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The Resilience of the Biden Administration's Climate Policy

On the Danger of a Climate Policy U-turn under a Second Trump Presidency

Sonja Thielges

The United States will play a crucial role in global climate protection in what has been called the “super election year” of 2024. After three-and-a-half years of having scored huge successes in climate protection, President Joe Biden could be succeeded by Donald Trump in January 2025, according to opinion polls. Trump used his first Presidency (2017–2021) to largely reverse the climate protection measures of the previous administration; and he intends to take the same approach if he wins in November. Conservative think tanks have provided him with a detailed blueprint for doing so with the “Mandate for Leadership: The Conservative Promise”. Trump’s return to the White House would deal a fatal blow to climate protection. Many of the Biden administration’s climate policy measures could be scrapped by a second Trump administration. While the future of US climate policy depends largely on the results of the elections to the White House and Congress, an important factor will also be the progress that has been made in the individual US states.

As the world’s second-largest emitter of CO₂, the US plays a leading role in efforts to limit the rise in the global average temperature to less than 2 degrees Celsius and preferably 1.5 degrees Celsius and thus achieve the goal of the Paris Agreement. Following four years of climate policy obstructionism under the leadership of Donald Trump, new momentum returned to US climate policy when Joe Biden took office in 2021. Biden brought the US back into the Paris Agreement and announced climate targets for 2030 and 2050. In order to achieve those

goals, he went on to introduce a series of climate policy measures.

With less than three months to go to the US elections in November 2024 – in which not only the president but the entire House of Representatives and one third of the Senate will be elected – Germany and the EU institutions must be prepared for the possibility of another U-turn in US climate policy. This raises an important question: how resilient will US climate policy prove in the event of a Republican Presidency and a Republican-dominated Congress?



Biden's climate policy successes

During his current term in office, Joe Biden has been able to achieve climate policy successes at different legal levels. He issued a series of executive orders to ensure that US climate policy was Paris-compliant, which included the reduction of greenhouse gas emissions to 50 – 52 percent below 2005 level by 2030 and net-zero emissions by 2050. He also announced various sectoral sub-targets: for example, zero-emission vehicles should account for half of new car sales by 2030, while the decarbonization of the electricity sector was to be achieved by 2035.

Executive measures and climate regulation

Biden initially relied on executive measures to achieve the new targets. In the “Federal Sustainability Plan”, he instructed the federal authorities to take into account new sustainability criteria in government procurement. The intention is to use the immense purchasing power of the federal government to boost the production of green steel, low-carbon building materials and electric vehicles (EVs), among other things. For their part, government bodies such as the Environmental Protection Agency (EPA) have introduced new regulations that cover coal-fired power plants and new gas-fired power plants, for example. These measures are designed to achieve a 90 percent reduction in emissions from coal-fired power plants by 2032; thereafter it will be possible to operate coal-fired power plants and newly constructed gas-fired power plants only if expensive carbon capture and storage (CCS) technology is used. In the transportation sector, the EPA finalized stricter efficiency standards for various types of vehicle with the aim of shifting the market towards zero-emission vehicles by 2032. And it has set strict limits for methane emissions in oil and natural gas production, which is a very important step as the US is the world's largest oil and gas producer. In July, however, a federal

district court lifted a temporary ban on the approval of new export terminals for liquefied natural gas (LNG), arguing that the measure had no legal basis.

Climate legislation

At the same time, Biden has enjoyed unprecedented success in pushing through climate-related legislation. In his first year in office, the Infrastructure Investment and Jobs Act was passed with bipartisan support. Among other things, the act provides for some US\$58 billion in new expenditures for the decarbonization of the electricity sector and US\$7.5 billion for the expansion of the charging infrastructure for electromobility.

In August 2022, Biden signed into law the CHIPS and Science Act, which also enjoyed bipartisan support. The legislation provides for expenditures of US\$280 billion during the period 2023 – 2027 to promote semiconductor production and research. Semiconductors are a key component of climate-friendly energy technologies such as EVs and renewable energies.

