specializes in copyright issues. "Each party got some pieces that were very favourable to them and some pieces that were less favourable to their claims."

Elsevier, which is based in Amsterdam, and the American Chemical Society (ACS), in Washington DC, filed the lawsuit against ResearchGate in a regional court in Munich in 2017, alleging that the site had made copyrighted material freely available. ResearchGate said that it could not be held responsible for the content, which was uploaded by authors.

"We are pleased with the verdict," says a spokesperson for the Coalition for Responsible Sharing, a group of publishers — including Elsevier and the ACS — that was formed in 2017. "The clear aim of the legal action was to clarify the responsibilities of ResearchGate for the content that it illicitly distributes on its site, which it does for its own commercial gain."

"We believe that the outputs of scientific research, the majority of which is funded by public money, should be shared as openly as possible and we'll continue to support researchers in sharing their work easily and legally," says a spokesperson for ResearchGate. They add that it is up to publishers to work with platforms to remove uploaded content, and that in the years since the case was first brought they had introduced software that could help to prevent the sharing of copyrighted material. In a public statement posted after the Munich court's 31 January ruling, ResearchGate said that it would appeal against parts of the decision.

Wins and losses

ResearchGate has had a complicated relationship with academic publishers since its foundation in 2008. Many researchers use the platform to upload and share documents, including their published research. As well as initiating legal action, publishers have been sending take-down notices to the site for years, demanding that it remove paywalled articles.

The Munich lawsuit focused on 50 articles on the site, all of which have since been removed. The court ruled not only that the uploaded articles breached the publishers' copyrights, but also that ResearchGate was responsible for the content on its platform. "Only a sample of 50 articles was included, but the verdict speaks to the responsibility of the site in general," says the spokesperson for the Coalition for Responsible Sharing.

However, the direct implications for any article other than the 50 named in the lawsuit are unclear, says Guido Westkamp, who studies intellectual property and comparative law at Queen Mary University of London. If the reasoning applied in the court's judgment remains unaltered after an appeal, the precedent will also apply — in Germany, at least — to any future lawsuits against ResearchGate, he says. But the ruling is "far from a blocking order", he adds. "In principle, any other content is subject to a new lawsuit."

The court rejected the publishers' request to be paid damages, noting that they did not have sufficient evidence to show that standard copyright-licensing agreements, which are typically signed only by a paper's corresponding author, prove that all authors agree to transfer ownership to the publisher. The publishers have said that they plan to appeal against this decision.

In the years since the lawsuit was filed, the academic publishing world has undergone a sea change. A growing open-access movement has led many publishers to make more of their articles freely available. And while Elsevier and the ACS have been locked in a legal battle with ResearchGate, several other big publishers, such as Wiley and Springer Nature, have instead partnered with the platform to enable it to share published papers. (*Nature*'s news team is editorially independent of its publisher, Springer Nature.)

In the European Union, there has also been a shift in copyright law. One article of sweeping copyright legislation that came into effect last year makes content-sharing platforms responsible for content uploaded by their users. That could make ResearchGate liable for damages in the future, Westkamp says. ResearchGate has stated that it believes it is not subject to these rules because of the "nature of [its] business". Nevertheless, the platform has developed software that matches rights information from publishers to papers during the uploading process, to prevent researchers from posting content that they are not permitted to share.

Public-interest argument

ResearchGate is embroiled in a similar lawsuit with the same two publishers in the United States. The site potentially has a stronger case in the US court, because decisions could hinge on the issue of fair use rather than copyright law alone, Westkamp says. "The public-interest argument would be way stronger in the States than it is in Germany," he says. ResearchGate could argue that copyrighted papers should be made available on its platform for the sake of freedom of access to knowledge.

In the long term, he says, it is up to publishers to decide how to deal with ResearchGate. "From a purely commercial point of view, you don't want competition," he says. But attempts to "eradicate" the platform could anger the authors and members of the scientific community on whom publishers rely.

THIS US SUPREME COURT DECISION COULD DERAIL BIDEN'S CLIMATE PLAN

Controversial lawsuit has put the US government's ability to slash carbon emissions on the line.

By Jeff Tollefson

The US Supreme Court heard oral arguments on 28 February in a controversial lawsuit that could deal yet another blow to President Joe Biden's climate agenda. Depending on how the court rules, the lawsuit has the power not only to prevent the US Environmental Protection Agency (EPA) from regulating future greenhouse-gas emissions, but also to potentially reshape other US agencies' regulatory powers.

The unusual case hinges on a years-long legal tussle over two EPA policies crafted under former presidents Barack Obama and Donald Trump that sought to regulate power-plant emissions in opposing ways. Neither policy ever took effect, and it's that fact that sets this case apart: normally, the Supreme Court would not agree to hear regulatory cases in which there is no regulation to debate. The group of Republican-led states and coal companies suing the EPA, however, are raising the spectre of future regulations that could hamper a crucial sector of the US economy — the electricity industry.

"This is not about stopping climate-change efforts," West Virginia attorney-general Patrick Morrisey, a Republican, said in a statement released after the arguments this week. "The future of our nation is at stake. This case will determine who decides the major issues of the day."

