Usage of biofuels in transportation

The energy for a better life.

Who we are?

- OMV produces and markets oil and gas, innovative energy and high-end petrochemical solutions – in a responsible way.
- With a well balanced Upstream portfolio, OMV also operates three refineries and more than 2,000 filling stations in ten countries.
- We have a strong experience with European Directives and renewables. Also, Romania is a flagship for Eastern Europe.

Agenda

1. European legislative framework. Outlook for 2021-2030
2. Disposition for implementation. Case study: Romania
3. Constraints and investments
4. Optimal path for future

EU perspective on biofuels – State of Play for 2020

Fuels Quality Directive

obliges suppliers to reduce the carbon intensity of fuels by 6 % in 2020 compared to a 2010 base value. Due to different MS approaches, different transpositions have been realised incl. intermediate targets in some MSs.

linked via sustainability criteria for biofuels

biofuels are seen as major compliance option for both directives

Renewable Energy Directive I

obliges MS to achieve a share of 10 energy% of renewable energy in surface transport in 2020. The EU countries have transposed this obligation into **specific (differing) biofuel blending targets** and into different nature of targets **(mandatory or indicative).**

- In 2015, two **amending directives** were enforced which **address the publicly discussed food vs. fuel, the indirect land use change, and the crude carbon intensity differentiation issue**

FQD Implementation Directive:

- sets new reporting rules for crude and product imports;
- includes UERs as alternative compliance mechanism;
- **Deadline for transposition: April 2017**

“ILUC and Cap Directive”:

- caps use of conv. biofuels to 7 energy% (table vs. tank);
- sets sub-target of 0.5 energy% of advanced biofuels with the possibility for the MS to reduce it under certain conditions
- **Deadline for transposition: September 2017**

Outlook 2021-2030: Renewable Energy Directive II

European Commission Proposal	General Approach Council	European Parliament	Trilogue negotiations	Final adoption	National implementation
Renewable Energy Directive II					**by 20.6.2021**

Key issues

- Renewable Energy Directive II – which aims at extending the targets of RED I (incl. ILUC) to 2030 – was **published in December 2018.** Key elements:
  - EU-wide target of 32 % of renewable energy (final energy consumption) by 2030
  - share of 14% in renewable energy in national transport sector by 2030
  - 3.5% target for advanced biofuels by 2030, with major milestones in 2022 (0.2%e) and 2025 (1%e).
- **Delegated acts to be adopted by the European Commission**
  - Definition of high and low indirect land use change feedstock → 1 February 2019 and review latest on 1 September 2023.
  - Definition of minimum GHG saving threshold for recycled carbon fuels → latest 1 January 2021
  - GHG savings (and energy content) methodology of renewable transport fuels of non-biological origin and recycled carbon fuels → latest 31 December 2021
  - Co-processing methodology → latest 31 December 2021.

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Disposition for implementation
Country policy profiles

Actual status and issues

- The EU targets are transposed into national targets, which EU Member States are due to achieve through the implementation of a National Renewable Energy Action Plan (NREAP). NREAPs are then translated into concrete legal framework, policies and incentives to achieve the expected objectives. Very important to note that each Member State has different national targets, according to national specific and particularities.
- All EU countries transposed the RED and the FQD into national legislation. While RED implementation was effective early in France and Italy (2011), Ireland and Spain encountered delays in fully implementing the RED, especially mechanisms for the verification of compliance with biofuel sustainability criteria.
- Most countries encountered delays in fully implementing the FQD, especially the mechanism for accounting and reporting GHG intensity of fuels by retailers.

Member State	Law harmonization	Bio mandate in diesel	Bio mandate in gasoline	Overall energetic target (Y/N)	Transition for energetic quota
Austria	Fuels order 2012	max. B7	max. E5	Y (double counting accepted)	Yearly; increased with 2%
France	Modification of Energy, Customs and Environment Codes 2011	max. B7	max. E5	Y (including double-counting biofuels)	2011-2014: fixed 2014-2017: fixed, higher mandates with 0,7% 2017-2020: fixed, higher mandates with 0,5%
Germany	Ordinance to Implement the Federal Pollution Control Act (2007, revised 2015)	max. B7	Both E5 and E10	Y (double-counting expired in 2014, once with transition to GHG reduction mandate)	2009-2014: fixed 2014-2023: fixed; higher mandates (2%)
Italy	Legislative Decree No. 145 of 23 December 2013 , updated on 13 December 2017	max. B7	max. E5	Y (double-counting only for advanced biofuels)	Yearly; increased with 1%
Ireland	Irish law on the 24th of October 2014 (No.483 on biofuels)	max. B7	max. E5	Y (no double-counting)	Every 2 years; increased with 1.5%
Hungary	Government Decree No. 343/2010	max. B7	max. E5	Y (double-counting accepted)	Fixed; starting from implementation
Spain	Royal Decree 1085/2015	max. B7	max. E5	Y (no double-counting)	Yearly; increased with 1%

Disposition for implementation

Case study: Romania is still working on meeting all commitments, even if discussions started ~10 years ago

2011: First Government Decision for biofuels promotion in fossil fuels

2017: First attempt of revising enforced regulation for higher biofuels content in order to meet GHG commitments under Paris agreement

2018, September: Government Ordinance released to avoid installing infringement policy

2018, December: Revised Government Ordinance released, but the lack of methodology norms and clarity in monitoring and reporting require new regulation

2019: Continue dialogue with competent authority for ensuring full transparency in reaching all targets related to the overall policy from Clean Energy Package (subject of change the actual bio legislation).

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Constraints and investments
Different scenarios depending on local specific

Constraints

- Poor and unclear policies to promote the production and/or use of biofuels
- Less incentives to stimulate the development of medium-large scale plants
- High unavailability of biofuels (including conventional ones, e.g. biodiesel)
- Local imbalance between supply and demand will implies higher imports
- Infrastructure compatibility (actual versus future, in case of higher blending levels; also, this can be linked with fleet compatibility to new fuels)
- Difficulties in ensuring appropriate and sustainable use, from well-to-wheel
- No silver bullet proof for right solution.

Scenario 1)
Local production, no imbalance on S/D

→ Investments in fleet compatibility
Adapt/invest in fuels suppliers facilities to deliver fuels with bio-quota

Scenario 2)
Local production, imbalance on S/D

→ Investments in importing biofuels volumes
Expand local production
Adapt/invest in local infrastructure

Scenario 3)
No local production, 100% import

→ Investments in importing biofuels volumes
Investments in local infrastructure

! *Proper biofuels promotion and use are subject to different investments levels and areas.*

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Optimal path for the future

Biofuels is key solution, but challenges go beyond bio-industry/refining battery limits

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for a better life.