

BRANCH AGREEMENTS IN WALLONIA

at the crossroad between economic reality and energy climate policy



Wallonie

Air  Climat
agence wallonne de l'air & du climat


Service public
de **Wallonie**



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INTRODUCTION

ENERGY/CO2 SECTORAL AGREEMENTS

For around ten years, the Walloon energy policy in industry has primarily focused on the signing of voluntary agreements, known as sectoral agreements between regional authorities and industrial sectors.

Depending on the terms of these agreements, by 2012, each the industrial sectors agreed to improve their energy efficiency and their efficiency with regards greenhouse gas emissions (mainly CO2). In return, the regional public authorities agreed not to impose any additional regulatory measures on the contracting companies regarding energy or greenhouse gas emissions covered by the sectoral agreement. They also pledged to defend the principle of an exemption from any energy/CO2 tax, or at least its effects, with the national and European authorities.

GRADUAL PARTICIPATION

The first two agreements were signed in 2003 with the Federation for Chemical Industries (Essenscia) and that of the pulp, paper and boards industries (Cobelpa). In 2004, as these agreements developed, most of the industrial sectors also committed to the process.

In late 2012, as the process drew to a close, there were no fewer than 172 companies and 205 operating locations, across 16 agreements in 13 industrial federations, successfully meeting their objectives. In total, these companies represent over 75 % of the energy consumption of Walloon industry.

Federation	Sectors	Number of participating companies at the end of 2012	Number of operating sites at the end of 2012
GSV	Steel industry (cold)	6	9
ESSENSCIA	Chemistry	28	31
FEBELCEM	Cement works	3	6
FIV	Glass	8	10
FEVIA	Food	49	49
LHOIST	Lime	3	3
COBELPA	Paper pulp and packaging	4	5
CARMEUSE	Lime	3	3
AGORIA	Metal and electrical manufacture	10	11
FBB - FEDICER	Bricks and ceramics	5	10
FEDIEX	Quarries	9	19
FEDUSTRIA	Textile, wood and furnishing	7	7
AGORIA	Foundries	7	7
FETRA - FEBELGRA	Printing and graphic industries	7	7
AGORIA	Technology industry	17	22
AGORIA	Non-ferrous	6	6
Totals		172	205

RESULTS THAT EXCEED EXPECTATIONS

In view of the various commitments made by the industrial sectors when the agreements began, a 10 to 11% energy efficiency improvement in Walloon industry was expected over ten years. However, due to the enthusiasm of our companies, the results have exceeded our expectations and we can proudly announce that the efficiency of the Walloon industry has improved by a 16.5% in energy and a 19.3% fall in CO2 emissions. This amounts to annual energy savings of 7.94 TWh and over 2.29 million tonnes of CO2 not emitted into the atmosphere each year.

7. Every company reports to its federation annually on the progress made. The federation produces a consolidated progress report.

These agreements have the status of environmental conventions. The European Commission has approved the entire process and is kept regularly informed of its development.

ENERGY AUDITS

The energy audits provide a detailed breakdown of energy flows across all the activities of each industrial site and identify a range of improvement measures, each characterised by:

1. An assessment of the measure's feasibility:

Category A: feasible,

Category B: feasible using an additional pre-feasibility study,

Category C: to be considered when the opportunity arises or when the technology to be implemented is deemed mature enough;

2. An assessment of its cost-effectiveness (based on the calculation of a payback period).

All audit results are sent to the regional government for validation.

COMMITMENTS

Each company establishes an objective to improve energy efficiency and reduce greenhouse gas emissions using the areas for improvement identified by the audits. The objective must at least match the improvement that would be achieved by implementing all A-rated areas for improvement and have a payback period of less than or equal to 4 years (sometimes 5 years). Current or recently completed measures are also taken into consideration. Similarly, investments already planned by the company are included in the calculation of the objective, even if they do not satisfy the feasibility and cost-effectiveness criteria.

The companies agree on their objectives and not on achieving the areas for improvement that were identified by the audit to calculate them. This approach allows technological advances and changes to manufacturing procedures to be taken into account over the ten years covered by the agreement, thereby allowing the company to choose the investments they actually make.

Insisting that companies consider all feasible investments with a payback period of up to 4 years in order to define their objectives, makes the cost-effectiveness criteria ambitious compared to the usual requirements in the absence of a sectoral agreement, which often eliminates all investment proposals where the payback period exceeds 2 years.

MONITORING COMPANIES' PROGRESS: EFFICIENCY INDICATORS

Progress made during the sectoral agreement is measured by the annual calculation of an energy efficiency indicator (Indice d'Efficiency Energétique : IEE) which is the ratio between:

- the site's total consumption for the year in question (expressed in primary energy units);
- the energy consumption that would have occurred for the same production as that of the year in question, but under the hypothesis that the performance of the production facilities was that of the reference year which served as a basis during the energy audits (often called «reference energy consumption»).

A greenhouse gas emissions indicator (Indice d'Efficiency en matière de Gaz à Effet de Serre : IGES) relating to the reduction of CO₂ emissions is created in the same way, once the auditor has identified the energy carriers used and applied emission factors to them.

MONITORING THE INDICATORS AND CONSOLIDATION AT SECTORAL LEVEL

The development of these indicators is calculated annually and compared to the objectives. Mid-term objectives are also prescribed in order to ensure that improvement becomes a continuous process within the companies. At the end of the sectoral agreement period, the indicators must have met or exceeded the commitment objectives.

The consolidation of the companies' sectoral commitments is performed in the same way. It is validated by an independent technical expert appointed by the public authorities, who ensures among other things, that all the companies involved in the process are part of the sectoral effort. The expert also ensures that the companies commit to making an effort equivalent to that which is determined by all the feasible areas for improvement with a payback period less than or equal to 4 years.

INSPECTION AND MONITORING

The sectoral agreement and sectoral energy efficiency action plan are public documents. The sectoral plan specifies the number of areas for improvement sorted into categories, as identified in the audits, their improvement potential and their breakdown by type of measure. It also states those areas that have been selected to define the objectives to be achieved.

The implementation of each agreement is monitored by a steering committee comprised of an equal number of representatives from the public authorities and the sector. The steering committee solicits the advice of the technical expert responsible for defining the methodological aspects of the agreements' implementation and calculating the performance indicators.

Every year, each sector submits an annual progress report to its steering committee, which must review and approve it. The committee must also ensure that any changes to data or tools are correctly taken into account and documented. Individual company data is strictly confidential.

Audit data along with all data which is required to calculate the development of the efficiency indicators remains confidential, but is officially lodged with a solicitor and can be viewed by people authorised by the steering committee. The accounting data needed to calculate the efficiency indicators is verified and certified by an independent statutory auditor.

Furthermore, the sectoral agreements also provide for the regular intervention of an inspector who examines whether the individual company results have been correctly consolidated.

PUBLICITY SURROUNDING THE AGREEMENTS

The text of the agreements provides that the Walloon Government, Parliament, the Walloon Region Economic and Social Council (GESW) and the Walloon Council of the Environment for Sustainable Development (CWEDD) and the general public are regularly informed of the progress of the process. By mutual agreement, the sectors involved in the agreements have decided to produce and distribute an annual report (<http://energie.wallonie.be>). The European Union also receives this report.

DEVELOPMENT OF THE PERFORMANCE INDICATORS

The diagrams below show the development of the consolidated performance indicators over all participating sectors in Wallonia over the period covered by the sectoral agreements.

Overall improvements of around 10 or 11% were initially expected. However, along the way certain objectives were revised, usually upwards which raised expectations to 13 to 14% (red line).

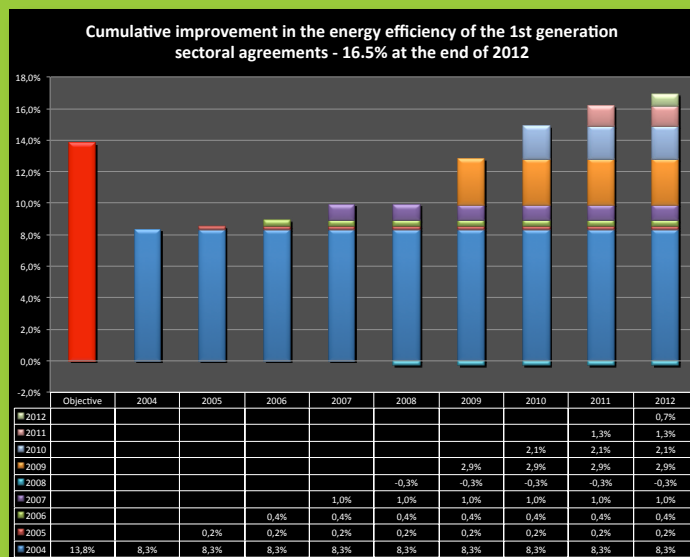
As these two figures show, the results observed at the end of the agreement (2012) exceeded all expectations, since we achieved 16.5% in energy and almost 20% in CO₂.

There were two major contributing factors to this. The first from 2004 (blue line), the second in 2009.

The first combines:

- the impact of the measures taken by companies between the year used as a basis for the energy audit and the auditor's visit, an impact which only appeared during the first year of monitoring the sectoral agreements;
- the impact of all the measures identified by the auditor that did not require any timescale for implementation, such as behavioural measures.

The second is more surprising: in 2009, the industry as a whole experienced dramatic falls in production volumes, against the backdrop of an extraordinary economic crisis. The expectation would have been for this to lead to a significant deterioration in the performance indicators, since the role of the production tools is only very partial. However, this was not the case and these indicators improved significantly. Indeed, it seems that industries have been able to take advantage of the knowledge acquired about the energy performances of their tools under the sectoral agreements and thus optimise the operation of their facilities by focusing production on the most efficient tools.

