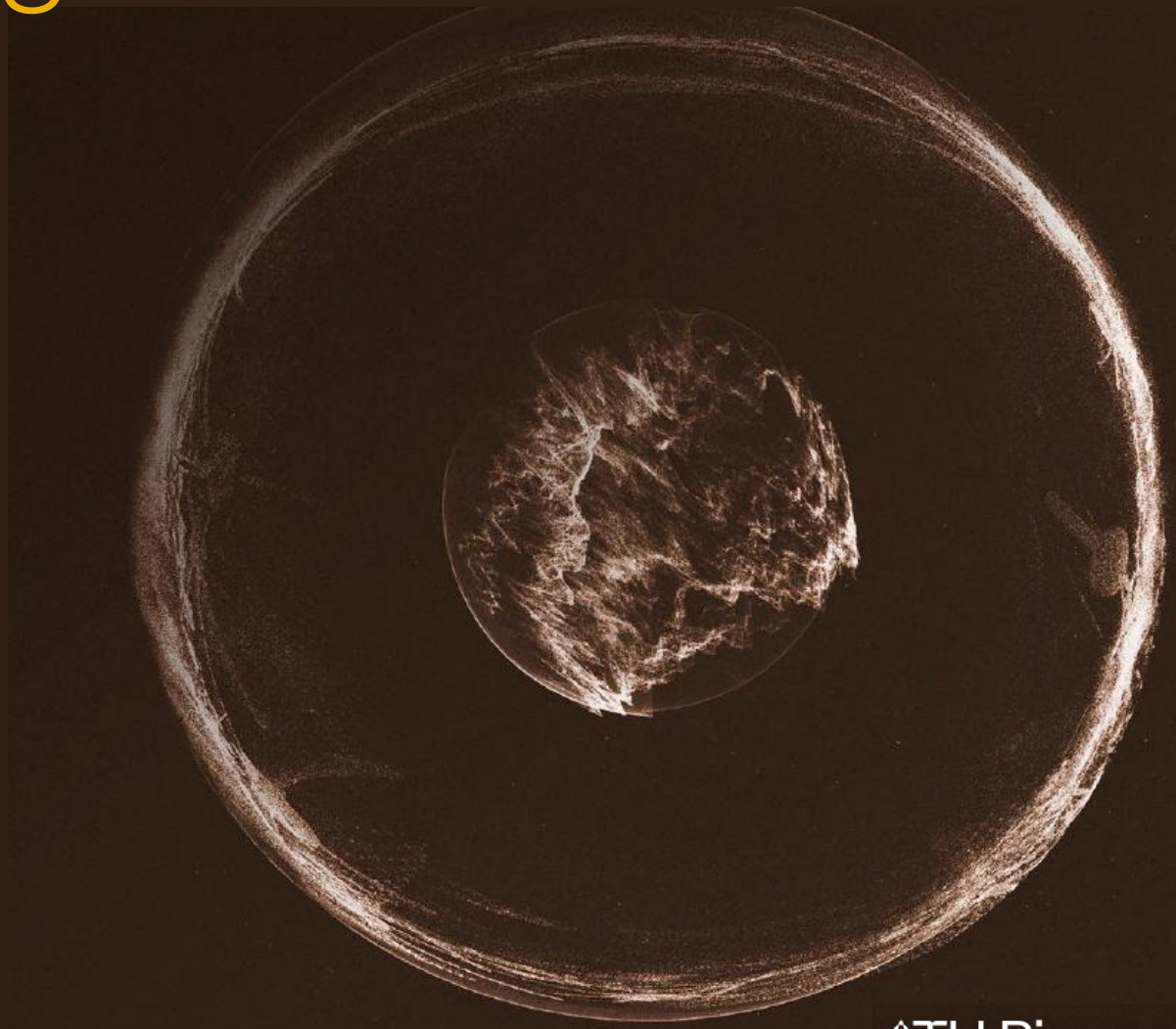
ATH Bioenergy

Sustainable production of biofertilizers and biogas from organic matter waste. Canary Islands

Public consultation



22 April 2025. 11:00 am

CEP Gran Canaria Sur.
C/Añepa, S/N.
Polígono Residencial de Arinaga.
Cruce de Arinaga, Agüimes.
CP: 35118.

