sonorous - shades 		
Goal				
Compliance of 100% of the activities proposed				
Stage of the project				
Construction	x	Operation	x	
Activities		Impacts to be considered		environmental rating
<ul style="list-style-type: none"> ✓ Preparation of the land WP, construction site SET, HVL work (in trace) ✓ Qualification workshop. ✓ Adequacy and construction of access roads. ✓ Motion of soils ✓ Mobilization of equipment, machinery and materials ✓ Transport of components (wind turbines) ✓ Construction of foundations, platforms, buildings, plays drain, SET and HVL. ✓ Mounting of wind turbines ✓ Operation of the park wind. 		Decrease in air quality		<u>Negative</u> Mild Moderate moderate significant
		Increase sound level - shading		
		Affectation in the fauna and flora		
Type of measure		Place and/or stage to apply		
Prevention, Mitigation and control		Project in general		
Description				

Manage efficiently the catering and the staff transportation to achieve lower fuel consumption in transportation, as well as the emission of particles from road traffic.

Component: Atmosphere	Sheet No. 5
Sheet: the air resource management	
<p>The vehicles used will have the revision technique to the day. It will forbid the circulation of any vehicle that emits smoke visible through the tailpipe</p>	
<p>Only machinery in good condition will be used, maintaining a daily review of said machinery.</p>	
<p>The provisional roads (that is, those not paved) where the vehicles associated with the project will circulate will be kept in good condition, irrigated, in order to minimize the emissions generated.</p>	
<p>It will perform moistening of material before of the realization of the movements of land.</p>	
<p>the speed of transit of vehicle will be restricted to 30km/h inside the project area</p>	
<p>The trucks that transport materials dispersible will count with toppings of canvas to avoid the issue of dust and the spills of leftovers during the transportation of the materials loads.</p>	
<p>In places where fine materials are disposed of, a cover must be provided to prevent their dispersal by wind action, which would lead to the reduction of particulate matter.</p>	
<p>It shall carry out the maintenance of equipment, machinery and trucks to through of a Maintenance Program in order to minimize emissions due to poor combustion.</p>	
<p>The circulation of machinery and vehicles must be restricted to the corresponding work areas, roads and routes specified, of shape such of avoid the generation unnecessary of suspended dust and gaseous emissions.</p>	
<p>Will be forbidden the burning of all spare of fuel, lubricants used, plastic materials, tires, inner tubes, containers or any other waste that ends up in aggressive environmental contamination, without the express authorization of the Works Inspectorate.</p>	
<p>The dispersible materials that are not arranged in closed areas such as deposits or warehouses for materials will be covered of shape of avoid pollution environmental by particulate matter.</p>	
<p>In the extent of it possible, program the activities of the different stages of construction, when weather conditions are favourable, for example, consider prevailing wind conditions.</p>	
<p>Keep the roads, access roads and maneuvering areas humid, in order to reduce the emission of particulate matter.</p>	
<p>It will execute tasks of cleaning of the areas of job (in construction and operation)</p>	
<p>check technique of the state of the equipment and the vehicles for reduce the gases combustion and, on the other hand, the reduction of noise levels.</p>	
<p>During operation, it is recommended to use noise control techniques such as acoustic insulation, silencers, booths, noise-absorbing materials on walls and ceilings, vibration insulators and flexible connections, seals, among others.</p>	
<p>Employees both in the construction stage and operation must follow the guidelines of health and security in the job for avoid the risks generated by material particulate, issue</p>	

Component: Atmosphere		Sheet No. 5
Sheet: the air resource management		
of gases, noise and vibrations.		
Education and training to all he staff of the construction site and to contractors about the measures of prevention and control in the emission of particulate matter and noise.		
The impacts associated with noise and shading effect generated by the operation of the equipment, they can be avoided, by it will generate a zone buffer of attenuation derivative of the specific modeling results.		
Staff required		Responsible
Site Manager Personnel technician-workers operators		Coordinator of construction site Responsible of the wind farm

Table 6: Biodiversity management – fauna and flora

Component: biotic				Sheet No. 6
Sheet: Fauna and Flora management				
Objective	Specific objectives			
Prevent, mitigate, correct and compensate environmental impacts caused by project activities on the local flora and fauna.	<ul style="list-style-type: none"> ✓ Reduce the affectation that HE can introduce about the fauna and flora ✓ Minimize the interruption of the displacements of the individuals ✓ Foment the connectivity ecological in he area of influence of the project. 			
Goal				
Compliance of the 100% of the activities proposed				
Stage of the project				
Construction	x	Operation	x	
Activities	Impacts to be considered		environmental rating	
<ul style="list-style-type: none"> ✓ Preparation of the land WP, SET work, HVL work (in trace) ✓ Qualification of the workshop. ✓ Adequacy and construction of access roads. 	Loss of coverage vegetable		Negative	
	Affectation fauna.		Mild Moderate	

Component: biotic		Sheet No. 6
Sheet: Fauna and Flora Management		
<ul style="list-style-type: none"> ✓ Motion of soils ✓ Mobilization of equipment, machinery and materials ✓ Transport of components (wind turbines) ✓ Construction of foundations, platforms, buildings, plays drain, SET and HVL. ✓ Mounting of wind turbines Operation of the park wind. 	<p>Interruption of the movement of individuals (birds mainly).</p>	<p>moderate significant</p>
Type of measure		Place and/or stage to apply
Prevention and Mitigation		Project in general
Description		
<p>In the event of finding specimens of wildlife trapped inside an excavation, work must be interrupted it must be immediately transferred to a safe place under the protection of specialized personnel.</p>		
<p>Strictly prohibit hunting by staff. Staff will not be allowed to use firearms.</p>		
<p>Ban catch fauna either cattle, gather eggs and extract nests.</p>		
<p>During the stage of construction avoid the realization of openings of roads and unnecessary clearing of vegetation in order to minimize habitat destruction.</p>		
<p>avoid the circulation unnecessary of vehicles and of operators, with he end of minimize disturbance in the area.</p>		
<p>avoid to Modify runoff waters of rain and accumulations in certain places that can generate attraction sites for birds</p>		
<p>During all the stage of operation it will be necessary implement the monitoring environmental that makes it possible to control possible unwanted effects on wildlife, particularly on bird populations.</p>		
<p>In order to evaluate the effect of the operation of the wind project on the community of birds of the place will shall monitor the mortality bird's provoked by the collision against the infrastructure of the park (wind turbines and HVL) and the bird community.</p>		
<p>The placement of a signaling system on the guard cables of the power line is recommended to prevent bird collisions. Signaling devices reduce mortality of the birds, diminishing he number of birds near of the line, he number of birds flying at the height of the drivers and the collision rate</p>		
<p>Achieve the rules about the boundaries of speed for avoid accidents to the fauna.</p>		
<p>Remove any type of animal dead, and avoid the presence of birds scavengers.</p>		

