

# Pellet Mexico

Waste to Energy

Pellet Mexico takes advantage of agricultural, forestry and organic waste to generate renewable energy.







# The Problem

## Waste and Unsustainability



## **Organic waste**

- The processes of the industries:
  - Forestry
  - Agricultural
  - Food & Beverage
  - Other

They generate waste that could be put to good use: Circular Economy



## **Dependence on fossil fuels**

- The demand for thermal and electrical energy is largely met by:
  - Coal, gas and hydrocarbons
  - Few clean sources to produce thermal energy

**Environmental Damage High Costs** 



## **Climate change**

- High concentrations of gases in the atmosphere
  - Global Warming
  - Environmental degradation

**Ecological destruction** Damage to health Unsustainability

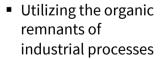


# The Solution

A renewable energy source that uses waste to produce energy in a sustainable way.

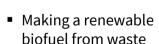


Make the most of waste



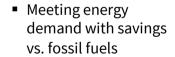


Replaces Fossil Fuels



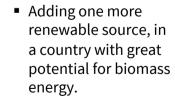


**Savings on Energy Costs** 





Diversify the Energy Matrix





**Emissions** mitigation

 Reducing the greenhouse gases and <sub>CO2</sub> emitted into the atmosphere.



# Our Product

**Solid Biofuels** 



**Pine Pellets** 



# Global Context and Momentum

Global Need | Local Potential | Pellet Mexico: First in the Marketplace





## **Climate change**

- The transition to net-zero requires urgent efforts on as many fronts as possible:
  - Supply Chain
  - Production Processes
  - Power Generation
  - Circular Economy
  - Investment
  - Consumption habits
  - Net-Zero Public Policy

## 1,600 Petajoules

Mexico's biomass energy potential

Market Opportunity



Environment al Need

#### **Pellet Mexico**

First company in the Mexican market on an industrial scale

## **Strategy**

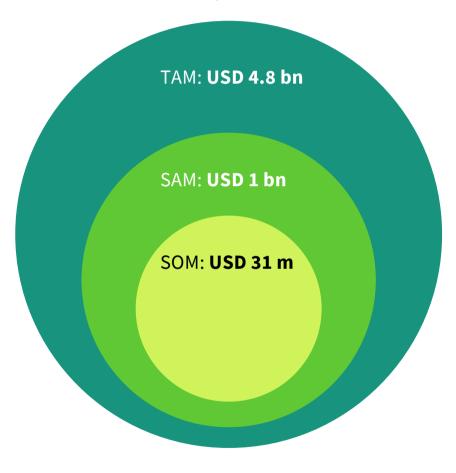


- Build the complete value chain
  - Develop the domestic market



# Marketplace

# LP Gas and Diesel Replacement



#### **Market Size**

#### TAM

- Substitution of national consumption of LPG and diesel in the sectors:
  - Industrial
  - Hotelier
  - Domestic
- Volume: 22 million tons of pellets per year
- Value: \$4.8 billion

#### SAM

- Substitution of national consumption of LP gas and diesel in:
  - Industrial sector
- **Volume:** 4 million tons of pellets per year
- Value: \$1 billion

#### SOM

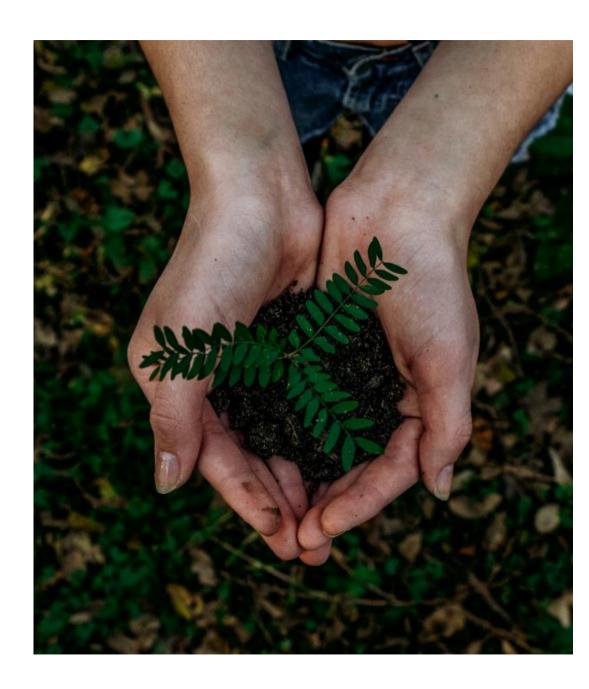
- 0.6% of TAM
  - Industrial sector
- **Volume:** 146,000 tons of pellets per year
- Value: \$31 million



# Pellet Mexico

Waste to Energy Model

# **Business model and about the company**



# **Business Strategy**

#### **Business Model**

# Raw material price control Stabilization of raw material prices with long-term agreements, which guarantee the supply of raw materials.



