

Actualité politique

- Grâce aux véhicules électriques, le pic de pétrole pourrait être atteint dès 2030, selon un [rapport de Wood Mackenzie](#).
 - Le Royaume-Uni vient de publier sa « Stratégie de Croissance Propre » ([Clean Growth Strategy](#)). Celle-ci vient renforcer les efforts déjà annoncés dans le *Climate Change Act* de 2008.
 - La Californie vient de publier une loi (Buy Clean California Act) [qui prend en compte les émissions importées](#) pour ses investissements. Il ne sera pas possible d'acheter du matériel donc le bilan en ACV est supérieur à un certain seuil.
 - Les Fidji lancent [un fond vert](#) pour le climat avant la COP 23, avec le soutien de la Banque mondiale.
 - Douze métropoles s'apprêtent à [bannir les énergies fossiles](#) d'ici 2030.
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Articles de recherches publiés récemment

Reducing greenhouse gas emissions in agriculture without compromising food security?

Stefan Frank et al., *Environmental Research Letters*
[#Agriculture](#) [#FoodSecurity](#) [#Undernourishment](#)

To keep global warming possibly below 1.5°C and mitigate adverse effects of climate change, agriculture, like all other sectors, will have to contribute to efforts in achieving net negative emissions by the end of the century. Cost-efficient distribution of mitigation across regions and economic sectors is typically calculated using a global uniform carbon price in climate stabilization scenarios. However, in reality such a carbon price would substantially affect food availability. Here, we assess the implications of climate change mitigation in the land use sector for agricultural production and food security using an integrated partial equilibrium modelling framework and explore ways of relaxing the competition between mitigation in agriculture and food availability. Using a scenario that limits global warming cost-efficiently across sectors to 1.5°C, results indicate global food calorie losses ranging from 110–285 kcal per capita per day in 2050 depending on the applied demand elasticities. This could translate into a rise in undernourishment of 80–300 million people in 2050.[...]

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Emission budgets and pathways consistent with limiting warming to 1.5 C

Millar, Richard J. et al., *Nature Geoscience*

#Geophysical possibility #Short-term action

The Paris Agreement has opened debate on whether limiting warming to 1.5 °C is compatible with current emission pledges and warming of about 0.9°C from the mid-nineteenth century to the present decade. We show that limiting cumulative post-2015 CO₂ emissions to about 200GtC would limit post-2015 warming to less than 0.6°C in 66% of Earth system model members of the CMIP5 ensemble with no mitigation of other climate drivers, increasing to 240GtC with ambitious non-CO₂ mitigation. We combine a simple climate–carbon-cycle model with estimated ranges for key climate system properties from the IPCC Fifth Assessment Report. Assuming emissions peak and decline to below current levels by 2030, and continue thereafter on a much steeper decline, which would be historically unprecedented but consistent with a standard ambitious mitigation scenario (RCP2.6), results in a likely range of peak warming of 1.2–2.0°C above the mid-nineteenth century.[...]

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Articles publiés par les membres du GICN

Uncertainty management and the dynamic adjustment of deep decarbonization pathways

Sandrine Mathy, Patrick Criqui et al., *Climate policy*

#Uncertainty #Adaptative strategy #Monitoring

Contrary to 'static' pathways that are defined once for all, this article deals with the need for policy makers to adopt a dynamic adaptive policy pathway for managing decarbonization over the period of implementation. When choosing a pathway as the most desirable option, it is important to keep in mind that each decarbonization option relies on the implementation of specific policies and instruments. Given structural, effectiveness, and timing uncertainties specific to each policy option, they may fail in delivering the expected outcomes in time. The possibility of diverging from an initial decarbonization trajectory to another one without incurring excessive costs should therefore be a strategic element in the design of an appropriate decarbonization strategy. The article relies on initial experiences in France and Germany on decarbonization planning and implementation to define elements for managing dynamic adjustment issues. Such an adaptive pathway strategy should combine long-lived incentives, like a pre-announced escalating carbon price, to form consistent expectations, as well as adaptive policies to improve overall robustness and resilience[...]

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Tracking sectoral progress in the deep decarbonisation of energy systems in Europe

Thomas Spencer et al., *Energy policy*

#Indicators #Decarbonisation

Decarbonisation of energy systems requires deep structural change. The purpose of this research was to analyse the rates of change taking place in the energy systems of each Member State of the European Union (EU), and the EU in aggregate, in the light of the EU's climate change mitigation objectives. Trends on indicators such as sectoral activity levels and composition, energy intensity, and carbon intensity of energy were compared with decadal benchmarks derived from deep decarbonisation scenarios. The methodology applied provides a useful and informative approach to tracking decarbonisation of energy systems. The results show that while the EU has made significant progress in decarbonising its energy system. On a number of indicators assessed the results show that a significant acceleration from historical levels is required in order to reach the rates of change seen on the future benchmarks for deep decarbonisation. The methodology applied provides an example of how the research community and international organisations could complement the transparency mechanism developed by the Paris Agreement on climate change, to improve understanding of progress toward low-carbon energy systems.

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