Component: biotic		Sheet No. 6
Sheet: Fauna and Flora management		
Avoid lightning that is not strictly necessary, to the effects of no attracting the presence of birds that could collide with the structures of the park.		
Group the turbines as much as possible to avoid the barrier effect. Leave corridors between groups of turbines. Do not install turbines near wetlands, coastal areas, wooded areas or forested edges of elevations (cliffs, hills, hills).		
It is recommended to take measures palliative as colors differentials either finishes in the surfaces of the blades.		
If possible, install underground cables. Mark overhead wires with deflectors. Respect the separation of the cables of different polarity of mode that be elderly to the wingspan of large birds of prey that can be electrocuted when in contact with them.		
The phase of construction should be planned not to coincide with periods of breeding or migration of birds.		
Train the personnel in protection of the flora and of the fauna and knowledge of extant species .		
Development of an environmental education program aim at personnel working on the project (resident and contractor) related with he knowledge and importance of protection of flora and fauna		
Staff required	Responsible	
Eng. Forest either related biologist Site Manager Personnel technician-workers operators	Coordinator of work Responsible for Wind Farm	

Table 7: Landscape management

Component: Landscape		Sheet No. 7
Sheet: scenic and landscape Quality		
Objective	Specific objectives	
Mitigate the impact generated on the landscape by the activities of construction and operation of the wind farm.	<ul style="list-style-type: none"> ✓ Reduce the interference visual generated by the works and construction waste. ✓ Attenuate the changes visuals generated by wind turbines. 	
Goal		

Component: Landscape				Sheet No. 7	
Sheet: scenic and landscape Quality					
Achieve with 100% of the activities proposed					
Stage of the project					
Construction		x		Operation	
				x	
Activities		Impacts to be considered		environmental rating	
<ul style="list-style-type: none"> ✓ Preparation of the land PE, SET work, HVL work (in trace) ✓ Qualification workshop. ✓ Adequacy and construction of access roads. ✓ Motion of soils. ✓ Mobilization of equipment, machinery and materials ✓ Transport of components (wind turbines) ✓ Construction of foundations, platforms, operations building, plays of art and drain, SET and HVL. ✓ Mounting of wind turbines ✓ Operation of the park wind. 		Alteration of scenic and landscape quality (Visual interference)		<u>Negative</u> Mild Moderate moderate significant	
		Affectation in the fauna			
Type of measure			Place and/or stage to apply		
Prevention and Mitigation			Location of the work site, area installation of wind turbines, operational area		
Description					
1. Planning the work facility and take in account the following guidelines: <ul style="list-style-type: none"> ✓ Closeness to via of access ✓ Consideration of the runoff superficial and address of the wind. ✓ leveling of the land 					
2. Driving of materials of construction <ul style="list-style-type: none"> ✓ Organize supplies of materials ✓ Gathering of materials of construction in batteries with coverage that avoid the dispersion of particles into the atmosphere ✓ Cleaning and withdrawal of materials and waste generated ✓ Cleaning of the areas operational and administrative ✓ Collection of waste in the places intended for this purpose, minimizing the time of storage. 					
Staff required			Responsible		

<p>Site Manager Personnel technician- workers operators</p>	<p>Coordinator of construction site Responsible of the Wind farm .</p>
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Table 8: Waste management

Component: Resource hydro- Soil- Atmosphere		Sheet No. 8	
Sheet: waste management			
Objective		Specific objectives	
Implement comprehensive waste of construction, waste urban solids and hazardous waste management.		<ul style="list-style-type: none"> ✓ Carry out the identification and classification of waste generated. ✓ Manage and properly dispose of waste generated in the different stages and tasks involved in the construction, operation and closing, finally of minimize the impacts environmental that could cause. 	
Goal			
Compliance of 100% of the activities proposed			
Stage of the project			
Operation	x	Construction	x
Activities		Impacts to be considered	
<ul style="list-style-type: none"> ✓ Construction activities, operation, maintenance and closing. 		Disturbance quality of the water of the water	
		Soil Pollution	
		Atmospheric Pollution	
		Affectation to fauna and flora	
Type of measure		Place and/or stage to apply	
Prevention and Mitigation		Project in general	
Description			
Manage the waste generated by the project starting from the identification and classification of waste where it is produced; It must be clear about the type of waste that will be generated and classify it.			
Before starting any work, the sites where the waste product of the activity carried out will be disposed it must be identified in the first place.			
All the waste generated will be collected differentially according to the types of waste generated (construction waste, urban solid waste and hazardous waste).			
Waste will be managed in accordance with current regulations and will be disposed of in places for this purpose enabled to comply with the requirements of current environmental legislation.			
the staff will be trained in the importance of reduction and driving appropriate of waste.			
The places of operation will be free of obstacles and waste of materials either garbage (materials of construction rubble and waste of everything type).			

Component: Resource hydro- Soil- Atmosphere		Sheet No. 8
Sheet: waste management		
<p>avoid by all the media that no fuel, oil, substance chemistry and/or any other polluting product are spilled on the ground.</p>		
<p>After applying the classification and reduction measures, the waste must be temporarily stored in accordance with current environmental legislation. Here are some recommendations for storage:</p> <ul style="list-style-type: none"> ▪ Instruct to the staff in regard to correct segregation of waste. It is suggested that the containers to be clearly differentiated by type of waste and color. ▪ The number of containers depends on the type of solid waste solid that is generated in temporary installations as well as in the work fronts. ▪ Containers must be strategically located, in visible places, perfectly identified and marked. 		
<p>Whenever possible, waste generated during construction should be reused, either be removed of agreement with their characteristics of dangerousness and it that stipulate current standards.</p>		
<p>The provision of waste will be carried out exclusively in approved places and in accordance with current regulations. Its permanent or temporary disposition must not generate soil contamination, fire hazard or block access to the site's facilities.</p>		
<p>It is recommended to implement a comprehensive waste management plan, being totally prohibited from burning any type of waste, which allows structuring the objectives, scope and procedures according to the substance to be managed. The following are their general guidelines:</p> <p>-Construction waste: mixed concrete, wood. They will be deposited in construction containers</p> <p>-Hazardous waste: batteries, oils, small amounts of fuels, filters, contaminated land, leftovers from electrical installations, aerosols, among others. The waste generated will be disposed of in different containers depending on the type of waste and transported by an authorized company in charge of the contractor.</p>		
Staff required	Responsible	
<p>Site Manager</p> <p>Personnel technician- workers operators</p>	<p>Coordinator of construction site</p> <p>Responsible of the Wind Farm.</p>	

