

Achieving sectoral decarbonisation under the EU Green Deal ‘Fit for 55 package’

Shellⁱ supports the EU’s transition to climate neutrality by 2050 and the 2030 greenhouse gas (GHG) emissions reduction target of at least 55% as set out in the European Climate Law.ⁱⁱ Clear targets enhance the business case for low-carbon investment. Delivering on these goals will require decisive policy action under the ‘Fit for 55 Package’ (FF55)¹ to accelerate GHG reductions across all economic sectors.

We believe the FF55 should be underpinned by a sectoral decarbonisation approach. The combined application of the legislative initiatives under the FF55 should ensure that every major sector has a pathway to decarbonise consistent with the climate neutrality target. Crucially, the FF55 should ensure that measures to create lead markets for clean energy in key sectors are in sync with measures to incentivise investments in supply and infrastructure. The Sectoral Roadmaps to Net Zero Emissions (NZE), as recognized in the EU Climate Law, provide a crucial instrument to do this, thereby optimising/guiding the application of the FF55 for key sectors. This is especially relevant for the harder to abate sectors such as freight road transport, aviation, shipping and the energy-intensive industry. This paper focuses on the key policy actions that we think should be taken as part of the FF55 to implement a sectoral decarbonisation approach for industry and transport.

We believe a mixed approach that combines carbon pricing and renewable mandates is needed to decarbonise Europe’s economy. Carbon pricing should play an important role in all sectors to incentivise investments into cleaner technologies; however, it alone cannot deliver decarbonisation at the scale and pace needed to achieve NZE. Ambitious renewables and low-carbon fuels targets are necessary to create demand markets and accelerate supply. The EU Emissions Trading System (ETS) needs to be revised to reflect a higher 2030 target but equally the Renewable Energy Directive (RED) should be amended to set a higher overarching renewable target as well as sectoral mandates to drive renewables into transport and industry for 2030.

Shell would like to contribute to the debate on the design of the FF55 package with the following policy recommendations, focused on the delivery of enabling frameworks to decarbonize the harder to abate sectors:

Energy Intensive industry

Policy measures for energy intensive industry (such as steel, cement, chemicals or refining) should accelerate and support investment in electrification, clean hydrogen, circularity, and carbon capture, utilisation & storage (CCUS).

- To set industry on a credible trajectory to cost-effectively achieve NZE by 2050, the ETS should be reformed to align with an increased 2030 GHG reduction target, including a revised Linear Reduction Factor (LRF) and a strengthened Market Stability Reserve (MSR). Industry will require adequate carbon leakage protection, including in the form of a CBAM on imports, whilst simultaneously phasing out free allocation on goods meant for domestic consumption. The EU should only provide free allocation on exports if the receiving jurisdiction doesn’t have carbon pricing.
- To drive demand for low-carbon energy, e.g. renewable and low carbon hydrogen, the RED revision should consider a target for industry as a supplementary incentive to the ETS.
- To increase the uptake of renewables, Power Purchase Agreements should be simplified and encouraged. Industrial electrification will require anticipatory grid infrastructure developments to ensure bulk transmission and local grid upgrades to increase capacity to industry areas/sites (alignment of TEN-E and TEN-T).
- Sector-specific Carbon Contract for Differences should be considered to bridge the cost gap between the conventional and the alternative sources of energy under a new RED target. This would need to be reflected in the adapted Environment and Energy State Aid guidelines.

¹Alternative Fuels Infrastructure (AFID), Carbon Border Adjustment Mechanism (CBAM), CO₂ emission performance standards for new passenger cars, Decarbonized Gas Market Reform, Effort Sharing Regulation (ESR), Energy Taxation Directive (ETD), Emissions Trading System (ETS), Land Use, Land Use Change and Forestry (LULUCF), Reducing Methane Emissions in the Energy Sector and Renewable Energy Directive (RED).

- The review of the ETD should incentivize activities such as hydrogen storage and electricity supply to electrolyzers.
- To facilitate CO₂ capture and storage, integrated CO₂ transport and storage networks should be incentivised under the TEN-E and EU ETS to encourage access to such infrastructure across Europe's industrial base and energy sector, including clear policy incentives for ship-based CO₂ transport.
- The Innovation Fund (IF) should be maintained and strengthened to support large-scale demonstration of pre-commercial technologies and enable industrial decarbonisation. It should allow for a wide variety of technologies across an expanded sectorial scope.
- Given the current reliance of industry on natural gas, methane emissions should be reduced across the full natural gas supply chain through a performance standard set at 0.20% methane intensity for gas production, including for gas imports. This should be in addition to strengthened Monitoring, Reporting & Verification (MRV), Leak Detection & Repair (LDAR) and flaring and venting requirements.

Road transport

To decarbonise road transport, there needs to be close coordination and integration between policies that impact vehicles, fuels, infrastructure and customer choice.

Supply side incentives for fuels:

- The 2030 renewable energy target for transport should be increased up to 26% and cover all low-carbon fuels that meet the sustainability criteria of RED.
- The RED transport target should be part of a wider policy framework that also includes fiscal support for first plants and price support for low carbon renewable fuels.
- Additional policy mechanisms (e.g. sub targets, multipliers, grants) for advanced fuels are needed to allow them to compete with the compliance options at the current marginal cost of supply.
- Road transport should not be included in the existing EU emissions trading system at this time as it would delay action within the sector given the high cost of road transport abatement relative to the anticipated price levels in the EU ETS. Standards and mandates are currently better placed to drive decarbonisation in this sector.

