



Verified Carbon Standard

GENNEIA SOLAR PROJECTS IN ARGENTINA

MONITORING REPORT

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PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project consists of the implementation of three solar farms located in the same region within the Argentine territory. The implementation of these project instances (hereafter collectively called the “project” or “project activity”) ensures energy security, diversification of the grid generation mix and sustainable growth of the electricity sector in Argentina.

Construction of the Ullum farms began in April 2018 and before the implementation of the project activity, no power plants were installed at the project site. The energy that is now generated by the project was previously dispatched by other power plants that are connected to the respective grid, including fossil fuel power plants. Hence, the baseline scenario and the scenario prior to project implementation are the same, and the project has helped to reduce thermal power generation in the Argentine Interconnected System (SADI) by increasing the share of renewable energy in the grid.

The project has a total installed capacity of 82 MW and generation of 204,450.04 MWh for the corresponding monitoring period (01 January 2024 to 31 December 2024), which was delivered to the SADI; avoiding part of the electricity generated by the grid connected power plants. Thus, it contributes to sustainability by increasing the share of renewable energy and reducing greenhouse gas (GHG) emissions.

As a result of the implementation of the project activity, GHG emission reductions of 91,674 tCO₂ for the entire monitoring period were achieved. A summary of individual project instances is shown in Table 1.

Table 1: Summary of individual project instances

Project Instance	Operation Start Date	Location	Generation (MWh) 2024	Emission reduction (tCO ₂) 2024
ULLUM I	01/12/2018	San Juan's Province	62,478.62	28,015
ULLUM II	03/12/2018	San Juan's Province	62,642.68	28,089
ULLUM III	01/12/2019	San Juan's Province	79,328.74	35,571
Total			204,450.04	91,674

1.2 Audit History

Audit type	Period	Program	Validation/verification body name	Number of years
Validation	1 December 2018 to 30 November 2028	Verified Carbon Standard	Ruby Canyon Environmental	10 years
1 st Verification	01-December-2018 to 31-December-2020	Verified Carbon Standard	Ruby Canyon Environmental	Two years and 31 days
2 nd Verification	01-January-2021 to 31-December-2021	Verified Carbon Standard	KBS Certification Services Ltd.	One year
3 rd Verification	01-January-2022 to 31-December-2022	Verified Carbon Standard	KBS Certification Services Ltd.	One year
4 th Verification	01-January-2023 to 31-December-2023	Verified Carbon Standard	KBS Certification Services Ltd.	One year
5 th Verification	01-January-2024 to 31-December-2024	Verified Carbon Standard	Verifit SAS.	One year

1.3 Sectoral Scope and Project Type

Sectoral scope ¹	01 – Energy industries (renewable/non-renewable sources)
Project activity type	Non AFOLU / Single

1.4 Project Proponent

Organization name	Genneia S.A.
Contact person	Gabriela Guzzo
Title	Senior Commercial Manager (Gerente Comercial Sr.)
Address	Complejo Olivos Building II Nicolás Repetto 3676 3° piso (1636) Olivos, Bs As - Argentina
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¹ Projects, activities, or methodologies may be developed under any of the 16 VCS sectoral scopes: <https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes>

Email	Gabriela.Guzzo@genneia.com.ar
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1.5 Other Entities Involved in the Project

Organization name	South Pole AG.
Role in the project	Project Partner
Contact person	Santiago González Hernández
Title	Regional lead, Technical, Climate projects, LATAM
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Email	sa.gonzalez@southpole.com info@southpole.com

1.6 Project Start Date

Project start date	01-December-2018
Justification	The first instance of the project activity started operations on 01 December 2018. This project instance is ULLUM I Solar Farm. Hence the project start date was considered 01 December 2018, before validation.

1.7 Project Crediting Period

Crediting period	☐ Seven years, twice renewable ☐ Ten years, fixed ☒ Other (Type of crediting period: 10 years renewable – it was proposed and validated that the crediting period will be renewed twice, adding up to 30 years in total)
Start and end date of first or fixed crediting period	01 December 2018 to 30 November 2028

1.8 Project Location

All the project activity instances in the proposed project activity would be located within geographical boundaries of Argentina. Thus, the geographical area of the project is Argentina.

