THINK TANK ANALYSIS

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Climate Change Policy in the Trump Era

HOW DO LEADING US THINK TANKS VIEW THE USA'S CHANGING APPROACH TO ENERGY AND THE ENVIRONMENT?



President Trump has announced that he will "unleash" the US coal, oil and gas industries, deregulate existing environmental and climate restrictions, and withdraw the USA from the Paris Climate Agreement. But despite this, many US experts remain optimistic about the future of clean energy and the country's environmental goals. They believe the main challenges lie in the US potentially losing ground internationally, for example with regard to competitiveness, global influence and security.

The Energy Mix of Tomorrow

Fossil fuels are a priority for the US administration. In the first weeks of his presidency, Donald Trump announced that he would reverse his predecessor's policies in areas such as clean electricity production, the Keystone XL pipeline, reducing fuel consumption and oil and gas drilling. In particular, dismantling the Clean Power Plan is supposed to relax regulation in the energy

sector as a means to create more jobs, fuel growth and increase energy security. However, many experts are skeptical about whether such a policy can be reconciled with economic and technical realities.

Clean Energy Technologies are Competitive

Innovation and mass production have lowered the cost of clean energy technologies over the last twenty years and now they can compete with fossil fuels. This is the opinion of Nathan Hultman of the Brookings Institution. This particularly applies to solar installations, LED light bulbs and, to some extent, wind energy. Global efforts to combat climate change should also result in the cost of clean energy technologies falling even further over the next ten years. During his

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¹ Nathan Hultman, "As Trump weighs Paris Climate agreement, 6 ways the world has changed", Brookings, May 12, 2017.

https://www.brookings.edu/blog/planetpolicy/201 7/05/12/as-trump-weighs-paris-climateagreement-6-ways-the-world-has-changed/

USA

DR. CÉLINE-AGATHE CARO

July 2017

www.kas.de/usa

speech in Milan at the beginning of May, Barack Obama said a good indicator of this was the high level of investment in this area.² According to David Livingston (Carnegie Endowment for International Peace), in 2016 more than half (55 percent) of total global investment in the energy sector was in clean energy.³

Scientists at the University of Texas Energy Institute have concluded that natural gas and wind energy are today's lowest-cost technology options for new electricity generation across much of the US. When other factors are taken into account (such as health, water availability and state regulations), solar and wind energy, nuclear power and other green energy sources may even be cheaper in some parts of the country.4 According to Brookings, 30 US states have already managed to de-link their GDP from increasing harmful greenhouse gases such as CO2 and achieved higher rates of growth and employment while reducing emissions.5

Many (though not all) US experts are optimistic that current economic trends and new technologies will contribute to shrinking coal production and reducing greenhouse gas emissions in the USA. The feeling is that the administration's new energy policy will have little effect, particularly because regulations in the energy sector are also set at state and local level (see below). For Stewart Patrick of the Council on Foreign Relations (CFR), it is also unlikely that the US business community will make long-term

investments in dirty technologies, given the near-certainty that future US administrations will overturn Trump's policies to pursue a low-carbon future.⁶

Mining Jobs Will not Return

Apart from the Heritage Foundation⁷, none of the USA's leading think tanks believe that the country's mining industry can be revived. Current figures from the US Department of Energy reveal that around three million jobs are linked to clean energies in the USA, compared to some 160,000 jobs in the coal industry (with 52,000 people directly employed in mining).8 According to the World Resources Institute (WRI), the solar and wind industries are creating jobs twelve times faster than the rest of the US economy.9 The fastest-growing energy sources in the USA are natural gas and renewables, stresses Sarah Ladislaw of the Center for Strategic and International Studies (CSIS).10 In 2007 almost half of the USA's electricity was produced from coal, whereas this had dropped to just 30 percent by 2016. 11

In January 2017 experts at the Break-through Institute wrote in *Foreign Affairs* that low-cost gas in the wake of the "fracking revolution" has been responsible for the decline in the mining industry in the USA, not the "war on coal", as claimed by Donald Trump. With or without the Clean Power Plan, this trend will continue over the coming decades because the Trump administration has announced that it will continue supporting shale gas extraction. In addition,

