

Inception impact assessment on carbon border adjustment mechanisms

Consultation contribution by Wacker Chemie AG, March 2020

Summary of recommendations

- 1) The Commission should follow up on its recent commitment to strengthen existing carbon leakage instruments (free allocation and indirect cost compensation). As a minimum, current level of support must be guaranteed for the upcoming EU ETS phase 2021-2030. These measures have been recognized by the Commission to be effective in sustaining industrial competitiveness and they are compatible with international frameworks.
- 2) Existing carbon leakage instruments should be complemented with a European industrial electricity price, alleviating the energy cost pressure. Such a model could be based on Contracts for Difference (CfD) and implemented on a national level under the approval of EU state aid guidelines. If designed in combination with Power Purchase Agreements (PPA) for renewable electricity, an industrial electricity price could effectively contribute to decarbonizing energy-intensive industries and enable a market-based integration of solar and wind energy.
- 3) Due to uncertainty of legal and technical feasibility as well as practical difficulties of implementation, carbon border adjustment (CBA) mechanisms are not effective in replacing the existing instruments of carbon leakage protection in place under the ETS. It is thus of major importance that prior to any decision, the Commission conducts thorough impact assessments to substantiate its claims and provide sufficient evidence on the effectiveness of such measures.

Strengthen existing instruments of carbon leakage protection

The European Commission is currently considering the possibility of introducing a carbon border adjustment (CBA) mechanism to address the risk of carbon leakage in the EU. As many international partners do not share the same climate ambition as the EU, the Commission argues that such a mechanism, if designed in a compatible way with international agreements, could prevent production and investment leakage from Europe and ultimately also contribute to a global reduction of emissions.

As a leading European chemical company active in the silicone, polymer, life sciences and polysilicon markets, WACKER welcomes the commitment by the Commission to reinforce the tools to tackle carbon leakage, most recently reassured in the EU industrial strategy.¹ In 2019, the annual emissions of WACKER regulated under the ETS amounted to approximately one million tons, combined with an electricity consumption of approximately 4.8 TWh for its European based production. Free allocation and indirect cost compensation therefore constitute essential preconditions for WACKER to both contribute to the EU's climate targets and maintain competitiveness on global markets, where producers don't face the same cost of carbon.

It remains essential for the European energy-intensive industry that the existing instruments are not scaled-back, as contradictorily observed in the Commission's draft for EU ETS Guidelines on indirect compensation. Rather, as these measures have proven to be effective and compatible with international trade when applied behind borders, the level of support must be guaranteed – and ideally – increased over the next EU ETS phase (2021-2030).

¹ [A new industrial strategy for Europe](#), COM(2020) 102 final, p. 8: "Should differences in ambition around the world persist, the Commission will propose a Carbon Border Adjustment Mechanism in 2021 (...). **This should be supported by strengthening our current tools to tackle carbon leakage.**"

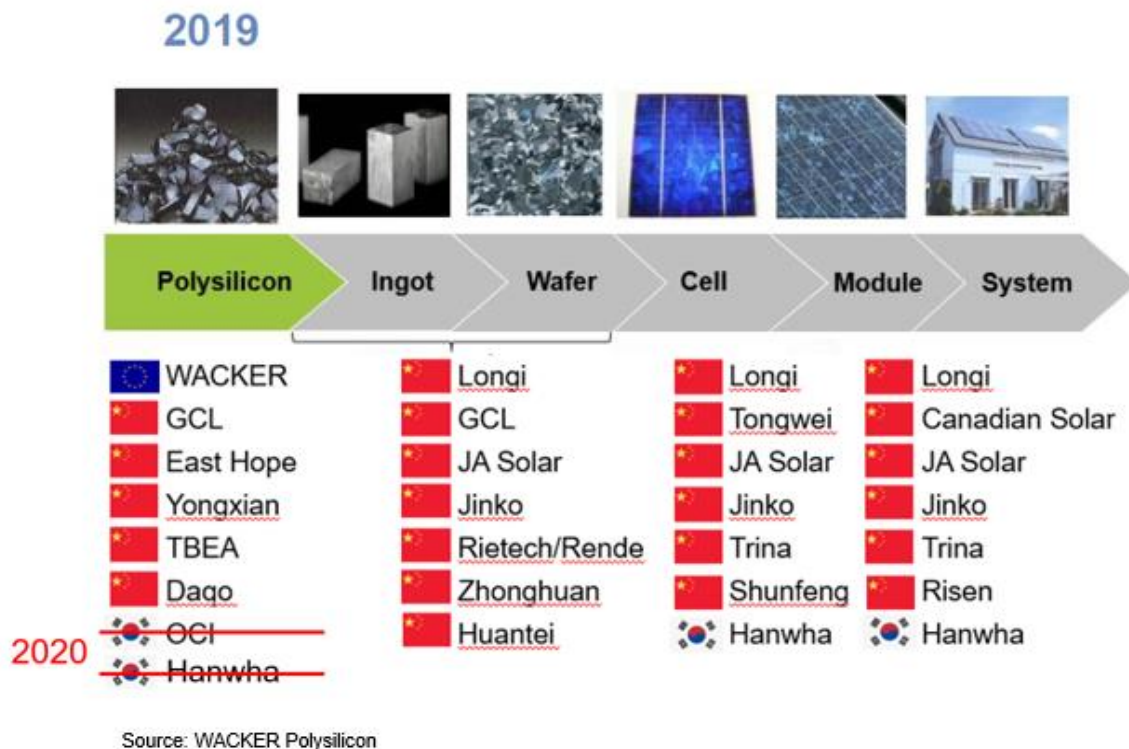
Industrial electricity pricing – reinforcing Europe’s indirect carbon leakage protection