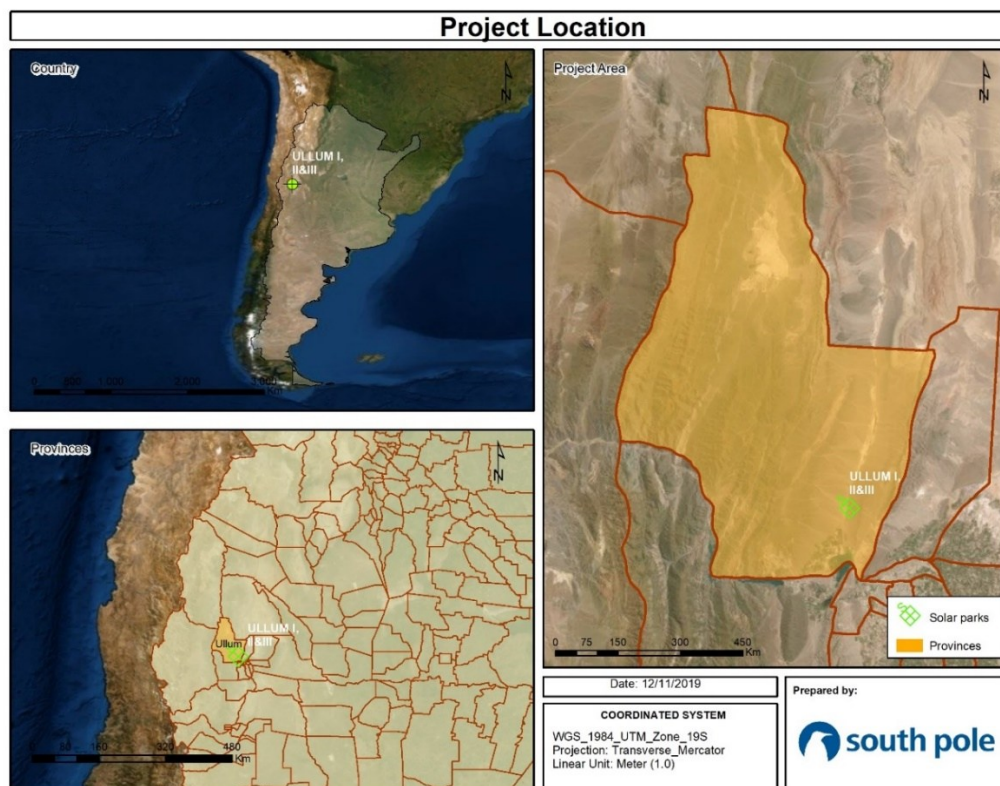


Figure 1: Project Location

Ullum I,II & III Solar Farms:

The Ullum I, II and III Solar Farms' site is located approximately 12 kilometers (km) north-east of the municipality of Villa Ibáñez, in the province San Juan, Argentina.

Table 2 presents the geographic coordinates summary of each corner point of the solar farms' project activity instances.

Table 2: Coordinates of each corner point of the solar farms' project activity instances

Project instance name	South	West
Ullum I Solar Farm	31° 20' 40.42"	68° 39' 36.76"
	31° 20' 48.28"	68° 39' 36.76"
	31° 20' 52.92"	68° 40' 16.74"
	31° 20' 13.94"	68° 40' 14.88"
	31° 20' 13.88"	68° 39' 51.15"
Ullum II Solar Farm	31° 19' 25.90"	68° 39' 55.94"
	31° 20' 08.16"	68° 39' 54.26"
	31° 20' 13.88"	68° 39' 51.15"
	31° 20' 13.94"	68° 40' 14.88"
	31° 19' 25.39"	68° 40' 12.51"
Ullum III Solar Farm	31° 19' 06.88"	68° 40' 14.09"

	31° 19' 40.13"	68° 40' 15.23"
	31° 20' 53.15"	68° 40' 18.91"
	31° 20' 53.41"	68° 40' 33.28"
	31° 20' 35.68"	68° 40' 30.67"
	31° 20' 14.82"	68° 40' 28.26"
	31° 19' 47.33"	68° 40' 31.45"
	31° 19' 39.19"	68° 40' 31.23"
	31° 19' 13.91"	68° 40' 29.03"
	31° 19' 05.34"	68° 40' 26.76"

1.9 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	ACM0002	Grid-connected electricity generation from renewable sources	19.0
CDM Tool	07	Tool to calculate the emission factor for an electricity system	7.0

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

Was the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the *VCS Program Definitions* for definitions of emissions trading program and binding emission limit.

☐ Yes

☒ No

1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the *VCS Program Definitions* for definition of GHG-related environmental credit system.

☐ Yes

☒ No

1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes

☒ No

1.12 Sustainable Development Contributions

In line with the Sustainable Development Goals and Argentina's 2030 Agenda for Sustainable Development, the project achieves several of the environmental, social, economic, and technological objectives. Examples:

- Increasing the percentage of renewable energy from the energy mix
- Expanding infrastructure and improving technology to provide modern and sustainable energy service
- Achieving levels of economic productivity through diversification and technological modernization.
- Reducing the dependence on fossil fuels and decreasing emissions of sulphur oxides (SO_x), nitrogen oxides (NO_x), carbon monoxide, particulate matter, and other pollutants
- Providing employment opportunities during the construction and operations

Table 3: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	7.2	7.2.1 Renewable energy share in the total final energy consumption	Implemented activities to increase	The project was able to supply the Argentinian power grid with 204,450.04 MWh of renewable energy, taking advantage of the solar potential in the north side of the country.	1,234,697.86 MWh of renewable energy supplied to the Argentinian national grid over the lifetime of the project.
2)	8.5	8.5.2 Unemployment rate, by sex, age and persons with disability	Implemented activities to decrease	The project has created 13 jobs since the beginning of operations. No new job positions were created by the project during the current monitoring period	Since the beginning of operation and maintenance stage, the project has created 13 jobs.
3)	13.0	Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to increase emissions avoided	The project has reduced 91,674 tCO ₂ through the delivery of 204,450.04 MWh of renewable energy that in the absence of the project would have been generated by other grid-connected including fossil fuel-based power plants.	Over the lifetime, the project has reduced 553,633 tCO ₂ .

1.13 Commercially Sensitive Information

There is no commercially sensitive information excluded from the public version of the monitoring report.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

Stakeholder Identification	All the institutions and communities possibly impacted and interested in the project development within the Area of Influence of the Project were mapped and duly identified from the construction stage at the time of the Environment Impact Assessment. Stakeholders have not changed since validation.
Legal or customary tenure/access rights	Genneia has legal ownership of the properties of the projects, the use of the land was granted by means of lease contracts.
Stakeholder diversity and changes over time	Due to the location of this project, no ethnic groups or populations are affected. No identified changes over time.
Expected changes in well-being	No identified changes over time. Indirectly with the project, Argentines will be able to enjoy cleaner energy for daily use.
Location of stakeholders	San Juan, Province of San Juan, Argentina.
Location of resources	The project area was property of the province of the state that was transferred for emplacement and energy utilization. Entry to the properties is restricted without prior authorization and the area is generally characterized by flat desert land without many resources.

