

## SELECTED BEST PRACTICES CASE STUDY

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### 1. GENERAL INFORMATION

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- a. **Case Study name:** Sale of heat, logistics and marketing of wafers
- b. **Location:** Arsenal - 65300 LANNEMEZAN - Siège social : 6, rue du Barry 31210 Montréjeau
- c. **Priority issue:** Energy production

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### 2. CONTACT INFORMATION

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### 3. CONTENT: Information gathering and analysis

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- a. **Type of practice:**
  - Extraction
  - Transformation
  - Demand
- b. **Position in the value chain:** The company designs small to medium power mobile wood boilers and produces and delivers quality wood chips with traceability.
- c. **Structure:**
  - o **Size of the company:** two employees
  - o **Existence of other business lines:** Design office; this work consists of defining the categories of buildings whose operating characteristics, needs and uses of heat, are most conducive to the use of wood energy. The need for domestic hot water, the heating period, the geographical situation, the distance of the buildings as part of a heat network, the occupancy rate of the buildings, the intermittency of the needs are taken into account.
  - o **Required investment:** Le cout dépend de la taille de la puissance de la chaudière qui peut concerner un bâtiment ou un regroupement de bâtiment (réseau de chaleur). Le coût d'investissement est de 0€ pour le client.
  - o **Funding sources:** In France some public funding can be targeted towards this tool: Feder, Ademe (State), Region

- **Task Force: *The Forest Communes*, the *National Forest Office*** and the private forest owners offer with ESTERA a wood energy supply service to communities, tertiary establishments and businesses in rural areas, closer to the resource. With ESTERA, **forest owners and managers** are committed to developing a local economic sector that preserves the balance and diversity of our forests. Lastly, investors are interested in developing an optimized energy wood sector that responds to local issues such as **AREC Occitanie** (Occitanie Region), positioned as an investment operator in renewable energies, with the support of **Caisse des Dépôts - Banque des Territoires** and **Engie Rassembleurs d'Énergies**, a subsidiary of the group specialized in supporting projects working for access to clean and sustainable energy for all.
- **Actors involved:** Local elected officials, Public and private forest managers, Companies involved in local procurement logistics

**d. Field of:**

- Disadvantaged groups integration**
- Entrepreneurship and company start up**
- Social responsibility of the company**
- R&D Research**
- Equal opportunities between women and men**
- Others:**

**e. Implemented business model:**

- **Idea / business opportunity :** Feasibility study and decision support
- **Marketing model :** service delivery, accompaniment
- **Costumers profile :** Local communities, private enterprise.

**f. Economic impact:** Estera develops a business plan according to the territorial objective of development of the sector and the partnership of actors: Investment plan in boilers at the scale of the territory; Equity financing assumptions / bank loan / subsidies / CO2 Tax - Energy Saving Certificates (or equivalent); Positioning and pricing strategy of heat sold; Annual production in MWh of the boilers of the investment plan; Loads of wood supply according to local conditions; Maintenance expenses and repair provisions; External charges and services; Amortization of financial equipment and expenses.

**g. Degree of innovation:**

- **In products or services:** la mobilité des chaudières bois est une innovation
- **In products or services:** Improved products or services.

- **In organization methods:** taking into account all the needs and grouping of different actors from the upstream to the downstream sector.
- **In marketing and commercialization.**

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#### 4. RESULTS

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- a. **Effectiveness or degree of compliance of the objectives:** Very effective
- b. **Effectiveness or degree of compliance in relation to used resources.** Results achieved
- c. **Scope or extinction of the influence of the practice.** The practice has influenced the development of this type of model since in 3 years, the number of mobile boiler has been multiplied by 2.
- d. **Efficiency rate:** highly efficient, the feasibility study upstream allows elected officials and / or companies to have a business plan and trigger the establishment of this type of installation. 80% of the studies trigger the installation of a wood energy mobile boiler.
- e. **Degree of sustainability:** Estera has been able to forge links with all the players since its creation in 2014 which ensures the sustainability of the company and its development, as well as the impact on the short circuit sector of the territory.
- f. **Transferability:** yes, across all territories to create the link between rural and forest territories and urban territories
- g. **Products:** the feasibility study allows to define the most suitable buildings for wood energy, to make a thermal analysis of the buildings concerned and to design the modular boiler most adapted to the needs. In parallel, Estera has been able to structure a sustainable wood energy sector to the size of mountain territories, and offers wood energy at the best price to users of these territories.

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#### 5. CONCLUSIONS

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**a. Impact and utility of the best practice**

Estera with its concept was able to convince the communities, at first, and demonstrate the interest of the model that knows a real progression today.

**b. Main lessons learned**

This model was put in place because local communities played the game by installing boilers; thus the model could be visible and could reproduce itself