The Biden EPA and its allies — including and public-health advocates — see it as a brazen attempt to restrict the government's power over industry and pollution control. "The arguments being raised here really are breathtaking in terms of trying to limit the government's ability to protect public health and welfare," says Sean Donahue, a lawyer with Donahue, Goldberg & Littleton in Washington DC, who represents the group weighing in on behalf of the EPA.

BRYAN OLIN DOZIER/NURPHOTO/SHUTTERSTOCK

Climate-change activists rallied outside the Supreme Court on 28 February as the justices heard arguments in the case *West Virginia* v. *Environmental Protection Agency*.

Here *Nature* explains the case, and examines what's at stake.

What is the history of the lawsuit?

In 2015, during the Obama administration, the EPA finalized a flagship climate rule, dubbed the Clean Power Plan, which sought to curtail emissions from the electricity sector to at least 30% below 2005 levels by 2030. The plan would have set reductions targets for US states; to meet them, coal- and gas-burning power plants could have upgraded their technology to boost efficiency and decrease emissions, but the bulk of the reductions would have needed to come from electric utilities shifting towards more renewable energy sources, such as wind and solar. The Obama EPA said that this 'generation shifting' approach was consistent with the Clean Air Act, a law that requires the agency to consider the best-available technologies when crafting regulations to curb air pollution.

The more industry-friendly Trump administration repealed the Clean Power Plan in 2018 and replaced it with a weaker version dubbed the Affordable Clean Energy plan, which more narrowly interpreted the Clean Air Act. It also limited pollution controls to technologies that could be installed at individual power plants. Critics said it would do little, if anything, to encourage a broader shift towards clean energy.

The situation came to a head on Trump's final day in office in early 2021, when a federal appeals court in Washington DC dismissed the Trump plan and rejected its repeal of the original Clean Power Plan. The new Supreme Court case, *West Virginia* v. *Environmental Protection Agency*, hinges on the fact that the appeals court expressly rejected the Trump administration's arguments that the Clean Air Act does not authorize the EPA to require generation shifting across the electricity industry.

Under Biden, the EPA has declined to revive the Obama administration's Clean Power Plan and is instead crafting its own plan for power plants. This means there are no actual regulations to challenge in this Supreme Court case, says GianCarlo Canaparo, a lawyer with the Heritage Foundation, a conservative think tank in Washington DC. But given the appeals court's ruling, Canaparo adds, the plaintiffs rightfully fear that the Biden EPA will craft its new plan by interpreting the Clean Air Act as the Obama EPA did.

To bring their case to the Supreme Court in the absence of a standing regulation, the plaintiffs have invoked something called the major questions doctrine, which argues that courts must prevent agencies from going beyond what Congress intends when it passes legislation of vast economic significance – for instance, using the Clean Air Act to reshape the electricity industry. If the high court follows this logic, it could adopt the Trump administration's narrow view for regulating emissions, or go even further and limit the EPA's power to craft regulations without express consent from Congress. The latter, critics fear, could have implications for other agencies.

Whose side is the electricity industry on?

Many of the largest utility companies that provide electricity to consumers have lined up on the side of the EPA in this case. One reason is that when people and groups sue utilities to seek compensation for climate change-induced damages, the companies have been able to defend themselves by pointing out that greenhouse gases are regulated by the federal government. If the EPA loses that authority, that defence evaporates, potentially opening the door to an avalanche of lawsuits.

Utilities also fear a world in which agencies such as the EPA have been stripped of their powers, leaving the US Congress – notoriously slow to act and frequently deadlocked by partisanship – responsible for the details of agency-crafted regulations. "You're talking about utter gridlock," says Thomas Lorenzen, general counsel for the Edison Electric Institute based in Washington DC, utility companies' largest trade association.

Which way does it look like the Supreme Court will go?

Nobody knows. In 2007, the Supreme Court ruled 5–4 that the EPA had the authority to regulate greenhouse gases from vehicles, and by extension other sources. But in recent years, Trump appointed three justices to the court, making it more conservative. Last month, Biden nominated Ketanji Brown Jackson to the court, but if she is confirmed by the Senate, she would replace liberal justice Stephen Breyer and so would not significantly alter the balance of the court's power. She would also arrive too late for this particular case.

West Virginia v. *EPA* will be a major test of how aggressively this new court is going to be reshaping legal doctrines, says Cara Horowitz, co-executive director of the Emmett Institute on Climate Change and the Environment at the University of California, Los Angeles.

"This case will determine who decides the major issues of the day."

Going by the justices' lines of questioning during nearly two hours of oral arguments on 28 February, Horowitz thinks it unlikely that the court will dismiss the case outright. Instead, she expects it will either declare that the EPA has no authority to regulate power-plant emissions, or sharply limit the agency's authority, in line with the Trump administration's Affordable Clean Energy plan.

The Supreme Court arguments came on the same day that the United Nations' Intergovernmental Panel on Climate Change released its latest report, which documents the accelerating impacts of climate change on people and natural ecosystems. "It makes clear that we don't have time to waste squabbling over legal authorities," Horowitz says.

A decision on the case is expected as early as June.