² Jérôme Gautheret, "Obama relativise la portée de l'action climatosceptique de l'administration Trump", *Le Monde*, May 10, 2017. http://www.lemonde.fr/climat/article/2017/05/10/obama-relativise-la-portee-de-l-action-climatosceptique-de-l-administration-trump_5125515_1652612.html#meter_toaster_

³ David Livingston. "The Strategic Consequences

³ David Livingston, "The Strategic Consequences Behind Trump's Paris Agreement Decision", Carnegie, April 26, 2017.

http://carnegieendowment.org/2017/04/26/strate gic-consequences-behind-trump-s-parisagreement-decision-pub-68781

⁴ See on this, especially for the maps: "The Green Energy Revolution Will Happen Without Trump", New York Times, 20. Juni 2017.

https://www.nytimes.com/interactive/2017/06/20/opinion/green-energy-revolution-

trump.html?action=click&pgtype=Homepage&click Source=story-heading&module=opinion-c-col-leftregion®ion=opinion-c-col-left-

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Trump's executive order on environmental policy",
Brookings, April 4, 2017.

https://www.brookings.edu/blog/brookingsnow/2017/04/04/6-things-to-know-aboutpresident-trumps-executive-order-onenvironmental-policy/

⁶ Stewart M. Patrick, "Trump's Catastrophic Climate Decision Imperils the Planet—and Hastens American Decline", CFR, June 1st, 2017. https://www.cfr.org/blog-post/trumps-catastrophic-climate-decision-imperils-planet-and-hastens-american-decline

⁷ Stephen Moore, "Coal's colossal Comeback", Heritage Foundation, April 19, 2017. http://www.heritage.org/energyeconomics/commentary/coals-colossal-comeback

⁸ Nathan Hultman, Brookings, see Note 1.
⁹ Andrew Light, "White House Abandoning Paris Agreement Harms the U.S. As Other Countries Step Up", World Resources Institute, June 2nd, 2017. http://www.wri.org/blog/2017/06/white-house-abandoning-paris-agreement-harms-us-other-countries-step

Sarah Ladislaw, "Energy Fact & Opinion: The Trump Administration's Rollback of Environmental Regulations", CSIS, March 29, 2017.
 https://www.csis.org/analysis/energy-fact-opinion-trump-administrations-rollback-environmental-regulations
 David G. Victor (UC San Diego/Brookings), Kas-

David G. Victor (UC San Diego/Brookings), Kassia Yanosek (McKinsey), "The Next Energy Revolution", *Foreign Affairs*, July/August 2017. https://www.foreignaffairs.com/articles/2017-06-13/next-energy-revolution

USA

DR. CÉLINE-AGATHE CARO

July 2017

www.kas.de/usa

federal tax breaks for renewable energies receive cross-party support. This is why these experts believe tax breaks will not be repealed by Congress.¹²

Nuclear Power Plants Could be Supported

Low-cost gas is also a challenge for the nuclear industry, a zero-emissions industry, because falling electricity prices are making it less and less competitive. A study by the Massachusetts Institute of Technology (MIT) concludes that if another 20 nuclear reactors in the USA were shut down for economic reasons and replaced by natural gas plants, CO₂ emissions in the electricity sector would increase by more than three percent. 13 The nuclear industry employs around 76,000 people¹⁴, and some of these jobs are threatened by the latest developments. Reducing production in the nuclear sector would also mean the USA becoming increasingly dependent on natural gas. 15

This is why the future of nuclear power is currently the subject of much heated debate in the USA. Many environmental organizations and policymakers from a number of US states have spoken out in support of new mechanisms such as the introduction of carbon pricing as a way of supporting the industry. Experts at the Breakthrough Institute believe the Trump administration could in fact find a way to ensure that the country's 99 nuclear power plants remain in operation, which would help to curtail harmful emissions. ¹⁶

The Environment is Still on the Radar

Pulling the USA out of the Paris Agreement was one of Trump's campaign promises. The US President announced this on June 1, 2017. His decision was supported by three US think tanks: the Heritage Foundation,

the Manhattan Institute and the Hoover Institution. The US government and these three think tanks all believe that the Agreement is expensive, ineffective, and based on unsound science. They think that withdrawing from the Agreement will boost the competitiveness of American energy companies, increase the nation's economic independence, and demonstrate its strong leadership. ¹⁷ However, the majority of Americans do not share this view.