But the Biden administration's biggest success has been the passage of landmark climate legislation – the Inflation Reduction Act (IRA). The 2022 law, which passed without a single vote from the Republican Party, provides for an unprecedented US\$370 billion in funding for the energy transition and climate transformation. Funds are earmarked for technologies such as renewable energies, hydrogen, EVs, CCS, and carbon capture and utilization (CCU); and they are to be disbursed over 10 years in the form of tax incentives, loans, loan guarantees and grants. There is no spending cap and the fiscal cost has since been estimated at US\$1.2 trillion owing to increased demand for clean technologies, especially EVs. Calculations show that the climate law alone can reduce emissions by 32 – 42 percent by 2030, bringing the US significantly closer to its climate target.

All three laws mentioned above include local content clauses: that is, the production of raw materials and components with-

in the US is explicitly promoted. The aim is to create domestic jobs and increase the resilience of supply chains. Another important goal is to reduce the country's enormous dependence on imports from China in some green technologies.

The three laws significantly improve the conditions for reducing emissions and are already having an economic impact. Investment in the production of green energy technologies, such as zero-emission vehicles and electrolyzers, has risen sharply since the passage of the IRA. A particular success story is battery production: annual new investments in this sector have almost tripled year on year to around US\$22 billion. And another sector that is flourishing is semi-conductors: no fewer than 70 semiconductor factories are currently under construction in the states of Arizona and Texas alone.

While the IRA has attracted a great deal of international attention since its passage, Americans seem to know little about it: surveys from the summer of 2023 showed that 70 percent of respondents in the US were barely aware of the legislation. If this remains the case, it will be difficult for the Democratic Party to capitalize on the success to date of the IRA during the remainder of the election campaign.

The plans of Donald Trump and the Republican Party

Republican presidential candidate Donald Trump casts doubt not only on the success of green technologies but on whether it makes any sense to promote them. He has described renewable energies as a “scam business” and said that he will “drill, baby, drill” from his first day in office. According to him, the IRA is the “biggest tax hike in history” and Biden’s promotion of EVs is “crazy”. Thus, it is clear that Trump would target the IRA, along with the promotion of renewable energies and EVs. At the same time, he would seek to boost the production of fossil fuels as much as possible.

Project 2025: Climate agenda of the conservative think tanks

Even if Trump’s climate and energy policy statements are as outlandish as ever, conservative think tanks have already planned in detail how to reverse what they regard as extreme climate policy driven by left-wing ideology. “Project 2025” brings together conservative think tanks under the leadership of the Heritage Foundation to prepare for the next Republican president’s term in office. Their political agenda is summarized in the “Mandate for Leadership”. Many of the chapters are written by members of the previous administration, which suggests that Trump would adopt many of the proposals.

With regard to climate protection, the think tanks start from the premise that the political left is exaggerating the effects of climate change. This reflects strong political polarization in the US over climate protection. According to the “Mandate”, climate protection damages the US economy and economic growth is to be achieved by further expanding the production of fossil fuels.

Accordingly, the authors of the “Mandate” focus on eliminating the policy objective of climate protection from the work of all executive bodies. This is to be achieved through restructuring, realigning the functions of the institutions, cutting funds and revoking executive orders and regulations. At the same time, those executive orders issued during the Trump Presidency are to be reinstated.

For its part, the Department of Energy is to work towards “restoring” US energy dominance. The focus is to be on promoting fossil fuels — by simplifying approval procedures for LNG export terminals and increasing the sale of oil and gas licences, among other measures. Renewable energies and energy efficiency, meanwhile, are to take a back seat: those department offices established to promote them are to be abolished. The authors of the “Mandate” have also focused on the EPA, which would concentrate solely on environmental protection

and public health and, if possible, be stripped of the legal basis for regulating greenhouse gas emissions. Moreover, scientific advisory bodies working in the field of climate protection are to be reformed and funding for climate research suspended, at least temporarily. Finally, the “Mandate” provides for the US withdrawing from both the Paris Agreement and the UN Framework Convention on Climate Change.

It is also planned that the “Mandate” be given more force through the establishment of a new category of public servant. Employees in the “Schedule F” category would be political appointees and thus could be more easily dismissed than regular public servants. It is estimated that if these plans were realised, there would be at least 50,000 politically appointed public servants instead of the current 4,000. In this way, Trump could create a layer of loyal supporters in all government bodies who support his agenda.

