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MAKE TRANSATLANTIC COOPERATION GREAT AGAIN

PROSPECTS FOR EU-US COLLABORATION ON CLIMATE AND ENERGY UNDER THE BIDEN ADMINISTRATION



■ ARNAULT BARICHELLA

PhD candidate at the
Centre for European Studies
and Comparative Politics,
Sciences Po Paris.

■ THOMAS PELLERIN-CARLIN

Director, Energy Centre,
Jacques Delors Institute,
Paris.

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Executive summary ■

After four years of acute environmental policy rollbacks under the Trump Administration, the election of Joe Biden as US President has opened-up many new possibilities for transatlantic cooperation on climate and energy issues. Still, despite surprise victories during runoff Senate elections in Georgia, Democrats continue to face a number of domestic obstacles for implementing ambitious climate policies.

Hence, a new transatlantic green agenda must be realistic and focus on a few key sectors, where there is potential to enhance EU-US collaboration on climate and energy issues over the next few years. This includes reinforced cooperation in the process of international climate negotiations; a closer cooperation on clean energy innovation; coordinated decisions for a global green economic recovery in multilateral fora; as well as collaboration on cyber and energy security issues. These transatlantic initiatives will likely extend to non-state and sub-national actors, which were especially active during the Trump presidency. Finally, due to the global nature of climate and energy challenges, it is essential that the EU and the US highlight their renewed green partnership as a springboard to constructively engage on these issues with other powers such as China, India or Japan.

INTRODUCTION ■

The election of Joe Biden as the 46th President of the United States (US) in 2020 has led to high expectations about prospects for renewed transatlantic cooperation in many different areas, including on climate and energy issues. During his campaign, Joe Biden set out a 'Clean Energy Revolution' plan, containing the most ambitious climate policy agenda ever proposed by a Present-Elect. This is encouraging, since it comes after four years of dramatic environmental and climate policy rollbacks under former President Trump, who scrapped Obama's Clean Power Plan and withdrew the US from the Paris Climate Agreement. While Biden immediately re-joined the Paris framework in February 2021, and Democrats unexpectedly won a narrow majority in the US Senate, they continue to face a number of significant domestic obstacles for implementing their ambitious climate agenda.

A new transatlantic agenda on clean energy and climate action must be realistic and focus on a few key sectors, where there is potential to enhance EU-US collaboration on climate and energy issues over the next few years. From a European perspective, **such cooperation should strengthen the political project of a European Green Deal** both at home and abroad. The latter has already been identified as a priority by the EU Commission, since climate change features as one of the four main pillars in its new agenda for transatlantic collaboration.¹

Hence, this paper argues that, after four years of decline in EU-US relations under Trump, **clean energy and climate change offer a tangible and realistic pathway for renewing the transatlantic partnership in the near future.**² The aim of this paper is to assess prospects for renewed EU-US cooperation across five key areas, and develop policy recommendations on how the EU can proactively engage with the US in these fields: enhanced cooperation in international climate negotiations; clean energy technology, research and innovation; joint decisions for a global green economic recovery; collaboration on cyber and energy security issues; as well as prospects for continued collaboration between non-state and sub-national actors, including through transnational networks. Finally, due to the global nature of climate and energy challenges, it is essential that the EU and the US highlight their renewed transatlantic green partnership as a springboard to constructively engage with other powers such as China, India or Japan.

1. EU Commission, A New EU-US Agenda for Global Change, December 2020.

2. It should be noted that a majority of public opinion in Europe remains skeptical towards the US and the transatlantic alliance after the four tumultuous years of Trump's Presidency. See: Krastev I. and Leonard M. (2021), The Crisis of American Power: How Europeans see Biden's America, European Council on Foreign Relations.