Public Support

According to Brookings, surveys conducted over recent years show growing public support for global action on climate change. ¹⁸ A survey carried out by the Chicago Council on Global Affairs in November 2016 showed that 71 percent of US citizens supported the USA remaining in the Paris Agreement, going across party lines (57 percent of Republicans, 87 percent of Democrats, and 68 percent of independent voters were in favor). ¹⁹ A study carried out by Yale University in May 2017 also showed that a majority of citizens in every US state supported the USA's participation in the international climate treaty. ²⁰

US Business is Focused on a Low-Carbon Strategy

Over the last few months, US businesses have also voiced their support for the USA remaining in the Paris Agreement. Some of the most vocal supporters of US climate change policy include major corporations

¹² Ted Nordhaus, Alex Trembath, Jessica Lovering (Breakthrough Institute), "Climate Policy in the Age of Trump", *Foreign Affairs*, January 24, 2017. https://www.foreignaffairs.com/articles/northamerica/2017-01-24/climate-policy-age-trump

¹³ Geoffrey Haratyk, "Early Nuclear Retirements in Deregulated U.S. Markets: Causes, Consequences and Policy Options", MIT, 2017. http://ceepr.mit.edu/files/papers/2017-009-Brief.pdf

Nathan Hultman, Brookings, see Note 1.
 Cf.: Brad Plumer, "How Retiring Nuclear Power Plants May Undercut U.S. Climate Goals", New York Times. June 13, 2017.

https://www.nytimes.com/2017/06/13/climate/nuclear-power-retirements-us-climate-goals.html?mcubz=2

¹⁶ Ted Nordhaus, Alex Trembath, Jessica Lovering (Breakthrough Institute), see Note 12.

¹⁷ See for example Nicolas Loris, Katie Tubb, "4 Reasons Trump Was Right to Pull Out of the Paris Agreement", Heritage Foundation, June 1st, 2017. http://www.heritage.org/environment/commentary/4-reasons-trump-was-right-pull-out-the-paris-agreement; Oren Cass (Manhattan Institute), "The Paris agreement got the logic of climate action all wrong. Good riddance", Op-Ed, *Los Angeles Times*, June 2nd, 2017.

http://www.latimes.com/opinion/op-ed/la-oe-cass-paris-climate-logic-20170602-story.html; Richard A. Epstein, "Forget The Paris Accords", Hoover Institution, May 30, 2017. http://www.hoover.org/research/forget-paris-accords

 ¹⁸ Nathan Hultman, Brookings, see Note 1.
 ¹⁹ Dina Smeltz, Craig Kafura, Kelhan Martin, "Growing Support in US for Some Climate Change Action", The Chicago Council on Global Affairs, November 21st, 2016.
 https://www.thechicagocouncil.org/publication/gro

wing-support-us-some-climate-change-action

²⁰ Jennifer Marlon, Eric Fine, Anthony Leiserowitz,

"Majorities of Americans in Every State Support
Participation in the Paris Agreement", Yale University, May 8, 2017.

http://climatecommunication.yale.edu/publications/paris_agreement_by_state/

USA

DR. CÉLINE-AGATHE CARO

July 2017

www.kas.de/usa

such as Apple, Hewlett Packard, Hilton, Unilever, Ford, Walmart, Disney, Facebook, Google, Microsoft, Morgan Stanley, and Goldman Sachs, along with energy companies such as BP, Shell, General Electric, Exxon Mobile and ConocoPhillips.

