FEDIL

The Voice of Luxembourg's Industry

Fit for 55 package

22 September 2021

Fit for 55 package

Proposals aiming to align the EU's laws and policies with its overall climate targets

EU's new climate targets

EU Members commit to a **legally binding -55%*** (-40% before) **emission reduction target** by 2030 in the European Climate Law. The law formalises the aims of the European Green Deal.

ETS sector -61%
(-43% before)

EU27 non-ETS -40%**
(-30% before)

Member States (MS) individual Effort Sharing Goals**

Overall EU -55% in 2030 compared to 1990

Fit for 55 package

A set of proposals to revise and update EU legislation necessary to reach the more ambitious climate goals set in 2021. The package includes the following:

Pricing

- Stronger Emissions Trading System (ETS) including in aviation
- Extending ETS to maritime, road transport, and buildings
- Updated Energy taxation Directive
- New Carbon Border Adjustment Mechanism

Targets

- Updated Effort Sharing Regulating
- Updated Land Use Land Use change and Forestry Regulation
- Updated Renewable Energy Directive
- Updated Energy Efficiency Directive

Rules

- Stricter CO2 performance for cars & vans
- New infrastructure for alternative fuels
- ReFuelEU: More sustainable aviation fuels
- FuelEU: Cleaner maritime fuels

Rules

- Using revenues and regulations to promote innovation, build solidarity and mitigate impacts for the vulnerable, notably through the new Social Climate Fund and enhance Modernisation and Innovation Funds.

Timeline: Negotiations over the package could continue for more than two years; according to insiders, the "ultimate deadline" for agreement may be the May 2024 European Parliament elections

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*compared to 1990;
** compared to 2005

Fit for 55 package

Focus of today's presentation

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Pricing	Targets	Rules
• **Stronger Emissions Trading System (ETS) including in aviation** • **Extending ETS to maritime, road transport, and buildings** • **Updated Energy taxation Directive** • **New Carbon Border Adjustment Mechanism**	• **Updated Effort Sharing Regulating** • Updated Land Use Land Use change and Forestry Regulation • **Updated Renewable Energy Directive** • **Updated Energy Efficiency Directive**	• Stricter CO2 performance for cars & vans • New infrastructure for alternative fuels • ReFuelEU: More sustainable aviation fuels • FuelEU: Cleaner maritime fuels

Rules

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Effort Sharing Mechanism (ESR)

What's new?

EU's new climate targets

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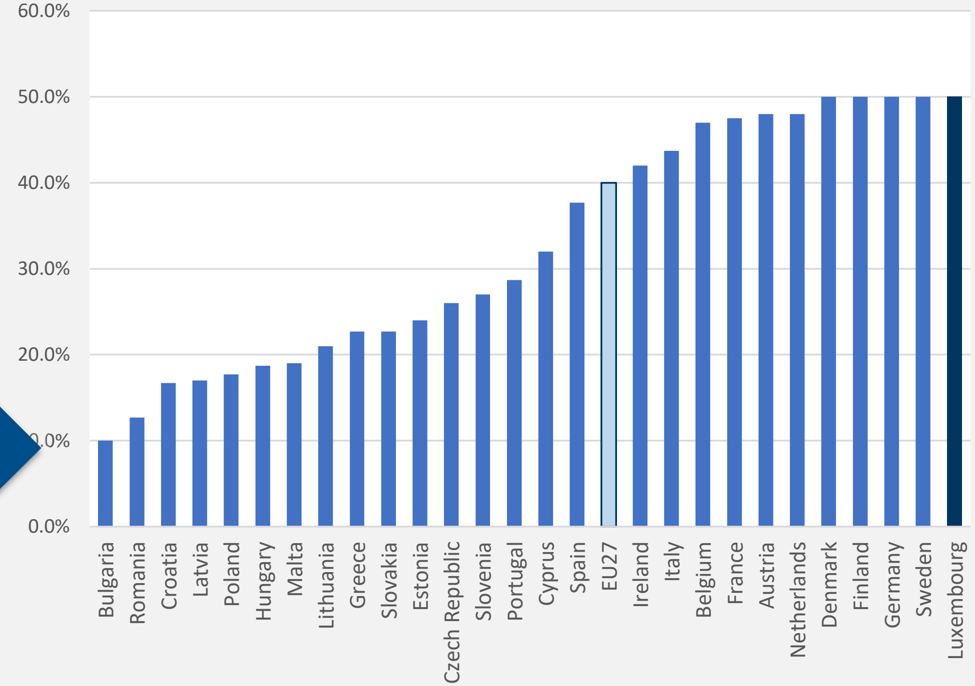
ETS sector -61%*
(-43% before)

