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## **Roadmap for a low carbon economy by 2050**

The European Lime Association (EuLA) welcomes the opportunity to contribute to the development of the European Commission's "Roadmap for a low carbon economy by 2050". The lime sector is committed to be part of the efforts for reaching a low carbon economy. With this paper we want to highlight a number of issues that need to be addressed for ensuring a successful transition.

### **1. A bottom-up approach for a succesful transition to a low-carbon economy**

Instead of proposing an economy-wide and theoretical CO<sub>2</sub> reduction target, the EU should carefully examine how the proposed emission reductions can be achieved in practice. Each sector's reduction potential may be different and depends on several sector-specific parameters. A bottom-up approach focussing first on the reduction potential of different sectors – both in – and outside the current ETS framework – should be considered before proposing any general mid- and long-term targets.

#### **EuLA proposes a bottom-up approach for setting targets for reducing CO<sub>2</sub> emissions. Such an approach should be based on the following elements:**

- *Identify the potential reductions for the different sectors taking into account the associated marginal abatement costs, as well as potential breakthrough technologies for rapid reductions.*
- *These sector-specific approaches should be developed in close partnership with the sectors concerned.*
- *Investigate the impact on the sector's international competitiveness. Increased production costs should not lead to a shift from EU production to imports that could lead to higher global emissions.*
- *The impact of additional carbon reduction measures should be assessed throughout the value chain. A move from one sector out of Europe, might oblige other sectors to follow.*
- *Realistic reduction targets should be aligned to each sector's investment cycle. In the lime industry, kilns are only replaced after more than 30 years. In this sense, 2050 is already tomorrow.*
- *A sector specific approach should focus on realistic targets and provide a stable trajectory towards achieving these. A target of 80% - 95% CO<sub>2</sub> emission reductions by 2050 seems unrealistic for many sectors. By setting such targets the EU may actually spoil a sound investment climate; and discourage producers from further investing in the EU.*
- *Refine the current economic models to get a better view on the impact on a sector. The current models are mostly economy-wide equilibrium models which presume recycling of revenues. Hence the impact on specific sectors might be underestimated.*

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## 2. Develop a specific solution for process emissions by means of innovation

The amount of CO<sub>2</sub> **process emissions** are defined by the stoichiometry of the chemical reaction for producing a certain product. In the case of lime, CO<sub>2</sub> process emissions represent on average 70% of total CO<sub>2</sub> emissions due to the process of decarbonising limestone. These emissions can not be reduced without significantly deteriorating the final product quality.

Process emissions seriously impede further significant CO<sub>2</sub> emission reductions in the lime industry. Also other industry sectors may face the same challenge.

Moreover, potential solutions for reducing process emissions, such as carbon capture and storage (CCS), are not yet available, especially not for small to medium-sized companies.

### Therefore, EuLA asks that:

- *Research on solutions for reducing process emissions (e.g. CCS, etc.) should be stimulated in partnership with the industry sectors most concerned.*
- *Process emissions are to be excluded from any CO<sub>2</sub> reduction target beyond the agreed 20% - for at least as long as no technical and economically feasible solution, like carbon capture and storage, is available also for small and medium industrial installations.*

## 3. Improve access to low-carbon fuels at a fair cost

The Commission favours certain types of fuels such as natural gas (used as the reference fuel in the benchmarks) or biomass (which has zero emissions). Daily practice shows however that the accessibility and availability of low-carbon fuels is very limited.

Several EuLA member companies have no access to the **natural gas** grid. Also the uninterrupted and long-term supply of natural gas in all parts of Europe remains a key issue. So far, the EU remains heavily dependent on imports. Shale gas could provide a promising opportunity in the future, but it may not yet offer a solution in the short-term.

EuLA sees a huge competition on the market for the limited amount of available **biomass**. Especially companies that can only use relatively small amounts of biomass face difficulties competing for the available biomass with big users.

### EuLA asks that:

- *The availability of low-carbon fuels for industrial activities at a fair cost is better mapped and improved.*



**4. Maximise the Climate Policy's overall benefits by avoiding carbon leakage and examine the impact of carbon leakage throughout the value chain**

EuLA supports the Commission in its efforts to reach an international climate agreement that contributes to avoiding carbon leakage. Such an agreement can however only be effective if it contains legally binding reduction targets (at least for the developed countries), and results in equivalent CO<sub>2</sub> reductions (as measured by the sectoral marginal abatement cost).

The EU can only maximise the benefits of its climate policy by avoiding that its industrial base moves out of Europe. This way the EU does not only benefit from the uptake of the green economy, but also maintains the know-how and capacity throughout the full industrial value chain for actually manufacturing these greener products and provide innovative solutions.

However, the impact of an international climate agreement may be different from one sector to another. For the lime sector the commitment of countries in the immediate neighbourhood of the EU is very relevant (such as countries in Northern Africa, Ukraine, Russia, etc.)

The EU should also give European companies a stable framework to operate between 2013 and 2020.

**EuLA asks that:**

- *The CO<sub>2</sub> reduction target for 2050 and the trajectory depend on the commitments of other countries – especially of those in the EU neighbourhood.*
- *The carbon leakage list should not be thoroughly modified for the second part of the 3rd Trading Period (2015-2020) to ensure continuity. Realistic, but prudent, hypotheses should be at the basis of the carbon leakage evaluation.*
- *The impact of carbon leakage on industry can only be truly understood by additionally examining the impact of carbon leakage on the whole value chain.*

**CONCLUSION:**

The lime sector is committed to reducing its carbon emissions. A particular challenge however will be finding a solution for the chemically-determined process emissions which represent on average around 70% of the sector's total carbon emissions.

Future EU carbon policies and targets for 2050 will strongly affect the European lime business and the future of the sector in Europe. Therefore, EuLA wants to be a partner in any future initiatives on the uptake of the low-carbon economy which are relevant for an energy-intensive industry sector such as lime manufacturing.

EuLA, the European Lime Association, represents about 95% of the European lime production through its 23 national member associations. The European lime sector operates around 600 lime kilns in the EU, producing in total around 28,4 million tons of lime and dolime; and contributing around € 2,5 billion to Europe's GDP. More information on [www.eucla.eu](http://www.eucla.eu).

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