The Conservative Climate Caucus

There are more grounds for optimism from the agenda of the Conservative Climate Caucus, a steadily growing coalition of a full third of Republican members of the House of Representatives who fundamentally agree that climate change needs to be addressed. The Caucus sees fossil fuels in combination with “innovative technologies” as a key component in reducing global greenhouse gas emissions. Thus, while fossil fuels are still to be promoted, emissions should be reduced through technologies such as CCS. This provides for at least a minimum consensus with the Democratic Party on climate policy.

The resilience of climate policy

Whether a second Trump administration could achieve its goals would depend to a large extent on how many climate policy measures remained in force. Some would be difficult to eliminate, others easy. Biden’s executive orders — including on the climate target for 2030 and membership of

the Paris Agreement — fall into the latter category. With one such order of his own, Trump could immediately revoke Biden’s directives.

The procedure would be more difficult and protracted in the case of regulations such as the methane emission performance standards in oil and gas production and efficiency requirements for vehicles. While a Trump administration could not simply axe such regulations, it could come up with alternatives. For this reason, the regulations finalised under Biden might well be weakened or their implementation significantly delayed.

Trump would have more freedom to deal with any regulations finalised by the Biden administration as of May 2024 or still in the draft stage. For example, the EPA has proposed rules for the introduction of a methane fee for oil and gas producers, while the Treasury Department has proposed rules on further guidelines for tax credits under the IRA. On the basis of the Congressional Review Act, a new president can overturn such rules with simple majorities in the House of Representatives and the Senate if they were finalised in the last 60 days of the previous legislative session. Moreover, there is no requirement to provide alternative regulations in this case. Regulations still in the draft stage when the new president enters office are the most vulnerable. Trump could make significant changes to or slow down the processing of such regulations.

IRA in the crossfire

It would be difficult to revoke the IRA — for both institutional and strategic reasons. In order to repeal a law, a new legislative procedure is required and, as a rule, a majority of 60 votes in the Senate. But it is forecast that if the Republican Party were to win a majority in the Senate in the November elections, the margin of victory would be narrower than that. In theory, there could be a way around the legislative requirement if a reconciliation process were to be adopted with the consent of both houses of Congress. This rare procedure —

which was, in fact, used for the passage of the IRA — requires only 51 votes in the Senate for a law to be approved.

However, Trump could significantly weaken the IRA. He could slow down processes — for example, by temporarily halting the work of the Department of Energy’s Loan Programs Office (LPO), which manages loans and loan guarantees under the IRA. Indeed, he did just that during his first term in office. At the same time, Trump could change the Treasury Department guidelines for awarding tax credits and grants for green technologies. Those elements supported by both parties — including the promotion of biofuels, nuclear energy and CCS — would likely remain unaffected. But subsidies and tax credits for EVs are particularly unpopular among the Republicans. Should the guidelines for these measures change, there could be a negative impact on the EV market ramp-up, as tax credits for the purchase of such vehicles and tax incentives for manufacturers are currently a key driver of growing EV sales in the US. Furthermore, the tax incentives for wind and solar power could also be targeted by a Trump administration, significantly slowing down the required capacity expansion.

On the strategic side, repealing the IRA would be a political challenge, as the law is helping stimulate economic growth and is estimated to have created more than 100,000 new jobs over just two years. Moreover, the funds generated by the law flow mainly to Republican states, even though the IRA did not receive a single Republican vote. The states could once again provide some stability to US climate policy — at least in theory.

US states as (potential) anchor of stability

Indeed, many Republican states likely consider a repeal of the IRA undesirable, as they have benefited disproportionately from the surge in investment in green technologies since the passage of the law. There are two main reasons for this. First, the environmental justice provisions of Biden’s

climate policy as a whole: “Justice40” stipulates that 40 percent of state expenditures on climate transformation must benefit disadvantaged communities, which include (former) coal mining districts, areas in which oil and gas production takes place, and communities affected by structural change and high unemployment. Such communities are predominantly Republican; and projects implemented there are eligible for additional tax credits. Second, many of the large states that have the potential to expand wind and solar energy are Republican-led.