EU27 non-ETS -40%**
(-30% before)

Luxembourg's ESR goal: -50%** (-40% before)

Luxembourg's government decided to overshoot the EU recommended goal with a -55% reduction target**

Proposed 2030 emission reduction target per Member State according to Effort Sharing Mechanism (ESR)**



- Lux. with four other Member States have the highest reduction targets of -50% by 2030 vs 2005
- Lux.'s higher targets of -55% ignores the EU's analysis and its recommendations for emission reduction targets without presenting a factual analysis of potentials, or solid sectoral decarbonisation strategies

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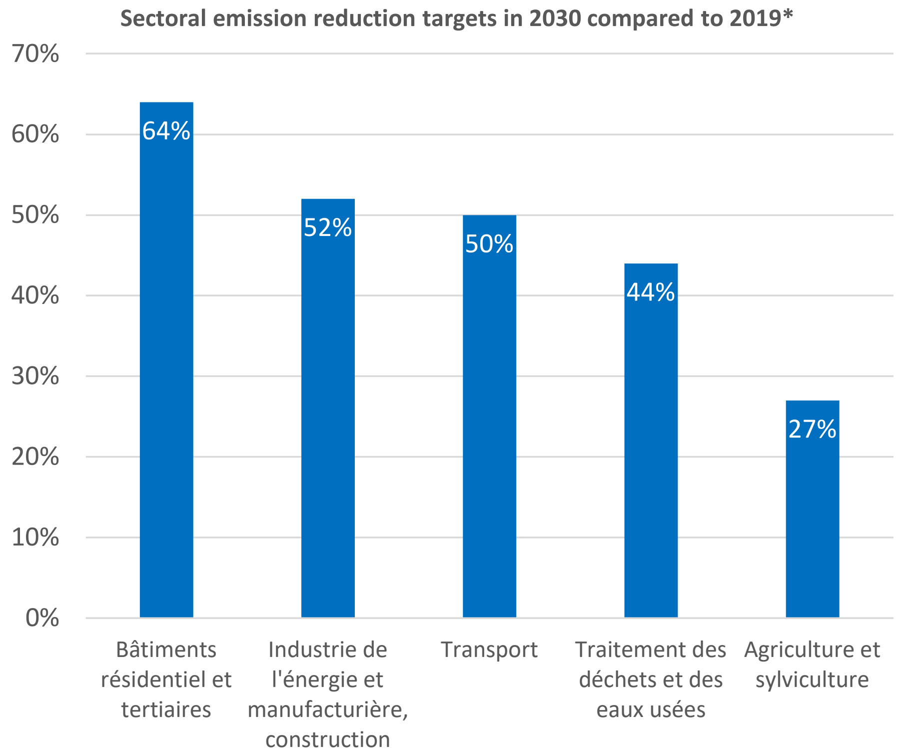
* compared to 1990; ** compared to 2005

Effort Sharing Mechanism (ESR)

Expected impact and FEDIL's Message

The Luxembourg government's national goal: -55% until 2030**



Expected impact on Luxembourg's industry

- Overshooting the ESR recommendations leads to higher sectoral goals for Luxembourg's industry and the other four sectors
- The Luxembourg government's targets for the non-ETS industrial sector is at -52% vs 2019 (= -49% vs to 2015)
- ESR regulation's scenarios suggests however -23% vs 2015 to decarbonise the EU's non-ETS industrial sectors

FEDIL's Message

- Empirical evidence shows that incremental technological measures as presented in the National Energy and Climate Plan will yield at best 20-25% of emission reductions until 2050 – while the target is at 52% reduction for 2030
- This leaves a gap of at least 27% to be filled with radically new technological approaches until 2030
- Without a comprehensive package of sector specific measures, the Luxembourg government risks not to succeed in delivering on its ambitious targets for 2030 and fail to reach carbon neutrality in 2050

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*Source Ministère de l'Environnement, 2021
** compared to 2005

FEDIL's propositions for industrial decarbonisation (III/III)

FEDIL's nine propositions to accelerate deep decarbonisation of the industrial sector

01 Make the CO_2 tax progressive for industrial companies

02 Provide a Voluntary Agreement Scheme (VA) for CO_2 reductions

03 Introduce an extraordinary state aid for the electrification of heat

04 Make electricity the energy of choice for industry by minimising state induced levies

05 Introduce super fiscal deductions for low carbon investments

06 Dynamize energy efficiency (EE) by introducing tradable EE certificates

07 Promote technology switches to renewable process heat production

08 Preserve technology neutrality

09 Specific measures for the construction sector

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Emissions trading system, EU ETS - updates

Proposed updates

Targets and trajectory

- New target: -61 % emission reduction by 2030 compared to 2005 (currently -43%).
- The linear reduction factor (LFR) is doubled from 2.2% to 4.2 % from the year following the entry into force of the Directive (expected 2023).
- A one-time reduction of the cap is made, so that the new linear reduction factor has the same effect as if it would have applied from 2021.
- No floor price is proposed.

