

YPF
LUZ

ZONDA I SOLAR PARK

SOCIAL AND ENVIRONMENTAL IMPACT

COMMUNITY INFORMATION



1. Introduction

This document is a non-technical summary of the social and environmental impacts of the construction and operation of YPF Energía Eléctrica's Zonda I (PSZ I) Photovoltaic Solar Park, hereinafter "YPF Luz".

The document describes how the construction of the park was developed and the potential environmental and social impacts that may be generated during its operation.

In addition, it clarifies the company's actions aimed at preventing, controlling and minimizing these impacts, and explains how environmental and social aspects are managed.

This document is part of the community relationship plan, which aims to keep employees, authorities and the community in general informed of all stages of the operation of the Zonda I Photovoltaic Solar Park. The plan details the communication actions with the different stakeholders, as well as the tools available for people to channel their doubts and concerns about the project.

2. Project design and construction

From the early stages of the development of new projects, YPF Luz is committed to acting responsibly with the communities. To this end, potential socio-environmental risks and impacts that may be related, directly and indirectly, to each of the stages of their projects are identified, evaluated and managed.

In 2021, YPF Luz planned the installation of a solar park for the generation of renewable energy, with a capacity of 100 MW. The energy generated by the park provides electricity to private companies, through contracts entered into within the framework of the Forward Market (MATER) and the Argentine Interconnection System (SADI).

The project includes the construction, assembly, operation and maintenance of the Zonda I Photovoltaic Solar Park in its first stage of 100 MW.

As part of the project, the following were contemplated:

- A medium to high voltage transformer station.
- Connection to existing high voltage line for energy injection into the SADI.

The companies that were in charge of the construction of the Zonda Solar Park were Distrocuyo and 360 Energy. Distrocuyo was in charge of the construction of the substation and the building. The company 360 Energy carried out the assembly of the solar panels and their commissioning.

The Zonda I Solar Park was inaugurated in April 2023.

3. Description of the solar park and identified impacts

3.1. Description of the solar park

The Zonda I Solar Park is located on a 300-hectare property located on land adjacent to Provincial Route No. 412, in the town of Bella Vista, Iglesia department, 195 km from the city of San Juan.

170,880 Trina solar panels, models TSM645-DEG21C.20 and TSM650-DEG21C.20, were installed. The panels are mounted on trackers, with north-south orientation and tracking on a single east-west axis. The rotation range with respect to the horizontal is +/- 60°. 2670 NX Horizon model trackers and 544 Huawei inverters, model SUN2000-215KTL-H3 String Inverter type, were installed.

The park includes 17 Huawei transformer stations, model STS-6000K-H1, of 6500 kVA that collect energy through inverters, and raise the voltage to the level established for the medium voltage line (33kV). These transformer stations are connected to the cells located in the Zonda substation through underground cables and from there the main transformer that links the plant to the SADI is fed through the Tocota-Bauchazeta high voltage line (132kV), owned by EPSE.

More than 310,000 MWh generated in the solar park are injected into SADI annually in order to supply national industries and homes. The stock generates an amount equivalent to the consumption of 88,000 homes.

The operation of the PSZ I avoids the emission of more than 140,000 tons of CO₂ per year.



3.2. Operation and Maintenance

The operation of the park is carried out from YPF Luz's Remote Operation Center (COR), located on the 3rd floor of YPF's Puerto Madero Tower, 365 days a year.

From the COR, all the information related to the operating conditions of the park is collected and analyzed, such as: quality of resource, capacity factor, communication with CAMMESA and transporters, among others.

The personnel working on site carry out tasks to support the operation and general maintenance of the park. For all equipment and facilities, maintenance strategies are implemented aligned with equipment manufacturer recommendations.

3.3. Identified impacts

Construction stage

The construction of the park required the mobilization of workshops, machinery and equipment to the site. The panels, trackers and inverters arrived by ship at the port of Santiago de Chile and from there they were transported by trucks to the site. For the transport of the main equipment, specialized companies were subcontracted.

In the construction stage, emissions into the atmosphere corresponded mainly to particulate matter or dust generated by soil movements and combustion gases resulting from the use of vehicles and machinery.

