



# Steel, cement and chemicals industries key to the clean transition

The International Energy Agency outlines a path to a fossil-free future

*The International Energy Agency calls for an immediate stop to investments in and production of fossil fuels. For heavy industry decarbonisation, the “Net Zero by 2050” report relies too much on unproven technologies like carbon capture and storage. But it nevertheless sends a strong message to policymakers on the need to drastically reduce industrial carbon pollution. An adequate carbon price is one of the tools to get there, incentivising companies to deploy already existing clean technologies.*

The Net Zero by 2050 provides a comprehensive roadmap that outlines how countries can achieve an energy transition in line with the Paris Agreement 1.5 goal.

In the 227-page report, the IEA calls for “a total transformation of the energy systems that underpin our economies.” To achieve this, the agency urges governments to provide credible step-by-step plans to reach their net-zero goals, “building confidence among investors, industry, citizens and other countries”. It underlines the need for governments to “put in place long-term policy frameworks to allow all branches of government and stakeholders to plan for change and facilitate an orderly transition”.

It also emphasises that while long-term national climate strategies can set out a vision for national transitions, the long-term objectives need to be linked to measurable short-term targets and policies.

## **How to get there?**

The report details more than 400 sectoral and technology milestones to guide the global journey to net-zero by 2050. These milestones include an immediate end to new investment in fossil-fuel extraction and net-zero electricity by 2040.

According to the IEA, most of the global reductions in CO<sub>2</sub> emissions through 2030 in the pathway report come from technologies readily available today. But in 2050, almost half the reductions come from technologies that are currently at the demonstration or prototype phase.



For sectors like heavy industry, the share of emissions reductions from technologies that are still under development today is even higher.

While clean energy technology is well-established in the electricity sector, there is, therefore, a dire need for innovation for the industrial sectors.

### **Heavy industry key to the clean transition**

Cutting industrial carbon pollution requires considerable efforts but can and must be done for the world to reach the 1.5 goal.

Three industries – steel, cement and chemicals – emit around 70% of CO<sub>2</sub> from this sector and are, therefore, the key to the transition as the IEA rightly points out. But an important shortcoming in the IEA scenario is the heavy reliance on unproven technologies like carbon capture and storage (CCS) to decarbonise heavy industry.

In fact, a plethora of solutions has already been identified that can help reduce industrial carbon pollution from industrial production today. While technologies like CCS will be needed to some extent in the longer term, they should be limited to sectors and processes for which today there is no other solution, for example in the case of cement production. It would be unwise to postpone urgently needed measures and rely too heavily on technologies that may or may not work in the future.

Increasing energy savings, scaling up the use of renewable energy and applying circular economy models are examples of measures that can be immediately deployed.

As also mentioned in the IEA report, an adequate carbon price can provide an incentive to spur companies to deploy already existing technologies and measures to reduce their emissions. However, currently, in Europe (and elsewhere), industrial sectors like steel, cement and chemicals mostly do not pay a price on their pollution and therefore have little to no incentive to invest in cleaner technologies.

The IEA rightly underlines the need to align new technologies with investment cycles for major projects, such as steel blast furnaces and cement kilns. This means that a lot of the technologies under development should reach markets within this decade. This requires financial resources - both private and public. A carbon price would also bring much-needed revenues that can be reinvested in innovation.

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Timely intervention could help mitigate around 40% of projected emissions from heavy industry, according to the agency.

Despite its shortcomings, there's no denying that the IEA report is ground-breaking. It is also a useful tool to assess governments' energy and climate policy implementation in this decade. Carbon Market Watch will follow particularly closely the developments in Europe. The EU's main climate tool to drive industrial decarbonisation, the EU emissions trading scheme, is up for a review soon. This may well be the last chance to make sure that it is made fit for purpose, putting a price on pollution, and spurring innovation and the uptake of clean technologies in sectors like steel, cement and chemicals.