



# Belgium

## Energy policy agreements with companies in Flanders



**Responsible authority: Flemish**  
**Managing authority: Verification Office**

### General information

Type of the scheme (and main policy objective(s) other than energy savings or energy efficiency, if any)

The Energy Governance Agreements (in Dutch: Energiebeleidsovereenkomsten) are negotiated voluntary agreements. These agreements started in 2015, when the first generation negotiated agreements expired. They are organised in two agreements: one for companies with obligations under the EU ETS (follow-up of the Benchmarking Covenant, 2002-2014) and one for companies without such obligations (follow-up of the Auditing Covenant, 2005-2014).

The companies have to carry out an energy audit, a first time in 2015, a second time in 2019. All detected economic viable energy saving measures need to be carried out in a timeframe of four years. Economic viable is defined as having an internal rate of return of 14% for companies with / 12.5% for companies without obligations under the EU ETS.

In addition, the participating companies need to submit an monitoring report annually. This provides details of the energy consumption per energy vector (purchased ones, such as natural gas, electricity, ... as well as internally generated ones, such as steam, hot water, compressed air, ...) and per production unit (typically about 5 – 10 units are defined per company). The annual monitoring also reports on the progress in implementing the mandatory energy saving measures.

The companies also must implement an energy management scheme; there is however no specific obligation to have an accredited one.

#### Implementation date and status

Started on 01 Jan 2015 – will end on 31 Dec 2022.

At the end of October 2018, 344 companies were participating: 140 with and 204 without obligations under the EU ETS.

Unit used to count the savings (i.e., first-year savings/lifetime-cumulative savings; final/primary/CO2).

There is a monitoring of the realised energy savings and monitoring of the energy efficiency

### Organization and MRV

Implementing bodies (+ who sets the rules of the policy, if different + other key stakeholders, if relevant)

The agreement is negotiated between the Flemish Government (with the Minister of Energy and of Economy in the lead) and representatives of the involved industry sector organisations.

A dedicated Verification Office (VO) oversees the correct implementation of the agreement by the participating companies. The compliance of the 344 (status at 31/10/2018) is verified by 11 Verification Officers (VO); 33 companies per VO on average.

When an energy audit needs to be carried out: the VO verifies its scope at forehand and the energy audit result afterwards. When a company shows a too low ambition level, the VO exerts pressure on the company to commit to more energy savings measure to implement.

When the monitoring report is submitted: the VO verifies the calculations and the results. He keeps a close eye on the trend of the EPIs and on the progress in implementing energy saving measures. If a measure is cancelled by a company, the company needs to propose alternative energy saving measures with about the same energy saving impact.

The (head of the) Verification Office reports to a Commission, composed by representatives of the Ministry of Energy, of Economy and the involved industry sector organisations. This Commission oversees the correct operation of the Verification Office and issue an annual public report (but no report was issues in 2019). The Commission meets on a regular basis (bimonthly I presume).

Individual cases are usually only discussed bilaterally between the company and the appointed VO. Individual cases are usually only discussed by the Commission, when the Verification Office has concluded that the company consistently fails to comply. It does happen that the company, the Commission and the Verification Office then agree to stop the participation of the company.





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improvement.

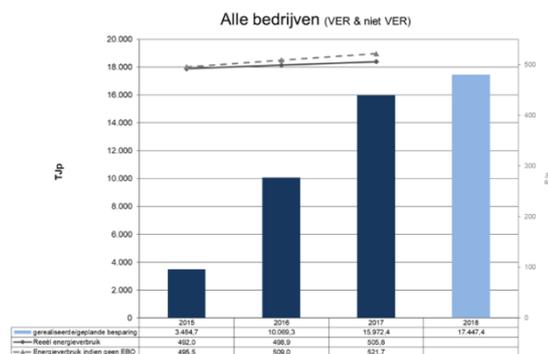
The monitoring of the energy savings is based on the first-year energy savings of the individual energy saving measures. These are estimated per energy vector and converted to annual primary energy savings and annual CO<sub>2</sub> emission reductions. They are aggregated per company for monitoring the company's performance and per industry sector for public reporting.