As for noise, the main sources of production were those related to the operation of machinery involved and vehicular traffic.

On the other hand, the impacts on the soil were related to soil movement and compaction for the SET and the panel area. Special attention was paid to minimising ground movement as much as possible.

The waste generated was classified and separated for subsequent management by authorized companies. The management was controlled and monitored until its final disposal.

It was verified that all the vehicles of the company, contractors and subcontractors had speed control to guarantee traffic safety and minimize the dust generated by the circulation of vehicles in the towns surrounding the access roads to the park.

Operation Stage

During the operation stage of the Solar Park, the environmental impact on air quality is positive since it contributes to the reduction of the emission rate of Greenhouse Gases (GHG).

The emissions of electromagnetic fields and audible noise from the transformer substation comply with the provisions of Res. S.E. 77/98.

Given the low number of personnel on site and the fact that maintenance activities are scheduled, low amounts of waste are generated.

4. Social investment

The Company's social investment and donations policy establishes the guidelines for the development of social responsibility initiatives and includes donations, volunteer activities, community relations and any social investment associated with environmental, social, community or institutional projects.

The social investment strategy is aligned with different United Nations Sustainable Development Goals (SDGs) to contribute to the global agenda.

The objectives of the social and environmental investment strategy are:

- To improve the quality of life and infrastructure of the communities where we operate.
- To contribute to improving the quality of education and the environment.
- Promote the efficient use of energy and renewable energies.
- Collaborate with other organizations to achieve sustainable change.

5. Quality, Safety and Environment

The Zonda Solar Park Project has been designed and built in compliance with applicable national, provincial and municipal legal regulations, recommendations from equipment manufacturers and following the company's safety, health and environmental standards.

At the national level, the electricity generating industry is regulated by the ENRE (National Electricity Regulatory Entity), an entity that ensures compliance with strict environmental, health and safety standards specific to this industry.

YPF Luz implements the following monitoring plans at the plants:

- POAMS: Plan of Objectives and Actions Environment and Sustainability (includes Environmental Impact Assessment and Monitoring Plans)
- POASS: Health and Safety Objectives and Actions Plan (Includes Occupational Risk Assessment and Hygiene and Safety Plans)
- POAC: Quality Objectives and Actions Plan (includes audits and the implementation of the Integrated Management System)

5.1. Environmental Impact Assessment

The General Environmental Impact Manifesto (MGIA) of the Zonda Solar Park was developed in compliance with the provisions of the Law of the Province of San Juan No. 504 – L (former Law No. 6571) and its Regulatory Decree No. 2,067/97 and Resolution ENRE 558/22 (former Res. 555/01).

Res 644/2021 grants the Environmental Impact Statement (EIS) to the project.

5.2. Certifications

The Zonda I Solar Park Complex has an Integrated Management System certification, which includes the following standards:

- ISO 14001: Environmental Management System.
- ISO 9001: Quality Management System.
- ISO 45001: Workers' Health and Safety Management System.

6. Inquiries and complaints

The available consultation channels are listed below:

- Email: sugerenciasypfluz@ypf.com
- Contact form on website: www.ypfluz.com
- Leave written consultation with telephone and postal address at the PSZ I

7. Ethics and Compliance

YPF Luz has a Code of Ethics and Conduct that guides the actions of all personnel on a day-to-day basis. It is applicable to directors and collaborators of YPF LUZ, as well as to third parties related to the Company.

Likewise, all employees and related third parties may make inquiries or report situations and/or behaviors that could constitute a real or potential breach of the provisions of the Code of Ethics and Conduct through the YPF LUZ Compliance Channel. YPF LUZ adopts the necessary measures to maintain the anonymity and confidentiality of all communications received.

Access to the Compliance Channel is done through the following tools:

- Página Web: www.canalcomplianceypfluz.lineaseticas.com
- Correo electrónico: canalcompliance.ypfluz@kpmg.com.ar
- By phone: 0800-122-0278
- In person (only YPF Luz employees): through your boss or the Compliance and Audit management

8. Learn more

To access environmental, social and governance performance information, we invite you to read YPF LUZ's sustainability reports: YPF [Luz](#)