Looking towards 2030, the established instruments will however not be sufficient to effectively protect European industry against carbon leakage. Producers in Europe will likely be facing tougher reduction rates under the ETS, as the Commission is planning to increase the 2030 climate target to 50-55%. At the same time, key global competitors will continue to benefit from structural advantages (e.g. subsidized credit or electricity prices), increasing the competitiveness gap between European and global industrial ecosystems.

The situation is particularly worrying for Europe’s energy-intensive production. In the case of polysilicon, WACKER faces electricity costs 2-3 higher than in comparison to its key competitors in Western China. Besides regulated electricity prices, Chinese producers also benefit from other subsidies, such as cheap financing and land use rights. As a result, Chinese producers have been developing a dominating role along the entire value chain of photovoltaic panels over the last few years (Figure 1).

A similar development is to be expected for the semiconductor value chain. While Europe still shows a diverse and competitive industrial ecosystem for semi-conductors, Chinese players are likely to expand more intensively into the sector due to the strategic importance for the downstream electronics sector (Figure 2). Inevitably, also for European producers the first negative economic impacts have materialized: In February 2020, WACKER announced to launch an efficiency program to secure its competitiveness in the harsh global environment. These measures, aiming at saving €250 million a year, will foremostly target European production sites and foresee a loss of approximately 1000 European jobs by 2022.²

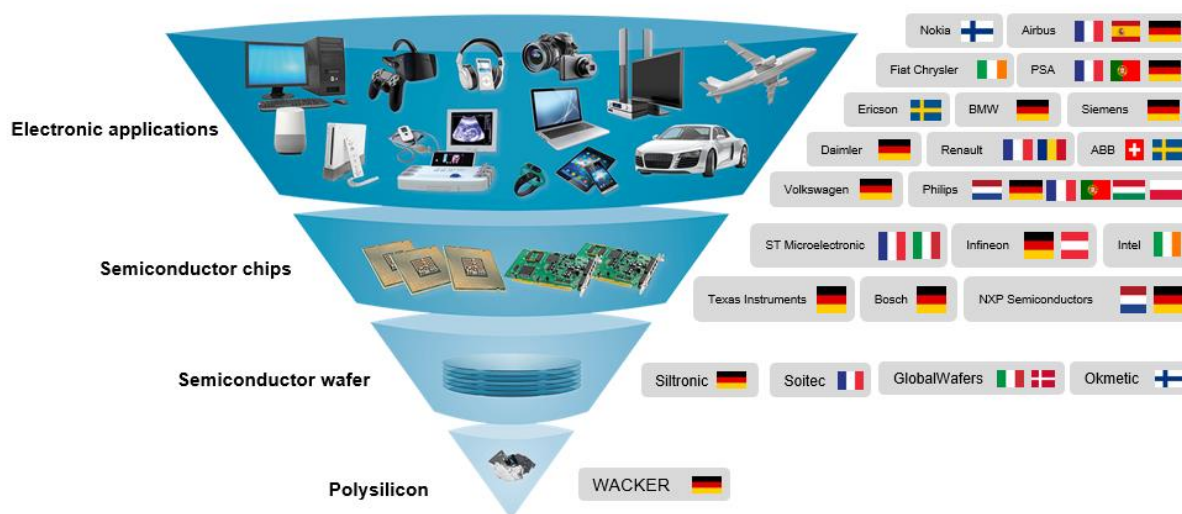
Figure 1: Leading producers worldwide in the solar value chain



Chinese dominance in the solar value chain has expanded rapidly in the last years and is putting European and other global producers in an unprecedentedly challenging market situation. Korean polysilicon producers OCI and Hanwha recently announced to exit the business.

