

Biofuels policy in Germany

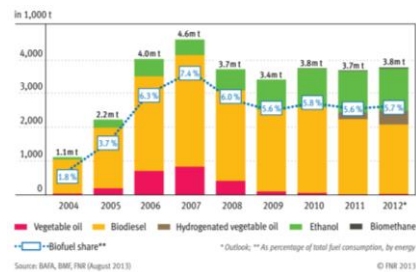
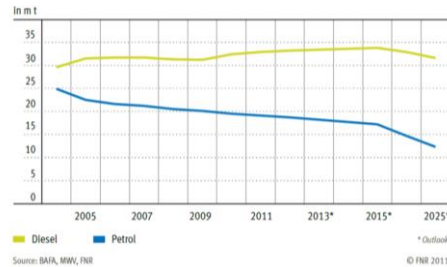
TAIEX/ECRAN Workshop on Climate
Legislation in relation to Transport

14th April 2016

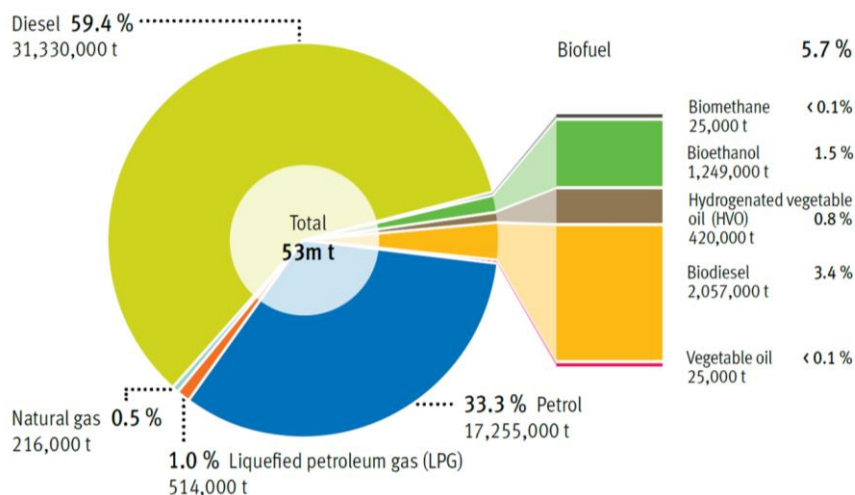
Fuels market in Germany

Market data: Fuels / Biofuels

- Fuels market:
 - Diesel 36,5 Mio. t
 - Petrol 18,8 Mio. t
- Biofuels share:
ca. 5,2 % (by energy)
- Main biofuels:
 - Biodiesel, HVO: 2,3 Mio. t
 - Bioethanol: 1,2 Mio. t



Market data: Fuels / Biofuels



Source: BAFA, erdgas mobil, DVFG, BMF, FNR (2013)

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Market data: Fuels / Biofuels

- around 15000 gas stations
- Other fuels:
 - LPG (around 6500 gas stations)
 - CNG (around 1000 gas stations)
 - E85 (around 350 gas stations)
- Biofuel production capacities (2013):
 - Biodiesel: approx. 4,8 mio. t
 - Bioethanol: approx. 0,95 mio. t

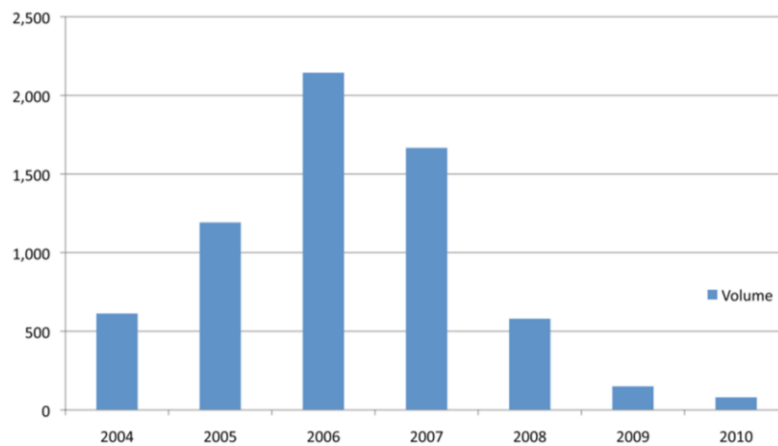
Market introduction through tax
subsidies / energy quota

Fuel taxes

	– 7 /2006	8–12 /2006	2007	2008	2009 – 2012	2013– 2015	Ab 2016
Pure biodiesel (from 2007 only <u>outside</u> quota)	0	9	9	15	18	45	
Vegetable oil (from 2007 only <u>outside</u> quota)	0	0	2	10	18	45	
E85 (from 2007 only <u>outside</u> quota)	0	0	0	0	0	0	65
Biodiesel / Vegetable oil / E85 <u>within</u> quota	–	–	47 / 65				
BtL / Cellulosic bioethanol	0						47 / 65
Diesel	47						
Petrol	65						

Tax exemption

(in Million Euros)



Source: Federal Government of Germany (2006a, 2007a, 2010b)

