



Nederlandse Emissieautoriteit
Dutch Emissions Authority

Summary Report on Energy for Transport 2015

Compliance of obligations under Renewable Energy for transport and under Air Pollution from fuels legislation in the Netherlands

Companies delivering fuels to the Dutch transport market are subject to requirements following from the legislation and regulations for renewable energy for transport and for air pollution from fuels, together; legislation and regulations on energy for transport. The Dutch Emissions Authority (NEa: *Nederlandse Emissieautoriteit*) is the competent authority and supervising body for this. This report contains the results for compliance with the legislation and regulations on energy for transport in 2015. It is based on the data that companies supplied to the NEa and which will be checked by NEa within the scope of supervision.

Developments

- Companies have comfortably achieved the increased annual renewable energy for transport obligation (from 5.5 to 6.25%). They delivered almost 3.7% more renewable energy than they were obliged to, which can be used towards part of their obligation for 2016. The permitted savings margin for 2015 has not been totally used up.
- The use of double-counting biofuels has increased slightly (from 68 to 72%). This includes significantly more used cooking oil than in 2014 (an increase of 68%), coming from Western Europe and North America but on the other hand, the use of animal fat decreased by 54%.
- Companies mainly used biofuels that are subject to technical blending restrictions, FAME in particular. According to current insights, it will not be possible to achieve the target for 2020 using these biofuels alone. There is only limited use of energy types for which these restrictions do not apply, or apply to a lesser extent, such as HVO or gaseous biofuels.
- The greenhouse gas emissions reduction in the fuel chain, which was not subject to requirements in 2015, increased slightly nationally (from 2.3 to 2.5%). There is still 3.5% to go to achieve the European target for 2020 (6%).

Figures		
<i>Renewable Energy for transport annual obligation (HEV jaarverplichting; HEV: hernieuwbare energie vervoer)</i>		
	▪ Number of companies with an annual obligation:	46
	▪ Level of annual obligation:	27.2 million GJ
<i>HEV claims</i>		
	▪ Number of claimers:	18
	▪ Renewable energy claims registered:	28.2 million GJ
	▪ Increase compared with 2014:	15%
	▪ Number of Renewable Energy Units (HBES: <i>Hernieuwbare Brandstofeenheden</i>) created in 2015:	28.2 million
	▪ Number of HBES saved from 2014:	4.2 million
	▪ Number of HBES carried over to 2016:	5.2 million
<i>Air Pollution from Fuels (BL: Brandstoffen luchtverontreiniging) greenhouse gas emissions reduction</i>		
	▪ Number of companies subject to reporting obligation:	72
	▪ Greenhouse gas emissions reduction achieved:	2.5%

Legislation

Renewable Energy for transport

The objective of the legislation and regulations on renewable energy for transport (HEV) is that an increasing share of the fuels in the Dutch transport market will be renewable energy and this share will comprise 10% in 2020. A new system applies from 1 January 2015, which focuses on greater simplicity and reliability and in which the Energy for Transport Registry (REV: *Register Energie voor*

Vervoer) and Renewable Energy Units (HBE's) play a central role. This report presents the results of the first year under the new compliance mechanism.

Companies that deliver petrol, diesel and/or liquid biofuels to road and rail vehicles are obliged to demonstrate that in 2015 6.25% was supplied to the Dutch transport market as renewable energy. The HEV annual obligation is expressed in HBEs, which represent 1 gigajoule (GJ) of renewable energy delivered. Companies meet their annual obligation by having sufficient HBEs in their account in the REV on 1 April. They can create the HBEs if they themselves deliver renewable energy to transport (known as registering a claim) but can also purchase them from other companies. On 1 April, the registry automatically deducts the number of HBEs that corresponds to the annual obligation from the account of each operator.

Both deliveries direct to the Dutch market for transport and deliveries to a Dutch excise warehouse licence holder can be claimed. Claiming is on a voluntary basis, but there are strict conditions on who can register a claim and what can be claimed. The renewable energy claimed can be liquid and gaseous biofuels, liquid renewable fuels and electricity. Companies can only claim liquid and gaseous biofuels if they demonstrably comply with European sustainability criteria. Under certain conditions, biofuels that are produced from such sources as waste (often referred to as advanced biofuels) count double.

