



Good practices sheet  
Energy savings in sawmills

**WOOD-FIRED BOILER - COGENERATION**

### INVESTMENT LEVEL (FROM 1 TO 3):

- ▼ HUMAN INVESTMENT : 🖐️🖐️🖐️
- ▼ RETURN ON INVESTMENT : ⌚⌚⌚
- ▼ COSTS : €€€

## BACKGROUND AND ISSUES

In order to deal with the recurrent increases in energy prices and optimise fuel resources produced by sawmills, manufacturers are looking closely at an energy supply solution using wood. This non-fossil energy source, available on site in significant quantities, provides long-term economic visibility as well as the opportunity to structure and boost the non-recoverable products of the sawmill industry.

## PRESENTATION OF THE PLAN AND ITS IMPLEMENTATION

The aim is to replace current boilers (gas, fuel oil, etc.) with a boiler fuelled by wood. The boiler provides the heat (water or steam) for the driers or granulation units (pellets).

In France, in larger installations (over 5 MW), it is possible, subject to validation in the form of an ERC<sup>1</sup>, to add a turbine for the production of electricity (cogeneration) sold to EDF at preferential rates.

Set-ups observed during visits to sawmills in France

Sawmill number	Number of boilers/site	Fuel			Destinations of the energy produced		
		Bark	Shred	Dry chips Dry shavings	Pre-driers Driers	Building	Granulation
3	1	X	X		X		X
4,17	2	X			X		
5	2	X		X	X	X	
11, 14, 15	1			X	X	X	
9, 13	1	X			X	X	
6	2	X		X	X	X	

<sup>1</sup> ERC : Energy Regulatory Commission setting the feed-in tariffs (bidding process)

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## POTENTIAL GAIN

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- Energy savings as a result of the technology<sup>2</sup>: 5 to 15%

In France:

Possibility of receiving a bonus for installing a heat recovery system. This is paid by the energy suppliers within the framework of the "Energy Savings Certificate" (ESC) programme. This bonus can vary from one supplier to another.

- Other improvements:
  - Reduced dependence on fossil fuels
  - Reduced environmental impact
  - Sustainability of PCS<sup>3</sup> outlets

- Points to note:

The decree of 27 January 2011 stipulates limits for dust emissions and a requirement to submit an annual operating report containing, in particular, the supply plan for the installation.

- Reproducibility:

This system is one of the priorities in the development of renewable energy.

Sawmill-related activities have a zero carbon balance: CO<sub>2</sub> emissions linked to the burning are compensated for by the amount of CO<sub>2</sub> absorbed during tree growth.

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<sup>2</sup> Source : drier supplier

<sup>3</sup> PCS : *Produits Connexes de Scierie* – Sawmill by-products

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