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	The project has implemented an open request system to communicate and serve the community. Genneia is also part of the camara of industry meetings. The evaluation of the stakeholders and the analysis of their perception about
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	the project is fundamental for Genneia to understand the opinions and expectations that the project generates and if necessary, take measures to avoid or minimize possible conflicts that could complicate its development – thus a mechanism was defined for ongoing communication with local stakeholders including: 1) brochures containing information on all the stages containing access to non-technical summary and contact channels; 2) telephone numbers; 3) email address; 4) mailbox at the entrance of the site; 5) complaints, queries and claims book; and 6) news bulletin sent periodically to interested parties. No complaints were received during the present monitoring period.
Date(s) of stakeholder consultation	The dates below correspond to requests for information from stakeholder through the request system 14-March-2024 27-July-2024 04-July-2024 26-July-2024 13-August-2024
Communication of monitored results	The open request system is implemented and was appropriately executed during this monitoring period, when it applies to all stakeholders (verbal, written and visits) or specifications to a stakeholder group and in the case of Community Investment Works they are made fully inform from start to close of all activities.
Consultation records	Through the communication plan, several recording methods are used, depending on the activity: Notes (signatures of receipt) Inquiry calls and emails (MQCYR form) Telephone records for counting calls received and/or made (or text messages). During this monitoring period, all communications were received either through email or by notes.
Stakeholder input	Local authorities, members of the communities, owners and collaborators of Genneia, all contractors and subcontractors are the actors that can submit applications through the communication system implemented.

	According to the type of request the necessary measures are taken to address and respond after receipt.
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2.1.3 Free, Prior, and Informed Consent

Consent	The identification of actors/stakeholders and the mapping of actions in case of conflicts was carried out by EPSE (Energía Provincial Sociedad del Estado). A stakeholder matrix/stakeholder map is constructed by degree of influence, interest, and impact; based on a social survey in the territory and baseline study. The consent is established with the interested parties before starting the construction and operation of the parks as part of the work done in the EIA. Genneia then acquired the solar parks in April 2018. The project activity does not affect any IPs, LCs, or customary rights holders.
Outcome of FPIC	The project has not encroached on land, relocated people without their consent or forced physical or economic displacement, the land was in the possession of the province and was transferred to EPSE in charge of bidding at the time.

2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
Request for visit	It is informed that visits must be coordinated based on site availability. Once the formal note with the necessary information has been received, possible dates for visits will be coordinated.
Request for toys for Children's Day	The volunteer campaign to purchase new toys was analyzed and proceeded with.
Sponsorship request for renewable energy room	Request for support for the construction of the renewable energy room for the Ullum Power Plant. A sample letter of offer was sent to proceed with the donation.
Donation request	Educational equipment is requested. It is reported that this will be reviewed next year due to budgetary issues.

2.1.5 Public Comments

Summary of comments received	Actions taken
No comments were received during or outside of the public comment period.	Not relevant.

2.2 Risks to Stakeholders and the Environment

2.2.1 Management Experience

The technical project implementation, community relations and environmental impact assessment have been performed by highly qualified personnel with experience in the execution of projects in the energy sector, with South Pole providing advisory on carbon asset development. In this way ensuring the continued environmental licensing approved by the environmental authority and thus contributing sustainably to the development of Argentina.

2.2.2 Risk assessment

	Risk identified	Mitigation or preventative measure(s) taken
Natural and human-induced risks to stakeholders' wellbeing	No risk identified.	Genneia has ongoing communication with stakeholders and has not identified any associated risks and has not received any comments.
Risks to stakeholder participation	No risk identified.	Genneia has continuous communication with stakeholders and open channels for their participation.
Working conditions	No risk identified.	Genneia is regulated under the law of Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions and providing all the necessary safety elements for the different operations, as well as a healthy working environment. This is supported by the company's

		codes of conduct.
Safety of women and girls	No risk identified.	Genneia is regulated under the law of El Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions and providing all the necessary safety elements for the different operations, as well as a healthy working environment. This is supported by the company's codes of conduct.
Safety of minority and marginalized groups, including children	No risk identified.	Genneia is regulated under the law of El Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions and providing all the necessary safety elements for the different operations, as well as a healthy working environment. This is supported by the company's codes of conduct.
Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)	No risk identified.	The project activity promotes mostly the improvement of local conditions. Contingency plans and regular inspections have been implemented as a continuous management measure to identify potential risks.

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

Risks identified ²	Mitigation or preventative measure(s) taken
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² The identified risks and commensurate mitigation or preventative measure(s) for forced labor, child labor, and human trafficking, must be inclusive of staff and contracted workers employed by third parties.

Discrimination	No risk identified.	Genneia is regulated under the law of Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions. This is supported by the company's codes of conduct.
Sexual harassment	No risk identified.	Genneia is regulated under the law of Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions. This is supported by the company's codes of conduct.
Gender equity in labor and work	No risk identified.	Genneia is regulated under the law of Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions. This is supported by the company's codes of conduct.
Forced labor	No risk identified.	Genneia is regulated under the law of Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions. This is supported by the company's codes of conduct.
Child labor	No risk identified.	Genneia is regulated under the law of Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions. This is supported by the company's codes of conduct.
Human trafficking	No risk identified.	Genneia is regulated under the law of Argentina and complies with all the requirements demanded by it, guaranteeing work under dignified conditions. This is supported by the

company's codes of conduct.