Table 9: Vehicular traffic management

Component: Socioeconomic		Sheet No. 9
Sheet: traffic vehicular management		
Objective	Specific objectives	
minimize the negative effect generated from vehicular traffic	<ul style="list-style-type: none"> ✓ Reduce the affectation that it can introduce on the fauna and flora. ✓ Minimize the interruption of the displacements of the individuals ✓ Prevent the interference in the local traffic 	
Goal		
Compliance of 100% of the activities proposed		
Stage of the project		
Construction	x	Operation
		x
Activities	Impacts to be considered	environmental rating
Mobilization of equipment, machinery and materials.	interference in the vehicular traffic	<u>Negative</u> Mild Moderate
	Fauna runover	
	Soil Pollution	
	Air Pollution	
Type of measure	Place and/or stage to apply	
Prevention and Mitigation	Project in general	
Description		
Verify compliance with safety standards in transportation vehicles and personnel training records.		
Drive exclusively on existing roads. Restrict circulation by pitfalls or tracks to light vehicles and avoid unnecessary circulation.		
Check that the drivers possess the ratings required, according to normative current.		
Check that the maximum speeds allowed are met, according to each type of vehicle		
In case of detecting animals on the route, make sure that they are reported immediately to the competent authority.		
Staff required		Responsible

<p>Site Manager Personnel technician- workers operators</p>	<p>Coordinator of construction site Responsible of the Wind Farm.</p>
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Table 10: Management of transport of wind turbines

Component: Socioeconomic		Sheet No. 10	
Sheet: transport of wind turbines management			
Objective	Specific objectives		
Minimize the negative effect generated by the transport of wind turbines	✓	Reduce the affectation that it can introduce on the fauna and flora	
	✓	Minimize the interruption of the displacements of the individuals	
	✓	Foster ecological connectivity in the area of influence of the project.	
Goal			
Compliance of 100% of the activities proposed			
Stage of the project			
Construction	x	Operation	
Activities	Impacts to be considered		environmental rating
Transport of components (wind turbines)	vehicular traffic		<u>Negative</u> Mild Moderate
	fatalities of faunal species		
	Soil Pollution		
	Air Pollution		
Type of measure		Place and/or stage to apply	
Prevention and Mitigation		Project in general	
Description			
Together with the company carrier, carry out the journey of route that less affectation generates local traffic, and if possible, on days and times of less traffic			
Trucks must have signs warning drivers of the fact. If the vehicles will move by below of the speed minimum allowed they shall go accompanied by a vehicle with beacons that serve as a warning to other users of the routes.			
It is recommended to signpost the access to the property indicating the frequent exit and income of heavy vehicles .			
Check that the loads were correctly stowed, according to Specifications from the manufacturer.			

Check for transportation companies' licenses.

- Previous to the start of transportation verify that the conditions meteorological (rain, snow and fog) are adequate to ensure safe transport.

Component: Socioeconomic		Sheet No. 10
Sheet: transport of wind turbines management		
<ul style="list-style-type: none"> - Request trucks maintenance records, putting up emphasis instead of covers, brakes and regulatory lights. - Verify that the drivers have the qualification required by the authority competent, in addition to defensive driving training. 		
Staff required		Responsible
Site Manager Personnel technician- workers operators		Coordinator of construction site Responsible of the Wind Farm.

Table 11: Occupational health and safety management

Component: Socioeconomic				Sheet No. eleven
Sheet: health and security at work				
Objective		Specific objectives		
Guarantee a safe work environment		<ul style="list-style-type: none"> ✓ Identify the risks that they can be exposed to the workers. ✓ Minimize the dangers to the which they can be exposed the workers 		
Goal				
Achieve with 100% of the activities proposed				
Stage of the project				
Construction		x	Operation	
				x
Activities		impacts potentials to handle		Qualification environmental
<ul style="list-style-type: none"> ✓ All activities in the construction, operation, decommissioning and closure. 		Deterioration of the health		<u>Negative</u>
		Job accidents		Mild Moderate
Type of measure		Place and/or stage to apply		
Prevention		Project in general		
Description measures				

Guarantee the presence permanent of a Security and Health supervisor

Component: Socioeconomic		Sheet No. eleven
Sheet: health and security		
Promote internal Communication (written safety and environment, emergency roles and safety notices)		
Place notices of security in places visible of the area indicating the existing risks. The standards established by the IRAM 10005 standard must be followed.		
Have fire protection equipment and verify the correct operation. Adequate signaling against fire (according to IRAM 10005 standard).		
Provide the staff protection items and equipment.		
Have first aid equipment in work areas and establish emergency routes. evacuation and meeting points in case of emergency.		
Train Staff involved in the project about Environmental Management Plan		
Suspension of activities during periods of snow time, during the stages of the project.		
Continue Program of management and maintenance according to supplier of the wind turbines in order to minimize the risks of breakages and failures that put workers and occasional visitors at risk.		
Staff required	Responsible	
Boss of construction site, Staff technician-workers Operators, HSEQ coordinator	Coordinator of construction site, Responsible of the Park Wind.	

