Results

- Generation of 800 Kw/h at the Machijure farm. The project is expected to be replicated at other farms to meet all of the company’s energy needs.

Other benefits

- Reduction in the cost of electricity after using the biogas produced.
- Reduction of total emissions by 16,914 Ton eqCO₂/year (78%), compared to a non-biogas system.
- Increase in the quality and comfort of the pigs at the farms with air conditioning using electric power.
- Savings in maintenance costs for equipment, thanks to the reduction of failures due to voltage variations.

Supplier References

Supplier: Gecolsa, tool and machinery.
Contact information: https://gecolsa.com/

Implementing Company

Company in charge of implementing the solution: Grupo Aliar Porcícola
Contact information: Jhoan Hernández.
E-mail: jhoan.hernandez@aliar.com.co

Description

Due to significant difficulties in the supply of power in the region, and the size of the equipment at the Machijure facilities, AGROPECUARIA ALIAR S.A. will provide biogas generated by the digestion of pig manure to use it as fuel to meet the farm’s operating needs and become a self-sufficient company.

Investment and Operating Costs

Costs: 667,743USD For the purchase and installation of biogas energy generation equipment.
Non-monetary costs:
- Motor maintenance: € 0.017/Kwh for each Kwh produced.
- Operation and maintenance of the plant: 5% of the total expenses per year.
- Insurance and overhead: 3% of the total expenses per year.
- Maintenance of other equipment: 14% of the total expenses per year.
Life span: approximately 15 years

Recommendations and limitations

- Approximate annual operation, 7,884 hours.
  It is important to note that the project will be carried out in phases, beginning with Phase I at the Machijure farm.
- Other group farms to reach the 3000Kw/h needed to become self-sufficient.

Cases of Application

Good practices and technology sheet:
- Treatment of pig farming effluents by means of biodigestion for self-use.