2.3.2 Human Rights

Risks identified	Mitigation or preventative measure(s) taken
No risk identified	Genneia protects and respects human rights in line with international standards.

2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Mitigation(s) or preventative measure taken
No risk identified	No indigenous peoples or cultural heritage identified within the project's influence.

2.3.4 Property Rights

Risks identified	Mitigation or preventative measure(s) taken
No risk identified	Ownership and lease agreement rights are clearly defined and known by the communities

2.3.5 Benefit Sharing

The project does not impact on property rights. The rights to the use of the entire property were acquired by Genneia through consensual agreements.

Summary of the benefit sharing plan	N/A
Benefit sharing during the monitoring period	N/A

2.4 Ecosystem Health

	Risk identified	Mitigation or preventative measure(s) taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk identified	No impacts were identified during EIA and the project operation.
Soil degradation and soil erosion	No risk identified	No impacts were identified during EIA and the project operation.

Water consumption and stress	No risk identified	No impacts were identified during EIA and the project operation.
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2.4.1 Rare, Threatened, and Endangered species

Species or habitat	No impacts were identified during EIA and the project operation.
Areas needed for habitat connectivity	No impacts were identified during EIA and the project operation.

	Risks identified	Mitigation or preventative measure(s) taken
Habitats for rare, threatened, and endangered species	No risk identified	No impacts were identified during EIA and the project operation.
Areas for habitat connectivity	No risk identified	No impacts were identified during EIA and the project operation.

2.4.2 Introduction of species

N/A

2.4.3 Ecosystem conversion

N/A

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The renewable energy generation technologies employed under the project activity instances correspond to photovoltaic (PV) solar projects. The activity of the proposed project consists of the installation of three solar grid-connected power plants located in the same region of the country of Argentina. The total installed capacity of the three solar power plants is 82 MW. The projects were implemented at a site where no renewable power plant was operating prior to the implementation of the project activity (green-field plant). During this monitoring period of the year 2024, no relevant impacts occurred that would affect generation from any of the project activity instances, stoppages that occurred are contemplated within the normal operation of the solar farms, including maintenance and shutdowns requested by the national grid coordinator due to demand.

As part of an internal reorganization of the South Pole Group, Swiss Carbon Value Ltd. merged with South Pole AG on June 30, 2025. As a result, South Pole AG will be from now on the project partner as part of the other entities involved in the project.

The electricity generated by the project is exported to the SADI. Therefore, the project displaces an equivalent amount of electricity that would otherwise have been generated based on fossil fuels. In the baseline scenario, all the electricity supplied to the grid by the project activity, would otherwise have been generated by the operation of grid-connected power plants.

In the following paragraphs, further details of the individual instances included in the project activity are provided.

Ullum I Solar Farm

The 'Ullum I Solar Farm' consists of the construction and operation of a solar farm with 86,400 solar PV modules and an installed capacity of 25 MW. The project started operation on 01 December 2018 with an initial testing phase and was commissioned on 19 December 2018. The project is composed of five sub-units called solar fields (PV-11, PV-12, PV-13, PV-14 and PV-15), each interconnected by a medium voltage (33 kV) underground electrical grid, from which the energy is conducted to the electrical output cabin. From there, a transmission line of 4.07 km was constructed, connecting the solar farm to the Solar Transformer Station San Juan (ET), where the voltage is increased to 132 kV to supply to the SADI.

Table 4: Ullum I Solar Farm

PV Module Manufacturer	Jinko
PV Module Types	JKM345M-72-V
PV Module Capacity	345 Wp
No. of PV Modules	86,400
No. of Inverters	6 FS2400CH15 4 FS2800CH15
Total Capacity	25 MW
Generation monitoring period	62,478.62 MWh

Ullum II Solar Farm

The 'Ullum II Solar Farm' consists of the construction and operation of a solar farm with 86,400 solar PV modules and an installed capacity of 25 MW. The project started operation on 01 December 2018 with an initial testing phase, and was commissioned on 19 December 2018. The project is composed of six sub-units called solar fields (PV-21, PV-22, PV-23, PV-24, PV-25 and PV-26), each interconnected by a medium voltage (33 kV) underground electrical grid, from which the energy is conducted to the electrical output cabin. From there, a transmission line of 4.9 km was constructed, connecting the solar farm to the Solar ET San Juan, where the voltage is increased to 132 kV to supply to the SADI.

Table 5: Ullum II Solar Farm

PV Module Manufacturer	Jinko
PV Module Types	JKM345M-72-V
PV Module Capacity	345 Wp
No. of PV Modules	86,400
No. of Inverters	6 FS2400CH15 4 FS2800CH15
Total Capacity	25 MW
Generation monitoring period	62,642.68 MWh

Ullum III Solar Farm

The 'Ullum III Solar Farm' consists of the construction and operation of a solar farm with 110,520 solar PV modules and an installed capacity of 32 MW. The project was commissioned on 22 December 2018 and started operation on 01 January 2019. The project is composed of seven sub-units called solar fields (PV-31, PV-32, PV33, PV-34, PV-35, PV-36 and PV-37), each interconnected by a medium voltage (33 kV) underground electrical grid, from which the energy is conducted to the electrical output cabin. From there, a transmission line of 3.92 km was constructed connecting the solar farm to the Solar ET San Juan, where the voltage is increased to 132 kV to supply to the SADI.

