



Comité Interprofessionnel du Bois Énergie

Presentation of the Organization

CIBE, January 2020

The Comité Interprofessionnel du Bois-Energie (CIBE, or Interprofessional Wood-Energy Committee), a non-profit group set up in 2006, brings together players involved in collective and industrial heating systems based on wood and other ligno-cellulose biomasses, including combined heat and power production, in homes, the service sector, heating networks and manufacturing companies.

The CIBE brings together and coordinates the ideas of (often small scale) players from throughout France in order to professionalize practices “from nursery to ash”, lay down the rules of the art, train professionals and promote average and high-power boilers (including cogeneration) among public- and private-sector decision-makers.

As a professional platform of exchanges in which all professionals of the wood energy sector are represented, CIBE is used to coordinate all the wood energy professionals. He made several surveys to analyze local situations. In addition, CIBE works on the implementation of inter-regional platforms and has an observatory of tertiary collective boilers / dedicated or district heating, industrial boilers. It's also a member of the CSF (Strategic Committee of wood industry) that works on tensions between supply and demand. Furthermore, CIBE works upstream on feedbacks on the different ways of mobilizing (additional) resources used in France and downstream on rates, investment and operating costs by technology, based on land back.

Based on documented technical-economic requests, the CIBE steps in nationally with institutions, trade groups, the media, etc. and regionally exclusively in support and at the request of organizations and players on the ground.

CIBE members

The Comité Interprofessionnel du Bois-Energie (CIBE, or Interprofessional Wood-Energy Committee), a non-profit group set up in 2006, brings together players involved in collective and industrial heating systems based on wood and other lingo-cellulose biomasses, including combined heat and power production, in homes, the service sector, heating networks and manufacturing companies.

Its 150 members are divided into five groups upstream and downstream in the process:

1. “Resource/Ownership” includes forest owners and managers, farmers, forestry and agricultural organizations and their professional structures.
2. “Bio-combustible producer” includes recycling collection company, wood fuel dealers, sawmills...) and their professional organizations.



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3. “Territorial Animation” brings together local structures that support the development of wood-energy sectors, including associations and their groupings, local and regional energy and environmental agencies.
4. “Project Management/R&D” includes associations of local communities, departmental and regional communities, experts and research organizations, architects, research centers, technical centers, teachers, academics, financial institutions, social landlords and their groupings...
5. “Realization/Exploitation” includes energy suppliers, energy service companies, construction companies, equipment manufacturers, and their professional organizations.

The CIBE’s activities

In order to share experience and knowledge, the CIBE has set up four permanent working committees focusing on the following issues:

- **BBS**: supply of boilers and biofuels
- **FBK**: design/construction/operation feedback
- **SPW**: survey and promotion of wood-fired heating systems the service sector, heating networks and industry (surveys and monitoring of wood-fired heating/promotion of wood as a power source in various areas of use)
- **PO**: organization of administrative, financial and taxation projects (financial tools for setting up projects, subsidies, energy taxation, VAT, CO₂ quotas, energy savings certificates, etc.)

The committees meet separately at least two times a year to discuss current issues and present their ideas to all the CIBE’s members at plenary meetings. Members are asked to join one or more committees, depending on their areas of expertise, to constructively share and exchange ideas in these working groups.

Every year the CIBE holds a symposium in a different region in cooperation with a regional structure focusing on a current theme involving the wood-energy sector:

- «Wood energy : origins and uses – local and international flows » in Strasbourg in 2018
- « Wood waste : new development for energy ! » in Le Havre in 2017
- « Wood energy : maintenance of boilers in the time » in Bordeaux in 2016
- In its 10th year in 2015 «the goal of 2030 for the wood Energy » in Paris
- « rallying of resources » in Reims in 2014
- “Collective and industrial heating systems: best techniques and best practices” in Dijon in 2013
- “Local authorities and professionals: essential cooperation to develop wood energy” in Toulouse in 2012

In 2019 the symposium was replaced by a special wood energy event in Paris the « Journée



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bois-energie ». This event gathered various professionals of the wood energy sector.

The CIBE also publishes and widely circulates a periodic newsletter focusing on news, work under way and the organization's activities.

A website promotes those activities and offers members a privileged access to many working documents and presentations. To find out more, visit www.cibe.fr.

Example of works

Regional meeting and workshops (PACA included) (2009-2012)

From 2009 to 2012, the Committee held nine regional meetings whose purpose was twofold:

1. Identify the key players in the upstream sector, exchange and debate among professionals about the dynamics of mobilization of wood resources and the organization of the supply of fuel wood;
2. Establish the situation and make recommendations to ensure the rise of wood energy at regional level by securing the supply of boiler:
 - . improvement of tools and / or measures of resource mobilization;
 - . evaluation of potential synergies offers fuels (complementary courses).