1 ■ CONTEXT OF CLIMATE AND ENERGY POLITICS IN THE EU AND THE US, INCLUDING RELATIONSHIPS WITH THE OTHER MAIN POWERS

1.1 ■ The EU raises its level of climate ambition further with the Green Deal

"If there is one area where the world needs our leadership, it is on protecting our climate. This is an existential issue for Europe – and for the world." (Ursula von der Leyen, Speech at the European Parliament, 27 November 2019).³ The European elections of May 2019 marked an increase in the importance EU citizens and elected officials attach to climate change.⁴ Beyond the modest increase in the number of Green Members in the EU Parliament, which some journalists emphatically referred to as a 'green wave', the real change came from mainstream political figures who made climate change their top priority. This is especially the case of Ursula von der Leyen, a German conservative politician who became President of the European Commission on a platform that, for the first time in history, made climate change the number one priority of the Commission.⁵ To name her project, Ursula von der Leyen chose the term 'European Green Deal'. To lead it, she appointed political heavyweight Frans Timmermans, a Dutch social-democrat with extensive understanding of EU politics, as her Executive Vice-President for the European Green Deal.

This European Green Deal builds on decades of EU energy, mobility and climate policies. The first important set of EU legislation on energy started with the adoption of the so-called first energy package in 1996. Major decisions were taken in the 2000s and 2010s, including the creation of an EU-wide carbon market and the development of detailed legislation on energy efficiency, clean mobility, and renewable energy. Thanks to this, the European Union now has a comprehensive set of energy-climate policy tools, articulating EU legislation, enabling tools, as well as a financial framework (Figure 1).

Building on this, the European Union is about to adopt its first Climate Law. It will enshrine an increase in the EU's level of climate ambition: reaching climate-neutrality by 2050, and the objective to reduce greenhouse gas (GHG) emissions by 55-60% up to 2030.⁶ After this, the Commission will present its 'Fit For 55 Package' that will propose the creation of several new tools (e.g. a carbon-border adjustment mechanism⁷) and changes to key legislative elements, notably on carbon pricing, renewables, cars, and buildings. This constitutes an unprecedented opportunity to make EU legislation not only fit to deliver a 55% reduction of GHG emissions by 2030, but also fit to create and develop over the course of this decade clean solutions that will be vital to continue the journey towards climate neutrality after 2030.

In that context, EU-US cooperation can reinforce the European Green Deal. Domestically, EU-US cooperation can provide political legitimacy for more ambitious EU climate decisions, by showing that the EU is not acting alone, but forms part of a broader, international climate action effort. From a foreign policy perspective, such EU-US cooperation on climate can be a key element of the emerging geopolitics of the European Green Deal.⁸

3. https://ec.europa.eu/commission/presscorner/detail/en/speech_19_6408

4. <https://institutdelors.eu/en/publications/climate-change-at-the-heart-of-a-new-european-political-balance/>