Table 6: Ullum III Solar Farm

PV Module Manufacturer	Jinko
PV Module Types	JKM345M-72-V
PV Module Capacity	345 Wp
No. of PV Modules	110,520
No. of Inverters	2 FS2400CH15 10 FS2800CH15
Total Capacity	32 MW
Generation monitoring period	79,328.74 MWh

Below are the technical specifications for each type of technology according to the manufacturer:

Table 7: Solar PV Module and Inverter technical specifications

Solar PV Module	JKM345M-72-V
Cell Type	Mono-crystalline 156x156mm (6 inch)
No. Of Cells	72 (6x12)
Orientation	1-axis horizontal tracker with backtracking
Rated Maximum Power	345 Wp
Module Efficiency STC (%)	17.78%
Maximum system voltage	150 VSC

Inverter	FS2400CH15	FS2800CH15
Manufacturer	Power Electronics	
Max. AC Output Current (A)	2570	30000
Operating Grid Voltage (VAC)	345 ± 10%	
	50 Hz/60 Hz	

3.2 Deviations

3.2.1 Methodology Deviations

No methodology deviations were made.

3.2.2 Project Description Deviations

There are two project description deviations that took place in previous monitoring periods and have been already informed in the previous approved monitoring reports and remain valid throughout the current monitoring period as well. The first is associated with the change in the project start date and credit period, and the second is linked to the calibration frequency of the meters. Additionally, the change in the name of the substation, from “San Juan” to “Ullum Solar”, is being reported for this monitoring period as a deviation from the original project description.

1) **Project start date:** As can be seen in the public records of the Argentinean electricity system operator (CAMMESA), Ullum I Solar farm began operating and dispatching energy to the grid on 01 December 2018 (registered PD: 19 December 2018), from that date the project began to generate GHG emissions reductions as defined by the VCS Standard, therefore, a deviation in the project start date reported in the PD validated is included. The credit period was adjusted accordingly to 01/12/2018 - 30/11/2028.

According to the VCS Standard document, interpretation of whether the deviation impacts any of these shall be determined consistent with the “CDM Guidelines on assessment of different types of changes from the project activity as described in the registered PDD”.

Changes to the project start date of the registered PD have no material impact on the applicability of the applied methodologies or the other applied methodological regulatory documents, or the applied standardized baselines which remains valid, the project activity is the installation of a Greenfield power plant, the baseline scenario is the following: “Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations...”. Furthermore, the project remains additional, the days difference in the start date does not represent a material change.

2) **Calibration frequency:** In the validated PDD it was established that meter calibration would be performed as established by the national authorities or every 3 years. Since the energy market in Argentina is well regulated, the project proponent does not have free access to intervene the meters and perform the calibration. Instead, the national grid coordinator identifies and decides when to make

such adjustments. Therefore, the frequency of calibration will now be as established by the national authorities. This deviation does not impact the applicability of the methodology, the additionality of the project, or the appropriateness of the baseline scenario.

According to the VCS Standard document, interpretation of whether the deviation impacts any of these shall be determined consistent with the “CDM Guidelines on assessment of different types of changes from the project activity as described in the registered PDD”.

3) Substation name change: The name of the substation has changed from “San Juan” to “Ullum”. There was no change in location or facilities, only in the name, As with the previous two deviations, this has no impact on the applicability of the methodology, the additionality of the project, or the appropriateness of the baseline scenario.

The following tables demonstrate why these changes do not affect the additionality, baseline and applicability of the methodology.

Table 8: Changes which may impact the additionality of the project activity

Criteria	Assessment
Changes in the effective output capacity due to increased installed capacity or increased number of units, or installation of units with lower capacity or units with a technology which is less advanced than that described in the PDD	The change does not involve an increase in the number of units or total project capacity.
Addition of component or extension of technology	This change does not involve an addition of component or extension of technology.
Removal or addition of one (or more) site of a project activity registered with multiple sites	No sites were included or removed from the original design.
Different values of those actual operational parameters relevant to determination of emission reduction which are within the control of the project participant, and which result in the IRR passing the benchmark as described in the registered PDD.	The change does not affect the parameters used to demonstrate financial additionality.
Name change of the substation	The change has no impact on any other aspect of the project activity. Everything that applied before still applies after the change.

Table 9: Changes which impact the applicability/application of baseline methodology

Criteria	Assessment
The original methodology would no longer be applicable.	This change does not affect the applicability of the methodology.

Another methodology would have been applicable.	The methodology used would still be applicable for this project.
Another baseline scenario would be more appropriate.	Standardized baseline remains valid.

Therefore, the deviations do not impact the applicability of the methodology, additionality, or the appropriateness of the baseline scenario, and the project remains in conformance with the applied methodology.