Air Pollution from Fuels

The legislation and regulations for Air Pollution from Fuels (BL) oblige companies to report on greenhouse gas performance for all fuels that they have delivered to transport. They do this in the REV. In addition, this legislation also contains an obligation to reduce greenhouse gas emissions by 6% in 2020 compared to the European baseline standard for 2010.

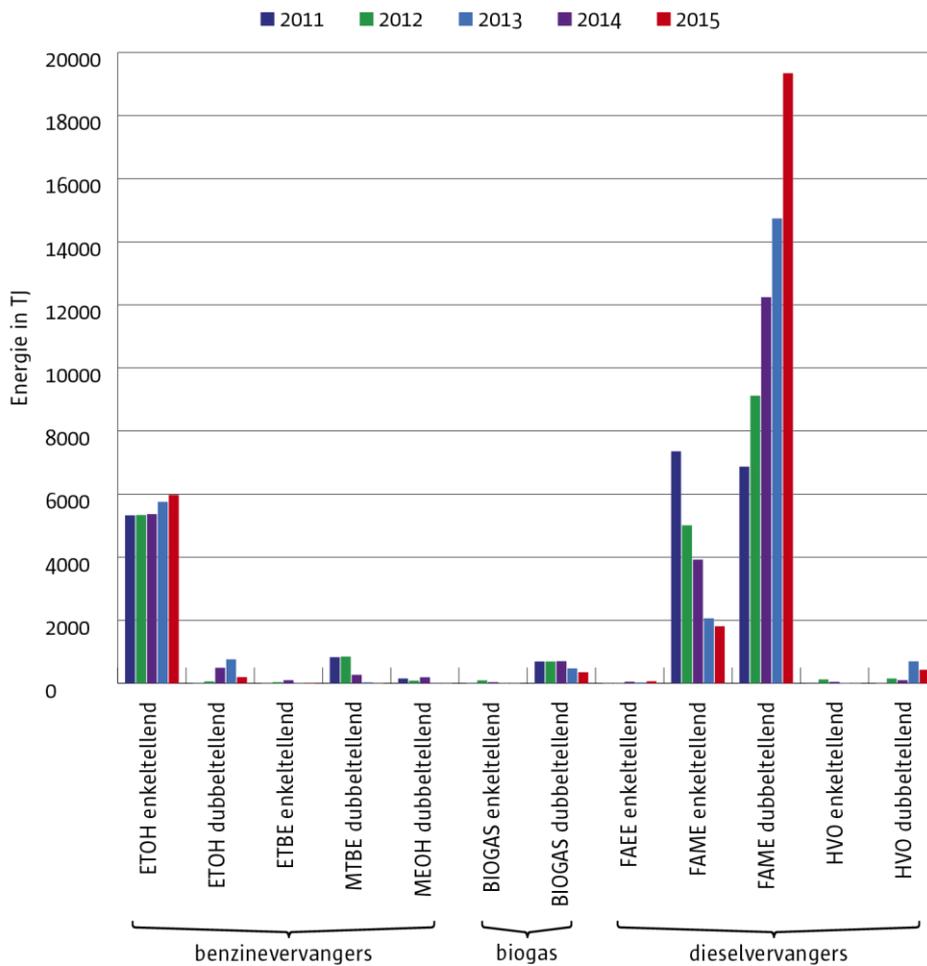
The NEa has the authority to check the data up to five years after the year of compliance. In the past however, the adjustments as a result of supervision activities have not led to substantial changes in the report on national compliance.

Key conclusions

- **HEV annual obligation:** In 2015, 46 companies were subject to an HEV annual obligation and reported a total of 434.7 million GJ of petrol and diesel as delivered to road and rail vehicles in the Netherlands. There was an annual obligation of 6.25% for this amount, which corresponds to 27.2 million GJ renewable energy. On 1 April 2016, all companies had sufficient HBEs in their accounts to meet their annual obligation.
- **Amount of renewable energy:** Claims have been registered for 28.2 million GJ renewable energy being delivered to the Dutch market for transport¹, and a similar number of HBEs have been created in the accounts in the REV. This is a 15% increase in delivered energy compared with 2014. Because the number of claimed HBEs exceeded the number of HBEs required for the annual obligation (see point 1) and because the registry also contained HBEs saved from 2014, part of the HBEs (5.2 million) could be carried over to 2016.
- **Fuel types:** The share of petrol substitutes fell in the renewable energy delivered in 2015 while the share of diesel substitutes rose (see the Figure below). In addition to the decrease in the amount of petrol substitutes, the number of types of petrol substitutes also decreased. The increased delivery of diesel substitutes comprised almost entirely of FAME. The amount of HVO, a biofuel that, from a technical standpoint, can be blended with diesel without limits, which was delivered was already small, and fell even further in 2015. The deliveries of gaseous biofuels and electricity remained limited.