Free allocations

- Are preserved but reduced by around 15% compared to current situation due to rebasing of the cap.
- Higher annual reduction by 2.5 % as of 2026 instead of the currently 1.6 %.
- Are made conditional on decarbonisation efforts to incentivise the uptake of low-carbon technologies
    - Need to implement GHG emission reductions potentials detected by mandatory energy audits, non-compliance entails up to -25% reduction of free allocation
- In 2036, free allocations of allowances shall be eliminated for the sectors included in the Carbon Border Adjustment Mechanism (CBAM). The number of free allowances for these sectors will be progressively reduced from 2026 onwards at -10% per year

Market stability reserve (MSR)

- The MSR (for the traditional ETS sectors) will be limited in size to max. 400 Mio allowances, allowances exceeding this limit are invalidated.
- The MSR will be working with a reduced intake rate at a total number of allowance in circulation (TNAC) from 833 Mio to 1096 Mio. Intake continues at the current rate of 24% above that threshold.

Emissions trading system - updates

Expected impacts and FEDIL position

Expected impact on Luxembourg's industry

- EU and Luxembourg based ETS manufacturer's OPEX will be massively impacted. EUA prices are expected to further rise because of the increased scarcity of allowances after the updates. Companies need to auction / purchase a more important number of allowances at higher prices as free allowances are reduced.
- The high carbon price risk to render fossil fuel base capital stock (in the energy, transport, manufacturing and building sector) economically obsolete before its end of life cycle: risk of output decline, inflation and carbon leakage.
- The rising EUA price will drive electricity prices up and thus also challenge the whole non-ETS industrial sectors.

FEDIL's key messages

- The slower the rise of the carbon price, the less capital stock will be discarded before it reaches the end of its economic life, the less important the economic disruptions and the risk of carbon leakage.
- In the absence of a level playing field, the reform further increases risk of carbon leakage as long as the carbon border adjustment mechanism (CBAM) is not operational and proves effective. It is thus premature to tighten the ETS system, i.e. increasing the LRF while still rebasing the cap and strengthening the MSR, before CBAM is in place.
- At least until CBAM is fully effective, free allocations must continue unchanged to take pressure off EU manufacturers facing now higher climate ambitions.
- Indirect the compensations must continue to preserve competitiveness of electricity intensive sectors.
- FEDIL developed a note on the EU ETS reform with 10 propositions for a cost-effective decarbonisation, that protects against carbon leakage while promoting the transition.

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Emissions trading system - Extensions

Proposed extensions

Extension to the transport and building sector

- A parallel trading system for buildings & road transport is planned with a 2030 reduction goal of 43% vs 2005.
- Monitoring & verification shall start the year after entry into force of the directive (presumably 2024).
- Full auctioning only will starting in 2026.
- The initial cap will be based on ESR data, to be updated with the new data in 2028.
- The initial Linear Reduction Factor (LFR) for 2026-2028 is set at 5.15%, with a preliminary LRF from 2028 of 5.43%, subject to change if the data indicates a substantially different LRF is needed to reach the 2030 goal.
- Consumers shall not be concerned by the trading system directly, but providers "further upstream"

Extension to the maritime sector

- The maritime sector will be included in the existing ETS and the cap will increase the number of allowances
- Companies need emission certificates for internal EU voyages, time spent in EU ports and for 50 % of the emissions used on voyages between EU and third-country ports.
- There will be a gradual phase-in: companies will have to surrender allowances for:
    - 20% of verified, in-scope emissions reported for 2023;
    - 45% of verified, in-scope emissions reported for 2024;
    - 70% of verified, in-scope emissions reported for 2025;
    - 100% of verified, in-scope emissions reported for 2026 and each year thereafter.

Emissions trading system - Extensions

Expected impacts and FEDIL position

Extension to the transport and building sector

- In both sectors CO_2 prices are expected to increase the end price of fuels significantly
- In the transport sector, CO_2 prices in fuels will be forwarded to clients, impacting logistic services for the EU industry whose international competitiveness is further going to suffer.
- An EU wide CO_2 price will create an EU level playing field provided there will be no double taxation.
- This may take-off pressure from Luxembourg's transport sector which represents much higher sectoral emissions relative to other EU economies.
- The same is true for the building sector as Luxembourg's building sector is strongly increasing unlike in other MS; different dynamics in the housing sectors across the EU may be levelled-off by an EU wide CO_2 price.
- FEDIL welcomes that both sectors will be managed by a parallel system, and not integrated in the current ETS.
- Integration is critical because both sectors have different CO_2 abatement costs, price elasticities, and risks of carbon leakage compared to energy-intensive industries. An integration risks to drive-up the price for certificates rapidly.
- Double taxation (national tax on top of ETS) must however be avoided for both sectors.