3.3 Grouped Projects

This is not a grouped project activity. Thus, this section is not applicable for this project.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	EF_{grid,CM,y}
Data unit	tCO ₂ /MWh
Description	Combined margin CO ₂ emission factor for grid-connected power generation in year y calculated using the latest version of the 'Tool to calculate the emission factor for an electricity system'.
Source of data	Calculated based on information provided by the electricity wholesale market management company (Compañía Administradora del Mercado Mayorista Eléctrico (CAMMESA)).
Value applied	0.4484
Justification of choice of data or description of measurement methods and procedures applied	As per the most recent 'Tool to calculate the emission factor for an electricity system'.
Purpose of data	Calculation of baseline emissions.
Comments	-

Data / Parameter	The percentage share of total installed capacity of the specific technology
Data unit	%
Description	The percentage share of total installed capacity of the specific technology in the total installed grid-connected power generation capacity in the host country.
Source of data	National statistics or other official data.
Value applied	1.10%
Justification of choice of data or description of measurement methods and procedures applied	As per the most recent methodology 'ACM0002: Grid-connected electricity generation from renewable sources'.
Purpose of data	Demonstration of additionality.
Comments	-

Data / Parameter	The total installed capacity of the technology
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Data unit	MW
Description	The total installed capacity of the technology in the host country.
Source of data	National statistics or other official data.
Value applied	43378
Justification of choice of data or description of measurement methods and procedures applied	As per the most recent methodology 'ACM0002: Grid-connected electricity generation from renewable sources'.
Purpose of data	Demonstration of additionality
Comments	-

4.2 Data and Parameters Monitored

Data / Parameter	$EG_{\text{facility},y}$	
Data unit	MWh/yr	
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y.	
Source of data	Measurement in the power plant.	
Description of measurement methods and procedures to be applied	The meters installed are bi-directional, taking into account both the quantity of electricity supplied by the project plant to the grid and the quantity of electricity delivered to the project plant from the grid. In this case, the individual values are not required.	
Frequency of monitoring/recording	Continuous measurement and at least monthly recording. Typically, the measured data is read once every 24-hours using tele-metering technology (remotely).	
Value monitored	Instance of the project	2024 (MWh)
	ULUMI	62,478.62
	ULLUMII	62,642.68
	ULLUMIII	79,328.74
Monitoring equipment	See details in section 4.3 Monitoring Plan	
QA/QC procedures to be applied	The verification of the meters will be done as established by the national authorities. In addition, the generation values will be crosschecked with the information available on the website of the electricity wholesale market management company.	
Purpose of the data	Calculation of baseline emissions and SDGs contributions (goals 7, 13).	
Calculation method	N/A	

Comments	All data collected as part of the monitoring process is archived electronically and kept for at least two years after the end of the last crediting period.
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Data / Parameter	Jobs_y	
Data unit	#	
Description	Number of jobs created by the project activity in year y	
Source of data	Genneia payroll system	
Description of measurement methods and procedures to be applied	New hires are created in the system when they enter the company. Former employees are removed from the system when they leave the company.	
Frequency of monitoring/recording	The information can be accessed as needed. For the purposes of filling out the monitoring report, the data is accessed annually.	
Value monitored	Instance of the project	2024 (#)
	ULUMI	0
	ULLUMII	0
	ULLUMIII	0
	It is worth noting that the project has created a total of 13 jobs since operations began, and all 13 of these jobs were kept during the current monitoring period. No additional jobs were created during the current monitoring period.	
Monitoring equipment	None.	
QA/QC procedures to be applied	The payroll database is maintained monthly to ensure all employees are included and any former employees have been removed.	
Purpose of the data	SDG contributions (goal 8)	
Calculation method	Number of jobs in year y – Number of jobs in the year y-1	
Comments		

4.3 Monitoring Plan

The monitoring plan, which is implemented by the Project Proponent, describes the monitoring organization, parameters to be monitored, monitoring practices, quality assurance, quality control procedures, data storage and archiving, etc., according to the approved methodology, ACM0002. The continuous monitoring of electricity generation ensures that the net electricity delivered to the grid is

completely monitored throughout the whole crediting period, given the fact that the total generation measured will affect the amount of emission reductions obtained.

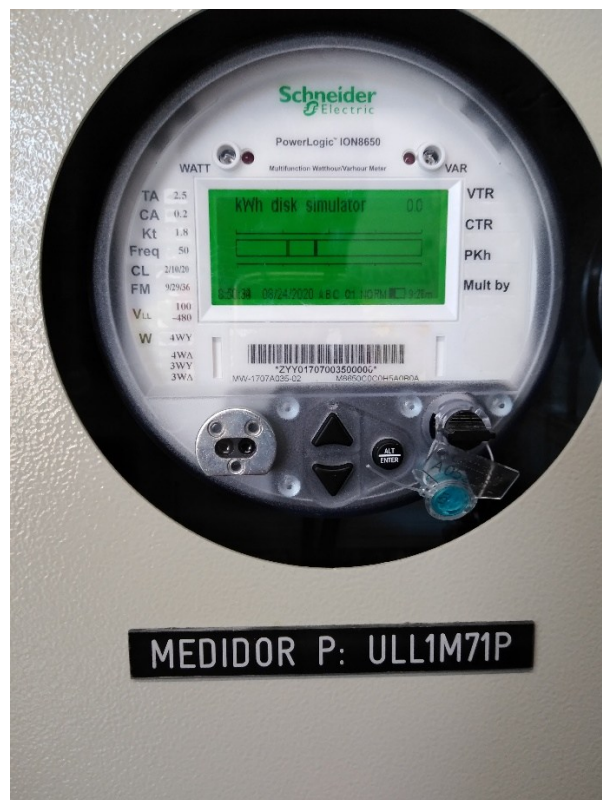
Electricity Generation of the Project Activity

Due to the project participant's choice of an ex-ante emission factor, the most important variable to monitor is the project's electricity generation. It is measured according to the national standards and regulations for the wholesale market participants (rules from the CAMMESA6). Two 0.2s precision meters will be installed for each solar farm, one of them acting as a backup unit.