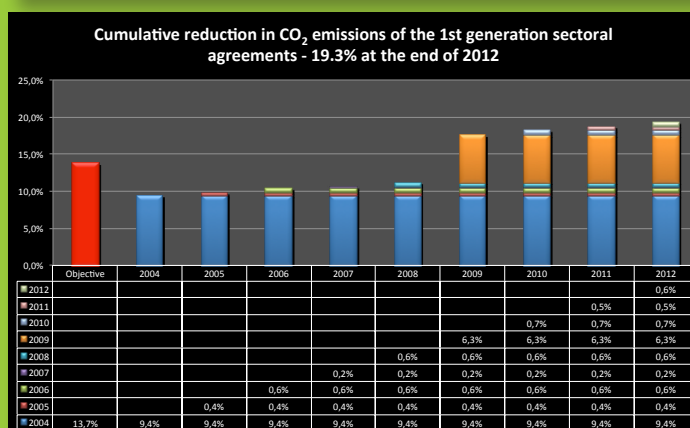


PERFORMANCES BY SECTOR

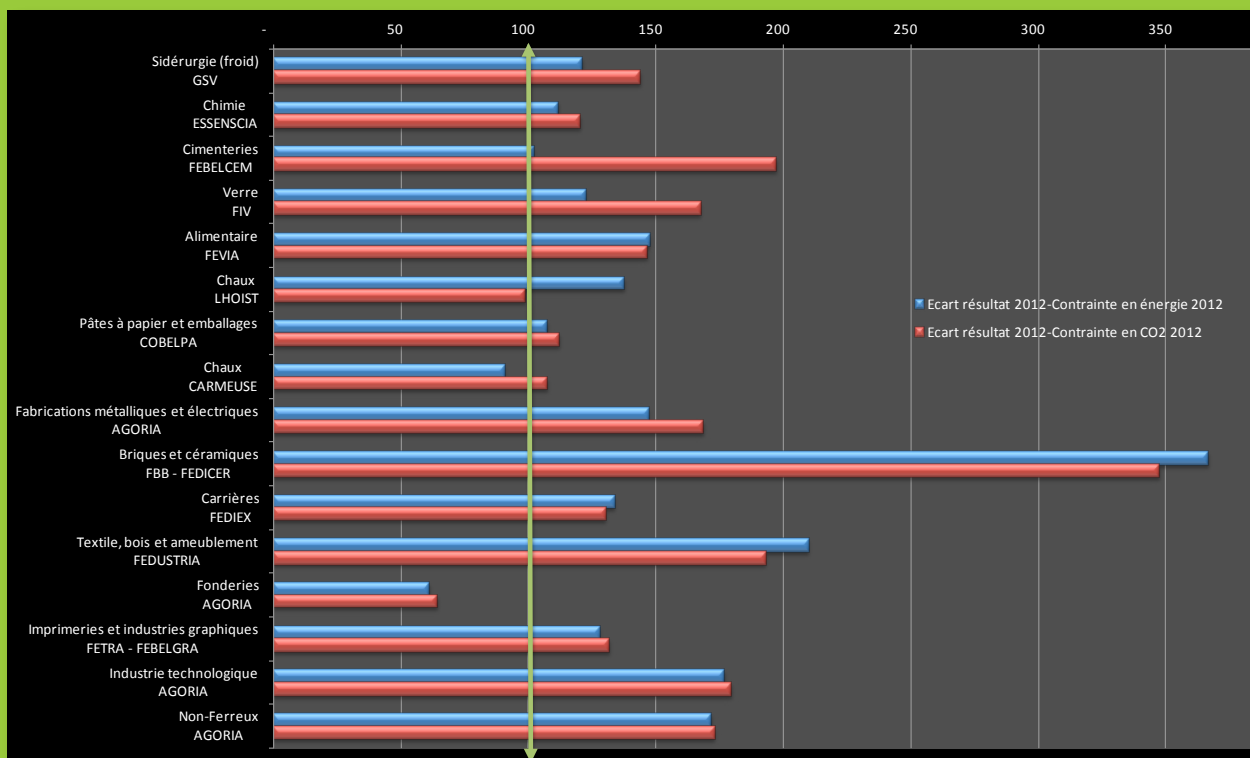
Objectives and achievements can vary greatly between sectors. Some sectors announced extremely ambitious objectives (from 20 to 33 or even 35%), others identified more modest and even weak improvement potentials (2 to 3%).

In the figure, for every sector, the 100 line corresponds to the achievement of the objectives. If one of its indicators is to the right of this 100 line, the sector has exceeded the corresponding objective. If the indicator is to the left, the sector has not satisfied its objective.

As we can see, there is a diverse range of results. Most of the sectors met their objectives. Some exceeded them, sometimes considerably. Two agreements only met one out of the two objectives, but a detailed analysis of the situation shows that in fact the difference between the objectives and the values achieved by the indicators fall within the margins of error. This means that the objectives can indeed be considered as being achieved. However, for the last sectoral agreement, the government decided to apply Article 15 of the convention, whereby a compliance plan is proposed to the sector and the achievement of the objectives will only be formally recorded by the government in accordance with the deadlines for compliance.



Federation	Sectors	2012 Compulsory energy objective	Result end of 2012	2012 Compulsory CO2 objective	Result end of 2012
GSV	Steel industry (cold)	8,37%	10,1%	8,33%	12,0%
ESSENSCIA	Chemistry	20,00%	22,3%	20,00%	24,0%
FEBELCEM	Cement works	8,30%	8,5%	9,50%	18,7%
FIV	Glass	14,60%	17,9%	13,60%	22,8%
FEVIA	Food	13,95%	20,6%	18,92%	22,7%
LHOIST	Lime	2,80%	3,7%	6,50%	6,3%
COBELPA	Paper pulp and packaging	33,00%	35,5%	35,00%	39,1%
CARMEUSE	Lime	2,40%	2,2%	1,40%	1,5%
AGORIA	Metal and electrical manufacture	19,00%	27,9%	18,30%	30,8%
FBB - FEDICER	Bricks and ceramics	2,74%	10,0%	2,78%	9,7%
FEDIEX	Quarries	8,59%	11,5%	8,77%	11,4%
FEDUSTRIA	Textile, wood and furnishing	7,10%	14,9%	7,20%	13,9%
AGORIA	Foundries	7,10%	4,3%	6,70%	4,3%
FETRA - FEBELGRA	Printing and graphic industries	12,60%	16,1%	12,80%	16,8%
AGORIA	Technology industry	18,20%	32,1%	18,10%	32,5%
AGORIA	Non-ferrous	21,00%	36,0%	21,00%	36,3%



Technology is the driving force for Agoria's sectors, not only because the companies use technology, but also - and above all - because they offer technological solutions to almost all other economic sectors, including capital goods, new materials, computer networks, communication systems, medical instruments, machine tools, etc. Today, a significant majority of everyday objects are produced by the technology industry.

In view of the large number of companies and the desire to create a process per sub-sector, 4 agreements were created over the sectoral agreement period.

Metal and electrical manufacture agreement

The sites are making every effort and adding many areas for improvement during the commitment. Efforts are being made at all levels and ideas affect the entire site. If we look at the progress over the last 10 years, then 321 areas for improvement have been addressed, of which 255 have been achieved, 57 are in project phase (and sometimes put on standby due to the economic situation, etc.) and only 35 have been abandoned. There are 4 areas for improvement without any information regarding whether or not they have been achieved.

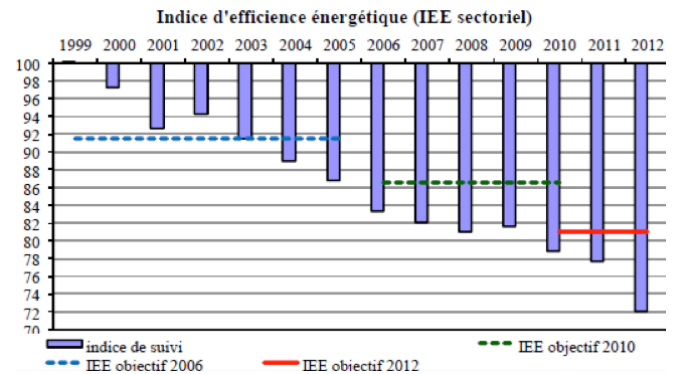
Profile

Sector turnover in Belgium: € 2,918 million
Number of jobs in Wallonia: 10.400

Sectoral agreement data

Number of participating companies: 10 (11 sites)
Total energy consumption: 3.326.302 GJp
Percentage consumption of the Walloon sector: Not supplied
Total CO2 emissions: 188.675 tonnes.
Energy objective: 19 % in 2012
CO2 from energy objective: 18,3 % in 2012
Actual energy efficiency improvement: 27,9 %
Actual improvement in CO2 emissions: 30,8 %
Date agreement signed: 7 June 2004

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



The development of the IGES indicator is similar to that of the IEE.

Technology industry agreement

Similarly, if we look at the progress over the last 4 years, more than 310 areas for improvement have been addressed, of which 196 have been achieved, 24 are in project phase (and sometimes put on standby) and only 60 have been abandoned.

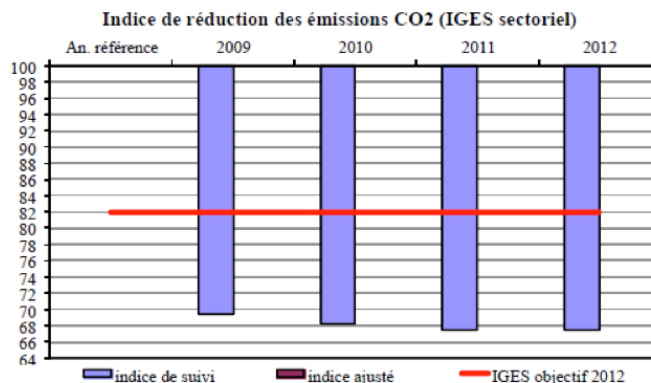
Profile

Sector turnover in Belgium: € 11,532 million
Number of jobs in Wallonia: 50.810

Sectoral agreement data

Number of participating companies:	17 (22 sites)
Total energy consumption:	889.635 GJp
Percentage consumption of the Walloon sector:	Not supplied
Total CO2 emissions:	50.632 tonnes
Energy objective:	18,2 % in 2012
CO2 from energy objective:	18,1 % in 2012
Actual energy efficiency improvement:	32,1 %
Actual improvement in CO2 emissions:	32,5 %
Date agreement signed:	22 Dec 2009

Development of energy efficiency (EEI) and greenhouse gas emission (GGEI) indicators



The development of the EEI is identical to that of the GGEI.