Extension to the maritime sector

- CO_2 prices in maritime fuels will be forwarded to clients, impacting logistic services for the EU industry whose international competitiveness is further going to suffer.
- The maritime sector is willing to contribute its share in reducing emissions. It is essential however that the EU system is scaled on a global level and aligned with the International Maritime Organisation's GHG reduction efforts.
- Double taxation (national tax on top of ETS) must be avoided.

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Innovation Fund

Update

What's new for energy-intensive sectors?

- The Innovation Fund (IF) is strengthened with more allowances from the auctioning share.
- The proposal foresees to increase the funding rate for projects to up to 100% of eligible costs.
- The scope of the Fund is extended to allow it to support projects through carbon contracts for difference (CCD).

FEDIL's Message

- Strengthening the fund, increasing the funding rate and extending it to CCD are highly welcome.
- However, to avoid undermining the effectiveness of carbon leakage measures, the increased size of the IF should be financed fully from the auctioning share rather than free allocation.
- Furthermore, if any free allocation is removed from CBAM sectors and allocated to the Innovation Fund, it should be used to finance only projects in such sectors, unless there are not sufficient projects in that sector.
- Given that the IF's scope is extended to road transport & buildings, distribution should be proportionate to the contribution of each ETS sector.

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Carbon Border Adjustment Mechanism (CBAM)

Design of the mechanism

How does the mechanism work?

- CBAM shall address greenhouse gas emissions embedded in the goods from the aluminium, cement, fertilizers, iron and steel industry, and in electricity when imported into the EU.
- Importer will need to purchase CBAM certificates equal to the direct emissions released during the production of their products subtracted by the number of free allocations granted to EU producers.
- Prices of CBAM certificates shall be based on the average price of the closing prices of EU ETS allowances on the common auction platform.
- The carbon levy for importers may be low as long as the European producers continue to receive free allowances from the EU ETS until 2036.
- The levy is expected to progressively rise as free allowances for EU sectors affected by CBAM will be progressively reduced starting from 2026 onwards by -10% per year.
- In 2036 free allocations for CBAM sectors will phased-out entirely. So that starting from 2036 only, importers will pay the total price for the CO_2 emitted during production as if they would be part of the ETS system.

What is the timeline?

- Between 2023 and 2025, a reporting requirement will be introduced for importers to calculate their carbon footprint.
- The Carbon Border Adjustment Mechanism (CBAM) shall starts in 2026; a review of the system is planned for that same year which could lead to an extension to other sectors.
- In a ten years period until 2036 importers will progressively pay more until they pay the same price for the carbon content embedded in their products as EU manufacturers.

Carbon Border Adjustment Mechanism (CBAM)

Expected impact

CBAM will increase the prices for all industries sourcing products from the sectors covered by the CBAM. For the latter sectors, the proposal does not create the level of protection needed.

The CBAM proposal does not address two of most significant risks of a carbon border adjustment:

- Absorption risk: While EU carbon costs apply to the entire production of an EU company, a carbon border measure is likely to apply only to the marginal volumes of a third country producers' export to the EU – hence, third country producers can dilute and absorb costs of a CBAM throughout their entire production.
- Source shifting: Third country producers may reorganise to export to the EU their lowest carbon footprint products while products with high embedded emissions are sold to other markets. CBAM will not contribute to creating a level playing field and may prevent effective climate protection

Considering the increased climate ambitions with a faster decrease of free allocations, the competitiveness gap to non-EU manufacturers will widen. Instead of preventing carbon leakage, the CBAM may accelerate it.

FEDIL message

- Phasing out the free allocations as long as the above issues are not addressed will significantly increase the risk of carbon leakage. As long as CBAM has not proven its effectiveness, free allocations and indirect cost compensation shall not be phased out. CBAM shall thus be introduced as a complementary measure to current provisions and not as an alternative.
- There is a risk that the increased climate ambitions for EU manufacturers may create new opportunities for imports into the EU as CBAM levies are not significant and can be circumvented.
- EU export rebates shall be considered to maintain EU manufacturer's competitiveness in third countries and preserve the integrity of climate protection.