Table 12: Communication of the project to the Rio Grande community and Stakeholder Engagement Plan - SEP

Component: Social		Sheet No. 12
Sheet: Communication of the project to Río Grande Community		
Objective general	Specific objectives	
✓ Create a “community communication manual” that contain the various strategies of communication	✓ Link Río Grande community with the project through different communication support instruments.	
Goal		
Compliance of 100% of the activities proposed		

Component: Social				Sheet No. 12	
Sheet: Communication of the project to Río Grande community					
Construction		x	Operation		x
Activities			Impacts to be considered		environmental rating
✓ Activities in the pre-construction stage and during operation.			Community dissatisfaction or objections to the project.		<u>Negative</u> <u>Mild</u>
Type of measure			Place and/or stage to apply		
Prevention			locations of the department of Rio Grande close to the polygon of project		
Description					
<p>It is recommended to present the activities and implement concrete strategies that allow to the responsible of the project getting closer to the community. In this way, it seeks to generate a positive impact on the inhabitants for the development of the project, as well as the idea of strengthening awareness about renewable energies.</p> <p>Actions:</p> <ul style="list-style-type: none"> ✓ draw up a "manual of communication to the community" that contain the lines of action to be taken to publicize the project. This tool will serve as a guide to establish the messages and the brackets optimal for the transmission correct of the information. ✓ Elaboration of products graphics printed (brochures institutional, newsletters either journals) that be in billboards municipal either spaces common of the location. They will have Synthetic information on the characteristics of the project, highlighting the benefits that it will bring to the community. ✓ Institutional advertising in the media (newspapers, radio, television channel) in order to disseminate and publicize the project. ✓ Participate in community meetings, such as informal dialogue tables with neighbors and stakeholders, for secure he link with community and share with social actors the WP activities. 					
Staff required			Responsible		
Designer in communication Visual Social Worker Professional of the communication			Wind Farm Operating Company		

Table 13: Hiring of local labor

Component: Social		Sheet No. 13
Sheet: Hiring of local labor		
Objective	Specific objectives	
✓ Trigger stalls of job for the people of the community.	✓ Promote local economic and social growth in Rio Grande.	
Goal		
Compliance of 100% of the activities proposed		
Construction	x	Operation
Activities	Impacts to be considered	environmental rating
✓ Previous to the construction.	employment generation	<u>Positive</u> Moderate
Type of measure	Place and/or stage to apply	
	Area of the polygon of the project and neighboring towns.	
Description		
<p>With this objective, it is recommended that the jobs are occupied as many as possible by people from the area where the wind farm project will be carried out. Thus, it prioritizes the importance of the hiring of local labor force, favoring local development. It is necessary to recognize the different local institutions, such as the municipality, cooperatives or unions so that the available offers are published in said spaces.</p> <p>Actions: Connect with different municipal entities or job boards to publicize the stalls available, publishing the characteristics of the hiring and of job relevance. Even give training courses in the job boards, if necessary, to train potential employees of the project</p>		
Staff required	Responsible	
Professional in personnel selection (Bachelor in Resources Humans either Graduate in Psychology)	Wind Farm Responsible	

Table 14: Management of goods and services

Component: Social				Sheet No. 14	
Sheet: Management of estate and of services					
Objective		Specific objectives			
<ul style="list-style-type: none"> ✓ Trigger opportunities labor to through of the management of external goods and services necessary for the project. 		<ul style="list-style-type: none"> ✓ Promote local development and community growth. ✓ Give an account of the different types of services that are needed and establish contacts with the people suitable to carry out. 			
Goal					
Compliance of 100% of the activities proposed					
Construction		x	Operation		x
Activities		Impacts to be considered		environmental rating	
<ul style="list-style-type: none"> ✓ Activities during the stage construction and of operation. 		employment generation		Moderate <u>Positive</u>	
Type of measure		Place and/or stage to apply			
		Area of the polygon of the project and neighboring towns			
Description					
<p>The management of goods and services also is a way of empowering the community, to strengthen the existing bonds, and to generate jobs that favors the social actors involved. For this it is necessary to inform the services that are needed during the stages of the project by different means of communication or that the same company is in charge of searching and contracting the services available in the municipality.</p> <p>Actions:</p> <ul style="list-style-type: none"> ✓ Establish contacts with institutions or people that currently provide services such as transportation, gastronomy, security, machinery, health, among others. ✓ Plan alliances or medium to long-term contracts, to allow a predictable growth of the little ones providers of the project, attentive to the vulnerability of the economies regional of low scale 					
Staff required		Responsible			
Professional in personnel selection (Bachelor in Resources Humans either Graduate in Psychology)		Wind Farm Responsible			

Table 15: Environmental education

Component: Social				Sheet No. fifteen	
Sheet: Education environmental					
Objective		Specific objectives			
<ul style="list-style-type: none"> ✓ Aware to the community about the importance of renewable energy. 		<ul style="list-style-type: none"> ✓ Realize the benefits it will bring you to the community the results of the wind farm. ✓ Generate commitment to daily actions about he careful of half atmosphere. 			
Goal					
Compliance of 100% of the activities proposed					
Construction		x	Operation		x
Activities		Impacts to be considered		environmental rating	
<ul style="list-style-type: none"> ✓ Stage of construction, operation and closing. 		negative perception of the project		<u>Negative</u> Mild	
Type of measure		Place and/or stage to apply			
Prevention		Area of the polygon of the project and neighboring towns.			
Description					
<p>This series of activities will seek to train the community involved on issues related to environmental education, not only so that they are informed about the implications of the project, but also they can recognize the importance of caring for environment .</p> <p>Actions:</p> <ul style="list-style-type: none"> ✓ Provide training to wind farm employees on issues related to environmental education. ✓ workshops semester for the community about the importance of the energies renewable. ✓ Bells of diffusion to through of the media of communication local that have as objective to highlight the importance of caring for the environment. ✓ Raise awareness about those responsible for climate change, being the agricultural sector responsible to a large extent worldwide, without ignoring that Rio Grande is a strongly agrarian area. ✓ Description of negative impacts of climate change in general, and for the agricultural productive sector in particular. 					
Staff required			Responsible		

Graduate in Psychology either in Human Resources	Wind Farm Responsible
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Component: Social		Sheet No. fifteen
Sheet: Education environmental		
Graduate in Communication		
Designer in Communication Social		

Table 16: Social development

Component: Social		Sheet No. 16	
Sheet: Social Development			
Objective	Specific objectives		
<ul style="list-style-type: none"> ✓ Carry out a social plan for the development and social growth of the community that, through different actions, contribute to improve the quality of life of the inhabitants involved within the project area. 	<ul style="list-style-type: none"> ✓ Recognize possible local spaces or projects already existing for implement corporate social responsibility policies. ✓ Liaise with the leading social actors of the different institutions or local spaces to recognize the real needs and carry out Actions in after of the growth of the people. 		
Goal			
Compliance of the 100% of the activities proposals			
Construction		Operation	x
Activities	Impacts to be considered	environmental rating	
<ul style="list-style-type: none"> ✓ Stage of construction, operation and closing. 	Dissatisfaction of the community	<u>Negative</u> mild	
Type of measure	Place and/or stage to apply		
Prevention and Mitigation	Area of the polygon of the project and neighboring towns.		
Description			
<p>Corporate social responsibility policies are understood as a key factor for the bond between the company and the community, already that, through of the Actions social chosen, an attempt will be made to improve the quality of life of people with projects that are of interest to them</p>			