Samantha Gross and Emily Rabadi at Brookings believe US market leaders in the energy sector will continue with their low-carbon investments and strategies, both at home and overseas. This is evidence, for them, that the energy industry will continue to support low-cost renewable resources, despite Trump's environmentally harmful stance.21 According to David Livingston (Carnegie), American CEOs are more interested in pragmatism than ideology: They welcome transparent, long-lived, and consistent policy action and do not appreciate sudden changes of direction.²²

Irwin Stelzer of the Hudson Institute²³ notes that the efforts of the private sector have led many environmentalists to believe that the USA will still achieve Obama's climate targets, despite the country's withdrawal from the Paris accord.

The Limits of Executive Power

Donald Trump's executive orders and announcements can also only go as far as is permitted by the law and other US institutions. This is emphasized by organizations such as the Atlantic Council, which notes that Article 28 of the Paris Agreement states that countries have to wait four years before they can pull out of the accord. This means that the USA cannot formally ask to leave until November 2019, and withdrawal would take another year.24

The fact that many leading Republicans and key policymakers have regularly criticized Trump's decisions in this respect leaves room for hope that action will still be taken on climate change and the environment. Jonah Busch from the Center for Global Development (CGD) underlines that the US President is finding it difficult to push his energy agenda through the Senate. For example, in spring 2017 Congress rejected proposals to deregulate methane emissions and cut funding for clean energy research.²⁵ David Livingston (Carnegie) also notes that an ever-growing list of Republicans is joining the Climate Solutions Caucus in Congress.26

William W. Buzbee, Professor at Georgetown University Law Center, also emphasizes that the US Supreme Court has made three key decisions establishing that federal climate action is required under the Clean Air Act. This means that US citizens, states, and companies could legally contest regulatory reversals on the part of the government if they lacked a legal basis.²⁷

The Leverage of US States and Cities

Professor Buzbee also stresses that many of the reductions in greenhouse gas emissions and cleaner energy innovations have resulted from state initiatives. He believes it will be very difficult for the federal government to prevent states from actively pursuing their climate and environmental agendas.²⁸

Since Donald Trump's announcement that the US would withdraw from the climate accord, many states and cities, Democrat and Republican, have launched their own initiatives. For example, to date twelve US states and more than 300 cities have formed the United States Climate Alliance, pledging to work together to achieve the Obama administration's targets under the Paris Agreement and the Clean Power Plan.

Michael Bloomberg, former Mayor of New York City and now UN special envoy for cities and climate change, announced in early June 2017 that American states, cities and businesses would work to meet the USA's

²¹ Emily Rabadi (Brookings), see Note 5.

David Livingston (Carnegie), see Note 3.
 Irwin M. Stelzer, "Trump's Opening Bid on Paris", Hudson Institute, June 3rd, 2017.

https://hudson.org/research/13668-trump-s-

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²⁴ Ashish Kumar Sen, "Trump's 'Huge Mistake", Atlantic Council, June 1st, 2017. http://www.atlanticcouncil.org/blogs/newatlanticist/trump-s-huge-mistake

²⁵ Jonah Busch, "How Leaders Condemning Trump's Paris Pullout Can Match Words with Deeds on Climate", CGD, June 5, 2017. https://www.cgdev.org/blog/how-leaderscondemning-trumps-paris-pullout-can-matchwords-deeds-climate

David Livingston (Carnegie), see Note 3. ²⁷ William W. Buzbee (Georgetown University Law Center), "Dismantling Climate Rules Isn't So Easy", Op-Ed, New York Times, December 8,

https://www.nytimes.com/2016/12/08/opinion/dis mantling-climate-rules-isnt-soeasy.html?mcubz=2

Ibid.