The main and back-up meters for each solar farm are illustrated below:

Ullum I Solar Farm

Main meter



Back-up meter

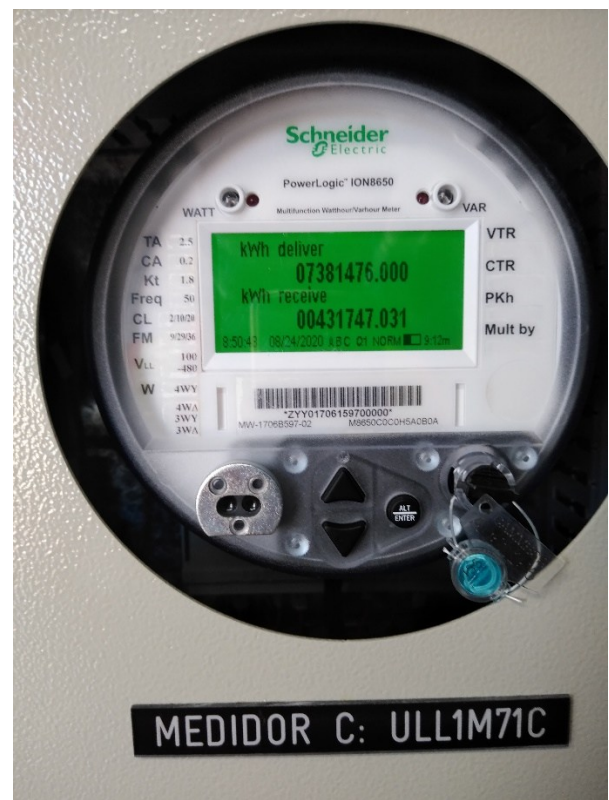


Table 10: Main and back/up meters' details Ullum I

	Serial	Model	Brand	Calibration date	Accuracy
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Main	MW-1707A035-02	ION8650	SCHNEIDER ELECTRIC	04/12/2018	0.2%
Back/up	MW-1706B597-02	ION8650	SCHNEIDER ELECTRIC	04/12/2018	0.2%

Ullum II Solar Farm

Main meter



Back-up meter



Table 11: Main and back/up meters' details Ullum II

	Serial	Model	Brand	Calibration date	Accuracy
Main	MW-1707A036-02	ION8650	SCHNEIDER ELECTRIC	03/12/2018	0.2%
Back/up	MW-1706B621-02	ION8650	SCHNEIDER ELECTRIC	03/12/2018	0.2%

Ullum III

Main meter



Back-up meter



Table 12: Main and back/up meters' details Ullum III

	Serial	Model	Brand	Calibration date	Accuracy
Main	MW-1706B629-02	ION8650	SCHNEIDER ELECTRIC	03/12/2018	0.2%
Back/up	1706B624-02	ION8650	SCHNEIDER ELECTRIC	03/12/2018	0.2%

The distances at which the measurement of generation and the point of interconnection with the SADI is carried out, i.e. the substation or solar transformer station San Juan, are presented below.

Table 13: Distance between the measurement point and the point of interconnection with the SADI

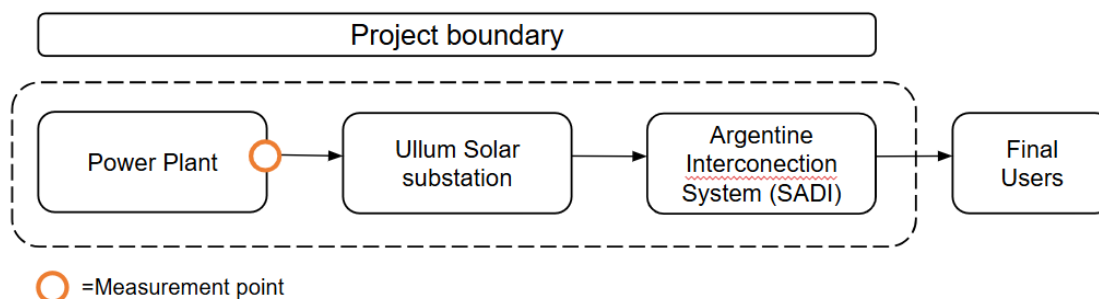
Power plant	Distance (km)
ULLUM I	4.07
ULLUM II	4.90
ULLUM III	3.92

Since the energy exchange point is defined between the outputs of each solar farm and the input of the Solar Transformer Station San Juan, and since the locations (measurement point and billing point) are separated by the distances in Table 1, energy compensation must then be made for the losses incurred in the transmission lines. The compensation of the energy registers will be carried out directly on the commercial meters themselves (main and back-up).

All the meters are provided with built-in registers, and generation data is ready to download both remotely and/or locally by CAMMESA and the project developer. The information is acquired on programmable intervals, ranging from a minimum of one minute to a maximum of an hour.

The operational team frequently backs up the information. The data is included in an Excel spreadsheet for emission reductions calculations on a monthly basis. All data collected as part of the monitoring process are archived electronically, and kept at least for two years after the end of the last crediting period.

The following scheme shows the power plants, the substation Ullum Solar, and the metering points:



QA/QC Measures

As indicated, there is a main and a back-up electricity meter for each solar farm, which assures correct measurement in case of failures of the main electricity meters. Moreover, in case of failure of any of the meters, the project developer will proceed according to the 'Sistema de Medición Comercial' (SMEC) and CAMMESA regulations.

If any other emergency does not allow the power generation of the plants to be measured correctly, or if data would be missing as a result of a failure in the monitoring process, no emission reductions shall be claimed during that period until correct function of the meters is again guaranteed, in addition to reliable data.