Tax exemption, energy quota

- Up to 2006 only tax reduction for biofuels (currently only tax subsidy for **biofuels** used **in agriculture**)
- Biofuels quota from 2007 largely gradually replaced tax reduction (§§ 37a-37g Bundes-Immissionsschutzgesetz / Federal Immission Protection Act)
- Obligation to sell a specified **minimum share (quota)** of fuel as **biofuels**
- Up to 2014 amount was determined as percentage regarding the energy content
- Within the quota, **biofuels** are **fully taxed**

Energy quota

- Annual energy quota:

Years	Overall	Diesel	Petrol
2007	–	4,4 %	1,2 %
2008	–	4,4 %	2,0 %
2009	5,25 %	4,4 %	2,8 %
2010-2014	6,25 %	4,4 %	2,8 %

- Biofuels were the only way to fulfil the target
- Double counting provisions for waste-based fuels in 2011-2014

GHG targets

- Annual GHG targets:

Years	GHG target
2015-16	3,5 %
2017-2019	4 %
from 2020	6 %

- Target continues after 2020 at the level of 6 %
- No double counting anymore, but waste-based biofuels typically have a better GHG balance

Sustainability criteria

Scope

- Biofuels have to be sustainable as a prerequisite to
 - Counting toward RED targets
 - Counting toward FQD targets
 - Counting toward national renewable energy obligations (as e.g. biofuels obligations/quotas)
 - tax support
 - ETS
- Under GHG targets specifically important as GHG balance is calculated with same method

National implementing acts

- Sustainability criteria have been implemented in
 - **Ordinance on the requirements for sustainable production of biofuels (Biofuel-sustainability ordinance – Biokraft-NachV)**
 - Ordinance on the requirements for sustainable production of liquid biomass for electricity production (Biomass-electricitysustainability ordinance - BioSt-NachV)
- Criteria valid since January 2011
- proof that biofuels have been sustainably produced must be provided in order to count a consignment of biofuels toward the quota

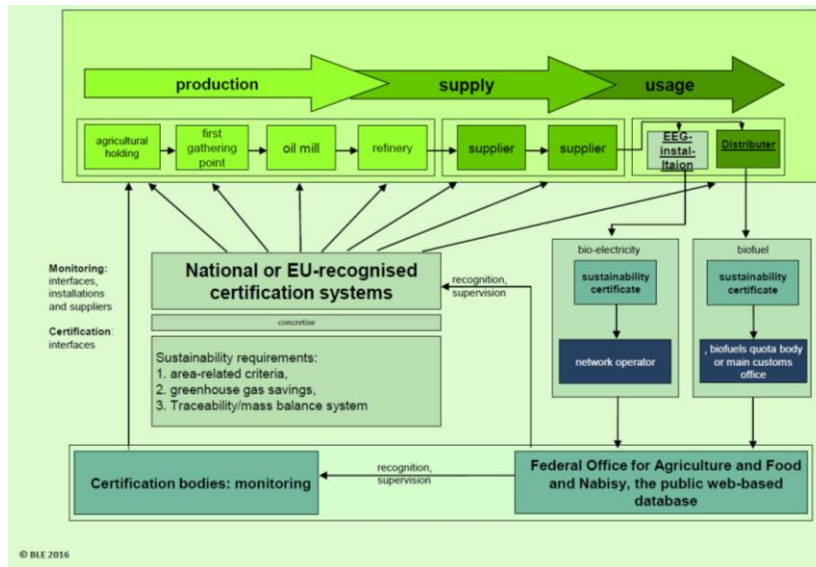
Main criteria

- GHG criteria:
 - biofuels must achieve GHG savings of at least 35% in comparison to fossil fuels.
 - savings requirement rises to 50% in 2018
 - new production plants have to achieve 60% (new = not in operation before 5 Oct 2015)
 - Calculation of GHG emissions: life cycle emissions; it includes emissions from cultivation, processing, and transport.
- biomass not grown in areas converted from land with previously **high carbon stock** such as wetlands or forests.
- No raw materials obtained from land with **high biodiversity** such as primary forests or highly biodiverse grasslands.

Available methods

- through '**national system**'; has to be provided by Member States, see Article 18(3) RED or Article 7c(3) FQD (currently 2 national certification systems)
- through '**voluntary schemes**' that the Commission has recognised, see Article 18(4) RED or Article 7c(4) FQD (currently 19 schemes)
- *in accordance with the terms of a **bilateral or multilateral agreement** concluded by the Union and which the Commission has recognised, see Article 18(3) RED or Article 7c(3) FQD*

Biomass flow



Source:
BLE

Responsibility of authorities

- BLE is responsible for
 - **recognizing** and **monitoring** (e.g. through witness audits) **certification systems** and **certification bodies** for the national system,
 - maintaining database “nabisy” which stores proofs of sustainability
 - responding to queries from certification systems
 - annual reporting
 - **not** for monitoring economic operators directly (certification bodies)

Responsibility of certification systems

- Certification systems
 - specify standards in compliance with the requirements of sustainability criteria,
 - define how to prove compliance with to these standards,
 - provide the inspection of the evidence.