Non-ferrous agreement

Again, 10 years of commitment have produced more than 112 areas for improvement, of which 75 have been achieved, 12 are in project phase (and sometimes put on standby) and only 25 have been abandoned.

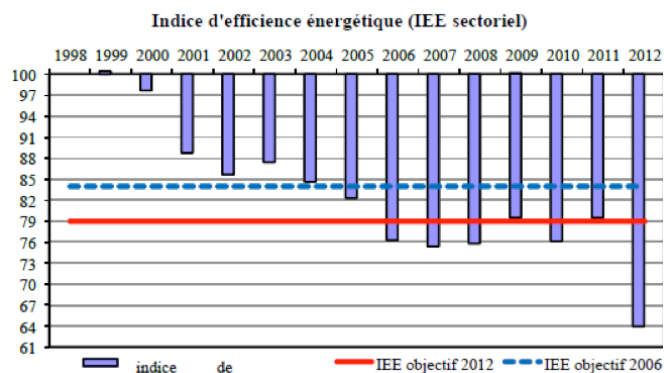
Profile

Sector turnover in Belgium:	€ 237 million
Number of jobs in Wallonia:	605

Sectoral agreement data

Number of participating companies:	6
Total energy consumption:	791.809 GJp
Percentage consumption of the Walloon sector:	Not supplied
Total CO2 emissions:	45.015 tonnes
Energy objective:	21 % in 2012
CO2 from energy objective:	21 % in 2012
Actual energy efficiency improvement:	36 %
Actual improvement in CO2 emissions:	36,3 %
Date agreement signed:	7 june 2004

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



The development of the IGES indicator is similar to that of the IEE.

Foundries agreement

During the 10 years of commitment, over 97 areas for improvement have been addressed, of which 73 have been achieved, 10 are in project phase (and sometimes put on standby) and only 14 have been abandoned.

Profile

Sector turnover in Belgium: the crisis has reduced the turnover of the Walloon foundries to a level comparable to that of the decade 1993-2003, wiping out the expansion of the 2003-2008 period.

Number of jobs in Wallonia: since 1993, the sector's employment has contracted by 30.7%. Approximately 1/3 of this fall has happened since 2009.

Sectoral agreement data

Number of participating companies:	7
Total energy consumption:	936.191 GJp
Percentage consumption of the Walloon sector:	Not supplied
Total CO2 emissions:	53,963 tonnes
Energy objective:	7,1 % in 2012
CO2 from energy objective:	6,7 % in 2012
Actual energy efficiency improvement:	4,3 %
Actual improvement in CO2 emissions:	4,3 %
Date agreement signed:	7 June 2004

Despite concerted efforts, it seems that this sub-sector of Agoria has been unable to achieve its objectives. By analysing the individual situation of each company, those that have not achieved their individual objectives have been forced to agree to make up their «shortfall» by implementing less cost-effective areas for improvement and requesting additional studies by 2016.

FEDERATION VIEWPOINT

For Bruno Vandezande, «the overall consolidated result obtained by all companies is genuinely satisfying because it is a very tangible and obvious outcome from an environmental perspective. Indeed, since the companies are more energy efficient, they are emitting less CO2 into the atmosphere. In 2012, Agoria's 47 member sites will have prevented the emission of almost 136,000 tonnes of CO2, which is the equivalent of travelling nearly 750 million kilometres (about 19,000 times around the Earth).

This result is a real source of satisfaction for all those people at the companies and the federation who are committed to the programme's success on a daily basis. The general philosophy of the sectoral agreements has helped replace regulation which is perceived as an additional constraint with a proactive energy policy within companies; swapping an external constraint for internal motivation.

On a more personal note, the highly operational aspect of the process - with the monitoring and consolidation of 47 action plans and so many company-specific situations - has allowed me to stay «hands on» and stopped me from losing contact with the daily reality for companies. This has complemented and enhanced my more «macro» experience, developed through lobbying activities and contact with ministerial offices.

Finally, I have noticed that a relationship of trust has built up over time between the federation - responsible for consolidating the results and interacting with ministers - and the companies party to the agreement - responsible for producing the action plans to improve IEE.»

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JTEKT IMPROVES ITS ENERGY EFFICIENCY BY MORE THAN 54%

Differentials

On the product side, we worked on redesigning it in order to reduce the number of components, give greater functionality to certain parts and simplify the manufacturing process.

In terms of procedures, the production lines were re-engineered with the aim of reducing the number of operations and machines.

Making the shape of the rough casting closer to that of the finished product has reduced machining.

With regards energy, the elimination of waste and the use of new technologies have led to considerable savings.

The focus was on cutting unnecessary lighting and automating lighting in communal areas, stopping unused machines, repairing compressed air leaks, using heat recovery from the compressor room to heat the workshop and installing an ambient air curtain to prevent cold air entering during the loading and unloading of trucks.

All these developments have enabled JTEKT to improve its response to the car manufacturers' requirements in terms of reducing «the weight of the differential» and «the selling price», which has led to us regaining market shares.

We are particularly proud of the lighting in our production halls where we have replaced the sodium lamps with T5 fluorescent tubes each fitted with a light regulator to reduce power during the day and an occupancy sensor. If no motion is detected, the lighting switches to economy mode (10%) after 10 minutes and turns off after 3 hours. This solution means we can adapt the lighting to the operation of each production line and use 50% less electricity compared with an equivalent illuminance.

Philippe ROBERT, QES & Facility Manager, Jtekt



Essenscia Wallonia brings together over 200 companies. The pharmaceutical industry is mainly based in Walloon Brabant while basic chemistry is primarily located in the province of Hainaut (Feluy - Manage - Seneffe triangle and Tertre). These two regions alone account for 70% of the sector's business. Parachemistry, plastics and rubber processing are present all over Wallonia.

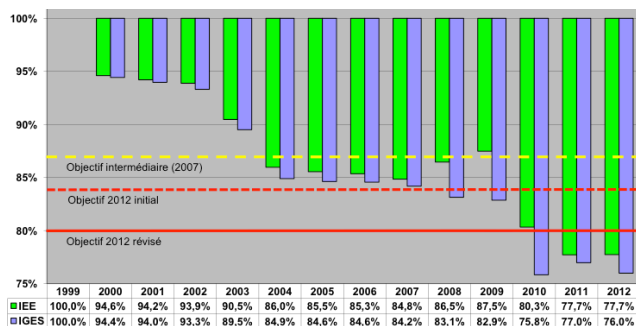
Profile

Sector turnover in Wallonia: €11,400 million
which is 25% of the turnover of the manufacturing industry in Wallonia
 Number of jobs in Wallonia: 26,150 jobs
 Sector's percentage of Walloon exports: 32.9% in 2012

Sectoral agreement data

Number of participating companies: 28 companies
 for 31 production sites
 Total primary energy consumption: 9 578 GWhp
 (34,48 PJp)
 Total CO2 emissions (direct and indirect): 1 943 559 t
 Percentage of sector's total consumption: ±95 %
 Energy objective: 20,0 % en 2012
 CO2 objective: 20,0 % en 2012
 Actual energy efficiency improvement: 22,3 %
 Actual improvement in CO2 emissions: 24,0 %
 Date agreement signed: 2 june 2003

Development of energy efficiency (IEEE) and greenhouse gas emission (IGES) indicators



Improvements

When the agreement was signed in 2003, 332 improvement projects met the criteria for defining sectoral objectives. After a detailed evaluation in 2008, this number was increased to 552. At the end of 2012, 509 projects had been created, some of which were not identified by the initial audits or were variations. In 2012 alone, no fewer than 102 projects have been implemented.

FEDERATION VIEWPOINT

What is your most positive experience of these first sectoral agreements?

For the sector's representative Patrick Degand, it is not human nature to accept anything that is imposed by regulatory means, however, if you are free to choose the type and level of commitment, it is not unusual to see the original objectives exceeded. With this type of commitment the company also wants transparency and communication as well as recognition for the effort made. All this can only be beneficial. Adding «At setting out we were fourteen, but, by a speedy reinforcement, we saw ourselves twenty eight on arriving at the port...»

Contact

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HOT RECYCLING AT IMPERBEL

Waterproof membrane roofings

For Imperbel for a better understanding of our energy consumption, at the start of the sectoral agreement we created an extremely detailed document about all the energy-consuming equipment in our process. We started with the large consumers (pumps, boilers) and went into detail right down to the smallest pieces of equipment (valves, pistons). Each piece of equipment was listed, its unit consumption estimated and its use in a particular production process quantified.

Monitoring our energy consumption in such minute detail enabled us to highlight some of the limitations of our production equipment. That then allowed us to understand why, helped by the economic crisis, it was becoming difficult to continue improving in terms of energy. We had identified that from a certain level of energy efficiency and in a difficult economic climate, it was becoming necessary to use external specialists to continue to grow. So, in anticipation of the 2nd generation agreements, over 2 years ago our company appointed an external company to help us introduce new investment projects, sometimes radically different from those initially devised.

The Perwez site has long been involved in recycling production waste. Now, it also recycles old roofing materials and recycling volumes are continuing to grow despite stagnant production volumes. This recycling process, which (although it may seem contradictory) is also energy consuming in itself, has been implemented alongside the sectoral agreements. It has a real impact on the environment and on the problem of waste. In terms of the manufacturing process itself, the carbon footprint targets for the whole company have also been achieved for 3 years. This measure has enabled us to be effective in areas other than production, for example the transport of finished goods, the company's fleet of vehicles and the choice of raw materials.