For the monitoring of the energy efficiency improvements, the companies need to calculate the primary energy consumption for each of the production units they defined for the annual monitoring and to compare these with a production figure. This yield an Energy Performance Index (EPI) per calendar year at production unit level. These are then aggregated to an EPI at company level for monitoring the company's performance an at industry sector level for public reporting.

Current target and results (overall achievements vs. targets or objectives in the most recent years; longer series and details per sector, etc. to be presented in p.2)

There is no specific energy saving target, neither for the individual participating companies nor at agreement level.

Realised energy savings:



Grafiek 1: Gerealiseerde (donkergekleurd)/geplande (lichtgekleurd) besparingen (VER en niet VER-bedrijven)

Realised CO<sub>2</sub> emission reductions

### Organization and MRV

Reporting cycles (frequency of re[orting and scope of the results/achieved factors included in the reporting)

The participating companies have to issue a monitoring report on an annual basis – see left column for more details.

Measurement and verification of energy savings (main types of method used to calculate the savings: deemed savings, energy audits, surveyed, etc.; datasets and baselines used; what types of verifications of the savings: review of the data submitted, billing analysis, on-site measurements, other)

The energy savings are estimated by independent energy consultants. In view of the wide variety of possible energy saving measures, different calculation methods are used. These can be deemed ones for simple energy saving measures (such as relighting), but might rely on a metering campaign for more complex energy saving measures. When proposing energy saving measures, the consultant must consider how these savings can be verified once the measure would be implemented. There is a clear call from the Verification Office to the participating companies to meter the savings as much as possible, once the energy saving measure is implemented.

All reports, submitted by the participating companies, are thoroughly verified by the appointed VO. This includes a site visit to verify invoices or other documents and the actual implementation of the energy saving measure. Usually, the company is visited by the VO once a year.

Other noteworthy issues

None.





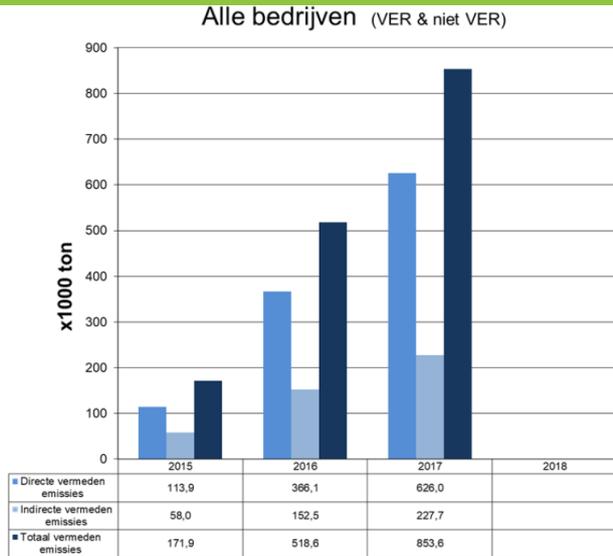
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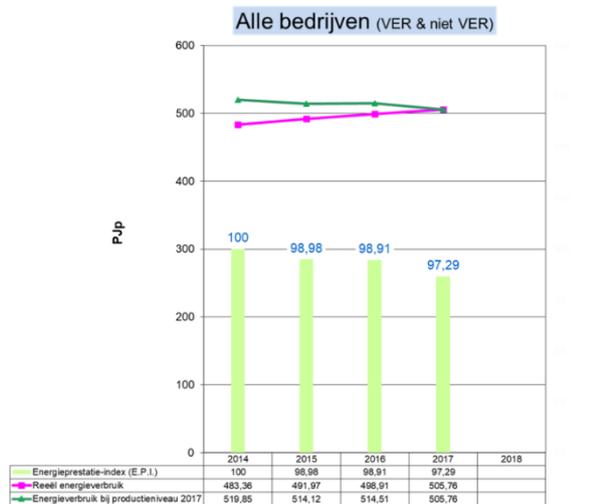
### General information