USA

DR. CÉLINE-AGATHE CARO

July 2017

www.kas.de/usa

targets under the Paris Agreement without the support of Washington.²⁹

For David Hart, Chad Smith and Mark Muro of the Brookings Institution, the commitment of individual US states and cities is the most important part of the USA's contribution to global climate action.30 Jonah Bush (CGD) believes Michael Bloomberg's announcement is "overly optimistic", but certainly worth a try.31 Mark Muro (Brookings) thinks that States, cities, and businesses will not be able to totally compensate for the federal government's pullback, but they may be able to replace some of it.32 Steve Cohen (Earth Institute, Columbia University) comments that Bloomberg's leadership and the rapid regional mobilization demonstrates that America's power is not restricted to Washington.33

Possible Negative Consequences of Trump's Strategy

After Donald Trump's rejection of the Climate Agreement, a number of US experts have pointed out that it may lead to setbacks for the USA in the international context.

The Competition Does not Sleep

Many experts (for example from CFR, Brookings, Atlantic Council, and WRI) are worried that the US government's abandonment of climate targets and clean energy technology will be linked to cuts in public funding for research, inventions, and patents in this area. This would place the US energy sector at a disadvantage compared to its foreign competitors. The USA could also miss the opportunity to be a global leader in clean energy technology. David

Goldwyn (Atlantic Council) talks of "unilateral disarmament in the race for energy leadership".34

There are also warnings that American jobs will be lost, contradicting Trump's campaign promise to create more jobs in the USA. Richard Morningstar at the Atlantic Council laments that "the Trump administration has said that its primary economic interest is in jobs, innovation, and competitiveness. By this action [withdrawing from the Climate Agreement] we [the USA] are ceding leadership on climate and new technologies to China and Europe." $^{\rm 35}$

Foreign governments could also take retaliatory action to ensure that the US does not gain a competitive advantage from abandoning its climate targets. According to Jonah Busch (CGD), trading partners could introduce mechanisms such as borderadjustment carbon taxes on American exports.³⁶ In this case, David Livingston (Carnegie) highlights the danger of "green protectionism."37

Accelerated Climate Change

Although no other signatories to the Climate Agreement have thrown in the towel in the wake of the US President's announcement, there is a worry that, in the long term, the Trump administration is sending out a false signal to the world. Many experts, who previously served under the Obama administration and are now working at various Washington think tanks and universities, fear that other countries might renege on some of their promises, or at least postpone implementing them in full.38

²⁹ On the United States Climate Alliance and Michael Bloomberg, see for example: Ed Crooks, "US states form alliance to meet Paris climate commitments", Financial Times, June 5, 2017. https://www.ft.com/content/27c5bad2-4895-

¹¹e7-919a-1e14ce4af89b

30 David M. Hart, Chad A. Smith, Mark Muro, "How states and localities can limit the fallout of Trump's withdrawal from Paris", Brookings, June 2nd, 2017. https://www.brookings.edu/blog/theavenue/2017/06/02/how-states-and-localitiescan-limit-the-fallout-of-trumps-withdrawal-from-

paris/ Jonah Busch (CGD), see Note 25.

³² Quote in: Ed Crooks (Financial Times), see Note

<sup>29.
33</sup> Steve Cohen, "We'll Always Have Paris: Trump's tute, Columbia University, June 5, 2017. http://blogs.ei.columbia.edu/2017/06/05/wellalways-have-paris-trumps-impact-on-the-climateagreement/

³⁴ Quote by Goldwyn in: Ashish Kumar Sen (Atlantic Council), see Note 24. Further sources for this analysis: Stewart M. Patrick (CFR), see Note 6; Mark Muro, Devashree Saha, "Why does the US need energy innovation?", Brookings, June 1st, 2017.

https://www.brookings.edu/blog/unpacked/2017/ 06/01/why-does-the-us-need-energy-innovation/; Andrew Light (WRI), see Note 9.

Quote by Morningstar in: Ashish Kumar Sen (Atlantic Council), see Note 24.

Jonah Busch (CGD), see Note 25. David Livingston (Carnegie), see Note 3.