Until now, one of the most noteworthy energy-saving investments on the Perwez site has undoubtedly been the move to the hot phase for the recycling process. Even just a few years ago, it was not technically possible to hot process the end result of the recycled product. In short, the production waste was melted down (liquid), then cooled (solid) for handling then reheated (liquid) to be used as a raw material. This system was completely illogical, going from hot to cold to reheat it again. Investments subsidised by the Walloon Region were made in 2007-2008 and have allowed the elimination of the cold state (solid) from the process. This step was particularly crucial in terms of energy but also necessary to increase the facility's production capacity. We are very proud of this project, but there are other, even better projects already in the pipeline.

Cyril AUSLOOS, Engineering & Maintenance Manager, Imperbel



Cobelpa played a pioneering role by signing the first sectoral agreements with the regional authorities. Cobelpa was also proactive in terms of renewable energy and cogeneration by investing in these fields. Today the sector produces almost 10 % of Walloon's green electricity.

One of the sector's major challenges is the risk of an increasing use of the raw material, pulpwood in the production of renewable energy.

Profile

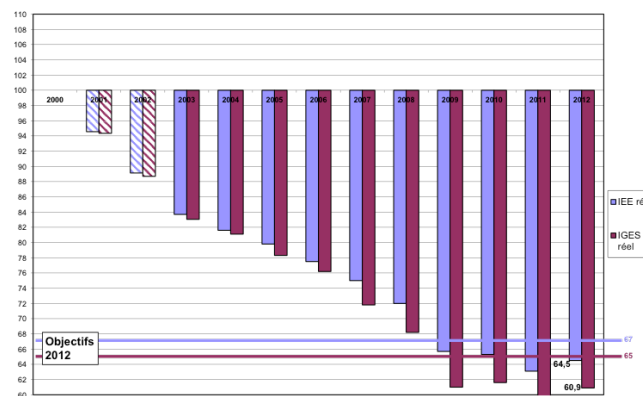
Sector turnover in Belgium: € 550 million
Number of jobs in Wallonia: 1.440

The sector has experienced difficult economic times in recent years. The development of new communication technologies has led to structural changes in paper consumption patterns, principally in the graphic paper segment. In six years, European demand for graphic paper has fallen by almost 25 %, impacting heavily on prices and leading to the closure of many factories. In contrast, the production of household and wrapping paper has been sustained.

Sectoral agreement data

Number of participating companies: 5
Total energy consumption: 1.723.111 MWhp
Percentage consumption of the Walloon sector: 100%
Total CO2 emissions: 365.540 tonnes.
Energy objective: 33 % in 2012
CO2 from energy objective: 35 % in 2012
Actual energy efficiency improvement: 35,5 %
Actual improvement in CO2 emissions: 39,1 %
Date agreement signed: 2003

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



FEDERATION VIEWPOINT

Conducting audits in the sector's companies was a key element of the first sectoral agreement. These audits resulted in the companies taking the time needed to study all the energy improvement areas for their site. As part of these audits «energy teams» were created within the companies consisting of all those involved in the process of improving energy efficiency. Furthermore, as a pioneer of the voluntary agreements in the early 2000s, the launch of this process in Wallonia was a fascinating experience.

In a difficult economic situation, monitoring the sectoral agreement involves substantial work at both company and sector level. The annual monitoring, evaluations, company and sector audits represent a major time investment.

Collaboration between the sector's companies, especially through Cobelpa's structures, existed before the sectoral agreement came into force. The lack of direct competitors within the sector has always made this collaboration particularly rich and dynamic. The sectoral agreement has become part of this pre-existing sectoral arrangement.

The agreement's aim was to double the business as usual in terms of energy investment. It is not always easy for such an approach to be accepted at sites belonging to international groups. In many cases, these group's other sites in neighbouring countries are not bound by these additional efforts, while enjoying access to more competitive energy. Maintaining a real dynamic for the agreement over a 10-year period was also a challenge for the sector.

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SCA HYGIENE PRODUCTS

Household papers

Generally, our personnel are acutely aware of our efforts to reduce consumption. At the start of every «ESAVE» project, we communicate using a logo, placed ready for investment, the percentage improvement and the annual savings in euros. Using this approach, everyone therefore understands the importance of reducing our consumption, the project type and where the energy is saved, but above all, it creates a positive information campaign in order to inspire people to think about similar improvements or even new projects. So we regularly receive ideas for improvements.

Over the period of the 1st generation sectoral agreements over €900,000/year was made available by the SCA group for «ESAVE» projects. If we had to name just one project, it would be the one that used heat recovery from the paper machine processes in order to heat the buildings instead of the steam produced on site.

Personnel regularly call on the Energy Manager to evaluate all improvement ideas. This proves that our personnel are concerned about our site's energy consumption and improving our energy efficiency.

Conducting an energy audit has allowed us to take the time necessary with personnel to evaluate potential energy savings for the entire production site. This means that all departments can be included in the energy efficiency process. It also means setting ourselves a long-term objective and establishing a long-term vision for the various production departments. Overall, we are pleased to see an actual 17% reduction compared with an initial objective of 13% over the period of the 1st generation sectoral agreements.

Vincent LEURQUIN, Energy Manager, SCA Hygiène



SPW/DGO4/F. Dor

FEBELCEM brings together three world-class members, CBR, CCB and Holcim that together market a wide range of cements. They produce approximately 6,000,000 tonnes of cement annually.

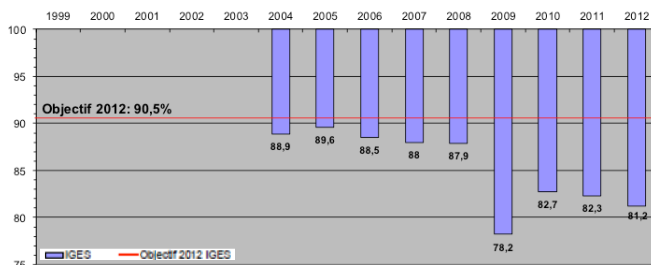
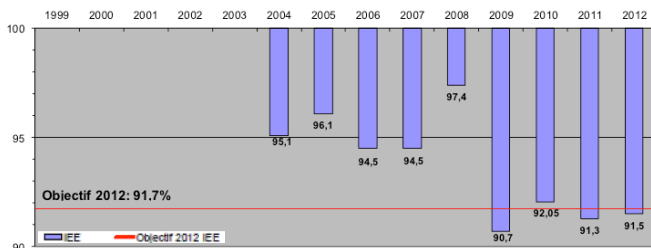
Profile

Sector turnover in Belgium: € 507 million
Number of jobs in Wallonia: 1.197

Sectoral agreement data

Number of participating companies: 3
Total energy consumption: 26.291.429 GJp
Percentage consumption of the Walloon sector: 100%
Total CO2 emissions (direct and indirect): 1.776.742 tonnes.
Energy objective: 8,3 % in 2012
CO2 from energy objective: 9,5 % in 2012
Actual energy efficiency improvement: 8,5 %
Actual improvement in CO2 emissions: 18,8 %
Date agreement signed: 7 june 2004

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators

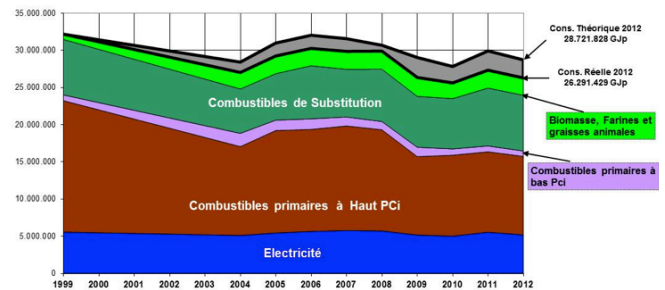


In its sectoral plan, the sector had provided 3 action levers to reduce its greenhouse gas emissions and/or improve its energy efficiency:

- the development of alternative fuels,
- the development of secondary raw materials to reduce the clinker content in cement,
- the improvement of the energy efficiency of production processes.

This sector is one of the sectors with the greatest potential for the use of alternative fuels and, as the figures show, this development, and particularly that of biomass has helped to largely exceed the objective fixed in terms of reducing CO2 emissions from energy.

Evolution des consommations sectorielles de 1999 à 2012 (en GJp)



Les combustibles primaires dits à haut PCI et bas PCI sont les combustibles fossiles traditionnels

FEDERATION VIEWPOINT

For Sébastien Loiseau, the sectoral agreements in themselves have not changed the relationship with members. However, the sectoral agreements and other climate initiatives (for example, Emission trading) are now permanent fixtures on the agenda at corporate and federation meetings, which was not necessarily the case previously, even though the sector was already highly active in reducing its environmental footprint. The sectoral agreements have been used to formalise regular reporting on the sector's performances in terms of CO2 and energy.

The sectoral agreement is a voluntary process that benefits from a regulatory framework through the various rules laid down for the calculation and reporting of commitments. In itself, the process is no less and even more promising than regulation in that it leaves the initiative to companies to establish how the commitments will be fulfilled. On the one hand, the company is committed according to its real opportunities for improvement, and on the other hand, it does so according to a predefined schedule. Along with compliance with the methodological rules, these are the keys to the success of the process.

The cement sector has been concerned about energy and climate issues since the major oil shocks of the last century. While, at that time the sector and companies acted on their own initiative, sectoral agreements have been the opportunity to standardise and systematise some of the policies and commitments on the energy issues in Walloon. As such, this has helped the companies in their search for better energy efficiency. Today, company management is still concerned about issues relating to CO2 or energy.

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CONTINUOUS IMPROVEMENT WITH NEW ENERGY SOURCES AT CBR

Production of cement

Maintaining the good energy efficiency of a new facility over a period of more than ten years, while that facility is affected by the use of new sources of supply for raw materials or fuels through the replacement of obsolete or non-competitive sources over time. This means establishing specialised maintenance programmes, continually improving procedures and constant research into the best, economically viable sources of supply and improving or at least maintaining the good initial efficiency.