¹ This included direct deliveries to the Dutch transport market as well as deliveries to other Dutch excise warehouse licence holders.

Energy in TJ²



Bron: NEa

Biofuels in 2011–2015, based on the calculated energy content (including double-counting)

Source: NEa

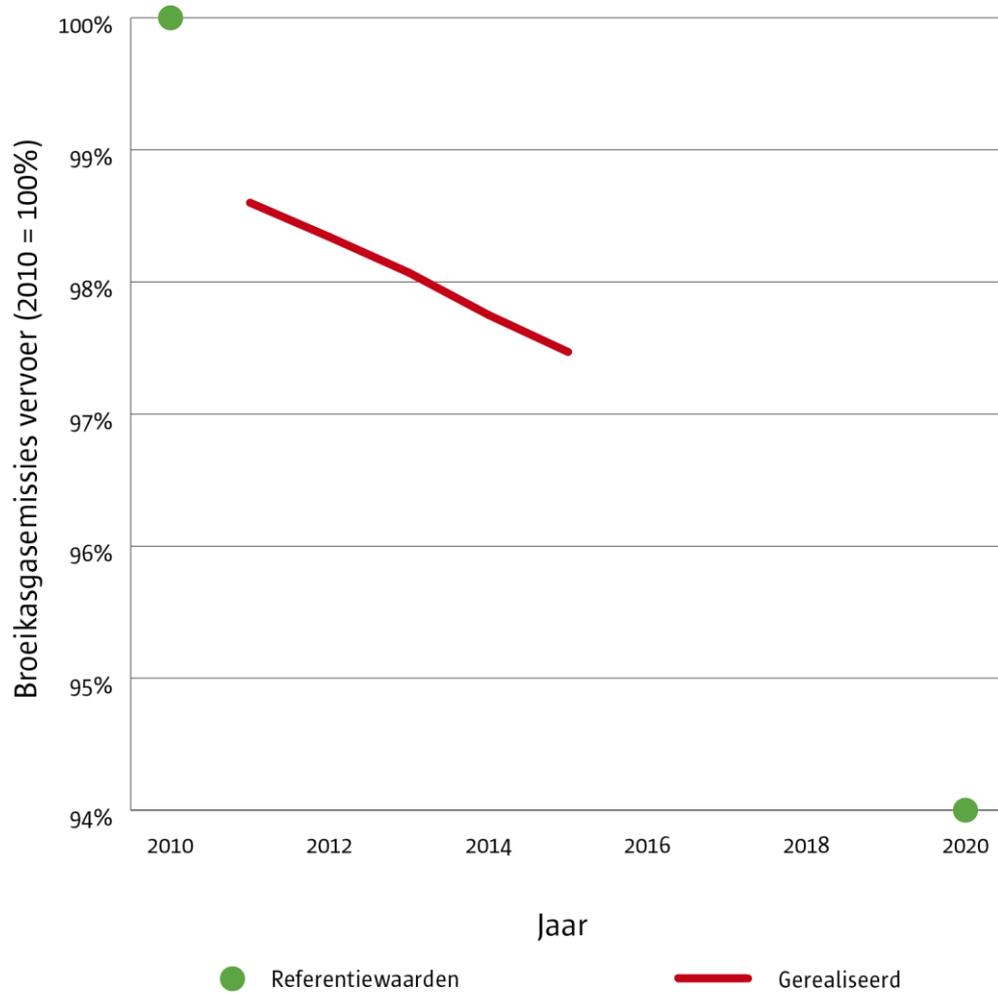
² Single-counting ETOH
 Double-counting ETOH
 Single-counting ETBE
 Double-counting MTBE
 Double-counting MEOH
 Single-counting BIOGAS
 Double-counting BIOGAS
 Single-counting FAEE
 Single-counting FAME
 Double-counting FAME
 Single-counting HVO
 Double-counting HVO