### Organization and MRV



Grafiek 23: Vermeden CO<sub>2</sub>-emissies (VER en niet VER-bedrijven)

Realised energy efficiency improvements, using two indicators: 1) the Energy Performance Index (light green bars); 2) a comparison between the actual (pink line) and the frozen efficiency (green line) primary energy consumption, freezing both the Energy Performance Index and the production figures at 2017 levels



Grafiek 26: Evolutie 2014 – 2017 van het energieverbruik en de E.P.I. voor alle bedrijven

(see latest annual report: <https://ebo-vlaanderen.be/sites/ebovlaanderen/files/downloads/20190204%20Jaarverslag%202017%20Commissie%20EBO.pdf>)

Plans for next period (i.e. beyond 2020)

There is a political agreements to move to new agreements after 2022. Their scope is likely to include water efficiency.



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### General information

#### Sectoral coverage

Sectors/actions covered or eligible

Only industrial companies with an annual primary energy consumption of at least 0.1 PJ are targeted.

See table below for more details on number of participating companies:

(sub)sector <sup>(1)</sup>	VER	niet VER	Totaal
CHEMIE	56	32	88
KUNSTSTOFFEN		24	24
RAFFINADERIJEN	4		4
IJZER & STAAL	2	3 <sup>(2)</sup>	5
PAPIER	4		4
PAPIER- & KARTONVERWERKERS		2	2
DRUKKERIJEN		3 <sup>(3)</sup>	3
VOEDING	29	67	96
MENGOEDERS		7	7
NON-FERRO	6	7	13
METAALVERWERKING	3 <sup>(4)</sup>	23	26
TEXTIEL	8	26	34
HOUT	4		4
KERAMISCHE SECTOR	15		15
OVERIGE MINERALE NIET-METAALPRODUCTEN	6	9	15
GLAS	3	1 <sup>(5)</sup>	4
<b>TOTAAL</b>	<b>140</b>	<b>204</b>	<b>344</b>

Tabel 1: Overzicht toegetroten bedrijven per (sub)sector

(Chemie: Chemical / Kunststoffen: plastics / raffinaderijen: refineries / ijzen & staal: ferrous / papier: paper mills / papier- en kartonverwerking: paper processing industry / drukkerijen: printing sector / voeding: food and beverages / mengvoeders: fodder production / non-ferro : non-ferrous / metaalverwerking: metal processing / textile: textile / hout: wood processing / keramische sector : ceramics / overige mineral niet-metaalproducten: other mineral non-metal products / glas: glas production  
VER: ETS /niet VER: non-ETS.)

Mention briefly if the scheme includes quality requirements and any type of controls to verify the quality of the actions.

There is thorough and stringent verification of the compliance of the participating companies by the Verification Office.

The Commission keeps a close eye on the correct operation of the Energy Governance Agreements.

These mechanisms include a sufficient level of checks and balances; there are no additional quality requirements.

#### Energy poverty coverage

Not relevant, as only industrial companies are targeted by the agreements.

### Organization and MRV

#### Costs and benefits

Resource of financing and administrative costs (in total or per cycle)

The companies have to bear all costs for energy auditing and for annual monitoring. There are no specific subsidies in place to finance the implementation of the energy saving measures. They do not prohibit the participating company of receiving subsidies for particular measures of such scheme would be in place. For instance, there is a dedicated (blue) certificate scheme for cogeneration. CHP investments instigated by the Energy Governance Agreements are eligible to receive CHP certificates.

The operational costs of the Verification Office is born by the Flemish Government.