Responsibility of certification bodies

- Certification bodies are independent **auditors**
 - certifying
 - verifying the achievement of the legal sustainability requirements (and, where appropriate, more ambitious standards of the certification system)
- Currently 26 certification bodies recognized by BLE

Agricultural operation

- fulfil requirements of a certification system
- cultivate sustainable biomass and pass it on to first gathering point
- transmit relevant data as to traceability and greenhouse gas emissions to the next operator in the production and supply chain
- Spot checks (national system: 3-5 % of entities; EU voluntary schemes: square root)

First gathering point / Biofuel producer

- Need to obtain a certificate (valid for one year) from certification bodies after initial audit
- regular audits at least once a year
- certificate allows
 - first gathering point to sell sustainable biomass
 - biofuel producer to create proofs of sustainability in Nabisys for each consignment produced
- proof of sustainability is passed on to customer in the event of biofuel trade

Proof of sustainability

- Main content:
 - Name/address of biofuels producer
 - Certification scheme,
 - Date of issuance,
 - Unique number of proof,
 - Amount and type of biofuel,
 - Type of biomass,
 - Country of origin of biomass,
 - Energy content,
 - GHG emissions / MJ

Proof of sustainability

- checked for plausibility by Nabisy
- accuracy of the data:
responsibility of the voluntary scheme or national system

NACHHALTIGKEITSNACHWEIS für Biokraftstoffe nach den §§ 15 ff. Biokraftstoff-Nachhaltigkeitsverordnung (Biokraft-NachV) Nummer:		
Schnittstelle: <small>(Name, Adresse, Zertifikatsnummer)</small>	Nachweis-Empfänger: <small>(Name, Adresse)</small>	Zertifizierungssystem: <small>(Name, Internetseite*, Registriernummer)</small>
1. Allgemeine Angaben zum Biokraftstoff: Art, evtl. Anteile <small>(z.B. 80 % Rapsöl, 20 % Palmöl):</small>		
Menge (t oder m ³):	Anbauland*:	
Energiegehalt (MJ):		
Die Biomasse ist aus Abfall oder aus Reststoffen hergestellt worden, und die Reststoffe stammen nicht aus der Land-, Forst- oder Fischwirtschaft oder aus Aquakulturen. <input type="checkbox"/> ja <input type="checkbox"/> nein <small>Hinweis: Falls ja, sind keine Angaben unter 2. erforderlich.</small>		
2. Nachhaltige Herstellung des Biokraftstoffs nach den §§ 4 – 7 Biokraft-NachV: Der Biokraftstoff erfüllt die Anforderungen nach den §§ 4 – 7 Biokraft-NachV. <input type="checkbox"/> ja <input type="checkbox"/> nein		
3. Treibhausgas-Minderungspotenzial nach § 8 Biokraft-NachV: <input type="checkbox"/> Das Treibhausgas-Minderungspotenzial ist wie folgt erfüllt: - Treibhausgasemissionen (g CO ₂ -e/MJ): - Erfüllung des Minderungspotenzials* bei einem Einsatz: - Erfüllung des Minderungspotenzials bei einem Einsatz in folgenden Ländern/Regionen (z.B. Deutschland, EU): Die Berechnung des Minderungspotenzials erfolgte ganz oder teilweise anhand von Standardwerten nach Anlage 2 der Biokraft-NachV. <input type="checkbox"/> ja <input type="checkbox"/> nein <small>* Für Biokraftstoffe aus nicht-kontrollierten Gebieten (z.B. aus Biokraftstoffen aus nicht-kontrollierten Gebieten)</small>		

Oil industry (obligated entity)

- obligated entity is the company placing fuel through the excise duty point (typically taking fuel from the tax warehouse)
- buy sustainable biofuels including proof of sustainability
- submit proofs of sustainability to customs authority on annual basis (15 April)
- custom authority de-activates proof of sustainability to ensure that it is not used multiple times

Further information on sustainability

- European Commission

<https://ec.europa.eu/energy/en/topics/renewable-energy/biofuels/sustainability-criteria>

- Website of BLE contains information in English language

http://www.ble.de/EN/02_Control/05_SustainableBiomassProduction/01_InformationMaterials/InformationMaterials_node.html

Further transposition – ILUC Directive (EU) 2015/1513

Cap / National subtarget

- **7 % cap** for „conventional“ biofuels (e.g. biofuels produced from **cereal** and other **starch-rich crops, sugars and oil crops**)
- **National subtarget** for „advanced“ fuels (Annex IX Part A RED) in 2020
- **Reference value: 0,5 %**
- MS may also set a national target below the reference value
- Level of national target has to be reported by **6 Apr 2017** to European Commission

Reporting ILUC-Factors

- Annual reporting:
 - Biofuel production pathways
 - Biofuels amounts (separate for pathway / feedstock)
 - GHG emissions including provisional mean values of the estimated indirect land-use change emissions from biofuels (**ILUC factors**)

Outlook

EU

- currently consultation on sustainability criteria, see <https://ec.europa.eu/energy/en/consultations/preparation-sustainable-bioenergy-policy-period-after-2020>

National level

- Implementation work currently on-going
- Consultation in 2nd half of 2016

Thank you!