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Energy taxation directive (ETD)

What's new?

New minimum tax rates

- Transition from a volume-based taxation structure (EUR/litre) to an energy content-based (EUR/Gigajoule) structure and the environmental performance of the energy products and electricity.
- Minimum tax rates for some products shall increase gradually over a transition period of 10 years. (e.g.: Aviation fuels, natural gas used as heating fuel).
- Indexation of minimum rates to inflation.

Scope

- ETD extended to energy products and electricity supplied for intra-EU air navigation and intra-EU waterborne navigation. A different level of taxation would be applicable to the use of energy products and electricity for intra-EU non-business aviation (airlines) and non-pleasure flights (private jets), see annexed.
- No more distinction between commercial and non-commercial use of gasoil as motor fuel.
- No more distinction between business and non-business use for heating fuels (gas, coal, gasoil) and electricity.

Tax reduction and exemption possibilities

- No more tax exemptions for heating fuels and electricity used in chemical reduction, metallurgical and mineral processes.
- Tax reduction possibilities (but not under minimum tax rates) for energy intensive businesses (Art. 18 a).
- Tax exemption possibilities for energy from renewable sources (electricity from renewable sources, electricity produced from combined heat and power generation, RFNBO, advanced sustainable biofuels and biogas).

Energy taxation directive (ETD)

Expected impacts

Effect of new minimum rates on:

- Non-ETS: The new minimum do not affect non-ETS companies, their current tax rates (including CO2 tax) are already above proposed new rates.
- ETS: Their current tax rates are below the proposed new rates – current tax rates will increase at least to match minimum rates.

Effects of non-distinction between business/non-business use for heating fuels and electricity:

- Business tax rates used to undercut all non-business rates
- Non-distinction requires to review rates to match either former business rates or non-business rates
- Thus: risk that business rates in both the ETS and non-ETS will be increased to align with non-business rates
- Highest increase is expected for non-energy intensive ETS companies

Effects of new reduction and exemption possibilities

- Removed exemptions for chemical reduction, metallurgical and mineral processes will increase rates for those industries at least to minimum rates.

Energy taxation directive (ETD)

FEDIL's messages

In general:

- The ETD should not act as a revenue raiser for Member States but rather to have a greater steering effect to reach climate goals.
- The additional revenues collected through the ETD implementation in the industry should be reserved to support the latter's energy transition efforts.
- Additional taxation of the industry risks to slow down its energy transition as it to removes funds they require to invest in low-carbon technologies.

Therefore:

- The National CO2 tax needs to be included as part of the energy tax when reporting to the EU.
- Exclude chemical reduction, mineralogical and metallurgical processes of the scope: The glass, brick, cement and lime industry are covered by the ETS, where they are already encouraged to invest in decarbonised production processes. An inclusion into the ETD will result in a sudden increase of levies for these sectors and withdraw capital that is currently needed to invest in lower carbon technologies.
- Uphold the competitiveness of energy intensive industries and avoid carbon leakage by preserving the distinction between business use and non-business use for heating fuels (gas, gasoil, coal, etc.) and electricity.
- Introduce tax reduction or exemption possibilities for companies covered by the ETS system, the energy taxation would equal a double burden for this sector.

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Renewable Energy Directive

What's new

Targets: Increased targets: 2030 target at 40% renewable energy sources (RES) in Union's gross final consumption of energy (before: 32%)

Industry sector:

- Indicative target in the industry to increase by 1.1 percentage point annually RES. Measures to be included in Member State's National Energy and Climate Plans.
- Binding target: 50% of the hydrogen used in industry (energy and non-energy) by 2030 shall be renewable fuels of non biological origins (RFNBOs).
- From 31 December 2026, Member States shall grant no support to the production of electricity from forest biomass in electricity-only-installations

Transport sector: Reducing GHG intensity of fuels in transport by 13% through RES

- Introduction of new caps, restrictions and minimum targets for the biofuels that can be accounted towards the renewable energy objectives: Progressive phase-out of non-sustainable biofuels until 2030 and parallel introduction of a target for advanced biofuels to 3.5% in 2030
- Possibility to account electricity and renewable fuels of non-biological origin (like hydrogen and e-fuels) towards the targets
- MS shall establish a credit exchange system for the above sub-targets on fuels; Economic operators that supply renewable electricity to electric vehicles through public recharging stations shall receive credits for trading with fuel suppliers
- Introduction of a dedicated supply obligation for the aviation sector

Renewable Energy Directive

Expected impact and FEDIL's message

Target related

- Use possibilities for statistical transfers between Member States to reach Luxembourg's renewable goals cost-effectively
- Review and accelerate authorisation procedures that hinder an efficient development of renewable energy projects and make their exploitation economically unattractive

Industry related

- Provide to the industry access to competitively priced renewable electricity and renewable hydrogen
- Give the industry access to mutualised renewable power purchase agreements backed by contract of difference
- Make renewable electricity the choice of energy for the industry by minimising state-induced price components of power

Transport related

- Provide financial support for transport companies to use more efficient trucks and/or sustainable biofuels
- Provide an advantageous fiscal scheme for biofuels (e.g. biofuels should be exempted of the national CO_2 tax)

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Energy Efficiency Directive (I/II)

What's new?