Investigation on the decomposition of wood fuel costs

Identification and analysis of the cost structure of fuels used by wood boiler to contribute to a better indexing of contractual price adjustment formulas. It offers decomposition types and analyzes the adequacy cost of production / sale price of fuels;

Contracts for the supply of wood fuels

The quality of the fuel supply process begins with the establishment of a contract between the supplier of wood on the one hand and the owner or operator of the boiler on the other. It follows a precise specification and a serious discussion leading to a compromise between the two parties. The committee worked on this topic and provide documents (Preparation of a pre- writing assistance contract document, standard contract should be adapted to each case, Compilation of good practices traceability and quality control of fuel delivered) and analysis:

- Reflection and simulations for framing formulas for revision of prices of wood based on wood energy indices of CEEB and others regarding the various components of the final price ;
- Survey protocols and equipment used in the boiler and / or suppliers for measuring the moisture content of delivered fuel rate and the need to improve systems depending on the nature of projects;
- Experience feedback between customers and suppliers, depending on the size of boiler on issues invoicing according to the quality of wood fuels and means implemented to characterize.



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Publications, and/or products, services (including widely-used datasets or software)

Development of a business case for wood energy projects, varying technical and economic parameters, based on real cases "referents", simulator (2011);

To analyze the sensitivity of the profitability of wood energy projects to the change in techno-economic parameters, CIBE developed a simulator calibrated and based on real case "referents".

Six study cases were drawn (dedicated boiler or heating network in three power ranges wood - small, medium and large). For each, the average ratios for the following parameters were applied:

- Structural (fixed value): overall efficiency of the installation, coverage needs for wood, duration and rate of funding, average investment per wood kW and per linear meter of network;

- Variables: power wood boiler, amount of energy distributed, network length, wood prices, price of fossil energy reference and extra; for three technical parameters, a permissible range of variation is defined.

The simulations are used to measure the relative influence of parameter variation on: economy compared to the energy bill of reference, return to the financier and public financial support.

Resources and tools for mobilizing additional forest biomass (2012)

Based on the balance sheets of these regional meetings, the Committee drew up in 2012, an overview of resources, tools and support available and the constraints on the mobilization of additional forest biomass taking into account regional variability. It has also made proposals to fund relevant resource mobilization measures adapted to the territories.

Simulations of combined electricity and heat from wood production (analysis of changes of tariff orders) (2012);

The CIBE has made economic simulations electricity production from wood in a power range of 0.5 to 5 MWe of district and industry boilers, considering the chains "conventional Rankine cycle" (boiler steam associated with steam turbine) and "organic Rankine Cycle" (thermal oil boiler associated with a circuit and an organic fluid steam turbine).

Two principles guided the implementation of these simulations:

- Global high energy performance, resulting in savings of primary energy;
- Priority to use local resources, which implies a decentralized production.

Summary of best practices facilitating the monitoring supplies (2012);

Summary of good practices (standard documents...) to facilitate compliance with the recommendations of financial institution for monitoring supplies (requirements to suppliers and developing a fuel balance at the base in the context of audits)



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Comparison of different support systems for the production of energy from biomass (2012);

This note aims to compare the different modes of support of the production of heat and electricity, differentiated or simultaneously (cogeneration), according to different criteria:

- Economic efficiency of financial support (€ / MWh valued);
- Total amount of financial support per project (M €)
- Total amount of financial support per project based on the amount of investment (%).

Current and future work

The CIBE set its work program for two years and for each commission.

- Commission **BBS**
 - Summary of the recommendations concerning the implementation of storage platform
 - Recommendations about the interpretation of chemical analysis
 - Follow-up work of the storage and safety of wood chip norm
 - Technical day “supply”
- Commission **FBK**
 - Civil engineering: with a focus on the smoke duct
 - Template of an operating contract
 - Recommendations for the general safety in a boiler plant
- Commission **SPW**
 - Census of the wood-fueled plants
 - Creation of a soliciting kit for the use of wood-energy facilitators
 - Promotion of the wood-energy facilitation action during a forum
 - Annual meeting of the wood-energy facilitators
- Commission **PO**
 - Creation of a “toolbox” for project elaboration
 - Reflection on low-density thermal areas
 - Technical analysis of heating network with the SNCU
 - Online formation on the industrial approach with a focus on the economical aspect

By joining the CIBE you will:

1. be able to exchange on **specific technical issues** and respond collectively with the help of various feedbacks. You can take part in the committees of your choice, and exchange between committees during plenary meetings.
2. Have access to a **dedicated space** on the CIBE website which is powered by all the committees' reflections.
3. Benefit from **preferential rates** applied on all events organized by the CIBE (annual conference, technical days...).