A YEAR OF CLIMATE & ENERGY INSIGHTS



POLICY DEPENDENCIES IN GLOBAL GREEN TECHNOLOGY VALUE CHAINS THREATEN CLIMATE AMBITIONS

CHINA'S DOMINANCE IN GREEN TECHNOLOGY PRODUCTION

Clean electricity production and storage are cornerstones in the energy transition. To meet the world's growing energy needs, we must accelerate the development of green technologies.

China offers affordable production of components through economies of scale and holds a strong market position across many relevant value chains, such as solar PVs, batteries, and wind turbines. In solar PV intermediates (such as polysilicon, wafers, and cells) this market share is above 80 per cent.

NAVIGATING GEOPOLITICAL TENSIONS

High market concentration increases the risk that current geopolitical tensions will increase the cost of decarbonisation. In an analysis this year, we found that industrial policy and trade measures are once again becoming a significant topic of the political discourse in the EU, which can be useful tools in certain situations.

It remains a question how Europe can become a technology leader without worsening protectionist trends, which can ultimately harm the European economy and delay reaching climate ambitions.

PROTECTIONISM'S IMPACT ON THE GREEN TRANSITION

Comprehensive impact assessments are necessary to evaluate the effects of protectionist measures. This includes understanding the retaliatory responses across the value chain on green technologies and their broader economic implications. The EU needs to design its industrial policy in a way that enhances productivity and reduces dependencies but without unnecessary adverse effects on transition costs.

In an ongoing project with our partner Kaya Partners, we are using our climate economic model Intersect to simulate the impact of protectionist measures on the cost of the green transition in Europe. The study will be published in the new year.

A NOTE FROM THE CLIMATE, ENERGY & NATURAL RESOURCES TEAM AT CE

As 2024 draws to a close, our Climate, Energy & Natural Resources team is excited to share the progress we have made and insights we have gained this year.

We are pleased to present key highlights from our completed and published projects, along with updates on ongoing and upcoming initiatives focused on energy transition, electrification, demand-side flexibility, and green claims.

Stay tuned for more updates!

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