Targets:

- Binding target for final and primary energy consumption remains at EU level (MS collectively reduce at least -9% vs 2020) + an indicative formula based national energy efficiency contributions (taking into account amongst other energy intensity of the economy and the decarbonisation of energy intensive industries).
- Annual energy savings obligation of 1.5% for all MS starting from 2024 (0.8% before).
- New "energy efficiency first" principle article: MS obliged to consider energy efficiency solution in policy and investment decisions subject to approval in energy systems, but also other sectors (for example social housing).
- Transmission system operators shall be designated as additional obliged parties

Public sector

- Obligation for public sector to reduce energy consumption of public services, installations, etc by at least 1.7% annually. As well as broadening the scope of public sector renovations to all public-owned buildings regardless of their levels or activities of at least 3% of the total floor areas heated/cooled building.
- Public Procurement is tightened by obliging to take into account energy efficiency requirements (in all public levels), and removing the conditionalities to cost-effectiveness, technical suitability or economic feasibility. Also consider where appropriate circular economy aspects and Green Public Procurement. They include a provision "global warming potential" of new buildings (in $kgCO_2e/m^2$).

Energy Efficiency Directive (II/II)

What's new?

Energy-intensive sectors:

Energy audits and Energy management systems (EMS) obligations are now based on the levels of energy consumption, no more on the type of company:

- For enterprises with an average annual consumption of 100TJ (=27GWh) or higher need an energy management system (EMS)
- For enterprises with average annual consumption 10TJ (2.7GWh) or higher, only an energy audit is required every four years. The results of the audit must be transmitted to the company's management for sign-off. The audits needs to be published in the companies annual report, there is no obligation to follow-up.
- Enterprises that implement an energy performance contract or environment management system shall be exempted from the requirements above.
- Data centres will be obliged to monitor their energy performance. A "data centre sustainability indicators" shall be established.

Heating & Cooling:

- Existing requirements to ensure high efficiency in heat generation shall be extended to smaller thermal energy supply installations for electricity generation or industrial heat, and service facilities (new: 5MW, before: 20MW) and data centres (>1MW). Those installations are required to assess the cost/benefit of utilising the waste heat for district heat or a RES based cooling system
- High-efficiency cogeneration, are considered installations whose direct emissions of CO_2 from fossil fuels are les than 270 gCO_2/kWh

Energy Efficiency Directive

Expected impacts and FEDIL's message

Expected impact

- Marginal costs of energy efficiency in the industry is continuously increasing
- Administrative burden for the industry risks to increase with the requirement for energy management systems, audits, monitoring obligations and assessment of cost-benefit for waste heat utilisation
- Technology and fuel switches risk to temporarily increase energy consumption in some processes

FEDIL's message

- Apply energy efficiency goals proportionate to sector's potentials.
- Decarbonisation goals and energy efficiency goals do not always go hand in hand. A debate about what targets to prioritise is necessary.
- Considering the increasing marginal costs of energy efficiency, focusing too much on energy efficiency targets might require funds that could be use more cost efficiently on decarbonisation and technology switches

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Aviation sector

Expected impacts and FEDIL's message

Expected impact

The aviation sector is impacted by a three elements of the Fit for 55 package :

- ETS: The Corsia aviation scheme is integrated into the ETS. Phasing out of free allowances, aiming to stop completely by the end of 2026; total number of aviation allowances capped at current levels and reduced annually by 4.2%, MSR applies to aviation
- ETD: no more exempt of fuel tax. The minimum tax rates for these fuels will gradually increase over ten years to reach the standard level (airlines). Sustainable aviation fuels (SAFs) will benefit from a minimum rate of zero to ensure their uptake.
- ReFuelEU: Mandates that increasing levels of SAFs are available at EU airports and requires all airlines to uplift SAFs

FEDIL's message

- The aviation industry is committed to the decarbonisation, but support by regulators and policy makers are needed to achieve targets.
- Significant investment are needed to enable the development of viable low carbon technologies.
- The modernisation of air traffic management to use all potentials of energy savings.
- Increasing the production of sustainable aviation fuels (SAFs) for aircraft fuel supply is necessary.
- Additional taxation, not used as part of an investment strategy to create opportunities for more sustainable operations, only hinders the sector's ability to achieve its emission reduction targets.