Staff required	Responsible
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Component: Social		Sheet No. 16
Sheet: Development social		
Worker social	Park wind	
Graduate in Communication		

Table 17: Gender perspective

Component: Social		Ficha N° 17	
Sheet: Gender perspective			
Objective	Specific objectives		
<ul style="list-style-type: none"> ✓ Carry out a permanent training and awareness plan on gender perspective for all the actors involved in the project. ✓ Raise awareness among the actors involved about the violation of the rights of women and the population of diversity. 	<ul style="list-style-type: none"> ✓ Identify existing spaces for training in gender perspective and gender violence. ✓ Design an internal communication guide with non-sexist language, collaborating in better communication and drafting of documents internally. ✓ Raise awareness and train the organizations and companies involved with the aim of contributing to increasing the levels of commitment to the gender equality agenda, consolidating the skills, knowledge and tools of those who lead these organizations and companies in terms of equality in order to be able to implement optimal policies with a gender approach, action programs, interactions and practices that modify the organizational culture, strengthening these capacities in the actors. ✓ Detect and follow up on claims related to the violation of the rights of women and the population of diversity associated with the incorporation of foreign personnel for the construction of the wind farm. 		
Meta			
Fulfillment of 100% of the proposed activities			
Construction		Operation	x
Activities	Impacts to manage		Environmental qualification

✓ Construction, operation and closure stage.	Gender and diversity awareness	<u>Negative</u>
Measure type	Where to apply	
Prevention and Mitigation	Rio Grande Community	
Description		
Gender policies are a key factor and aim to guarantee real equality of rights, understanding the necessary commitment of all sectors and actors involved.		
Required staff	Responsible	

Component: Social		Sheet N° 17
Sheet: Social development		
Social worker Bachelor of Communication	Wind Farm Responsible	

Environmental monitoring program

It monitors the compliance of measures of prevention, mitigation and correction established in the records of management to reduce the environmental impact that may be generated in the different ones by the development of the project, for this purpose the following monitoring sheets are proposed.

Table 17: Monitoring of bird communities

monitoring of the communities of birds
<p><u>monitoring of fauna flying during the phase of construction:</u></p> <p>It will consist in monitoring monthly during the stage of construction. A monthly report on the status of flying fauna will be delivered during the execution of the work.</p> <ul style="list-style-type: none"> ✓ Variations in the densities, abundance and specific richness with respect to those obtained in the baseline. ✓ Demographic changes and changes in the structure of communities that may be related to the activities that take place during the construction work. ✓ Assess possible changes in routes of migration of birds ✓ Analysis of the variation monthly of the abundances of individuals by species ✓ Changes in he behavior observed in field of the different species around the Work in progress (modifications of the breeding/nesting and feeding areas, greater frequency of flight, absence of some low-flying species, etc.). <p><u>monitoring of fauna flying during the phase of operation:</u></p> <p>It will consist of a seasonal monitoring (4 per year) in 100% of the wind turbines. A report will be delivered quarterly report on the state of the flying fauna and the accidents during the operation of the park.</p> <ul style="list-style-type: none"> ✓ Changes and variation in the indices and behavior established in the line base.

monitoring of the communities of birds
<ul style="list-style-type: none"> ✓ Indicate the percentage of machines monitored in each monitoring, detailing the machines in which the searches were carried out and in which fatalities were found. Number of fatalities (if any). In each case, at least: location must be indicated geographical (GPS) accurate of each finding and distance of the Findings to the nearest wind turbine/s, species/s involved, possible cause of death and estimated date of death. ✓ The reports will contain a photographic annex with images of the events recognized in the field (presence of migratory species, fatalities, new records, etc.).
Stage
Construction and Operation
Description of the Methodology
<p>Seasonal censuses will be carried out using the transect census method of points fixed (Birdy) et to the. 1992, 1998 and 2000, Ralph 19956, Sutherland 2008 and Vorisek 2008). Carrying out transects on the access roads to the wind turbine alignments with at least 25 fixed points (between 25 and 55) with a separation between points No lower to the 250 meters and transects by roads internal of the fields in where the park is located, with at least 25 (between 25 and 509 in the area considered outside the influence of the park infrastructure and the activities carried out there.</p> <p>The areas low and out of the influence of the park (area control HE classify in based on criterion proposed by start, et to the, (2011), who establishes a limit No minor to the 500 meters of remoteness of wind turbines, to consider that he spot is outside of the influence of the infrastructure either of the activities that HE perform in he park in the different stages of the project.</p>
Indicators
<p>It is recommended to perform the calculations corresponding to:</p> <ul style="list-style-type: none"> - Indices of biodiversity - Wealth of species, diversity and equity of Shannon - Density of birds by hectare
Goal
Compliance of 100% of seasonal censuses

Table 18: Bird fatality monitoring

monitoring of birds fatalities
it seeks to assess the fatalities of fauna flying

Stage

monitoring of birds fatalities
Operation
Description
<p>The sampling of the wind turbine will be carried out on a circular sampling/search area centered on the tower that will cover an area equivalent to the diameter of the rotor plus 10%. The search area will be sampled by means of circular search transects with a width of 5 meters on each side of the observer's displacement line, carried out in circles centered on the wind turbine tower (with measured diameters of 5, 15, 25, 35 , 45.55 meters measured from the base of the wind turbine.</p>
Indicators
<p>In case of find remains either individuals inside of the area of search HE will record:</p> <ul style="list-style-type: none"> - Level taxonomic further low reachable - Sex, class old _ - State of the corpse, description of the wounds and cause of death, the typology of the remains - Identification of the wind turbine, the location distance from the rest, geographical orientation with respect to the tower and the characteristics of the substrate in which it was found.
Schedule
<p>monitoring of flying fauna during the operation phase will perform of seasonally, along with community monitoring.</p>
Goal
Compliance of 100% of the activities
Reports either report
<p>A report will be made for each monitoring where the monitoring results are related.</p>

Table 19: Soil quality monitoring

Monitoring: quality of the soil
it seeks to verify and carry out a follow-up of the quality of the soil
Stage
Construction
Indicators

The parameters indicators of the quality of the soil will be:

