

The EU's perspective on climate resilience

WEBINAR: *IMPLEMENTING FAST-TRACK SOLUTIONS FOR CLIMATE-PROOF POWER GRIDS – LESSONS FROM THE GRID INNOVATION ALLIANCE*

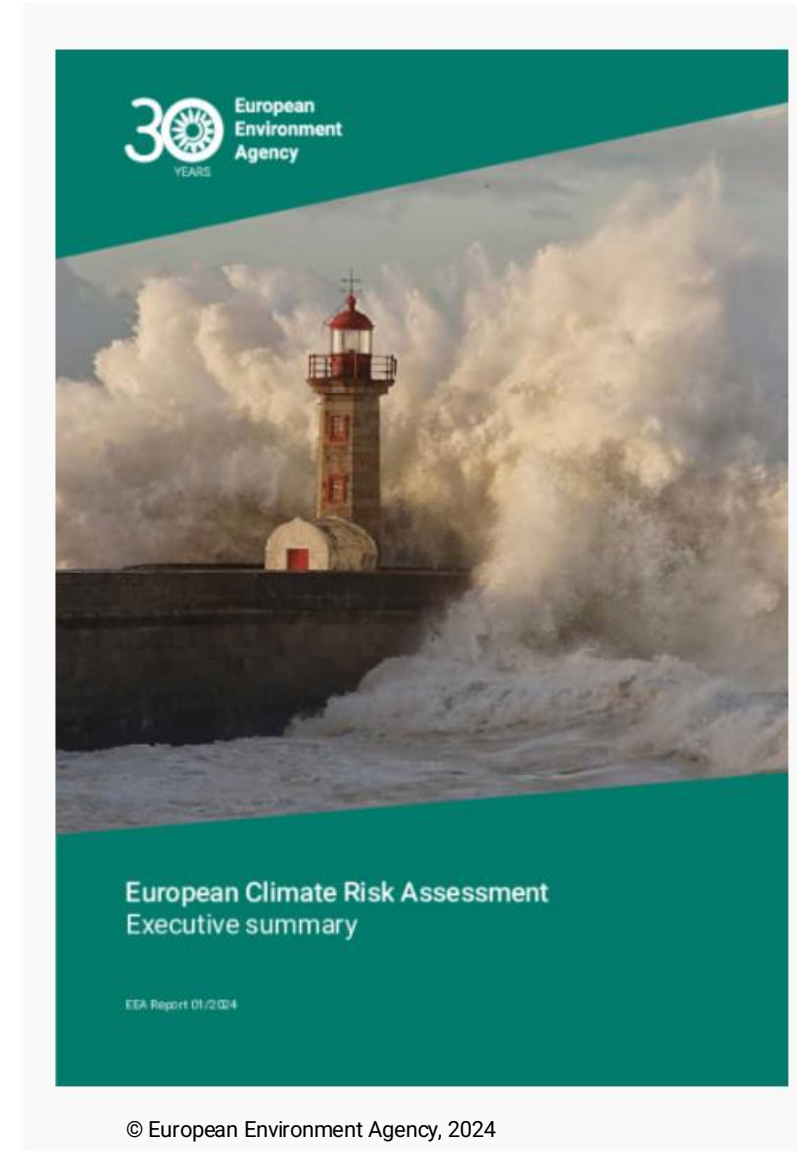
15 OCTOBER 2026

DG ENER

F4. Energy Security and Safety

Increasing climate risks

- Europe is warming around twice as the global average rate.
- Extreme weather events are becoming more frequent.
- Material losses are rising sharply.
- The energy sector is expected to be among the hardest hit in terms of infrastructure damage.
- The multi-hazard damage for infrastructure in the energy sector is projected to rise up to 15-fold, from a baseline EAD of EUR 0.5 billion per year to one of EUR 1.8 in the 2020s, EUR 4.2 billion in the 2050s and EUR 8.2 billion per year in the 2080s, respectively.
(source: [EEA Report No 01/2019](#))



Increasing climate risks



Activity ▾ Sustainability ▾ Innovation ▾ People ▾ About Us ▾ 

29 JANUARY 2026

Depression Kristin knocked down 61 Very High Voltage Poles

Activity

The passage of Storm Kristin through Portugal in the early hours of 27 January left a total of 774 kilometres of REN's very high voltage lines out of operation, corresponding to 7% of the entire National Electricity Transmission Grid.

Several of the 10 lines affected are of critical importance, particularly in connecting the northern and southern zones of the National Electricity System (SEN). Despite this, technical operations and preventive measures taken in the hours leading up to the storm ensured that there were no disruptions to the SEN supply attributable to the infrastructure operated by REN. The only exception was localised supply cuts near the Zêzere Substation, which was partially destroyed.

The storm knocked down a total of 61 very high voltage pylons and damaged many more. The weather phenomenon with the greatest impact on REN's infrastructure recorded to date had occurred in 2009. At that time, 25 pylons were lost – less than half of those that fell on the night of 28 January.

The Kristin depression also caused some damage to the National Gas Transmission Network, but again with no impact on the security of supply. The most obvious damage occurred at the surface facilities of the Carriço Underground Storage Facility.

Since the early hours, the various areas of the company have been fully committed to the complete recovery of all affected infrastructure, in coordination with E-Redes, Red Eléctrica de España, the National Emergency and Civil Protection Authority and other relevant authorities, namely government authorities.

The total replacement of the poles is only expected to take place in a few weeks, according to a plan that has already been drawn up, which involved the reallocation of all available teams to the work now considered a priority.

Form the distribution network operator E-Redes ([Press release](#)):

- Over 6,300 kilometres of network affected
- 24 substations impacted
- Over 5,800 poles damaged
- Around 8,700 secondary substations affected

[Reported cost for restoring the service:](#) Around 110 M€

Need to consider climate resilience

We need to embed climate resilience considerations in EU policies, infrastructure development, financing and investments decisions. This will help reduce avoidable risks, damages and reduce disruptions.

The Commission is working on:

1. Integrated Framework for Climate Resilience
2. Revision of the Energy Security Framework
 - **Consider climate risks and resilience measures**
 - **Resilience by design of new critical energy infrastructure**



Thank you



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