There is a financial benefit for the participating companies; they are granted energy tax reductions.

Costs and benefits allocated to different actors (incurred fees, comparison of the financial factors to the market standard, information provided or support offered, limits of financing, non-financial benefits, other information where relevant)

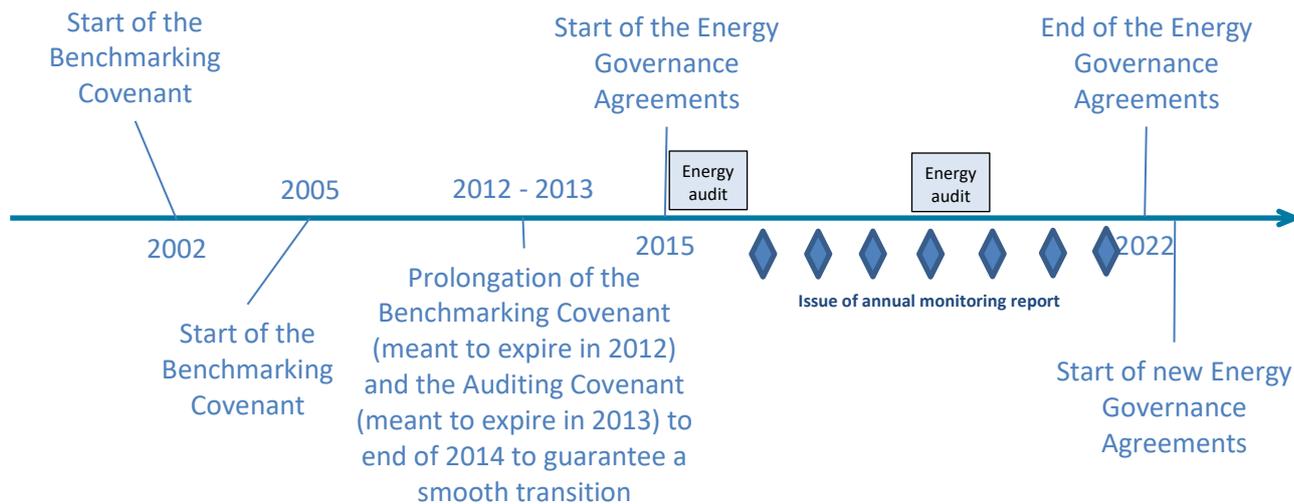
Costs for energy auditing: typically 10,000 €.

Granted energy tax reduction: there are no official data. I have one figure at hand of 1 company consuming 0.2 PJ primary energy consumption (about 20 GWh electricity and 15 GWh natural gas); the benefits amounts to 45,000 € annually. As a result of changes in the tax regime, this benefit would increase to about 100,000 € annually.

Sustainability of the scheme (refinancing)

Very sustainable, as voluntary agreements started in 2002 already and will continue after 2022.





Graphs about main results from the Flemish voluntary agreements

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### ***What have been the main changes in the Energy policy agreements with companies in Flanders in the recent years?***

The most fundamental change was the modification of the approach for companies with obligations under the EU ETS. In the Benchmarking Covenant, they had to benchmark their energy consumption and to commit to arrive in the top 10% best performing companies. This approach was copied from the Dutch Benchmarking Covenant, that started a few years earlier. (This Dutch agreement did not make it to the end; it was abandoned in 2008.)

The Auditing Covenant had a simpler approach and relied on the results of an energy audit.

When moving to the Energy Governance Agreements, the approach of the Auditing Covenant was copied both for the companies with and without obligations under the EU ETS.

The obligation to implement an energy management scheme was also added to the Energy Governance Agreements.

### ***Were there changes in the MRV practices or practices that should be highlighted?***

No, monitoring, reporting and verification was very stringent from the start and remained to attain its high quality.