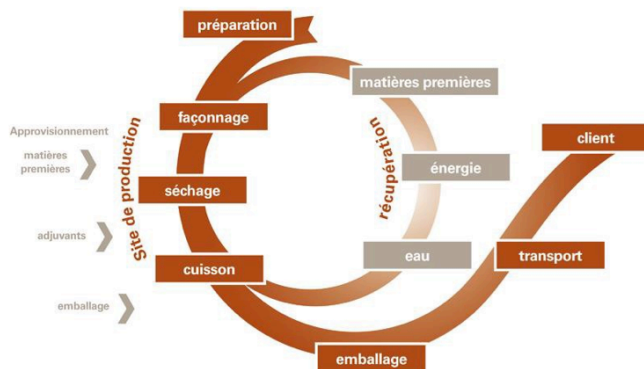
Factory staff are involved in the process from the very start. Factory management and the production, maintenance, process, engineering and management control departments play an active role in the energy audits, researching the areas for improvement and setting the objectives. Monitoring the creation of the selected areas for improvement and achieving and maintaining the established objectives are integrated into the ISO 9001 and ISO 14001 management systems.

Finally, Gaëtan De Maere notes that the steering committee set up by the sectoral agreement worked perfectly throughout the 1st generation sectoral agreement. Ministerial and government representatives, along with the technical expert supported us in achieving our objective.

Gaëtan DE MAERE, Environment and Quality Systems manager, CBR



The ceramics industry is represented by the Fédération Belge de la Brique (FBB) and the Fédération de l'Industrie Céramique (Fedicer). The products are bricks, tiles, refractory ceramics and industrial ceramics. The production processes for these different products are quite similar and represented below.

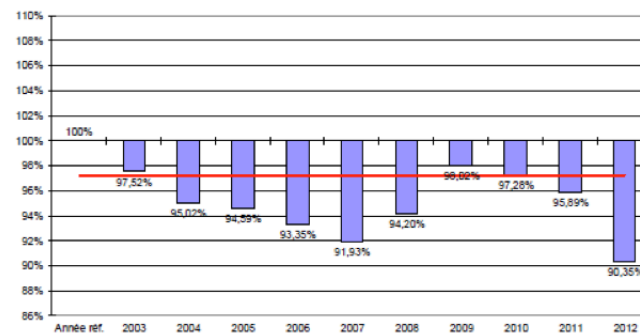
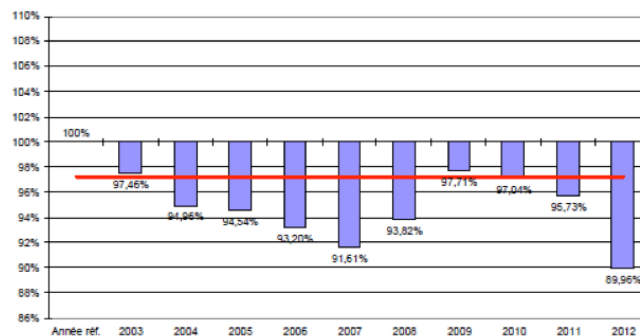


Profile

Sectoral agreement data

Number of participating companies:	5 (10 sites)
Total energy consumption:	1.588.051 GJp
Percentage consumption of the Walloon sector:	100%
Total CO2 emissions:	90.029 tonnes
Energy objective:	2,74 % in 2012
CO2 from energy objective:	2,78 % in 2012
Actual energy efficiency improvement:	10,04 %
Actual improvement in CO2 emissions:	9,65 %
Date agreement signed:	30 june 2006

Development of energy efficiency (IEE) and green-house gas emission (IGES) indicators



Implementing the areas for improvement for the most energy-intensive items such as the dryers and kilns and organising production to alternate the firing of products at optimum kiln capacity and shutdowns of several weeks/months, has generally optimised the energy performance of companies/sites.

FEDERATION VIEWPOINT

For the federations, the results generated are most surprising. The ceramics industry is energy-intensive and the sector's companies were concerned about limiting energy costs well before they signed a sectoral agreement. Nevertheless, the sectoral agreement has certainly help to lift 'energy taboos', daring to implement areas for improvement that had hitherto been deemed uncertain and go even further in optimisation.

The companies in the ceramics sector look favourably upon the possibilities of such a voluntary instrument. They had the choice of investments and ultimately, although the instrument is voluntary, the entire ceramic sector in Wallonia joined the sectoral agreement. Interest does not therefore necessarily require a compulsory nature, to the contrary. Furthermore, just because it is voluntary it does not mean there is nothing to be done; once they have signed a sectoral agreement, companies are required to meet their commitments.

This does have its advantages, the time frame is long enough to plan short-, medium- and long-term investments. This is the flexibility provided by the sectoral agreement!

However, there are also disadvantages; long-term commitments (individual companies and sectoral) can be anxiety-provoking and unpredictable events can affect the company's plans in terms of production levels, investment opportunities, market changes, modifications to regulations, etc. With a timeframe of eight years, the situation is more likely to change during the agreement period.

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AN ENERGY GROUP AT NGK CERAMICS EUROPE

Catalysts for cars exhaust gases

The manufacturer's interest in taking part in the sectoral agreements is undoubtedly the expected benefits in terms of energy costs. This has enabled us to develop our approach towards shareholders and partially reduce the uncertainty with regards future pricing of these items in the balance sheet. This recognised benefit has consequently allowed us to introduce and receive, from the parent company, investments with low returns, but which have helped us to enter the fields of renewable energy. These developments would not have been possible without these sectoral agreements, which have effectively created a new dynamic. This dynamic has also led to other, smaller projects which, cumulatively, have generated unexpected, additional savings.

Although the energy integration studies and the quantification of heat losses had already provided a better identification of the potential savings at all production levels, particularly for the kilns, the «sectoral agreement» approach led to a systematic review of the company's energy audit by creating a specific «energy» pillar in the TPM concept already established within the company. This pillar and the systematic review of the energy items now provide an «Energy Management» approach. In addition, a specific study was also conducted on compressed air consumers. This study has allowed us to explore new solutions, not only to reduce consumption but also to provide a more reliable supply. The effect has been an improvement in the reliability of the procedure itself.

Since the company has already been involved in an ISO 14001 environmental procedure for the last decade, the energy process provided by the sectoral agreement was quickly incorporated within the company through an «Energy» working group that allowed everyone to suggest innovative areas for improvement. The role of this group is therefore key in the development of any new project.

Jacques RENNOTTE, Directeur général, NGK



Fedieux members are producers of aggregates (limestone, hard rock, alluvials, rock armour, sand), lime, dolomite and ornamental stone.

DID YOU KNOW?

- One kilometre of motorway requires 20 to 30,000 tonnes of aggregates, one kilometre of railway +/- 10,000 tonnes and a house 150 tonnes.
- One tonne of paper contains 250 to 300 kg of mineral filler.
- One tonne of steel needs 150 kg of limestone and 50 kg of lime.
- 200 kg of limestone is used in the manufacture of one tonne of sugar.
- One tonne of glass contains 700 kg of very pure sand, 300 kg of dolime and 200 to 250 kg of sodium (obtained from 350 kg of limestone).

Profile

Sector turnover in Belgium: € 6,000 million
 Number of jobs in Wallonia: 2.850

Sectoral agreement data

Number of participating companies: 9 (19 sites)
 Total energy consumption: 1.836.512 GJp
 Total CO2 emissions (direct and indirect): 110.075 tonnes
 Energy objective: 8,59 % in 2012
 CO2 from energy objective: 8,77 % in 2012
 Actual energy efficiency improvement: 11,48 %
 Actual improvement in CO2 emissions: 11,44 %
 Date agreement signed: 8 Dec 2006

Development of energy efficiency (IEE) and green-house gas emission (IGES) indicators



Electricity (crushers, conveyor belts) and diesel oil (motors) accounts for over 90% of the total energy consumption of those companies that are signatories to the sectoral agreement.

Indirect emissions, i.e. those related to the material and not fuel, represent almost 33% of the total emitted by companies in 2012.

FEDERATION VIEWPOINT

For Michel Calozet, the most positive experience was attending a company discussion group responsible for identifying ways to improve the industrial process with the aim of reducing CO2 emissions and improving energy efficiency. The creativity and inventiveness behind this brainstorming was a real revelation of the expertise, knowledge and professionalism of the personnel working in our industrial sector.

The quarry sector is strongly represented by its federation. The companies involved in the sectoral agreements are all members of the federation. Hence, there was no call for new members, which was not the primary objective. However, the sectoral agreement created an ambitiousness within the sector because issues such as climate change and renewable energy had not been central to the sector's concerns. They became so because they were almost always addressed at meetings of the boards and technical committees with experts from the companies providing an even greater awareness of these global challenges.

Such a voluntary approach received important approval from the industrial world. The commitments made led to a very large reduction in CO2 emissions. It was a smart move to give companies the opportunity to implement suitable measures using this tool. Measures that were chosen in order to achieve a reduction target which reflect technical potential and a realistic payback (at industry level) and the results speak for themselves. It is obvious that this model cannot be transposed to all aspects of constraints that are incumbent on the companies, but it remains an approach to be favoured over the imposition of legal constraints. The quarry sector has therefore developed this type of approach with other business sectors and/or regional administrations, notably in terms of agriculture, water and biodiversity.

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The companies involved in the sectoral agreement operate in a range of fields including slaughterhouses, margarine, confectionery, chocolate, beer, soft drinks, meat, biscuits, coffee, vegetables, animal feed, sugar, dairy products, potatoes, fruits, cereals, pasta, chicory, inulin/fructose, vinegar/mustard/condiments, yeast, etc.

With growth as the theme, the sector's new programme is structured around:

- Boosting the «Food@Work» programme: promoting food industry jobs, making them attractive and creating training courses leading to qualifications or sandwich courses within companies to provide a suitable response to the industry's needs;
- Focusing on Energy and Sustainability with the flagship sectoral agreements for an even cleaner sector and the feasibility study for an environmentally neutral Walloon food industry by 2030;
- Facilitating knowledge sharing between members on current issues by motivating the clubs and HR, quality, production and export groups in which over 70 members already participate;
- Providing greater visibility to Walloon food products beyond our borders through the Food.be - «Small Country. Great Food» initiative. Exporting products as driver for growth in our sector.