As for the US states in general, some are seen as long-standing climate policy front-runners, as are many of the larger cities in the country. During Donald Trump’s term in office, it became clear that it is not only traditional pioneers such as California and New York that are particularly active in climate policy; conservative states such as Louisiana have taken up the fight against climate change, too. However, many US states have done nothing whatsoever in terms of climate policy. It is here that the legislation passed by the Biden administration may have encouraged at least some progress: the Infrastructure Act, for example, required all 50 states to submit plans for the expansion of EV charging infrastructure, while the IRA offered funding for drawing up a Priority Climate Action Plan (PCAP). Besides an inventory of greenhouse gas emissions, those plans must include proposals for incentives to reduce emissions in various sectors. Almost every state has come up with an action plan — many for the first time ever.

Mixed results among fossil fuel producers

US states that are fossil fuel producers often prove a major hurdle to climate transformation. If green technologies were to gain a foothold in such states, the resilience of US climate policy would significantly increase. However, the success of the transformation has so far been limited, as evidenced by the situation in Texas, New Mexico and Pennsylvania: a fossil fuel phase-down is not imminent in any of these states. All three

fall short of the Biden administration's climate ambitions for 2030. What is more, they do not benefit equally from the IRA.

Texas remains a climate laggard

The Republican-dominated state of Texas is the largest fossil fuel producer in the US, accounting for 42% of crude oil production and 27% of natural gas production. 2023 was a record year for both oil and natural gas production in Texas. At the same time, installed solar power capacity skyrocketed, as a result of which Texas overtook California in this sector. Today, Texas is also the state with the largest installed wind energy capacity. In the late 1990s, it laid the foundations for renewable energy expansion through a renewable energy portfolio standard with binding targets for the share of renewables in the electricity mix. However, those targets were aimed not at climate protection but at the diversification of the electricity system, which was heavily dependent on fossil fuels. In 2023, the share of renewable energy in the electricity mix was 27 percent.

Although it has the largest emissions of any US state, Texas has shown no climate policy ambition to date. While the government in Austin did submit a PCAP to the EPA earlier in 2024, the plan includes no climate targets, only proposals for voluntary measures. Clearly, there is still a lack of political will to pursue real climate protection. At the same time, Texas is one of the biggest beneficiaries of the IRA. It currently ranks tenth among those states with the highest private investment in clean energy and industrial decarbonization relative to gross state product (GSP) since the passage of the IRA in August 2022. Estimates show that some 20 percent of all investments related to the CHIPS Act or the IRA flow to Texas. A particularly large number of new projects are to be found in the e-mobility sector.

New Mexico: Oil and gas producer with green ambitions

New Mexico, a state governed by the Democratic Party, is the second-largest US oil producer with a 13 percent share of total

domestic production and the sixth-largest producer of natural gas with a 7 percent share. Its crude oil output reached a record high in 2023. But at the same time, there has been a surge in renewable energies: the share of wind energy in electricity generation rose to 38 percent in 2023 to become the most important energy source in the desert state's electricity mix. Overall, renewable energies accounted 47 percent of electricity generation in New Mexico in 2023. This means that the state is on track to meet its target of generating half its electricity from renewables by 2030.

In 2019, Governor Lujam Grisham set the target of reducing emissions to 45 percent below 2005 levels by 2030. Climate neutrality is to be achieved by 2050. To meet these goals, the state government issued regulations for the oil and gas sector in 2021 that require the industry to capture 98 percent of methane emissions by 2026.

New Mexico is among those states that have submitted a PCAP. The plan provides for incentive programmes for energy efficiency updates in residential buildings and the construction of charging stations for electric trucks. New Mexico benefits greatly from the IRA. Today it ranks sixth among the states with the highest private investment in clean energy and industrial decarbonisation relative to GSP. In order to attract "green capital", the governor launched a climate investment centre in 2023. The construction of a solar technology factory estimated to cost US\$1 billion is among the major projects announced since the passage of the IRA.