Demand side measures for vehicles:

- CO₂ emission performance standards should be increased, including 2030 standards for heavy duty vehicles (HDVs) provided major manufacturing and supply chain barriers can be overcome.
- All new cars, vans and HDVs sold in the EU should be Zero Emissions Vehicles (ZEV) no later than 2040.
- The ETD should tax transport fuels based on the emitted combustion CO₂, i.e. tank to wheel emissions. Alternative fuels, compliant with RED sustainability criteria, should be zero rated for their combustion CO₂.

Infrastructure support:

- Establish interoperable networks, i.e. all public EV charging infrastructure should have open access to all customers and each network should accept the payment methods of all network providers.
- Ensure the integration of e-mobility into the grid e.g. via granting non-discriminatory access to network infrastructure and minimum technical requirements for smart charging services. All EV charge posts (at home, office or commercial locations) should support smart charging.
- Member states should roll out alternative fuels-infrastructure based on their local demand growth profile. Hydrogen should be included as mandatory fuels in their national infrastructure roll out plans.
- Mandatory deployment targets can be supported for hydrogen along trans-European routes (TEN-T) and its comprehensive network, which are mainly used for industrial activities.
- Road tolls based on vehicle CO₂ emissions and kms driven should be implemented.

Aviation

Decarbonisation of aviation requires significant investments and change across the whole value chain including original equipment manufacturers, airlines, fuel suppliers, airports and consumers. Sustainable Aviation Fuels (SAF) are the main viable technology to reduce substantially the sector's GHG emissions, at least in the shorter-term.

- De-risk first investments by creating direct fiscal incentives to get projects up and running and to learn by doing.
- Both fuel suppliers and airlines need to have a shared requirement to help develop SAF. Any policy should be administratively simple and could for example include:

- a SAF obligation on fuel suppliers as part of the Refuel Aviation Initiative at the point of airport blending together with the book and claim flexibility.
- a requirement for airlines to be on a demonstrable path to net zero emissions by 2050 via a tighter EU ETS, with a firm requirement to document their use of SAF and offsets. To align fiscal incentives on energy with achieving NZE by 2050, the current excise exemption for aviation fuels should be removed in the ETD.
- Ensuring feedstock flexibility at the outset to de-risk technology pathways drive confidence to invest in the production of SAF while also supporting the technology development of advanced fuels (e.g. multiplier for AtJ and F-T pathways in addition to a sub-mandate).
- The EU should ensure consistency during its upcoming EU ETS reform with the CORSIA scheme.

Shipping

To decarbonise shipping, the sector should move towards using hydrogen fuel cells by 2035. In the meantime, Liquefied Natural Gas (LNG) would materially contribute to achieving decarbonization and managing the risk of stranded assets due to long-lived asset lifetimes and limited fleet turnover.

- Introduce an increasingly ambitious carbon intensity standard on ship owners linked to a baseline-and credit system, with fuels eligible for compliance and credit generation against the oil- derived baseline.
- Implement a stand-alone ETS for shipping as a potential template for global action with a limited role for offsets as a compliance pathway from the mid-2030s to achieve NZE by 2050.
- Utilise AFID to develop enabling infrastructure to meet LNG demand during the transition.
- Reduce methane slip from ship engines by including methane emissions from end use, in a manner that is consistent with the approach from the International Maritime Organisation.

Carbon Removals

- We agree with the Commission that natural and technical carbon dioxide removal (CDR) is necessary for climate neutrality. A critical first step to support CDR project deployment is the planned design of an EU carbon removal certification (CRC) framework. CRC implementation should be built on and echo existing principles ensuring the same proven standards that have developed over time in carbon markets will be applied to CDR projects.
- A transparent and robust CRC framework should enable trading of CDR credits to promote CDR techniques development and deployment. We think this can be done without diverting industry efforts to reduce their emissions. As a fit-for-purpose certification system is developed, it should be designed with the ultimate goal of globally trading CDR credits through the rules of the Paris agreement with carbon markets outside the EU.

In conclusion, investment into technologies and infrastructure to achieve 55% GHG emissions reduction by 2030 and NZE 2050 needs to be enabled through a mix of policy measures that incentivise supply and demand side changes. Sectoral roadmaps can be an enabling instrument to plan and coordinate coherent and effective measures amongst industry, policy makers and customers. Shell is committed to playing its part. That is why we have accelerated our efforts to become a net-zero emissions energy company by 2050, in step with society, with short- and medium-term targets to track our progress. Globally, Shell is investing billions of dollars in low-carbon energy, including electric vehicle charging, hydrogen, renewables and biofuels. We want to grow demand for these products and scale up our new energy businesses.

ⁱ The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate legal entities. In this document “Shell” is sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words “we”, “us” and “our” are also used to refer to Royal Dutch Shell plc and its subsidiaries in general or to those who work for them.

ⁱⁱ While Shell is supportive of the EU target of net-zero greenhouse gas emissions by 2050, our current business plan is not consistent with the proposed EU target. However, as announced on April 16, 2020, Shell aims to be a net-zero emissions energy business by 2050. Accordingly, we expect that over time, our business plan will change as society and our customers move toward meeting the goals of the Paris Agreement.