Profile

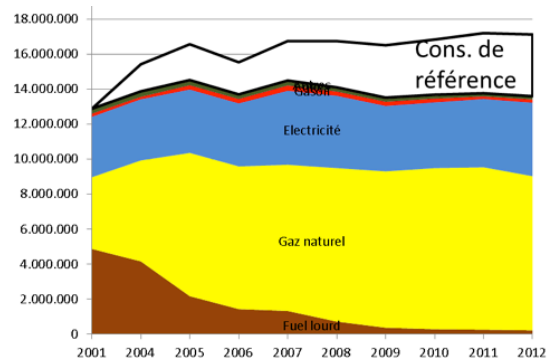
Sector turnover in Belgium: € 7,200 million
Number of jobs in Wallonia: 21.232

Sectoral agreement data

Number of participating companies: 49 sites
Total energy consumption: 13.589.359 GJp
Percentage consumption of the Walloon sector: approximately 90%
Total CO2 emissions (direct and indirect): 774.817 tonnes
Energy objective: 13,95 % in 2012
CO2 from energy objective: 18,92 % in 2012
Actual energy efficiency improvement: 20,6 %
Actual improvement in CO2 emissions: 27,71 %
Date agreement signed: 7 june 2004

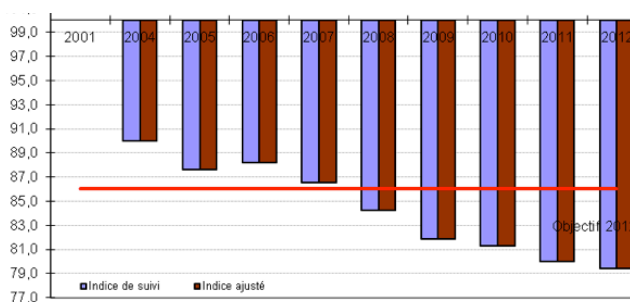
Between 2001 and 2012, 631 projects have been implemented amounting to an investment of 96 million euros (this figure is under-estimated due to incomplete information).

It is worth noting that the members involved in the sectoral agreement have almost completely abandoned the use of heavy fuel.

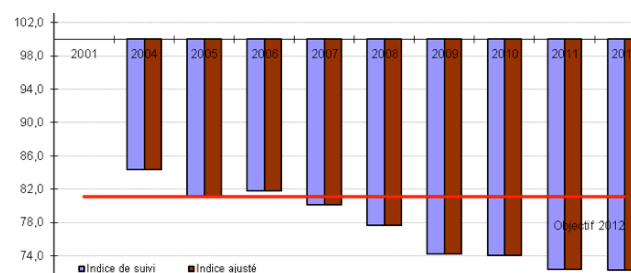


Evolution des indices de l'efficacité énergétique (IEE) et de réduction des émissions de CO2 (IGES)

Energy



CO2



FEDERATION VIEWPOINT

For several years, a sectoral agreement has been used to keep the focus on energy efficiency. This provides a broader and more detailed view of the issue both at sector and company level. One of the positive points of the Walloon sectoral agreement is that it enables all companies to participate, whatever their energy consumption. For a sector like ours, mainly comprised of SMEs with an absolute value energy consumption which is relatively low but nevertheless significant when looking at cost structures, a sectoral agreement open to SMEs is essential.

The number of companies participating in the food industry sectoral agreement is relatively large (around fifty) and participants are often small or medium sized enterprises. The more administrative aspects such as the annual data check, annual reports to be submitted to the federation, etc. can quickly lead to complex situations for both the companies and the federation. We have therefore attempted as much as possible to standardise the data to be provided to the federation, by focusing on simplicity while being sufficiently flexible and responsive so as to provide a quick reaction to the practical problems encountered on the ground.

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FEDUSTRIA

TEXTILE, WOODWORKING AND FURNITURE INDUSTRY SECTOR

In the textiles sector, the 400 member companies account for more than 85 % of the added value of the Belgian textile sector. These companies are subdivided into five major product groups: indoor textiles, garment textiles, textile finishing and spinning mill (short and long fibres). The woodworking and furniture industry includes manufacturers of furniture, chairs, panels, building components (roof trusses, joinery, flooring...), boxes and pallets, frames and moulding, brushes, paintbrushes... in short, all kinds of wooden finished and semi-finished goods. These companies are subdivided into five major product groups: furniture, wood-based panels, building components, packaging, other wooden articles.

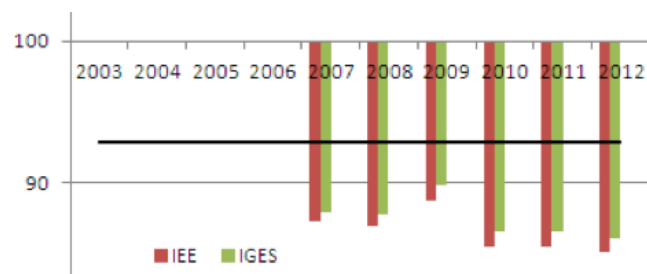
Profile

Sector turnover in Belgium: € 10,700 million
Number of jobs in Wallonia: 5.713

Sectoral agreement data

Number of participating companies: 7
Total energy consumption: 450.897 MWhp
Percentage consumption of the Walloon sector: Not supplied
Total CO2 emissions: 90.676 tonnes
Energy objective: 7,1 % in 2012
Objectif CO2 Energétique : 7,2 % in 2012
Actual energy efficiency improvement: 14,9 %
Actual improvement in CO2 emissions: 13,9 %
Date agreement signed: 24 Nov 2007

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



FEDERATION VIEWPOINT

For the federation, the sectoral agreements can lead to significantly closer relations with the various business managers, from the management to the technical and administrative staff. A series of meetings are vital to the sectoral agreements (investments, reporting, inspection, feedback on results, administrative processes, etc.) and help maintain steady progress towards our objectives.

However, it is clear that this process sometimes requires relatively substantial time commitments and investment efforts from the companies which unfortunately do not communicate enough about their good practices and their involvement in this positive initiative. This is a shame and this failing must be addressed with those companies which demonstrate their proactiveness in this matter.

The companies and their management did not wait for the sectoral agreements before becoming concerned about the ever-more expensive production factor of energy. However, the companies have truly benefited from the process in the sense that it allows them, through the audits, to develop a structured and measurable approach for their energy performance improvements. It also creates an interesting dynamic around a defined individual and sectoral objective.

One of the difficulties sometimes lies in the technical and administrative complexity of the sectoral agreement for companies unused to this approach. The second generation sectoral agreements will be even more demanding in this perspective. It is therefore important for the federation to provide all the necessary individual and group support for its members with their issues and initiatives.

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NEKTO, A GREEN MINDSET

Adapted working conditions entreprise

Sectoral agreements have allowed us to set ambitious targets. So, Nekto gave itself the target of reducing its carbon footprint by 50% compared to 2005. The results are as expected and we should achieve this goal in 2015. The audit is the basis for any energy-saving approach.

The process has generated a «green» mindset at all levels in the company. So, every investment is now considered in the context of sustainable development and they are also constantly increasing.

Some examples, new buildings are fitted with a rainwater tank and any new vehicles purchased are «zero-emission».

We are particularly pleased with the installation of a centralised building management system which enables us to regulate our entire heating system.

Hugues PROCUREUR, Directeur, Nekto



SPW/DGO4/F. Dor

Febelgra

Even though print has distinguished itself over the centuries, current events and prospects suggest unimaginable wealth is still ahead. There are books, periodicals and newspapers, but the general public does not always think of this sector when using the internet or a CD-ROM, when it pulls on a coloured t-shirt or buys a poster.

Imagine a world without the graphic industry... what a dismal existence.

The technological development is unrivalled and new computer applications are developed every day, digital printing, computer to plate, computer to press, robotised finishing.

Fetra

Paper comes from renewable sources; it is completely recyclable and has been an integral part of society for centuries. From Egyptian times to ancient China, paper was already being used as a medium for writing, for decoration and even to protect walls.

Paper is used in many applications, such as corrugated cardboard packaging, folding cartons, bags of all sizes and flexible packaging, but it is also used to produce self-adhesive materials, paper products for hospitals, etc.

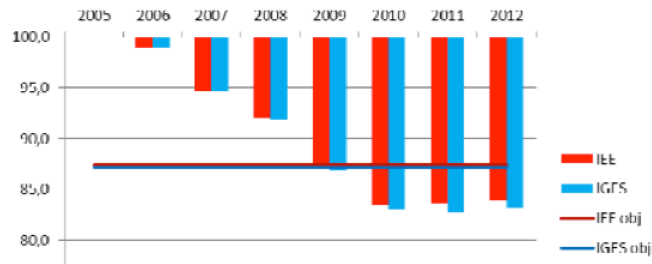
Profile

Sector turnover in Belgium:	€2,681 million (Febelgra) and €3,523 million (Fetra)
Number of jobs in Wallonia:	2.281 (febelgra) and 1.544 (fetra)

Sectoral agreement data

Number of participating companies:	8
Total energy consumption:	252.964 MW/hp
Percentage consumption of the Walloon sector:	Not supplied
Total CO2 emissions:	51.380 tonnes
Energy objective:	12,6 % in 2012
CO2 from energy objective:	12,8 % in 2012
Actual energy efficiency improvement:	16,1 %
Actual improvement in CO2 emissions:	16,8 %
Date agreement signed:	28 January 2008

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



FEDERATION VIEWPOINT

The relationship between the federation and the members involved in the first generation sectoral agreement is certainly stronger than with members who did not take this step. However, this was not only due to the first generation sectoral agreement and the resulting communication. Much of the relationship was also built on the communication around the second generation sectoral agreement. This good relationship made it easier for some companies to begin other projects. Furthermore, the sectoral agreement facilitates the collection of data, ensures participation in certain projects and even, in its wake, leads to other enterprises. We must not lose sight of the fact that the companies themselves have also built more lasting relationships between each other.

