

Company: IBERDROLA RENEWABLES SPAIN

Project name: ANDÉVALO, CAMPO ARAÑUELO III Y PUERTOLLANO

Project location: DETAILED IN PROJECT DESCRIPTION

Please provide a short project description (5 lines) with link to any webpages which provide more detail:

**ANDÉVALO (50 MW)** is a photovoltaic plant located in the Andévalo region, Huelva, Andalusia in southwestern Spain and integrated into the largest wind complex in Western Europe. Integrated into the environment and with good grazing and beekeeping practices. First plant in operation that obtains the sustainability seal of the Spanish Photovoltaic Union (UNEF).

**CAMPO ARAÑUELO III (40 MW)** with a 3 MW / 9MWh battery in direct current. Perfectly integrated into the landscape of the “dehesa” de Extremadura in western Spain. The plant includes seven types of PV panels for test purposes.

**PUERTOLLANO (100 MW)** with a battery of 5 MW / 20 MWh. Located in the province of Ciudad Real, Spain, integrated into the landscape of the area will feed a green hydrogen generation plant associated with a fertilizer plant. Includes double sided panels.

1. What are the technologies involved in this project (hydro, wind, grids, hybrid projects [e.g., agrisolar])?

Photovoltaic technology integrated with batteries and green hydrogen production. Best agricultural practices.

2. How did you take into account the relevant biodiversity and environmental protection legislation in this project? During which phase of the project were these considerations analysed and integrated into the project? Did you anticipate concerns around biodiversity and environmental protection for this project, and if so, what did that process look like and during which phase of the project did this occur?

As in all our projects, biodiversity is taken into account from the beginning by carrying out complete studies ahead of the established deadlines. During construction all precautions are taken as well as during the operation of the plants.

3. What makes this project innovative?

The combination of technologies including storage and hydrogen generation.

4. Did you collaborate with stakeholders outside of your company (authorities, local communities, NGOs, etc.) and if yes, with whom? Can you describe your experiences with these external stakeholders? Were you able to integrate community concerns into this project?

A continuous dialogue is maintained with authorities and communities.

As for agricultural practices, we work with local producers, the production of green hydrogen comes from the association with an existing facility and in Andévalo PPA was signed with a regional implementation firm.

5. How did data enable this project and what data did you collect? Of the collected data, what was provided to regulators and authorities as part of the permitting process?

Environmental data, energy savings, impact on the area are provided.

6. Please describe the experiences surrounding the permitting process for this project, including any bottlenecks you faced:

Almost all projects in Spain suffer from delays in their permitting which is delaying the deployment of renewables.

In these projects, especially in Arañuelo and Puertollano, bottlenecks have been associated with the deployment of innovative technologies, batteries and green hydrogen that require new regulation.

7. Please describe any permitting bottlenecks this project faced specific to land use change:

There were no problems in these projects.

8. Did you receive public funding for this project? If so, please describe from which funding source (local, national, EU-level, international) and the application process you faced in attempting to secure this funding (including any special requirements conditional to the funding programme):

No.

9. Please choose at least **one** of the following questions to answer which is relevant to this project:

10. Does this project regenerate previously degraded natural habitats or ecosystems? If so, how was this achieved or how did your company integrate this restoration into the project?

11. OR

12. Does this project protect or provide alternative, undisturbed, comparable habitats for protected species? If so, how is this achieved or how did your company integrate this protection into this project?

Yes, these projects and other projects include habitats or refuges of fauna both within the plant and in nearby areas.

13. OR

14. If a previous project was found to be environmentally detrimental and your company was able to course correct to not only mitigate, but reverse the negative effects, how was this achieved?

15. OR

16. Did this project take into account effects on soil composition or the GHG impacts of land use change? If so, does this project comply with existing regulations around maintaining soil quality or land use, or does this project go beyond what is required? If so, what did you do in excess of the existing regulations?

17. Photos (if available):

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# ANDÉVALO



CAMPO ARAÑUELO III





## PUERTOLLANO