- HTP
- DRO
- GRO

Monitoring: quality of the soil
<p>In case of be detected concentrations tall presence of (diesel) it shall measure volatile compounds.</p> <p>In case of be detected concentrations tall presence of (oils) it must measure semi volatile compounds.</p>
Description
<p>Initially, soil quality monitoring will be carried out considering the previous parameters, according to the results, those that will need to be monitored more frequently will be determined. The monitoring place will be where the workshop is located.</p> <p>In the take of samples for the measurements of laboratory HE will respect the following methodology:</p> <ol style="list-style-type: none"> 1. ID of the samples. The containers shall labeled with he number corresponding to each monitoring point. 2. Conservation of the samples: The samples HE will keep refrigerated in darkness during transport to the laboratory. 3. Take of samples <ul style="list-style-type: none"> - samples for analysis: For the take of samples of soil intended to his analysis in the laboratory plastic bags are used. - Procedure: it uses a shovel that It allows extract portions of soil of several centimeters of depth, in this case to 20-30 cm. it introduces part of the sample in the corresponding container.
Schedule
<p>It will be determined by Once prior to start of works, and then shape every six months until the completion of the construction stage.</p>
Goal
<p>Compliance of the values standard of quality of the soil</p>
Reports either report
<p>A report will be made in which the results of the parameters analyzed are related to the corresponding laboratory protocols.</p>

Table 20: Waste management monitoring

Monitoring: waste
<p>The waste generated in the stages of construction and operation shall be handed over for final disposal</p>
Stage

Monitoring: Driving of waste
Construction – Operation
Indicators
Percentage of waste ready properly: (Amount of waste willing / Amount of waste generated) *100
Description
The waste generated will be delivered to a third for his proper arrangement.
Schedule
The removal of household waste will be collected in a properly sized area, to avoid impacts, and will be collected weekly by the concessionaire of the service municipal of harvest and transportation, leaving signed in he property the due collection manifest.
The removal of hazardous waste will be carried out on a monthly basis. In the work stage, given the eventual generation of a larger amount of waste, coordination will be made with the collector to specifically increase the frequency.
Reports either report
The delivery of waste will be recorded in order to keep an adequate control of the disposal final of waste, all it to leave of the record of the manifestos of harvest.

Table 21: Air quality monitoring

monitoring of air quality
it seeks to determine the levels of concentration of material particulate and gas emission and thus verify compliance with environmental standards to guarantee air quality.
Stage
Construction-Operation
Indicators
The parameters that will be evaluated and their parameters guide are:
<ul style="list-style-type: none"> - Material particulate PM10 - oxides of nitrogen - Dioxide of sulfur - Monoxide of carbon

monitoring of air quality
- noises annoying to the neighborhood
Description
<p>a. emissions soft drinks</p> <p>It is recommended to monitor monthly during works, any material particulates, distributing the points of measurement around of the construction site. The points of quality of air must be recorded at two points (windward and leeward) in the immediate vicinity of the plant of concrete, workshop, base of wind turbines or others plays of art in subject of civilian infrastructure.</p> <p>b. Noise annoying to the neighborhood</p> <p>It is recommended to continue with the baseline points for noise monitoring annoying to the neighborhood, with a frequency monthly in construction, and biannual in operation.</p> <p>the method of sampling for the measurement of noises annoying corresponds to Those established in the Argentine Standard IRAM 4062 for annoying noises to the neighborhood, the procedures to follow are:</p> <p>The measurements will be made with a sound level meter, it must be correctly calibrated, later the measuring instrument will be arranged in each one of the sampling points, avoiding the occurrence of sporadic sound, the survey of data is done each 10 seconds during a time of sampling of 5' 00" during daytime, daytime rest and night hours.</p> <p>The IRAM 4062 standard, where the total evaluation level "Le" (NSCE² dBA+ corrections) is compared with the calculated level (Lc), the latter is obtained from a level basic and the factors of correction by guy of zone, location and schedule, of this mode HE determines Yeah he noise is annoying either No (major information see rule IRAM 4062).</p> <p>- Corrections level of assessment total You</p> <p style="padding-left: 40px;">$K_T := 5dB(A)$. Correction for tonal character: if the considered noise has for it less a tone individual that sticks out as clearly audible in he noise to be evaluated</p> <p style="padding-left: 40px;">$K_I = 5dB(A)$. Impulse or impact correction: if the noise to be evaluated has significant impulsive or impact irregularities</p> <p>For the sampling sites, the tonal and impulsive corrections will be considered null, therefore the total evaluation level corresponds to the NSEC.</p> <p>- level calculated lc</p>

² Level Sonorous Continuous Equivalent

Monitoring of quality of the air	
$L_c = L_b + k_z + k_u + k_h$	
Where:	
Lb: Level essential in dB(A). According to IRAM 4062: 40	
bB (A) Kz : Correction by zone type in dB(A) ³ .	
Ku : Correction by location dB(A) ⁴ . Kh	
: Time correction dB(A) ⁴ .	
- Rating:	<p>If $L_e - L_c < 8 \text{ dB (A)}$ Not annoying</p> <p>If $L_e - L_c \geq 8 \text{ dB (A)}$ Annoying</p>
Goal	
Compliance of the rule of quality of air, Act 20.284 exhibit II, for gaseous emissions; and compliance with the IRAM 4062 Standard for annoying noise to the neighborhood	

Table 22: Occupational Risk Monitoring

Monitoring: risks labor
The objective is to carry a follow-up of the conditions labor
Stage
Operation
Indicators
Efficiency of monitoring: (Monitoring carried out/monitoring programmed) * 100
Description
Guarantee the security and integrity of the staff and visitors of the Wind Farm

³ See rule IRAM 4062



4. GUIDELINES OF THE ENVIRONMENTAL CONTINGENCY PLAN

The Environmental Contingency Plan establishes the action guidelines to be carried out by employees, visitors, contractors and subcontractors in the execution of the Wind Farm.

This Plan describes the actions to be carried out and procedures, the organization of human resources, responsibilities and internal and external communication.

For each identified emergency situation, the following means of control are available:

Means of detection and warning: fire alarm.

Means of containment and isolation: compartmentalization, buckets, waterproofed floor, fire extinguishers.

Means of removal of contaminated materials: authorized collection and transport.

Environmental incident: Undesired situation with environmental implication or potential implication that occurs in the normal development of the activity.

Environmental accident: Undesired situation with environmental implication or potential implication, which can be controlled internally and does not exceed the property limits of the work center.