For Willem Van Veen, the greatest difficulty was the assimilation and understanding of the issue. When I took up my role within the federation, there were only two years left until the end of the sectoral agreement. The assistance given to the companies, understanding the sectoral agreement's principles, obtaining the necessary data and producing the reports was a major challenge.

8 years is a good time period. This timeframe gives companies a certain security to be able to develop new ideas and plan investments. It also gives them the freedom to spread investments over an acceptable period. Conversely, a longer timeframe would not be desirable because it could be counterproductive with regards investments and long-term policy.

Contacts

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ENERGY ACCOUNTING AT MACTAC

Printing industry

We have developed energy accounting on site. This enables us to monitor energy consumption by area and by activity. We have produced indicators to monitor the development of consumption (and its potential differences) and validate the results of the plans to reduce energy consumption.

In addition to actions requiring investments, we have implemented daily actions for the rational use of energy. Although the impact seems less significant, Martine Detroye thinks that involving everyone is a determining factor in raising awareness as to the importance of RUE. We must continue.

The largest investment made has been the heat recovery from the separator. This investment has led to a major reduction in the company's energy use.

The first stage of the sectoral agreements is an energy audit conducted by an external company. It is always interesting to gain an external view of the processes that form part of our daily operation. The external auditors are also experienced, which enables them to provide effective guidance towards the most interesting solutions, since companies often face the same types of issues.

Martine DETROYE, Dr. Sc. Environnement Manager, Mac Tac Europe SA



The glass industry in Belgium has a very specific structure; the flat glass industry is largest representing 70 % of total glass production, in contrast to other EU countries. Belgium is therefore the second largest European producer of flat glass in terms of tonnage and the leading exporter. Currently, it is estimated that it takes approximately 8 GJ to produce one tonne of glass in large glass furnaces. This value (close to the thermodynamic limit) has been reached following the many measures implemented to reduce specific energy consumption (reduction of over 60% since the 1960s). Much of the sector's energy is supplied from renewable sources, since it is also concerned about the environmental impact of its consumption.

Glass used in cars is also contributing to the reduction in energy consumption in this sector. Innovative, high-tech windows and windscreens are constantly being developed in order to minimise solar gains. Reducing the weight of windows while guaranteeing optimum safety and integrating fibreglass into the composite materials in the bodywork are two elements being used to reduce the overall weight of cars or other means of transport (trains, buses, etc.).

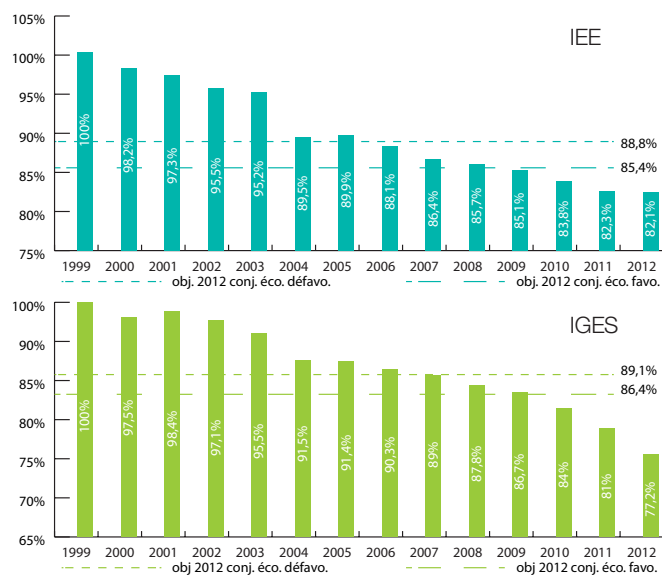
Profile

Sector turnover in Belgium: € 1,900 million
 Number of jobs in Wallonia: 4.400

Sectoral agreement data

Number of participating companies: 8 (10 sites)
 Total energy consumption: 3.727.696 MWhp
 Percentage consumption of the Walloon sector: 95%
 Total CO2 emissions: 949.253 tonnes.
 Energy objective: 11,4 % in 2012
 CO2 from energy objective: 11 % in 2012
 Actual energy efficiency improvement: 17,9 %
 Actual improvement in CO2 emissions: 22,8 %
 Date agreement signed: 7 june 2004

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



The principal factors contributing to these results are the increased use of cullet through the constant improvement of waste sorting and the optimisation of melting furnaces, all against the gloomy backdrop of reduced or even stopped production.

FEDERATION VIEWPOINT

Since the sectoral agreement in Wallonia is sector-based, there has to be a contact/relationship between the federation and each member that signs the agreement. The sectoral agreement is also a means of educating other members to encourage them to sign the agreement and thus establish a contact. Ultimately, the sectoral agreement helps to promote the federation among the large multi-site groups in Wallonia. Lastly, we must not lose sight of the fact that the companies themselves have also built more lasting relationships between each other.

For me, the main difficulty is of a practical nature (data collection, explaining the results, etc.) because changes are inevitable within companies and the federation over an 8-year period. There is a good working relationship between the FIV, the companies and the single auditor for the whole glass sector who has helped to overcome these slight inconveniences.

In the energy-intensive glass sector where up to 30% of the production cost is energy, management is inevitably concerned about energy issues. It is true that for all those involved in the glass and other industries in Wallonia, the sectoral agreement is a good tool for raising awareness among business leaders. In addition, through this tool, companies do not make a commitment solely to the sector and the Walloon Region, but also with regards themselves. I also think that this method can educate all the levels within companies, from the Group CEO to the Site Manager, from the Energy Procurement Manager to the Production Manager.

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AT AGC, ALL DEPARTMENTS ARE GETTING ON BOARD

Flat glass

As the energy challenges span most of the departments at the factory, the responsibility in terms of energy is borne by many employees through their tasks and projects. Energy improvement is central to the activities of the engineers and technicians of the technical and production departments, whether it involves new developments to be implemented on the float lines or their day-to-day operation, managing the equipment providing compressed air, steam, water etc. but also optimising the energy consumption of equipment. The sales office, responsible for planning, develops the production sequences for glass of different colours, minimising the transition time between successive colours during which fusion energy is consumed but the glass is broken as it is not suitable for the target colour. The accounting department provides a daily energy performance analysis, while the environmental department supports and conveys the sectoral agreement process to other factory departments and administration. Using the action plan resulting from the initial energy audit, during the sectoral agreement period, the factory implemented the identified actions, particularly the installation of boilers that produce steam by recovering heat from the furnaces, increasing the cullet content in the fills to reduce fusion energy needs and optimising the compressors. Over the same period, growing energy challenges have motivated the teams responsible for energy issues within the factory leading to the implementation of additional measures, as part of the sectoral agreement. Some of these include improving the insulation in the roof area and optimising the heating units in the industrial buildings using light fuel, installing aerothermal heating units, optimising the operating instructions for the furnaces and maintenance related to the energy performance of the furnaces such as the maintenance of thermal regenerators, heat recovery from equipment to heat some of the buildings, streamlining the production planning sequences for each line to name just a few. In this sense, the sectoral agreement process has reinforced the positive dynamic within the factory teams.

Jean-François LE BRUN, EHS responsible, Moustier Factory, AGC Glass Europe



Baudouin DIERICKX, Financial Controller, AGC Glass Europe

SPW/DGO4/F. Dor

GSV (Groupement de la Sidérurgie), founded in 1953, is the professional federation of steel companies producing or transforming steel in Belgium

Types of production: crude steel and finished products including hot-rolled products (wide strips, heavy steel plates, wire rod, merchant steel and steel sections), cold-rolled sheets, coated sheets (sheet metal, galvanised sheets, electro-galvanised sheets, organically coated steels).

Profile

Sector turnover in Belgium: 8.100 millions €
(3.700 en Wallonie)

Number of jobs in Wallonia: 7.189

The Walloon steel industry has been particularly badly affected by the depressed economic situation, which has made it necessary to develop and implement a restructuring programme so as to adapt the Walloon production sites to new market realities.

Sectoral agreement data

Due to the specific nature of the hot phase of integrated steel making and its impact on the development of the IEE and IGES indicators, a differentiated approach was decided upon by mutual agreement for 2011 and 2012.

Scope of the hot phase of integrated steel making

For the facilities in question, a commitment is provided when making investments among the identified areas for improvement, depending on the load of the tools in use or conditioned by a return to service of tools on shutdown. To date, these conditions have not been met.

Scope of cold phase of integrated steel making, electric steel making and finishing/coating facilities

Number of participating companies: 10

Total energy consumption: 26.646.093 Gjp

Total CO2 emissions: 1.563.559 tonnes

Energy objective: 8,4 % in 2012

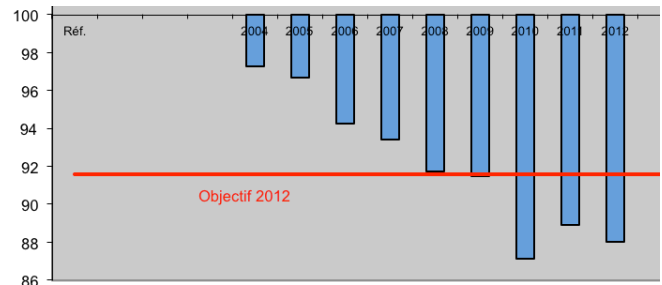
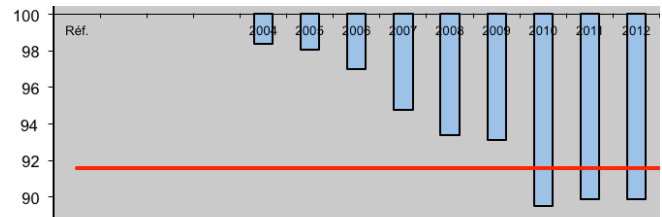
CO2 from energy objective: 8,4 % in 2012

Actual energy efficiency improvement: 10 %

Actual improvement in CO2 emissions: 12 %

Date agreement signed: 21 June 2004

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



FEDERATION VIEWPOINT

For Luc Braet, the advantage of a voluntary agreement such as the sectoral agreement is that it takes into account the sector's specific features, the effects of successive restructuring and changes in the economic situation. It provides great flexibility.