ATH Bioenergy

Agenda of the day

1. Aperture. Welcome and presentation of the speakers (10 min)
2. Description of the participatory process and stakeholder engagement (15 min)
3. Non-technical description of the project: main magnitudes and descriptive data (20 min)
4. Carbon credits (15 min)
5. Exposure to potential impacts and mitigation measures (10 min)

   Coffee break (15 min)

6. Q&A session (25 min)
7. Next steps and continuous feedback mechanisms envisaged (5 min)
8. Process Evaluation Forms (5 min)

2. Description of the participatory process and the relationship with stakeholders; Gold Standard for the global goals

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Stakeholder consultation and participation procedure

- Process started with sending emails(21-3-2025)
- Holding Today's In-Person Public Engagement Event
- This will continue with active communication with stakeholders thereafter, especially in the next 2 months and throughout the project
- Different communication channels have been established (emails, websites, tel.)
- Analysis of the questions and concerns to which the company will give full answers

Information relevant to the Programme of Activities

Sustainable production of biofertilizers and biogas from organic matter waste. Canary Islands

Overview of the Programme of Activities (PoA)

ATH Bioenergy's program of activities will be called 'Sustainable production of biofertilizers and biogas from organic matter waste. Canary Islands' and consists of the installation of several biodigestion plants located in the Canary Islands, Spain, in order to effectively manage organic waste for the production of biogas (biomethane and bioCO_2) and Km 0 organic fertilizers.
This program, which seeks to promote the circular economy, reduce dependence on fossil fuels and promote environmental sustainability in the region, will be registered as an Activities Program (PoA) under the international Gold Standard scheme, which will begin on 06/25/2025, and whose duration in said scheme will be 20 years, 0 months. The goal of filing this PoA in Gold Standard is to earn carbon credits. Carbon credits are measured in tons of CO_2 equivalent, and are marketable assets

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Information relevant to the Programme of Activities
2. Description of the process and relationship with stakeholders

The project consists of the construction of plants that will convert organic waste (including that generated by **entities belonging to the hotel sector** in the Canary Islands and other large commercial producers) into biomethane, a renewable gas.

This biomethane will be used by the waste generators themselves, thus closing a sustainability cycle and significantly reducing their carbon footprint. In parallel, high-quality organic fertilizers will be obtained that will contribute to improving soil health and reducing dependence on chemical fertilizers.

Relevant information for stakeholders

2. Description of the process and relationship with stakeholders

The construction of this type of plant takes about 12-14 months. The civil works of the first project will be completed in October 2025, and the entry into operation after commissioning is expected for the first quarter of 2026.

During the operation phase, the plant will prioritize sustainability and efficiency practices, with a focus on the production of Km 0 fertilizers, promoting more resilient and regenerative agriculture.

PoA = Programme of Activities

The creation of the PoA is a voluntary action by ATH Bioenergy

Relevant information for stakeholders
2. Description of the process and relationship with stakeholders

Synergies with similar initiatives

The proposal will promote innovation, technological development in the field of anaerobic digestion and biomethane production, creating an innovation ecosystem that boosts the competitiveness of the Canarian economy. Technology transfer, synergies and knowledge exchange between actors, mainly between waste collection companies, will be promoted, fostering collaboration and the creation of new solutions for energy and environmental challenges. It will also mean making products and services available to the community that are currently non-existent

Target end users

The project directly benefits to three main key groups:

- The hotel sector and large generators of organic waste that provide organic matter and consume the biomethane produced, thus reducing their carbon footprint and improving their energy sustainability
- Local farmers accessing high-quality Km 0 organic fertilizers to improve soil health and reduce consumption of imported synthetic fertilizers
- Local community that benefits from better waste management, reduction of polluting gas emissions, creation of green jobs and strengthening of the circular economy in the archipelago

Relevant information for the PoA:

Contribution to the SDGs

It will be analyzed that the Program of Activities does not cause real or potential damage to the community, such as to the environment. Such analysis will be contrasted with feedback from the public consultation with stakeholders. The economic, social and environmental impacts identified are identified below. ATH Bioenergy's initiative is aligned with the transition to a cleaner and more renewable energy model, generating direct savings associated with the purchase of fossil fuels and promoting the use of sustainable energy sources. In turn, this programme reduces the negative environmental impact per capita of cities, with a particular focus on municipal and other waste management. Given the process of creating biomethane, savings in water consumption will be obtained. In turn, the project will contribute to economic growth and the creation of skilled jobs in the locality, as well as innovation in technology that does not exist today in this region.