Petrol substitutes
 Biogas
 Diesel substitutes

- Double-counting share: The share of double-counting biofuels based on such sources as waste is high, and has increased slightly compared with 2014. This was a 72% share of the renewable energy delivered in 2015, while it was 68% in 2014. There was a substantial increase in the years 2011–2014. Based on the physical energy content (excluding double-counting) the contribution from the double-counting biofuels was 56%.
- Types of feedstock: The main feedstocks for the diesel substitutes that were used in 2015 were used cooking oil (44% of the total) and rapeseed (9% of the total). The use of both feedstocks increased because of deliveries from Western Europe and North America and deliveries from Germany, France and Australia respectively. On the other hand, the use of animal fat has decreased.

Wheat and maize were the main raw materials for petrol substitutes in 2015 (both 11% of the total). The use of these feedstocks has also increased because of deliveries from the United Kingdom and because of deliveries from Ukraine and Romania respectively. The use of waste and residues for petrol substitutes has decreased.

- Share of conventional and advanced biofuels: Based on the actual energy content, the proportion of the various categories of feedstocks in the amount of renewable energy delivered in 2015 was as follows: 43.2% conventional biofuels, 4.7% advanced biofuels and 52.1% other feedstocks. For the total fuel deliveries in 2015, this means a 1.8% share for conventional biofuels, 0.2% for advanced biofuels and 2.2% for the others category. The annual obligation for renewable energy for transport is increasing towards 2020. The degree to which the various feedstock categories will contribute to this cannot be determined yet. This is due in part to the way in which the Netherlands and other Member States implement the European legislation and the effect this has on the European biofuel flows.
- Feedstocks region of origin: Ten percent of the feedstocks originated from the Netherlands, which is a slight decrease in comparison with 2011–2013. The share of feedstocks from the rest of Europe was over 60% in 2015 and this was a slight increase in comparison with previous years. After a substantial decrease in 2013, the North America region once again showed a slight increase in 2015 but the contribution remained limited to 8%. The contribution by the South America region increased slightly in 2015 to 8%. The earlier growth from the South East Asia region did not continue in 2015 but the slight increase in feedstocks from Asia (other) did. Together, feedstocks from Asia (total) accounted for 14%. In 2015, a quarter of the feedstocks came from South and Central America, Africa and Asia, which is comparable with 2014. Of this, one third was from food crops and two thirds from waste streams, such as used cooking oil. This is a slight shift towards food crops. The report contains a more in-depth examination of the annual trends for the four raw materials making the largest contribution: used cooking oil, wheat, maize and rapeseed.
- Voluntary schemes (for sustainability): The share of ISCC EU reported as a voluntary scheme increased to 99%. The only other reported voluntary scheme is NTA8080, which is used to demonstrate the sustainability of biogas. One of the reasons for this high ISCC EU share is the fact that under the new system the claiming operator itself [?] has to be certified. In the past, companies were allowed to report the sustainability system of the last link in the supply chain. In practice, claimers opt for the generically applicable ISCC EU, which also accepts other voluntary schemes in the supply chain.
- BL reporting obligation: In 2015, 72 companies were subject to a BL reporting obligation. They reported on their fuel deliveries to road vehicles, rail vehicles, mobile machinery, agricultural or forestry tractors, inland waterway vessels and recreational craft in the REV.
- BL greenhouse gas emissions reduction: The greenhouse gas emissions reduction achieved in 2015 for the delivery of all fuels to transport in the Netherlands was 2.5% in relation to the European baseline standard for 2010. This is an improvement on 2014 (2.3% then; see the Figure below) but the gap to be bridged towards 2020 (6%) is still 3.5%.
- Use of fuels: In 2015, the use of 'better' fossil fuels (such as LPG and LNG with a relatively good greenhouse gas performance) fell slightly and the use of renewable energy for transport increased slightly in comparison with 2014. The reported average emission factor for the diesel substitutes stabilised to just under 20 grams CO₂-equivalent per MJ, whereas that for petrol substitutes fell to just above 30 grams CO₂-equivalent per MJ.



Bron: NEa

Greenhouse gas emissions from fuels for the Dutch transport market³

Source: NEa

³ Greenhouse gas emissions for transport (2010 = 100%)

Year

Reference values

Achieved