



Good practices sheet
Energy savings in sawmills

LIGHTING

INVESTMENT LEVEL (FROM 1 TO 3):

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

BACKGROUND AND ISSUES

Lighting is a cost factor that is poorly understood by companies on account of it being included in the overall cost of electricity consumption. Efficient lighting adapted to suit the environment has a number of positive effects: principally in terms of energy savings, but also in improved working conditions and greater profitability from higher productivity.

In general, operating and maintenance costs can represent up to 90% of the overall cost, while the remaining 10% consists of investments.

PRESENTATION OF THE PLAN AND ITS IMPLEMENTATION

Sawmills have become aware of the need to gradually change their lighting equipment in the normal course of required replacements and in terms of the overall cost.

- Enterprises are gradually moving from a conventional form of halogen lighting to the use of LED spot lamps. The fluorescent tubes with electronic ballast consume 2 to 3 times less than the ferromagnetic ballast (prohibited in Europe since 2005), while reducing the unit consumption of the lamp for an additional 50% of working life;
- In order to increase the energy gains of these lamps, a system is being developed for the programming of operating hours in line with actual working hours;
- The companies have sectorised lighting allowing limited use;
- In addition, the sawmills have presence detectors and/or timers and/or twilight detectors controlling lighting in line with the exterior luminous intensity;

Some sawmills prefer natural lighting and install skylights.



Source : FCBA

Bank of "neon lights" and skylights

POTENTIAL GAIN

- Energy savings: extremely variable, from 20 to 30%, depending on the characteristics.

Examples in sawmills visited:

Sawmill no. 5: twilight detector (LUMANDAR: €250/item) and Sodium lamps (140 W instead of 1500 W) with low intensity light. The return on investment is estimated at several months;

Sawmills no. 6 and no. 8: workshops fitted with skylights (no artificial light) and offices with large windows.

- Other improvements:
 - Increased productivity (improved production conditions);
 - Environmental benefits (fewer lamps need to be changed, collected, processed, etc.).
- Points to note:

The success of these measures depends largely on the involvement of the staff: without this, the positive effects may be undone (ongoing education in compliance with instructions).

- Reproducibility:

The best systems should be adapted to the specific requirements of each enterprise (desired luminosity, layout of the building, etc.).

More than 70% of the information we receive is through our eyes!¹

¹ Source: <http://www.syndicat-eclairage.com/upload/energie/30.pdf>