Thus, contributing to the following SDGs:

Information relevant to the VPA

Sustainable production of biofertilizers and biogas from organic matter waste. Gran Canaria

"Sustainable production of biofertilizers and biogas from organic matter waste. Gran Canaria", the facility is located in Gran Canaria" this is one of the four facilities of ATH Bioenergy's Activities Programme, designed as a strategic infrastructure to move towards the energy transition and the circular economy on the island. Facility designed to treat 31,000 t/y of organic waste, generating 2,242 t/y of biomethane equivalent to 31,141 MWh of energy. This biomethane will replace traditional fossil fuels such as propane gas or diesel. In addition, high-quality organic fertilizers will be generated, contributing to the regeneration of agricultural soils and reducing dependence on imported chemical fertilizers.

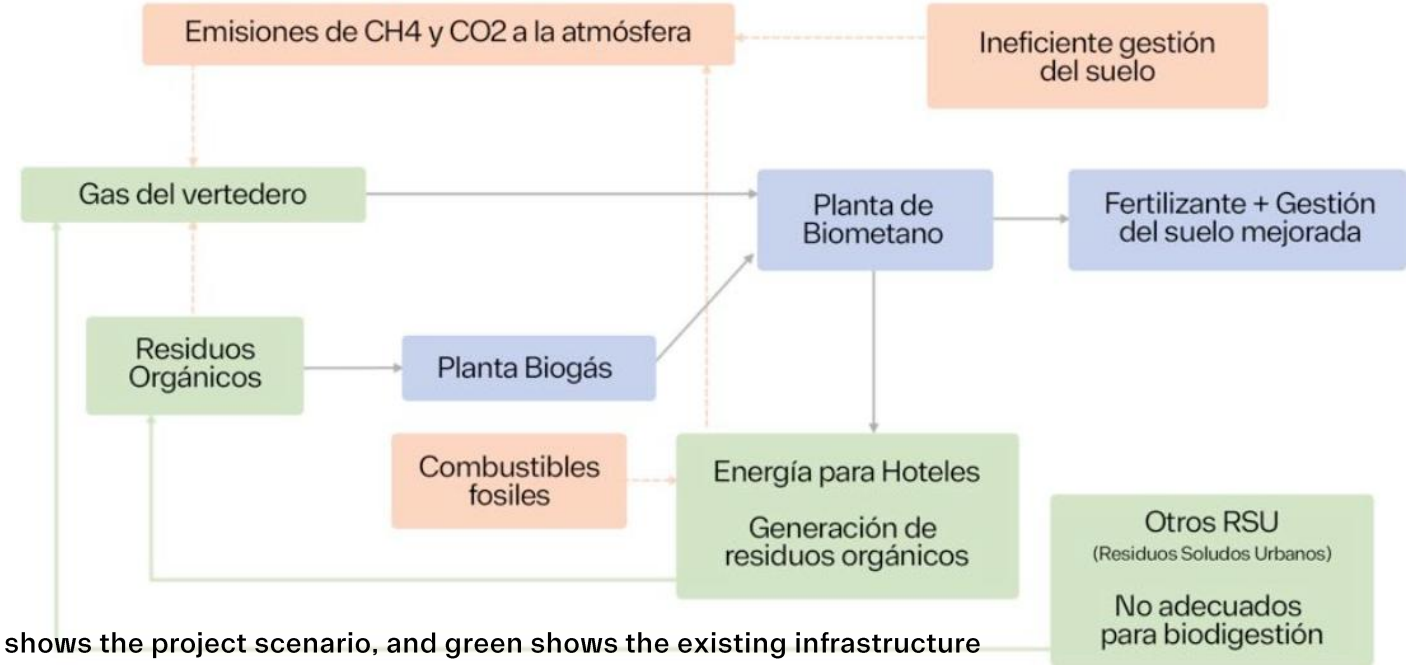


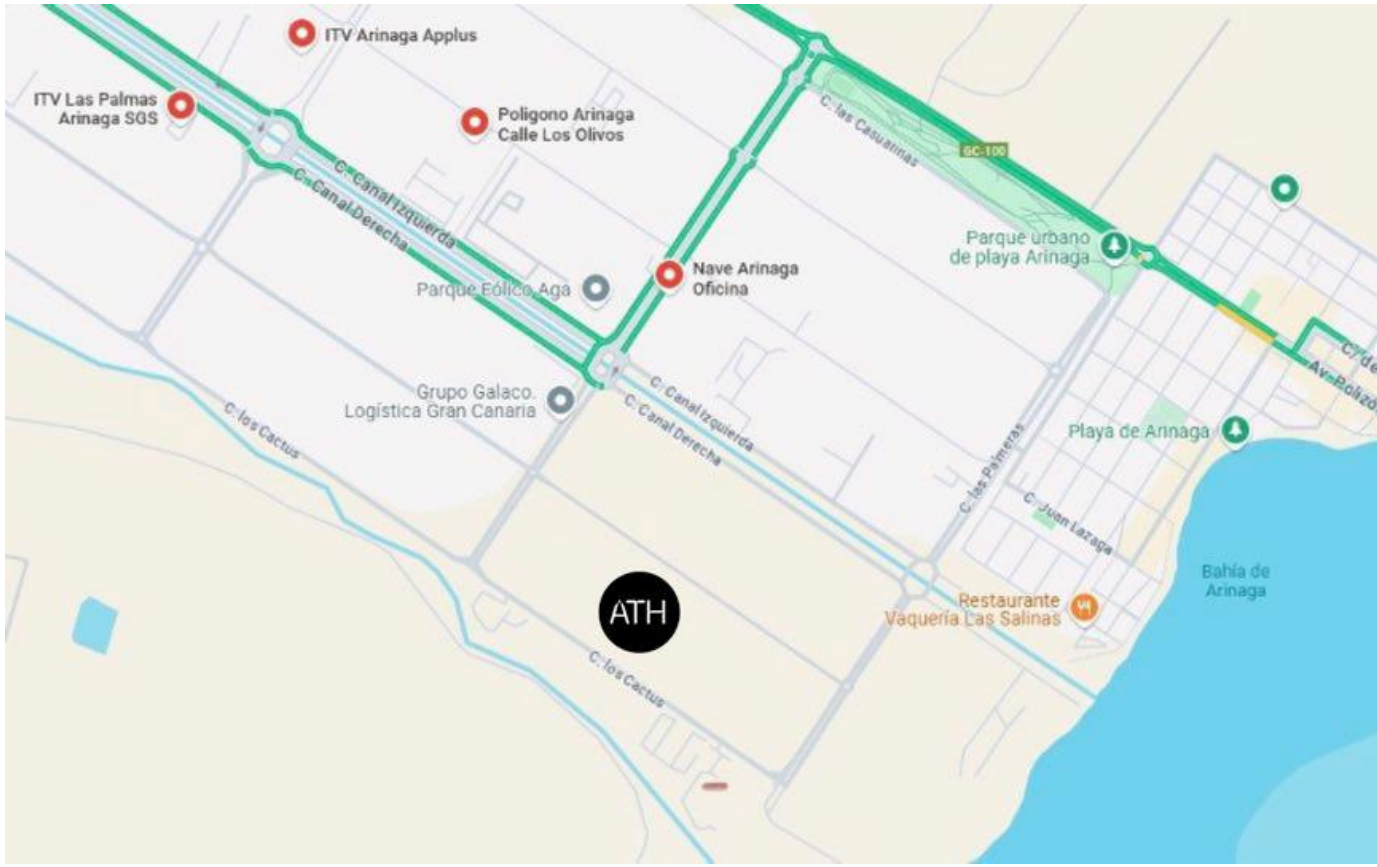
Fig. 1.- Emission sources. Pink shows the baseline, blue shows the project scenario, and green shows the existing infrastructure

In terms of implementation, this VPA (GC plant) is integrated into a collaborative operating model, in which the main stakeholders are the large hotels and large organic waste producers in Gran Canaria, who not only contribute organic matter, but also benefit from the biomethane produced, creating a local renewable energy circuit. In its operation, the plant will prioritize sustainability and efficiency practices with a focus on the production of Km 0 fertilizers (12,000 t/y between solids and liquids), promoting a more regenerative and resilient agriculture.

Overall, this plant in Gran Canaria and responds to specific objectives: to reduce emissions, recover organic waste, generate renewable energy, support the agricultural sector and local tourism, and improve the island's energy and environmental resilience.

The duration of this VPA in the Gold Standard scheme will be 5 years with the possibility of renewal up to 2 times.