### ***What success factors have you identified?***

Energy management and energy policy is embedded in more than 300 of the biggest industrial companies in Flanders. Together, they represent close to 90% of the region's industrial energy consumption; so, it is a very relevant policy instrument.

Flanders has implemented very stringent MRV procedures, executed by a very competent Verification Office. All verification officers are senior energy experts and are reputed for their competence and their authority. No other country with an operational voluntary agreement organises the MRV with such a high standard. The Flemish approach really is exemplary.

The annual improvement of the Energy Performance Index amounts to:

ETS-companies:

- Benchmarking Covenant (2002-2014): 0.9%
- Energy Gov. Agreement (2014-2017): 0.9%

Non-ETS companies:

- Auditing Covenant (2005-2014): 1.4%
- Energy Gov. Agreement (2014-2017): 0.7%

About half of these improvements can be considered as additional. So, in all, one can consider these voluntary agreements as effective.

(For a discussion about the additionality: see Cornelis E. History and prospect of voluntary agreements on industrial energy efficiency in Europe. *Energy Policy* 132 (2019) 567–582 - <https://doi.org/10.1016/j.enpol.2019.06.003>)

The Benchmarking and Auditing Covenants did survive the Global Financial Crisis (in contrast to the Dutch Benchmarking Covenant). Yet, the Energy Performance Indices, the primary KPI to track the participants' performance, increased in 2008-2009, where they should decline. Luckily, they ended a few years later, so that the EPIs could recover.

The Government was wise enough to prolong both the Covenants to the end 2014 to assure a smooth transition to the Energy Governance Agreements. This created stability and confidence in the energy policy framework.

### ***Are there interactions with other policies?***

In the early years of the Covenants, there was an energy efficiency obligation scheme (EEO) imposed on distribution grid operators. Energy auditing was for a short period (2002-2004 if I remember well) an eligible energy saving measure; causing interaction between the Benchmarking Covenant and the EEO. Also quite some energy saving measures, to which the participants of the Covenants committed to, were financed by the EEO. There was no correction for double counting.

Participants of the Benchmarking Covenant were granted free CO2 emission rights. As a result, all – but one specific case – companies with obligations under the EU ETS joined the Benchmarking Covenant.

The energy consumption of these participants is well reported and verified for the sake of the Benchmarking Covenant. It is a very small step to convert these verified energy consumptions into verified CO2 emissions. Hence, the verification of the CO2 emissions for the sake of the EU ETS was carried out by the Verification Office, whereas in all other countries, the ETS-companies have to pay auditors for such verification. This was hence an additional benefit.

Participants of the Benchmarking Covenant, who failed to arrive at the top10% best performing companies, had to purchase CO2 emission rights to compensate for the remaining gap.

When the Article 14 of the Energy Efficiency Directive had to be implemented by the EU Member States, the Energy Governance Agreements were used as a vehicle to assess the potential of CHP amongst the participants.

### ***Are there any expected modification under discussion?***

The rate at which the energy efficiency improves declines. The most cost-effective energy saving potential is tapped; the low hanging fruit is seized; “het vet is van de soep.”

There are plans to include water efficiency to the scope of the new agreements that will start from 2023 on.

### ***If you could go back in time, what would you suggest to do differently?***

I would change the financial benefits granted. The participating companies are granted energy tax reductions, which is a benefit related to the energy consumption. It would be better to grant a benefit that relates to the improvement of the participants' energy efficiency. For instance, the participants could be granted access to a privileged energy efficiency fund helping them to finance the energy efficiency measures.

I also would stimulate knowledge transfer amongst the participants. This is well embedded in the design of – amongst others – the Irish and Swiss voluntary agreements. Learning networks on energy efficiency is also an approach that is proven in Germany and Sweden.

Finally, I would evaluate this policy instrument according to policy evaluation standards. Currently, nor its effectiveness neither its cost-efficiency is assessed. Only the evaluation of the Benchmarking Covenant of 2008 was made public and this one focuses on operational aspects only.