

Report Released at COP 25 Provides Roadmap for Deep Cuts in Highest Emitting Sectors



UC San Diego professor David Victor and co-authors make the case for stronger international action and radical technical change

By Christine Clark | [UC San Diego News](#)

The 25th Conference of the Parties, or COP 25, run by the United Nations (U.N.), is underway in Madrid until Dec. 13 and many University of California San Diego faculty and scholars are playing key roles in the event where 200 countries have converged to discuss how the world's governments should tackle the climate change crisis. The meeting comes amid new reports from the U.N. that global emissions continue to rise—up nearly three percent in the last year.

Released today at COP 25, new research by [David G. Victor](#), professor of international relations at the School of Global Policy and Strategy, and colleagues outlines the need to rapidly speed progress toward deep decarbonization.

The report titled "[Accelerating the Low Carbon Transition: The case for strong,](#)

[more targeted and coordinated international action](#)” provides a road map for governments and businesses to accelerate deep decarbonization in today’s world economy, with specific calls to action for 10 of the highest emitting sectors.

“What is new in this study is our focus on exactly how governments and firms can create technological revolutions in all the major sectors that emit warming pollution,” said Victor. “I don’t see how we make deep cuts in emissions—to zero, and quickly—without radical technological change. In nearly every sector, that kind of radical change will not emerge from governments acting alone because the systems for technological innovation are now global and many high-emission products, like steel, are traded in global markets. What is also new in this study is that we show how countries and firms can cooperate across borders to get the job done.”

Victor and co-authors worked to highlight where decarbonization efforts can have the greatest impact by understanding how technology transitions happen – drawing on lessons from historical shifts such as from horses to cars, coal to gas, and wells to piped water system, etc.

In addition, the authors looked at how international cooperation has succeeded in the past in matters of trade, security and the environment and finally, they offer application of these insights to the main greenhouse gas emitting sectors: power, agriculture and land use, cars, trucks, shipping, aviation, buildings, steel, cement and plastics.

Victor added that while some progress has been made in the electric power sector, emissions are still on the rise for nearly all other sectors, and international action is urgently needed for the world to be within striking distance of the emission-cutting goals outlined in the Paris climate accord.

“The world is long overdue in focusing on how to create the systems that will be needed in each sector to get firms and governments to cooperate around the testing and deployment of new technologies,” Victor said. “In a few sectors, like aviation, international organizations exist that are focused on that mission, but their efforts are still erratic. In many sectors, like plastics and cement, there is practically no meaningful cooperation.”

The study was commissioned by the United Kingdom’s Department of Business, Energy and Industrial Strategy and supported by the Energy Transitions

Commission and The Brookings Institution. Co-authors included Frank W. Geels, professor of system innovation and sustainability at the University of Manchester and Simon Sharpe, research fellow and honorary lecturer at University College London.

To read the full report, go to [this website](#).