The implementation plan consists of the execution of the work to create a biogas plant. The civil work takes about 13 months, finishing it in October 2025, and starting operations in the first quarter of 2026.



The plant is located at Arinaga Industrial de Estate, municipality of Agüimes, Gran Canaria, Spain

3. Non-technical description of the project

Main magnitudes and descriptive data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Main objectives

Leading the energy transition in the Canary Islands	The aim of the project is to turn the Canary Islands into a benchmark for renewable energy in Europe, demonstrating that it is possible to build a prosperous and sustainable economy by taking advantage of local resources and adopting innovative technologies. Organic waste management and biomethane production reduces dependence on imported fossil fuels, reduces greenhouse gas emissions and creates a safer and more resilient energy system
Establish a highly effective organic waste management model	ATH Bioenergy seeks to transform the way in which its customers' organic waste is managed in the Canary Islands, moving from a linear model based on elimination, to a circular model that values waste as a resource
Promoting a circular economy on the islands	The proposal is aligned with the principles of circular economy, creating a system in which waste from one industry becomes the resources of another, reducing dependence on external resources, minimizing environmental impact and generating economic value at each stage of the cycle. By fostering collaboration between different sectors, a more diverse, resilient and sustainable economic ecosystem is created
Supporting sustainable and regenerative agriculture	The project contributes to the transition towards a more sustainable and regenerative agriculture in the Canary Islands, providing local farmers with Km 0 fertilizers that improve soil fertility, increase its water-holding capacity, and reduce the need for chemical fertilizers. By promoting more environmentally friendly agricultural practices this protects biodiversity, improves food quality, and creates a more resilient and sustainable food system. The management of organic waste makes it possible to manufacture liquid and solid fertilizers estimated at 12,000 t/y, an offer that will clearly reduce the consumption of imported chemical fertilizers, redicomg the carbon footprint of farms in the islands, improving the state of the soils and their fertility that is reduced by the growing loss of organic matter
Promoting a sustainable and responsible tourism	This initiative is part of a broader vision of sustainable tourism in the Canary Islands, where the reduction of the carbon footprint and the recovery of local waste are fundamental pillars for this objective

Facilities in the Canary Islands

Gran Canaria

Tenerife

Fuerteventura

Lanzarote

Management capacity of the Gran Canaria plant. 31,000 t/y of organic waste, with an estimated biomethane production of 2,242 t/y, equivalent to 31,141 MWh that would correspond to about 2,832 tons of propane gas or more than 3,090,000 liters of diesel

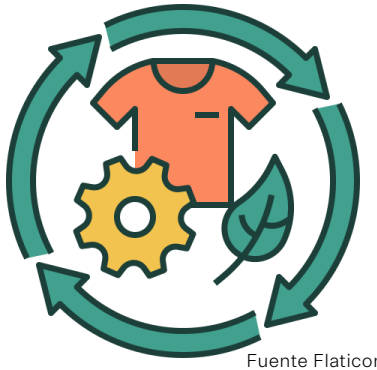
The plants will transform organic waste produced by the hotel sector and large commercial producers into biomethane, a renewable gas that will be consumed by those same organic waste generators, closing a cycle of sustainability and reducing their carbon footprint.
In addition, Km 0 organic fertilizers will be produced that will improve soil health and reduce the need for imported chemical fertilizers.
This alternative management model to the existing one involves voluntarily and responsibly being part of a chain of co-management of organic waste, supporting the local community in its development and well-being.

Identity of the ATH Bioenergy Canarias project

Fuente Envak

Fuente Freepik

Circularity



Fuente Flaticon

Social Economy

Fuente Isocat

Fuente Freepik

Biomethanization

Biomethanisation or anaerobic digestion is a biological process that, in the absence of oxygen and over several stages involving different microorganisms, allows organic matter to be transformed into biogas, made up of methane and carbon dioxide and other gases in low proportion (water vapour, CO, N_2, H_2, H_2S,...) also generating a final digestate of interest as a fertiliser.

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Premium Waste Management

ATH Bioenergy offers a waste intelligence management service (PMS Property Management System) with watertight collection trucks equipped with **weighing and geolocation control systems**, which allow complete traceability of the waste. This system will offer the customer to monitor and receive advanced data and reports on their evolution and performance in waste.