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Energy taxation directive (ETD) - Annexe

Expected impacts

EXPECTED IMPACTS – Natural gas

- Energy taxes on natural gas for ETS companies would increase from 0.12€/MWh (start of transition period, before indexation), to 0.20€/MWh (end of transition period, before indexation) (cat. C1 bis).
- Energy taxes on natural gas used as heating fuel could increase by 0.54€/MWh (before indexation) for companies with a gas consumption >550MWh (cat. B).
- Energy taxes on natural gas used as heating fuel could increase by 0.78€/MWh (before indexation) for companies with a gas consumption >4100MWh (cat. C2).
- Energy taxes on natural gas used as heating fuel in chemical reduction, metallurgical and mineral processes could increase by 1.03€/MWh (before indexation) (cat. C1).

EXPECTED IMPACTS – Electricity

- Energy taxes on electricity for business use (cat. B) could increase by 0.50€/MWh (before indexation).
- Energy taxes on electricity for chemical reduction, metallurgical and mineral processes (cat. C) could increase by 0.90€/MWh (before indexation).

EXPECTED IMPACTS – GASOIL

- IF CO_2 tax would not be considered as an integral part of the energy tax, energy taxes on gasoil would increase by 32€/1'000l (before indexation).

Energy taxation directive (ETD) - Annexe

Expected impacts – GASOIL (Diesel)

Gasoil (Diesel)	Minimum rate ETD 2010 (current)	National rate 2021 (current)	Minimum rate proposal ETD	Current tax level above proposed 2021 ETD minimum rate	Notes (1)
	in €/1'000l	*in €/1'000l*	*in €/1'000l*	*in €/1'000l*	
Propellant (Carburant)	330,00 €	404,42 €	387,00 €	17,42 €	*If CO2 tax is considered as part of the energy tax, the national tax rate is already above the proposed minimum rate. If CO2 tax is not considered as part of the enrgy tax, the national tax rate shall increase by 32€/1'000l*
in €/GJ	*9,16 €*	*11,23 €*	*10,75 €*	*0,48 €*	
Article 8(2)(a): motor fuel for agricultural, horticultural or piscicultural works, and in forestry	21,00 €	0,00 €	32,40 €	0,00 €	
in €/GJ	*0,58 €*	*0,00 €*	*0,90 €*	*0,00 €*	
If Article 15(3) is used for agricultural, horticultural or piscicultural works, and in forestry		0,00 €		0,00 €	
in €/GJ		*0,00 €*		*0,00 €*	
Article 8(2)(b): stationary motors	21,00 €	70,42 €	32,40 €	38,02 €	
in €/GJ	*0,58 €*	*1,96 €*	*0,90 €*	*1,06 €*	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (non-ETS)	21,00 €	70,42 €	32,40 €	38,02 €	
in €/GJ	*0,58 €*	*1,96 €*	*0,90 €*	*1,06 €*	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (ETS)	21,00 €	21,00 €	32,40 €	-11,40 €	
in €/GJ	*0,58 €*	*0,58 €*	*0,90 €*	*-0,32 €*	
Article 8(2)(d): vehicles intended for use off the public roadway or which have not been granted authorisation for use mainly on the public roadway	21,00 €	70,42 €	32,40 €	38,02 €	
in €/GJ	*0,58 €*	*1,96 €*	*0,90 €*	*1,06 €*	
Heating fuel for business use (non-ETS)	21,00 €	63,55 €	32,40 €	31,15 €	*ETD proposal 2021: No more distinction between business use and non-business use*
Heating fuel for non-business use	21,00 €	63,55 €	32,40 €		
in €/GJ	*0,58 €*	*1,77 €*	*0,90 €*	*0,87 €*	
Heating fuel for business use (ETS)	21,00 €	10,00 €	32,40 €	-22,40 €	
in €/GJ	0,58 €	0,28 €	0,90 €	-0,62 €	