Pennsylvania: Energy transition stagnation in the natural gas and coal state

The "swing state" Pennsylvania is the second-largest natural gas producer in the US and the third-largest coal producer. Renewable energies have barely started to gain a foothold in Pennsylvania; at present, they account for just 4 percent of electricity generation. The expansion of solar and wind energy capacities has stagnated, partly because the state does not have an ambi-

tious programme for the promotion of renewable energies. Moreover, Pennsylvania's climate protection law, which passed in 2008, has no climate targets; it merely obliges the government to publish a climate action plan every three years. In 2019, the then governor, Tom Wolf, issued an executive order requiring the state to achieve a 26 percent reduction in emissions by 2025 and an 80 percent reduction by 2050. Earlier in 2024, Pennsylvania, too, submitted a PCAP; but specific provisions have still to be worked out. Although the state has been hard hit by structural change, it has not yet benefited significantly from the IRA: it currently ranks just 45th among the states in terms of private investment in clean technologies relative to GSP since the IRA was passed. The government in Harrisburg has been able to attract only a handful of climate-related projects, among them the construction of a battery storage factory and wind turbines. Thus, Pennsylvania is the only swing state that has yet to profit materially from the IRA. At the same time, it is the swing state with most electoral votes in the presidential election.

Outlook: The future of US climate policy

Following Joe Biden's withdrawal from the presidential election campaign, the climate policy of his successor as presidential candidate, Kamala Harris, is coming under the spotlight. At the time of writing, Harris has yet to publish a climate-related platform of her own; but the Democratic Party Platform, approved at the 2024 Democratic National Convention, underlines the broad consensus within the party as regards urgency of climate protection. Moreover, in the past Harris has been an energetic and vocal supporter of climate protection and environmental justice, as has vice presidential candidate Tim Walz. This means that, in the event of another Democratic Presidency, Germany and the EU institutions can expect continued activity on climate policy, especially from the US executive.

A new Democratic administration would need to adopt bold new measures to put the current climate target for 2030 within reach. Some regulations are already in the works, such as guidelines on IRA tax credits for clean electricity and hydrogen; and it can be expected that under Harris, they would continue to advance. Others are still at the planning stage, such as emission limits for existing gas-fired power plants. Meanwhile, policy analysts had been expecting to see a regulatory push during a second Biden term on what are still unregulated industrial emissions. If a new Democratic administration were to pursue this agenda, the EU would have to prepare for the introduction of trade measures to protect against carbon leakage. John Podesta, Senior Advisor to the President for International Climate Policy, has already set up a task force on climate change and trade, which is considering the introduction of climate tariffs, among other measures. However, such a levy would have to be approved by Congress; and while tariffs on products such as steel enjoy support from within the Republican Party, corresponding legislative proposals have invariably failed in Congress to date.

One item that did not make it onto the political agenda during the Biden Presidency was the introduction of limits on oil and gas production. In fact, the US became the world's largest LNG exporter under Biden, with oil and natural gas production reaching record levels. Not least, this has benefited the EU, which, in the wake of the Russian invasion of Ukraine, has become the biggest recipient of US LNG exports. A reduction in EU demand for US gas exports would provide a more favourable international context in which a Harris administration could consider the first steps towards reducing the production of natural gas. In bilateral talks and at forums such as the G7, the EU should put more pressure on the US to move away from fossil fuel production.

If Donald Trump were to be re-elected president, Germany and the EU would have to deal with an even more difficult player in climate policy than was the case during

his first term. Trump would use his executive power to withdraw the US from all international climate-protection formats. He would abolish as many of Biden's climate regulations as possible. He would boost the production of fossil fuels. And he would try to obstruct the allocation of funds and tax incentives under the IRA. In particular, the Republicans want to limit the incentives aimed at the transition to electromobility.

Thus, under a second Trump administration the US would miss its current climate targets, especially as the US states would be unable either to offset or circumvent Trump's policies. Nevertheless, more attention should be paid both to the US states in transatlantic cooperation and to those climate-related issues in which there is a shared transatlantic interest, such as CCS, CCU, hydrogen and the promotion of resilient raw-material supply chains. As for the EU itself, if Trump were to be elected for a second term, it should pursue ambitious climate-protection goals and strengthen climate-policy partnerships beyond the US in order to uphold the aims of the Paris Agreement.



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SWP

Stiftung Wissenschaft und Politik
German Institute for International and Security Affairs

Ludwigkirchplatz 3–4
10719 Berlin
Telephone +49 30 880 07-0
Fax +49 30 880 07-100
www.swp-berlin.org
swp@swp-berlin.org

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Dr Sonja Thielges is an Associate in the Global Issues Research Division at SWP.