One of the problems encountered concerned the consideration of emissions linked to the process gases which is an issue specific to the steel industry. A pragmatic solution was developed by the sectoral agreement steering committee. Solutions were also found for issues related to adapting the tool and to the economic financial crisis, which seriously affected the steel industry.

The steel making sites in Wallonia are all part of large international groups. In addition, the sector must operate at a global level where competition is increasingly fierce. In this context, the legal certainty and long-term predictability of our commitments and agreements are essential in allowing the necessary investments to maintain the tool.

In terms of energy consumption and CO2 emissions, the sectoral agreement process has helped to position ourselves compared with other sectors in Wallonia. Despite successive restructuring, the steel industry is still a key player in this area. These first sectoral agreements have been the opportunity to perform a detailed analysis of all our energy consumption, by providing an integrated vision per production line. Furthermore, the sectoral agreement has improved our knowledge of the processes.

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ALL THE AREAS FOR IMPROVEMENT ARE GOOD AT THY-MARCINELLE

Steel wires

It has been a most positive experience throughout these sectoral agreements. Indeed, we mainly remember the fact that these agreements have enabled us to focus on energy consumption that we can describe as secondary (for example lighting, auxiliary engines, etc.) in the sense that this is minor compared with the consumption of our primary facilities. This consumption ultimately proved significant at the end of the first sectoral agreements, which our managers found it hard to assimilate.

The most difficult step was quantifying the energy savings related to the various areas for improvement. In fact, some were highly theoretical and we realised during the re-evaluation in 2008 that some areas were over-estimated, hence a certain difficulty in achieving a few objectives.

One of the measures taken which was not originally planned concerned the replacement of the reheating furnace for the rolling mill. This process was possible due to the sectoral agreement approach because we knew that there was a real potential to improve energy performance. A study was carried out to consider all the elements, particularly the payback period which consolidated our idea. In addition, earlier savings made through the sectoral agreement gave greater support to our request.

Andrea PEZZONI, Director, Thy-Marcinelle

Romain MERLIN, responsible for Quality & Environment Thy-Marcinelle



Carmeuse is a world reference for the production of lime and lime products. Lime is crucial for a very large number of applications in our daily lives (steel, construction, agri-food, paper, chemistry, plastics, rugs, paint, wastewater processing, processing of gaseous effluents, ...). Carmeuse manages the logistic chain from its plants to the clients' bins and can also take charge of the use of lime on the clients' site. For deliveries, they ship by any means of transport (road, rail and ship) so they can provide the best response for every location, be it near their plants or overseas, and they are attentive to using the most environment-friendly solution.

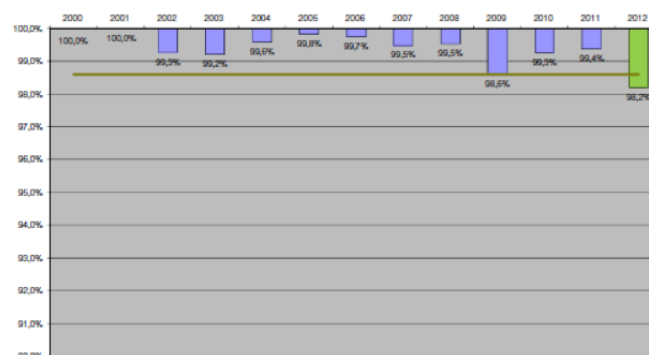
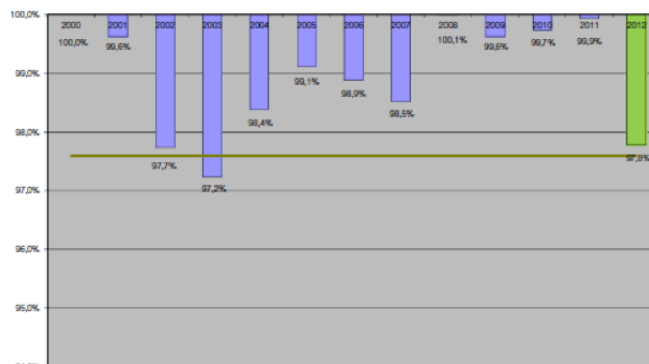
Profile

Sector turnover in Belgium: Not supplied
 Number of jobs in Wallonia: 410

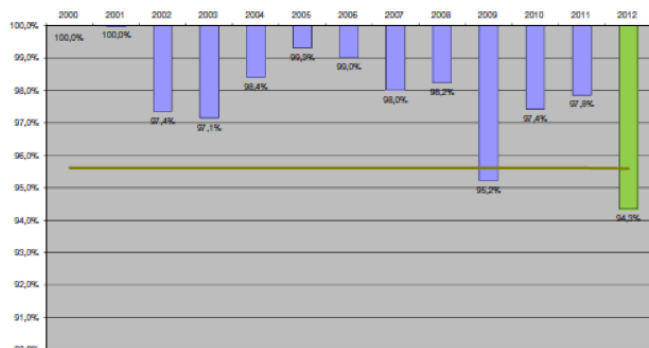
Sectoral agreement data

Number of participating companies: 1 (3 sites)
 Total energy consumption: 897.668 MWhp
 Percentage consumption of the Walloon sector: Not supplied
 Total CO2 emissions: 717.816 tonnes
including CO2 from raw materials, i.e. not from energy
 Energy objective: 2,4 % in 2012
Since the objective is in the order of the model's uncertainty, it was agreed that the achievement of the areas for improvement would be monitored.
 CO2 from energy objective: 1,4 % in 2012
 Actual energy efficiency improvement: 2,2 %
 Actual improvement in CO2 emissions: 1,8 %
 Date agreement signed: 2004

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators



If we focus on the development of CO2 emissions related solely to the use of fuels, then the results are much more significant over the sectoral agreement period. This is due to the gradual substitution of fossil fuels with biomass.



FEDERATION/COMPANY VIEWPOINT

Due to the very nature of its business, Carmeuse has been incorporating the energy constraint into its operational and investment strategies for several years. It is due to this anticipation, that for a long time our factories have been equipped with lime kilns which constitute the best available technology in terms of energy consumption and CO2 emissions.

The implementation of the sectoral agreement has given us a working methodology that has provided a finely detailed structure of our energy consumption. This knowledge has led to actions in terms of work organisation as well as the modernisation of some equipment. For example, the replacement programmes for the excavation machines, the use of energy-efficient electric motors, the installation of frequency variators, etc.

The main change is at the operational level where there is an ongoing dialogue with personnel at the production sites. This has helped to educate more people within the company about this issue in their activities.

Alongside these continuous actions on the ground, Carmeuse has carried out a major project making it possible to use solid biomass in its shaft kilns. This is a technology development which involved many employees.

The difficulty related to the implementation of the sectoral agreements is still the administrative management of the system especially during the annual data audit by a statutory auditor which requires the inspection of a large number of documents and in monitoring the site's development.

*Fabrice FOUCART,
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The Lhoist Group began in 1889 in Hermalle and went on to become a group operating in Europe and the United States with approximately 5,500 jobs. The Lhoist Group's products are used in a wide variety of traditional and emerging applications due to their unique chemical and physical properties. Since every customer is different, every product and service is suited to their requirements.

Profile

Sector turnover in Belgium: Not supplied
Number of jobs in Wallonia: 786

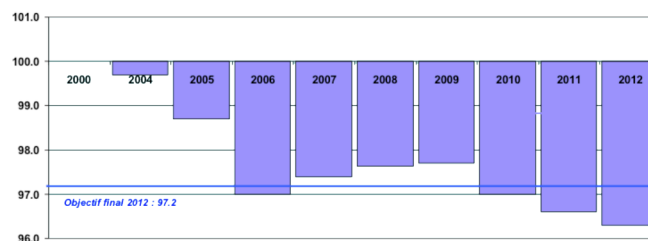
Sectoral agreement data

Number of participating companies: 3 sites
Total energy consumption: 2.565.725 MWhp
Percentage consumption of the Walloon sector: 100%
Total CO2 emissions from fuel: 800.928 tonnes
Energy objective: 2,8 % in 2012
CO2 from energy objective: 6,5 % in 2012
Actual energy efficiency improvement: 3,9 %
Actual improvement in CO2 emissions: 6,3 %
Date agreement signed: 7 june 2004

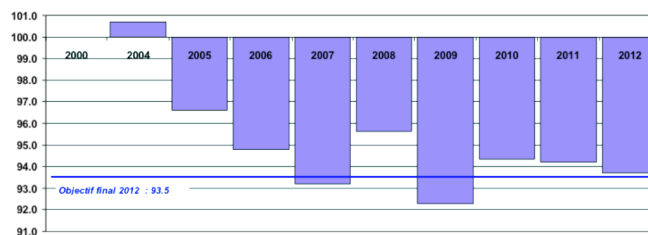
Le comité directeur, appuyé par l'expert technique, reconnaît que la différence au niveau de l'objectif CO2, est très probablement imputable aux marges d'erreurs reconnues et acceptées en matière de mesures des coefficients d'émissions de CO2 dans la méthodologie de l'Emission Trading System (ETS). Il a par conséquent été conclu que le groupe Lhoist a bien respecté ses engagements.

Development of energy efficiency (IEE) and greenhouse gas emission (IGES) indicators

Energy



CO2



FEDERATION/COMPANY VIEWPOINT

In a more difficult economic situation since 2009, the Lhoist Group was able to conduct a more detailed reflection of its energy policy, particularly in order to achieve the ambitious objectives fixed under the sectoral agreement.

Optimising energy consumption and reducing the greenhouse gas emissions from the lime kilns are now a daily consideration for the production teams carrying out the process.

The commitment process in the sectoral agreement was another step in the energy efficiency policy that the Lhoist Group has implemented over many years, leading in particular to greater accuracy in the accounting and the distribution of the energy used.

A few additional projects not covered by the initial audit were implemented as part of a rational use of energy. The involvement in the sectoral agreement process has encouraged greater consideration of the environmental impact of the projects in their prior analysis phase.

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