A sustainable alternative

ATH becomes the circular and sustainable alternative, managing to reduce both the CO2 emissions associated with organic waste, and the emissions of the fossil fuel it replaces with a clear objective:

The decarbonisation of the hotel sector

The hotel sector will benefit from having **a renewable and reliable source of energy**, which will increase the attractiveness of the region for commercial expansion.

The alliance between ATH and the hotelier will have a direct impact on the local community. The population will benefit from a clear improvement in air quality, employment opportunities (approximately 315 direct and indirect jobs), local economy, reclaimed water for irrigation, etc.

Fertilisers

The **digestate**, the final product generated after anaerobic digestion, is rich in nutrients and will be valued one step further.

Two products are obtained from it, **liquid fertilizer** and **solid fertilizer** (compost).

These will make up an offer of **Km 0 fertilizers** that will reduce dependence on the import and use of synthetic fertilizers with a high carbon footprint, which will improve the fertility and condition of the soils of the islands with a low level of organic matter.

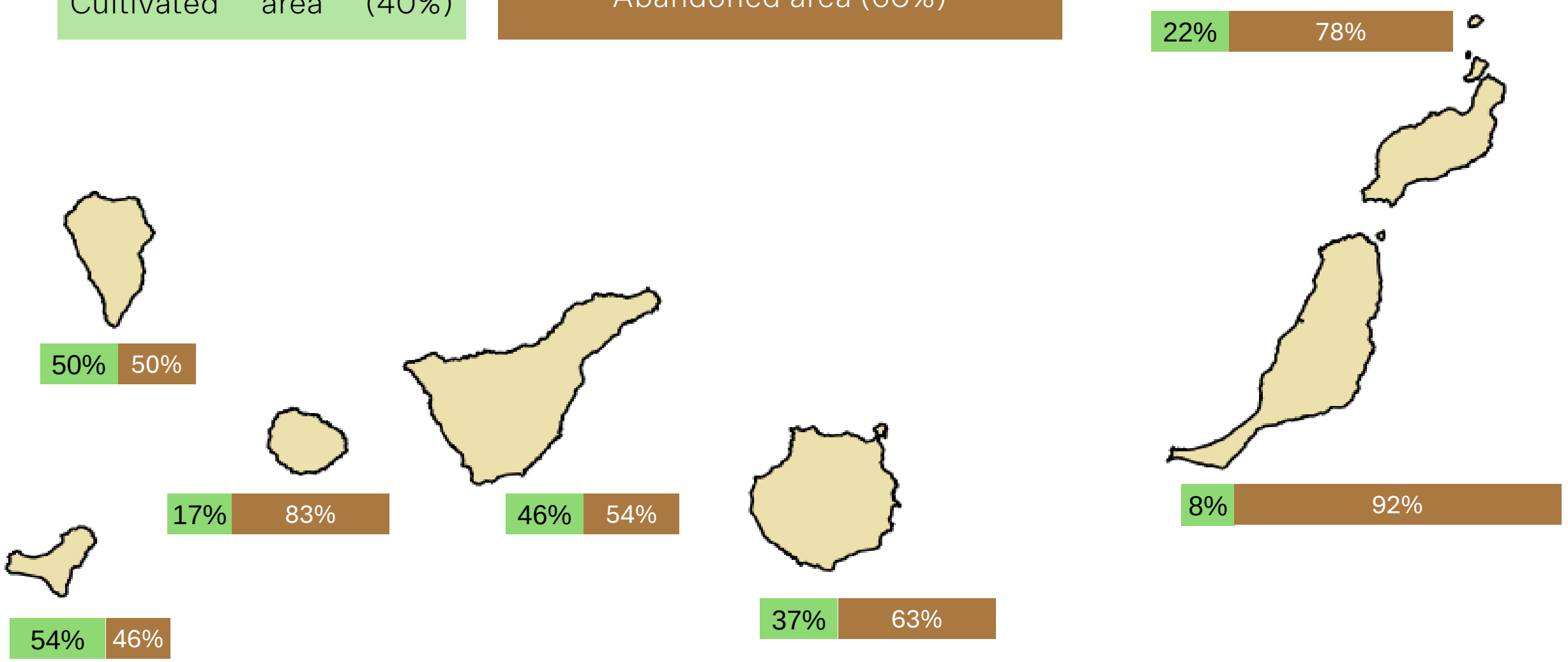
ATH Bioenergy and agricultural sector

Agricultural area in the Canary Islands	130.000 ha
In abandonment	60% (78.000 ha)
In use	40% (52.000 ha)
Importing fertilizers	38.000-40.000 t/a
Consumption per hectare Canary Islands	0,73 t/ha
ha Mainland	0,23 t/ha (x3,1)
Organic fertilizer offer ATH Canarias	30.000-35.000 t/a
Solid Fertiliser ATH – GC	4.000 t/a
Liquid Fertiliser ATH – GC	8.100 t/a