² WACKER Begins Efficiency Program to Increase Competitiveness and Profitability, Munich 20 February 2020.

Figure 2: Diversity of European producers in the semiconductor value chain³



With the support of targeted policies from a national and European level, the semiconductor industry in Europe still shows an abundance of competitive economic players along the value chain.

To effectively counterbalance these structural disadvantages and reinforce Europe's technological and industrial autonomy, WACKER recommends that current carbon leakage instruments are complemented by introducing a European **industrial electricity price**, specifically alleviating the competitive pressure arising from the significantly different levels of energy-related costs. The model could be based on **Contracts for Difference (CfD)**, guaranteeing a competitive price of electricity for European energy-intensive producers. While the mechanism could be implemented and financed on the national level, the actual price level would be coupled and adapted on a regular basis to the respective price level developments of key global competitors. As already the case in France⁴, national arrangements on industrial electricity prices need to be rendered compatible under the EU state aid guidelines. Additionally, if combined with mandatory **Power Purchase Agreements (PPA)** between renewable energy producers and industrial customers, an industrial electricity price could effectively contribute to decarbonizing energy-intensive industry and enable a market-based integration of solar and wind energy. Furthermore, as it would be applied behind the European border, it should have a lower risk of conflict with existing international trade frameworks.

Functionality and compatibility of CBA measures remain highly uncertain

WACKER shares many of the concerns voiced by other industrial stakeholders regarding the complexity and uncertainty of implementing a CBA mechanism in order to strengthen carbon leakage protection in Europe. It is thus of major importance that prior to any decision, the Commission conducts thorough impact assessments to substantiate its claims and to provide evidence for their effectiveness.

³ Sources: Sources: sources: *Electronics (IC Insights), Semiconductors (WSTS, only silicon-based), Silicon wafers (SEMI SMG), Electronic applications (estimate), WACKER; IPCEI on Microelectronics 2018: https://ec.europa.eu/commission/presscorner/detail/de/IP_18_6862 ; <https://ipcei-me.eu/> .*

⁴ In France, the ARENH (= l'accès régulé à l'électricité nucléaire historique) mechanisms allows "new" electricity suppliers to purchase an annual electricity volume of 100 TWh at a price level that reflects historical generation costs of nuclear energy (~42/MWh). Several energy-intensive companies qualify as authorized electricity suppliers and thus profit from the purchase of cheap electricity for their industrial production. The scheme has been rendered compatible with EU state aid rules.

With regards to the policy options outlined in the Commission's inception impact assessment, the following aspects need to be critically assessed from the point of view of energy-intensive industry:

Effectiveness of policy instrument

- Due to the uncertainty around the legal and technical feasibility of CBA measures and the practical difficulties of implementation, the maturity of these measures must be reviewed critically in their function of providing an adequate and stable level of carbon leakage protection for energy-intensive industry.
- Applied at the border for products entering the European market, CBA measures could be rendered incompatible with the framework of the World Trade Organization. Besides raising legal uncertainty, such measures could seriously increase the risk for retaliation measures and destabilize multilateral trading relations, which would in return harm European exporting industry.
- Concerns around the effectiveness of CBA mechanisms also relate to their core ability to reduce global emissions while safeguarding European competitiveness and need to be further examined.

Methodological approach

- The methodological considerations of designing CBA measures based on a similar benchmark system found in the EU ETS must be considered as highly uncertain in practice, as there is currently no global system in place that accounts for the carbon content of products. Finding a workable solution on how to address this lack of robust and transparent data thus remains a major obstacle for implementation in a non-discriminatory and compliant way under international frameworks.
- Assuming the lack of data can be addressed, CBA measures would require a vastly complex system to reflect the international interconnections within the value chains of the target products, including changes or ranges, when producers use multiple global suppliers.

Sectoral scope

- The EU already provides effective measures to prevent carbon leakage for sectors covered by the ETS. It is therefore questionable to what extent CBA measures would provide an added value for energy-intensive industries that otherwise couldn't be achieved by strengthening free allocation and indirect cost compensation.
- Bearing this in mind, it is necessary that the Commission takes a differentiated approach when assessing the suitability of the sectors already covered by existing measures. Depending on sectoral structure and exporting practices, the Commission must consider the different needs of carbon leakage protection during the fourth trading phase of the EU ETS and adopt tailor-made approaches accordingly.

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