#### Leading producer of solid biofuels

Sustainable developer of the national thermal bioenergy market. Greenhouse gas and co2 mitigation.

#### Partnership with local producers

Partnership with local producers, owners of organic waste, by means of special vehicles for the construction of plants.





#### **Energy Commercialization**

The replacement of thermal energy with pellets is done locally within a radius of no more than 150 km from the plant.



#### **Location of the plants**

The pellet production plants are located regionally, close to the biomass (raw material).





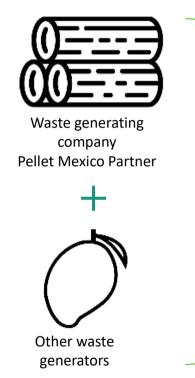
# Substitution of thermal energy with pellets

Support in the adaptation of industrial processes that require thermal energy and use coal, gas and hydrocarbons.

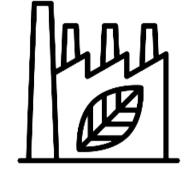


# **Business Strategy**

## Marketing chain







Sale of pellets to the final customer

## **Pellet Mexico Strategy**

#### Sales (B2B)

- Long-term, fixed-price pellet purchase agreements
- An adaptation is made to the customer's existing processes, replacing the existing burners with new pellet burners.

#### Raw Material

- Pellet Mexico partners with waste generators through special vehicles.
  - Incentives are aligned and the supply of material to produce is guaranteed.



# Pellet applications: processes requiring thermal energy









## **Industrial processes requiring thermal energy**

 Examples: food dehydration, drying, steam generation, impregnation...







Industrial processes of mango dehydration and special impregnations

### **Tourist and Domestic Use**

Examples: heating and water heating





Domestic and hotel adaptations



# Strategic Plan

# 200,000 tons/year after a development period of 10 years

2021

## Pellet Valle de **Bravo**

3,000 tons/year pine pellets

2022

#### Pellet Chihuahua

20,000 tons/year pine pellets

#### **Pellet Jalisco**

5,000 tons/year pine pellets

Agave bagasse cogeneration



2023 Pellet Colima

5,000 tons/year pine pellets

2024

#### Pellet Coahuila

30,000 tons/year solid biofuel, avocado seed

2025

#### **Pellet Sinaloa**

30,000 tons/year mango seed pellet 2026

#### **Pellet Chiapas**

30,000 tons/year palm rachis pellets

2027

2031

Additional production of 15,000 tons/year















# Strategic Plan

Growth: Phase 1



Phase 1. Development Investment: \$2.2 million







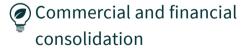












June 2021

June 2022

December 2022

June 2023











# Strategic Plan

Growth: Phase 2



Phase 2. Scalability Investment: **\$10 million** 





- Opening of regional markets
- Expanding supply and assurance capacity on the matter
- Scale up production 15,000 tons/year after 2027
- 200,000 tons/year in 10 years
- Replicating the model in Latin America
- Access to the international export market



# Acknowledgements

## One of the 1000 Efficient Solutions to Take Care of the Environment



- An audit was made to Pellet Mexico focused on:
  - Business Model
  - Energy solution

# SOLAR**IMPULSE**

Click to read Pellet Mexico's profile on SOLARIMPULSE

**FOUNDATION** 

## **Solar Impulse Foundation**

 Pellet Mexico's business model was named one of the 1000 efficient solutions to protect the environment.

#### Key Features:

- Environmental way to reuse forestry, agricultural and food production waste.
- Safe and risk-free combustion process
- Highly effective and low-cost industrial adaptation

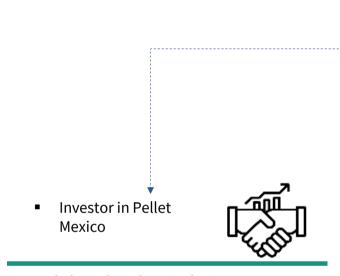
#### Profitability

- 40% savings, average vs. traditional fossil fuels
- 25% savings, average vs. LP Gas



# Advantages for a Strategic Partner

# Financial investment | Use of waste



- Strategic Partner; and/or
- Customer; and/or
- Supplier



- Strategic Partner; and/or
- Customer



## **Participation in Serie A**

Return on financial investment

## **Industrial Benefits**

Additional income from the use of organic waste

Industrial Partner

Using Biofuel Pellets to meet your thermal energy needs

# **CO2** Mitigation

 Carbon neutrality, reducing fossil fuel consumption and giving a second chance to organic waste.



# How can Pellet Mexico help your organization?

## Value creation opportunities

Are you a waste generator?

Pellet Mexico helps you find a sustainable use of your waste

Production



Solves the problem of waste management

Saving

Earn Money

**Pellet marketing** 

Are you a thermal energy consumer?

Pellet Mexico helps you to use pellets as a renewable biofuel

Burner adaptation

Pellet



Pellet Supply









Saving



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