ATH Bioenergy and agricultural sector

Cultivated area (40%)

Abandoned area (60%)



Sinergias ATH Bioenergy-Gran Canaria Agriculture

Organic fertilizer Km 0 offer

Increase in organic matter in soils

Carbon Footprint Reduction by Substituting Synthetic Fertilizers

Strategies for the recovery of abandoned soils (fodder and livestock)

Soil regeneration and recovery of its biology

Development of R+D and other collaborations

4. Carbon credits

It promotes sustainable, profitable and internationally certified climate projects.

It focuses on the **origination** of tradable **carbon credits** in voluntary carbon markets.

It provides **financial and technical knowledge** throughout the process to promoters of **projects with a high climate impact**.

(Project identification, roadmap, standards selection, validation strategy, etc.)

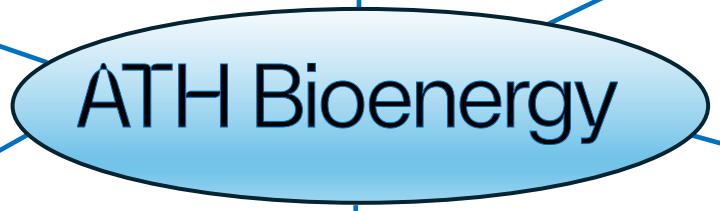
offcarbon

Validation, measurement and verification of t CO2-eq

Begin **origination C C** process

Safeguards of the scientific community such as respect for people and contribution to the SDGs

Registration of C C units in the name of the project promoter according to the rules of the GS4GG reference



Voluntary emissions market scheme
Gold Standard for Global Goals (GS4GG)

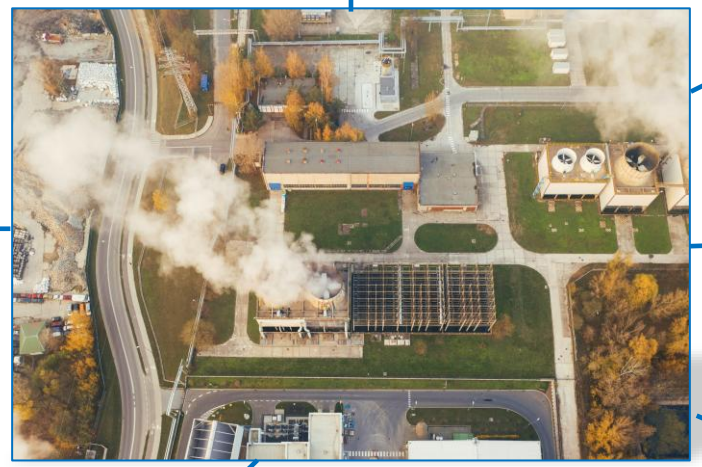
Voluntary emissions market
Third-party procurement interested in **offsetting their own carbon footprint**

Rigorous evaluation process

- Observance of Safeguards and General Principles.
- Global evaluation of the benefits of the project, correction of possible negative impacts and risk mitigation. Stakeholder Inclusion.
- Measurement of Verified Emission Reductions (VER's) according to IPCC.
- Verification by independent third party who certifies results obtained.

Base scenario and DC project scenario. What they are, how they are obtained and registered

ATH GHG emissions **mitigation** project



Unit equivalent to the avoidance of 1 ton. GHG = **1 t CO2-eq**

Project Scenario vs. Base Scenario
Overall GHG emission reductions achieved by the ATH project

Activate Carbon Credit origination process

Verified Emission Reductions
Two paths: diversion of organic matter destined for landfill and production of bioCH_4 as a substitute for fossil fuels

Ownership of the Carbon Credits will belong to the promoter ATH Bioenergy, so they could not be claimed by other agents participating in the VPA (Voluntary Project Actions) to avoid double counting of these, this being contractually reflected with the customers.