Affection or damage: Serious injury or affection to people, loss of human life, serious deterioration of equipment or facilities, or the environment.

Environmental emergency: Undesired situation with environmental implication or potential implication, with loss of control that exceeds the property limits of the work center.

Environmental aspect evaluation: Determination of the level of significance or importance of the environmental effects derived from the processes, equipment and facilities and human actions linked to an organization. As a result of said evaluation, a documented record of the significant environmental aspects/impacts associated with potential incidents or accidents must be obtained.

Risk: Possibility of the incident or accident taking place and its consequences.

Environmental contingency plan: Management instrument that defines foreseeable emergency situations, details the technical means to act in each situation, the way in which such means should be used, and organizes the human resources available for such use from the point of view of the environmental repercussion of such situations. It may be included in a General Emergency Plan.



4.2 SAFETY DATA SHEET 1

4.2.1 EMERGENCY IN THE EVENT OF A LIQUID HAZARDOUS SUBSTANCE OR WASTE SPILL

In the event of spills, the following actions will be taken:

1. Notification of the person who detects the spill to the person in charge of the environment. (The person in charge of the environment will be designated for the park; the Project Director, in the Supply and assembly phase; and the Area Supervisor, in the exploitation phase).
2. Notification of the Farm's designated Environmental Manager to the contractor company, requesting consent to the action.
3. Assessment of the spill by the person in charge of the environment and decision on the need or not to notify specialized external services. For this, it has several information points necessary for its environmental training and subsequent action criteria: - Environmental Management System to be implemented by the contractor company - Environmental Management Plan - Current Environmental Legislation - Safety Data Sheets for Chemical Products - Available means to alleviate the emergency
4. If the emergency can be controlled internally, the leak must be located in the first instance, plug the leak with means that prevent its continuity, incorporate containment measures, such as sepiolite, rags, paper, etc., clean the affected area thoroughly and allocate the waste to the corresponding container waiting to be correctly managed by an authorized hazardous waste manager.
5. If it is necessary to notify specialized external services, they will proceed in such a way as to provide the necessary information and coordinate their action.
6. Once the emergency is over, a Corrective Action will be opened, opening a record with the corresponding actions and action measures. Said corrective Action will be issued by the Environmental Managers of the Wind Farm, who will send a copy of it to the Superior. Inclusion of contact telephone numbers and list of managers to be defined in a timely manner.

4.3 SAFETY DATA SHEET 2

4.3.1 EMERGENCY IN CASE OF AFFECTATION OF THE FLORA

In case of affection to flora, the following actions will be taken:



1. Notification of the person who detects the affectation in the vegetation or flora to the person in charge of the environment. (The designated person responsible for the environment, the Project Director, in the Supply and Assembly phase; and the Area Supervisor, in the exploitation phase).
2. Assessment of the affectation to flora by the person in charge of the environment and decision on the need or not to notify specialized external services. To do this, it has several points of information necessary for its environmental training and subsequent criteria for action:
 - Environmental Management System to be implemented by the contractor company
 - Environmental Management Plan - Current Environmental Legislation
 - Means available to alleviate the emergency
3. If the emergency can be controlled internally, the first thing to do is to locate the affected area, mark the affected area to prevent the affectation from spreading, consult Superiority about compensatory measures that must be executed.
4. Prohibit carrying out activities around the affected area, to prevent the damage from worsening.
5. If it is necessary to notify specialized external services, they will proceed in such a way as to provide the necessary information and coordinate their action.
6. Once the emergency is over, a Corrective Action will be opened, opening a record with the corresponding actions and action measures. Said corrective Action will be issued by the Environmental Managers of the Wind Farm, who will send a copy of it to the Superior. Inclusion of contact telephone numbers and list of managers to be defined in a timely manner.

4.4 SAFETY DATA SHEET 3

4.4.1 EMERGENCY IN CASE OF AFFECTATION OF THE FAUNA

In case of affectation of the fauna, the following actions will be taken:

1. Notification of the person who detects the condition in the fauna to the person in charge of the environment. (The designated person responsible for the environment, the Project Director, in the Supply and assembly phase; and the Area Supervisor, in the exploitation phase).
2. Assessment of the condition to Fauna by the Environmental Manager and decision on the need or not to notify specialized external services and/or the Client. To do this, it has several information points necessary for its environmental training and subsequent action criteria: - Environmental Management System to be implemented by the contractor company. - Environmental Management Plan - Current Environmental Legislation - Means available to alleviate the emergency
3. If the emergency can be controlled internally, the first thing to do is assess the state of the animal: injured or dead. If the animal is injured, the corresponding local authority must be called to establish the guidelines for action. While the special services arrive, treat the animal with the greatest care without endangering the physical integrity of the staff. If the animal is dead, cover the animal with a green canvas, call the special services and collaborate with them.



4. If it is necessary to notify specialized external services, they will proceed in such a way as to provide the necessary information and coordinate their action.

5. Once the emergency is over, a Corrective Action will be opened, opening a record with the corresponding actions and action measures. Said corrective Action will be issued by the Environmental Managers of the Wind Farm, who will send a copy of it to the Superior. Inclusion of contact telephone numbers and list of managers to be defined in a timely manner.

4.5 SAFETY DATA SHEET 4

4.5.1 EMERGENCY IN CASE OF AFFECTATION ARCHAEOLOGICAL REMAINS

In case of affectation of archaeological remains, the following actions will be taken:

1. Notification of the person who detects the presence of archaeological remains to the person in charge of the environment (the person in charge of the environment, the Project Director, in the Supply and assembly phase; and the Area Supervisor, in the exploitation phase).

2. Assessment of the impact on archaeological remains by the person in charge of the environment and decision on the need or not to notify specialized external services. To do this, it has several information points necessary for its environmental training and subsequent action criteria: - Environmental Management System to be implemented by the contractor company. - Environmental Management Plan - Current Environmental Legislation - Means available to alleviate the emergency

3. If the emergency can be controlled internally, the first thing to do is to inspect potential risk points in the affected area to prevent the risk from increasing. Beaconing of the affected area with stakes and thread or tape to prevent passage. Prohibit carrying out activities around the marked area.

4. If it is necessary to notify specialized external services, the necessary information will be provided and their action coordinated.

5. Once the emergency is over, a Corrective Action will be opened, opening a record with the corresponding actions and action measures. Said corrective Action will be issued by the Environmental Managers of the Wind Farm, who will send a copy of it to the Superior. Inclusion of contact telephone numbers and list of managers to be defined in a timely manner.