Energy taxation directive (ETD) - Annexe

Expected impacts – Natural gas

Natural gas	Minimum rate ETD 2010 (current)	National rate 2021 (current)	Minimum rate proposal ETD 2021 (start of transition period)	Minimum rate proposal ETD 2021 (end of transition period)	Current tax level above proposed 2021 ETD minimum rate	Notes (1)	Notes (2)
	in €/MWh	in €/MWh	in €/MWh	in €/MWh	in €/MWh		
Propellant (Carburant)	2,60 €	4,00 €	1,99 €	2,99 €	2,01 €	Current tax level under the proposed minimum rate	
Article 8(2)(a): motor fuel for agricultural, horticultural or piscicultural works, and in forestry	0,30 €	n/a	0,17 €	0,17 €	**n/a**	Currently no national tax rate	
Article 8(2)(b): stationary motors (cat. A)	0,30 €	5,08 €	0,17 €	0,25 €	4,91 €	Current tax level above proposed minimum rate	
Article 8(2)(b): stationary motors (cat. B)	0,30 €	4,54 €	0,17 €	0,25 €	4,37 €	Current tax level above proposed minimum rate	
Article 8(2)(b): stationary motors (cat. C1) (chemical reduction, metallurgical and mineral process)	0,30 €	4,05 €	0,17 €	0,25 €	3,88 €	Current tax level above proposed minimum rate	
Article 8(2)(b): stationary motors (cat. C1 bis) (ETS)	0,30 €	0,05 €	0,17 €	0,25 €	-0,12 €	Current tax level under the proposed minimum rate. CO2 tax is not applicable to ETS companies	
Article 8(2)(b): stationary motors (cat. C2) (VA)	0,30 €	4,30 €	0,17 €	0,25 €	4,13 €	Current tax level above proposed minimum rate	
Article 8(2)(b): stationary motors (cat. D) (cogen)	0,30 €	0,00 €	0,17 €	0,25 €	-0,17 €	Current tax level under the proposed minimum rate, exemption possibility	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (cat. A)	0,30 €	5,08 €	0,17 €	0,25 €	4,91 €	Current tax level above proposed minimum rate	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (cat. B)	0,30 €	4,54 €	0,17 €	0,25 €	4,37 €	Current tax level above proposed minimum rate	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (cat. C1)	0,30 €	4,05 €	0,17 €	0,25 €	3,88 €	Current tax level above proposed minimum rate	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (cat. C1 bis) (ETS)	0,30 €	0,05 €	0,17 €	0,25 €	-0,12 €	Current tax level under the proposed minimum rate. CO2 tax is not applicable to ETS companies	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (cat. C2) (VA)	0,30 €	4,30 €	0,17 €	0,25 €	4,13 €	Current tax level above proposed minimum rate	
Article 8(2)(c): plant and machinery used in construction, civil engineering and public works (cat. D)	0,30 €	0,00 €	0,17 €	0,25 €	-0,17 €	Current tax level under the proposed minimum rate	
Article 8(2)(d): vehicles intended for use off the public roadway or which have not been granted authorisation for use mainly on the public roadway	0,30 €	4,00 €	0,17 €	0,25 €	3,83 €	Current tax level above proposed minimum rate	
Heating fuel for business use (cat. B)	0,15 €	4,54 €	0,17 €	0,25 €	4,37 €	Current tax level above proposed minimum rate	No more distinction between business use and non-business use in the ETD proposal
Heating fuel for business use (cat. C2) (VA)	0,15 €	4,30 €	0,17 €	0,25 €	4,13 €	Current tax level above proposed minimum rate	
Heating fuel for business use (cat. C1) (non-ETS)	0,15 €	4,05 €	0,17 €	0,25 €	3,88 €	Current tax level above proposed minimum rate	
Heating fuel for business use (cat. C1) (ETS)	0,15 €	0,05 €	0,17 €	0,25 €	-0,12 €	Current tax level under the proposed minimum rate. CO2 tax is not applicable to ETS companies	
Heating fuel for non-business use	0,30 €	5,08 €	0,17 €	0,25 €	4,91 €	Current tax level above proposed minimum rate	

Energy taxation directive (ETD)

What's new for aviation?

ETD	Non-business flights (airlines) and non-pleasure flights	Business flights (surveying, observation & patrol flights)	Cargo flights
Intra EU additional Costs	- Minimum levels of taxation for motor fuel use shall be reached over a transitional period of ten years (10% increase per year), - Sustainable alternative fuels (including sustainable biofuels and biogas, low-carbon fuels, advanced sustainable biofuels and biogas, and renewable fuels of non-biological origin) and electricity shall have a minimum rate of zero for ten years. (p15)	for intra-EU flights standard level: 10.75€/GJ	Energy products and electricity used for intra-EU air navigation of cargo-only should be exempt with a possibility for a Member State to tax those fuels either for domestic cargo-only flights or by virtue of bilateral or multilateral agreements concluded with other Member States. (p15)
Extra EU additional Costs	For extra-EU air navigation, without prejudice to international obligations, Member States may exempt or apply the same levels of taxation as for intra-EU air navigation, according to the type of flight (p15)		