5. Potential impacts and mitigation measures

Summary of the economic, social and environmental impacts of the VPA "Sustainable production of biofertilizers and biogas from organic matter waste. Gran Canaria" as mentioned in the safeguards

The design of the project will analyze that the VPA does not cause actual or potential damage to the community or the environment. This analysis will be contrasted with feedback from the stakeholder consultation

About mitigation measures

- Carrying out the project design to minimise possible impacts.
- Perform dual materiality analysis by identifying stakeholders, internal and external.
- Environmental dimensions such as respectful technologies, minimization of consumption, by-products obtained and offered locally.
- Be inclusive and less disruptive in terms of operations.
- Participatory processes designed to meet stakeholder hearings, as well as active listening process during the process. Feedback to correct potential negative impacts and to inform parties.
- Assessment and determination of actual or potential risks of the project design.

Economic Impacts

Catalyst for investment and economic growth	The project will mobilise significant investments in the construction and operation of the biodigestion plant in Gran Canaria, generating economic activity in strategic sectors for the region. Its alignment with the Sustainable Development Goals amplifies its positive impact locally and globally
Generation of green and quality employment	It is estimated that approximately 78 direct and indirect jobs will be created in areas such as construction, operation, waste management, biomethane production and fertilizer marketing. Jobs with fair working conditions, training and professional development will be prioritized
Strengthening the energy security of Gran Canaria	Local biomethane production will help reduce dependence on imported fossil fuels by increasing energy resilience to international market fluctuations
Promotion of innovation and technological development	The project will promote technological progress in biodigestion and renewable energies by creating an innovation ecosystem that enhances the competitiveness of the local economy
Contribution to a more sustainable and competitive tourism	By allowing the hotel sector to use the biomethane generated from its own waste, its carbon footprint is reduced, strengthening the image of Gran Canaria as a responsible tourist destination

Social Impacts

Improving the health and well-being of the population	The reduction of polluting emissions will contribute to improving the island's air quality, reducing the incidence of respiratory and cardiovascular diseases
Promotion of environmental education and awareness	The plant will serve as an educational tool with guided tours, workshops and awareness campaigns aimed at the community, promoting sustainable practices
Promotion of citizen participation and community empowerment	Spaces for dialogue will be created to ensure that the concerns and needs of local residents are considered during the implementation of the project.

Environmental Impacts

Contribution to the fight against climate change	The valorization of organic waste to produce biomethane and bioCO2 will prevent the emission of about 10,000 tonnes. CO2 equivalent per year
Improved soil health and biodiversity	Locally produced organic fertilizers will improve soil structure, increase its water-holding capacity and reduce erosion, favoring more sustainable agriculture and biodiversity conservation

Contribution to the SDGs

This ATH Bioenergy initiative is fully integrated into the transition to a cleaner and more renewable energy model, by reducing dependence on fossil fuels, generating savings related to their purchase and promoting the use of sustainable energy sources. In turn, this project reduces the negative environmental impact per capita of cities, paying special attention to the management of organic and other municipal waste. Given the process of creating biomethane, savings in water consumption will be obtained. This project contributes to economic growth and the creation of skilled jobs in the town, as well as to innovation in technology that does not exist in the region today.

The project directly contributes to the fulfillment of the following seven SDGs

Contribution to the SDGs

The sustainable development goals will be monitored throughout the life of the project. Some include:

#7: The tons of biomethane and biogas to be generated will be measured, and how much energy they represent

#8: The number of employees to be hired for the development of the project will be included in the project.

#13: the tCO2e to be reduced by the project will be calculated.

6. Q&A Session

We kindly ask you when submitting questions or comments, indicate your name, position in the community, interest in the project

7. Next steps and continuous feedback mechanisms envisaged

8. Process Evaluation Forms

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Survey 'Stakeholder Consultation for the ATH Bioenergy project'

Name and Surname	
Gender	
What is your relation or interest on the project?	
What is your opinion on the public consultation?	
What things do you like about the project?	
What things do you dis like about the project?	

These data will be used exclusively for statistical purposes, guaranteeing at all times strict compliance with current regulations on the protection of personal data.

Contact: Define the best form of participation

The following contact details are made available to interested parties for the resolution of all queries, concerns and doubts that they may have associated with both the PoA and the VPA Gran Canaria, and the company can respond to it, either before the public consultation or after or for those interested parties who cannot attend the public consultation

Contact person	Carlos Pego
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