³⁸ Daniel B. Baer, Daniel Benjamin (Brookings), Hal Brands (Johns Hopkins), Reuben Brigety (GWU), Sharon Burke (New America), Derek Chollet (GMF), Sheba Crocker, Dan Feldman (CAP), Jon Finer, Nina Hachigian, Colin Kahl (GU), Kelly Magsamen, Tom Malinowski, Jeff Prescott, Ely Ratner (CFR), Vikram Singh (CAP), Julie Smith (CNAS), Jake Sullivan (Yale), Jim Townsend, "Why Abandoning Paris Is a Disaster for America. The Obama administration's brain trust on how

USA

DR. CÉLINE-AGATHE CARO

July 2017

www.kas.de/usa

Hence, the USA's decision could destroy worldwide goodwill and delicate diplomatic relations. This is all the more problematic because the climate targets set by the Paris Agreement are in themselves not enough to limit the increase in global average temperatures to a maximum of two degrees Celsius compared to pre-industrial levels. There is a feeling that the announcement of June 1st has intensified the risks posed by the negative effects of climate change, which could lead to more floods, tornados, droughts, forest fires and climate refugees also in the USA.39

Foreign Policy Challenges

Another opinion that is widespread among the think tanks is that the USA's withdrawal from a community of nations that seeks to fight climate change will have consequences that go beyond the environment. Jonah Busch of CGD says it harms America's standing and image in the world, and feels that with this decision, Washington is announcing that it no longer has a sense of common purpose with other countries on climate change.40

Max Boot (CFR) says that Donald Trump is sending Europe a provocative message of political unilateralism.41 Nathan Hultman (Brookings) believes that many countries will interpret the USA's pullout not as simply a domestic issue but as a deliberate, unnecessary and hostile act against their own interests. He adds that the US is squandering a large amount of political capital in bilateral and multilateral relations.42

Experts at RAND write that Trump's decision was framed as strengthening American sovereignty, but a likely outcome is that it will reduce American influence in the world. The key question is "how the US will manage its diminished role in the world in the face of

many other challenges to the world order, from North Korea to the Middle East."43

Richard Morningstar and David Koranyi (Atlantic Council) are also of the opinion that Donald Trump's decision on the Climate Agreement is a geostrategic error. They believe it will hinder cooperation with America's friends and allies on many critical issues relating to foreign policy and national security. It could also damage the country's economic interests.44 Many commentators also believe that handing over leadership to China on climate issues will have political and economic costs.45

Conclusions

The situation in the USA is not critical. Thanks to the commitment of individual US states and localities, the business community, and civil society, climate change will remain high on America's agenda. However, the experts are not unanimous that this mobilization will be enough to achieve the climate targets set by the Obama administration. But one thing is certain: the lack of national leadership on this issue will present a dual challenge. Firstly, with regard to climate change and the environment for those who want the country to significantly reduce its country's carbon emissions; and secondly on the international stage with regard to global cooperation on issues relating to foreign policy, security, and business.

Trump's rejection of the global climate change agreement is a monumental blunder", Foreign Policy, June 1st, 2017.

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Stewart M. Patrick (CFR), see Note 6; Nathan Hultman (Brookings), see Note 1; see also common statement, Note 38.

Jonah Busch (CGD), see Note 25.

⁴¹ Max Boot (CFR), "Trump May Rue His Middle Finger to Europe", Foreign Policy, June 6, 2017. http://foreignpolicy.com/2017/06/06/trump-mayrue-his-middle-finger-to-europe/

Nathan Hultman (Brookings), see Note 1.

⁴³ Debra Knopman, Robert J. Lempert, Jordan R. Fischbach, Benjamin Lee Preston, "The Big Bet: Withdrawing from the Paris Climate Agreement", RAND Corporation, June 2nd, 2017. https://www.rand.org/blog/2017/06/the-big-betwithdrawing-from-the-paris-climate-

agreement.html Quote in: Ashish Kumar Sen (Atlantic Council),

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45 See Note 38 for their common statement in *For*eian Policy.

USA

DR. CÉLINE-AGATHE CARO

July 2017

www.kas.de/usa

Further Reading

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