Personnel Responsible for Monitoring

Figure 2 shows the organizational chart of the monitoring.

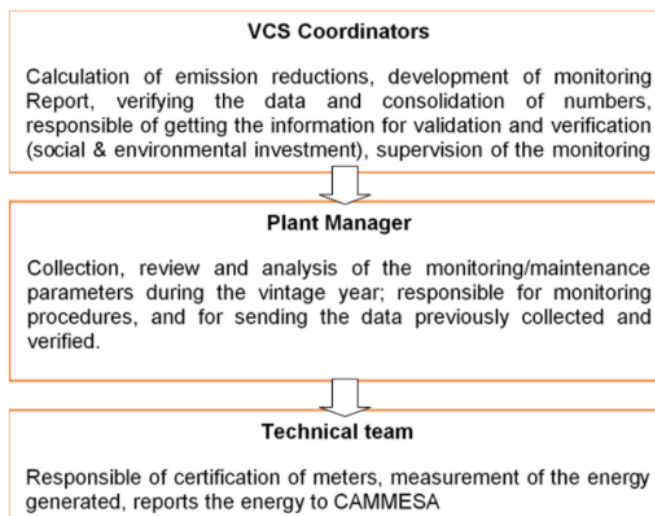


Figure 2: Operational structure of the monitoring plan

Responsible personnel:

The VCS Coordinators supervise the monitoring process and are in charge of compiling the monitoring data in an Excel spreadsheet and calculating the emission reductions of the monitoring period. They also develop the monitoring report in accordance with the VCS rules.

The Plant Manager is responsible for verification of energy measurement. The Plant Manager is responsible for checking and verifying the meter readings.

The Instrumentation and Control Engineers are responsible for electricity generation reading, and for processing the energy produced by the project from the meters installed at the substation. Records of the meter are downloaded in a spreadsheet for measurement control, and the data discharged from the meter is stored electronically and sent to CAMMESA.

Personnel who carry out monitoring tasks are familiar with the basic monitoring requirements and structures. New personnel have to participate in basic training in order to get familiar with the monitoring procedures. Since the main monitoring tasks, i.e. the measurement of energy production, the calibration of energy meters, and the reporting of energy generation, are carried out independently from the VCS as part of the daily operation, no specific training is required. The VCS Coordinators are supported by an external consultant, if necessary, in order to ensure correct application of the monitoring procedures. They also carry out corrective actions if any inconsistency is identified and train the Plant Manager and the Technical Team, if necessary.

All data collected as part of monitoring is archived electronically and kept for at least two years after the end of the last crediting period.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The baseline scenario and the emission rate calculation are based on the electricity that would otherwise have been generated by the plants connected to the grid and by addition of future plants. According to the methodology, no leakage emissions are considered.

Baseline emissions are calculated by multiplying the combined margin emission factor ($EF_{grid,y}$, in tCO_2e/MWh) by the electricity generated by the proposed project activity during the year y (EG_y , in MWh).

Baseline emissions include only CO_2 emissions from electricity generation in fossil-fuel-fired power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation by the project activity would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants.

The detailed calculations and data of the baseline emissions are presented in the emission factor Excel spreadsheet. The relevant methodological approaches and equations are presented below:

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

Equation 1
(Equation 11 of
the ACM0002 v.
19.0)

Where:

BE_y = Baseline emissions in year y (tCO_2/yr)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/yr)

$EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid-connected power generation in year y , calculated using the latest version of the 'Tool to calculate the emission factor for an electricity system' (tCO_2/MWh).

Since it is a green-field project, according to Equation (12) of ACM0002 (version 19.0):

$$EG_{PJ,y} = EG_{facility,y}$$

The expression $EG_{PJ,y}$ is used in the Project Document Design (PDD). The combined margin CO_2 emission factor for grid connected power generation in year y ($EF_{grid,CM,y}$) was calculated ex ante as stated in the registered PDD. That value is $0.4484 t CO_2/MWh$.

Considering that the total electricity generation of the project for the respective monitoring period was $204,450.04 MWh$, the total baseline emissions calculated with Equation 1 are as follows:

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

$$BE_y = 204,450.04 \text{ MWh} \times 0.4484 \text{ tCO}_2/\text{MWh}$$

$$BE_y = 91,674 \text{ tCO}_2$$

Table 14: Summary of Outcomes

Project instance	Generation (MWh) 2024	Baseline emissions (tCO ₂) 2024
ULLUM I	62,478.62	28,015
ULLUM II	62,642.68	28,089
ULLUM III	79,328.74	35,571
TOTAL	204,450.04	91,674

5.2 Project Emissions

Since the project activity comprises the installation of three solar parks, the project emissions are zero.

$$PE_y = 0$$

5.3 Leakage Emissions

No leakage emissions are considered, as provided in the methodology:

$$LE_y = 0$$

5.4 GHG Emission Reductions and Carbon Dioxide Removals

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCUs (tCO ₂ e)	Removal VCUs (tCO ₂ e)	Total VCUs (tCO ₂ e)
01-Jan-2024 to 31-Dec-2024	91,674	0	0	91,674	0	91,674
Total	91,674	0	0	91,674	0	91,674

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jan-2024 to 31-Dec-2024	93,673	91,674	-2.13%	Variation in solar irradiation, solar plant uptime, and weather variabilities will account for the difference

				between estimated and achieved.
Total	93,673	91,674	-2.13%	

APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION

No commercially sensitive information was included in this monitoring report.