4.6 SAFETY AND HYGIENE PROGRAM GUIDELINES

These guidelines of the Hygiene and Safety Plan (hereinafter HST) at work are intended to summarize the organizational schemes, construction and safety procedures, as well as the execution systems of the different works of the Wind Farm Project.

Scope of application

The validity of this plan begins from the moment it is approved by the Health and Safety Coordinator during the execution of the works. Its application will be binding for all the personnel involved in the material execution of the work, both the personnel of the contractor company and that of the subcontractor companies that carry out work inside the works premises, regardless of the contractual conditions.

Security measures should not only be mandatory for the personnel working inside the work, but also, the workers and community in general.



Variations of the Hygiene and Safety Plan

The HST may be modified depending on the process of execution of the works and possible incidents or modifications of the project that may arise throughout it, with the prior express approval of the Health and Safety Coordinator during the execution of the work.

Organization of prevention Preventive action modality: The contracting company must adopt the preventive action modality jointly for the issues of ergonomics, hygiene and safety, being able to hire an external service for the purposes of health surveillance.

Action in the event of a serious and imminent risk: Upon detection of a possible serious and imminent risk, notify the security officer immediately so that he can make the decision to leave the job, and if he is not present, notify colleagues who could risk and leave the position on their own initiative, notifying the person in charge.

Main tasks

1. Transport, unloading and collection of material

a) Definition By transport, loading and unloading, it is understood the set of activities that are carried out with the purpose of placing the component elements of the wind turbines on site, for their subsequent assembly, including the operations of loading the elements in the trucks , transport by road to the park, and unloading of the same in the place where they will be assembled.

b) Resources considered Materials

- Materials for lifting loads, and mooring them
- Meteorological elements, wind, snow, ice, etc.
- Terrain elements (asphalt, earth, etc.)
- Energies and fluids – Water – Compressed air – Electricity – Fuel
- Human effort
- Tools – Hydraulic jacks – Side stand – Trunnions, trolleys and pulleys – Levers – Complete toolbox
- Machinery used – Trucks – Self-propelled crane
- Auxiliary means – Wooden pallets, planks and boards – Aluminum ladders – Safety signs, fences and warning beacons indicating risks – Warning signs to third parties – Baling straps – Struts, trolleys, pulleys , hoisting ropes and slings – Electric pulleys – Packaging and strapping plastics – Auxiliary signaling vehicles for transport
- Transport and handling systems – Containers, trays, baskets – Struts, trolleys, pulleys, hoisting ropes and slings – Packing straps – Hydraulic self-propelled crane – Forklift for cargo

c) Most frequent risks

- Falls at the same and different level
- Falling objects
- Landslides
- Unforeseen drop of transported materials
- Entrapment
- Crush
- Dusty environment



- Sound trauma
- Direct electrical contact with live power lines
- Indirect electrical contact with the mass of electrical machinery
- Low back pain due to overexertion
- Osteoarticular injuries due to exposure to vibrations
- Hand and foot injuries
- Fires and explosions
- Inhalation of toxic substances
- Ranges due to moving machinery
- Blows against objects and machinery
- Overturning of machines and trucks
- Animals and/or parasites
- Infections derived from clandestine toxicology or environmental unhealthiness in the area
- Intoxication due to the release of gases
- Overexertion due to inappropriate postures
- Cuts
- Risks due to weather conditions
- Commuting accidents
- d) Special risks
 - Especially sensitive
 - Maternity
 - Minors
- e) Industrial hygiene-occupational disease
 - Chemical agents
 - Physical agents
 - Biological agents
 - Caused by other agents
- f) Specific rules



At all times, the drivers of the machines will be duly authorized, and will have the documentation legally authorized to use the vehicle they drive. The vehicles will be in perfect state of use, with the corresponding inspections in force (VTV), and with the documentation inside the vehicle. At all times, the rules for the transport of goods by road will be respected, as well as the traffic code and applicable municipal regulations.

2. Mechanical assembly of the wind turbine

a) Definition By mechanical assembly of a wind turbine, it is understood the set of operations and activities Objectived at the structural erection of the machine in its final situation, with all its mechanical elements physically assembled and correctly arranged.

b) Resources considered

Materials

– Materials for lifting loads, and mooring them – Meteorological elements, wind, snow, ice, etc. – Terrain elements (asphalt, earth, etc.)

energies and fluids

– Water – Compressed air – Electricity – Fuel – Human effort

Tools

– Hydraulic jacks – Side stand – Struts, trocholes and pulleys – Levers – Complete tool box – Torque wrenches – Tightening tools

used machinery

– Trucks – Boom truck – Self-propelled crane

auxiliary means

– Wooden pallets, planks and boards – Aluminum ladders – Safety signs, fences and warning beacons indicating risks – Third party warning signs – Baling straps – Struts, trolleys, pulleys, hoisting ropes and slings – Electric pulleys – Packaging and strapping plastics

Transport and handling systems

– Containers, trays, baskets – Struts, trolleys, pulleys, hoisting ropes and slings – Packing straps – Self-propelled hydraulic crane

c) Most frequent risks

- Fall of suspended loads
- Falls at the same level
- Falls at different levels
- Falling objects



- Unforeseen drop of transported materials
- Entrapment
- Crush
- Sound trauma
- Direct electrical contact with live power lines
- Indirect electrical contact with the mass of electrical machinery
- Low back pain due to overexertion
- Osteoarticular injuries due to exposure to vibrations
- Hand and foot injuries
- Fires and explosions
- Inhalation of toxic substances
- Ranges due to moving machinery
- Blows against objects and machinery
- Overturning of machines
- Animals and/or parasites
- Infections derived from clandestine toxicology or environmental unhealthiness in the area – Poisoning due to gas release
- Overexertion due to inappropriate postures
- Risks due to weather conditions – Commuting accidents

Electrical assembly of the wind turbine

a) Definition

By electrical assembly of the wind turbine, it is understood the set of operations and activities aim at carrying out the electrical installation necessary for its operation, and which will form part of the machine, being inside the wind turbine, structural lifting of the machine in its final situation, with all its mechanical elements physically assembled and arranged correctly.

Commissioning of the wind turbine

a) Definition

Commissioning of the wind turbine is understood as the set of tasks that are carried out once the machine is completely assembled, to put it into operation, including all control, command and safety devices, until normal working conditions are reached.