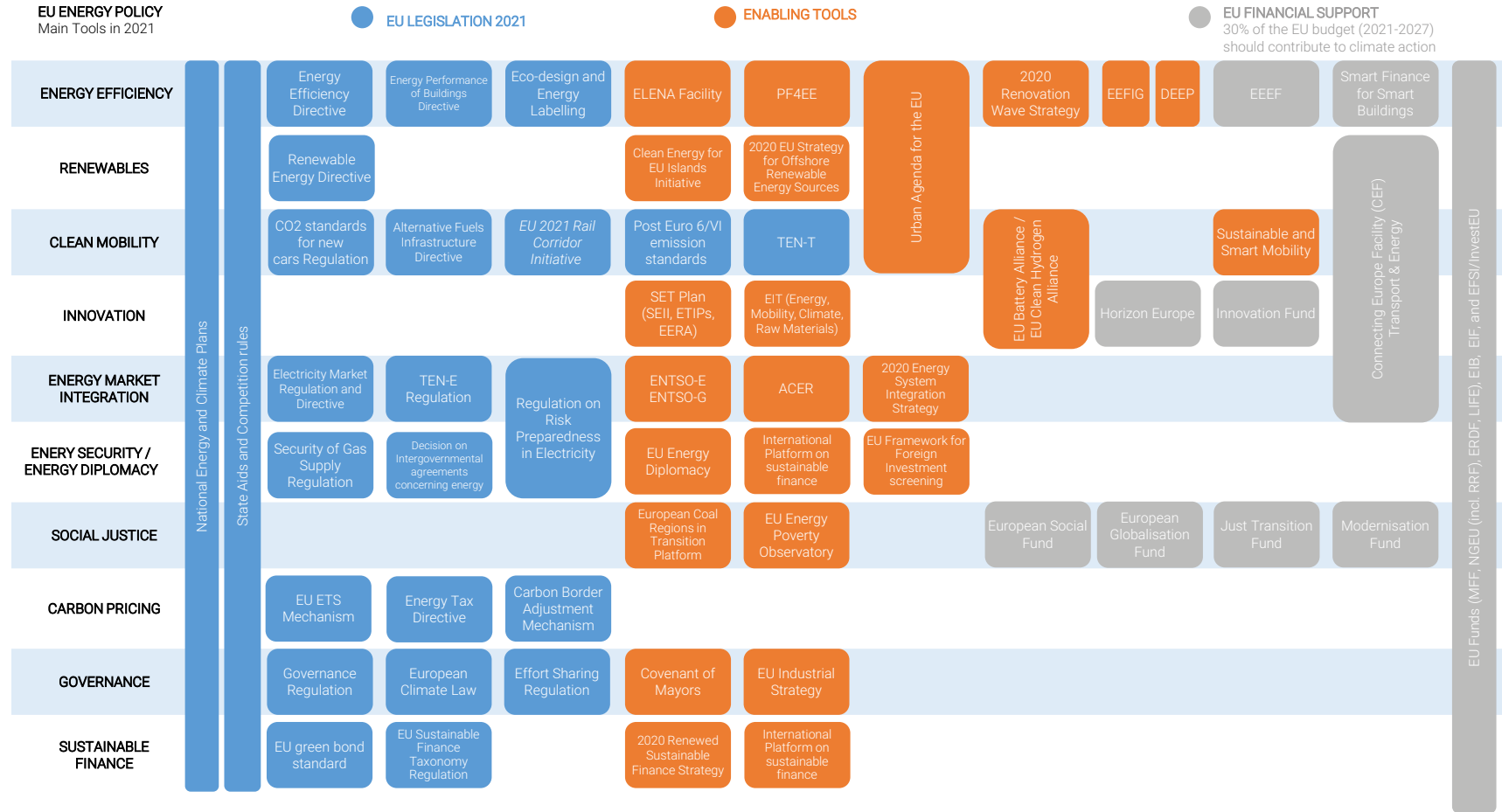
5. https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1940

6. The EU's 2030 climate target was adopted in 2014 before the Paris climate conference, and set the objective of reducing EU GHG emissions by 40% up to 2030. Both the Commission and the European Council recently agreed to increase this target to 55%. The EU Parliament argues for an even higher target of 60%.

7. <https://institutdelors.eu/en/publications/a-european-border-carbon-adjustment-proposalgreening-eu-trade-3-2/>

8. <https://www.bruegel.org/2021/02/the-geopolitics-of-the-european-green-deal/>

FIGURE 1 ■ EU energy policy main tools in 2021



1.2 ■ Biden's proposed 'Clean Energy Revolution' and overview of domestic political constraints

Biden's 'Clean Energy Revolution' agenda contains the most ambitious climate policies ever proposed by a President-Elect. It clearly surpasses what had been accomplished and promised under President Obama (2009-2017). The overarching objective set by Biden is for the US to become climate neutral by 2050 –i.e. the same long-term objective as the European Green Deal. It also sets a very ambitious intermediary objective of making the electricity sector carbon-free by 2035.

As part of the economic recovery programme, Biden proposes to spend a record \$2 trillion in investments that include energy efficiency (\$210 billion for sustainable housing, \$100 billion for energy efficient public schools), renewable energy (\$100 billion for clean power and transmission infrastructure), clean mobility (\$170 billion in vehicle electrification, \$160 billion for public transition and railways), as well as spending on research in innovative green technologies (\$180 billion for general research and development efforts, including \$35 billion for a new climate research agency).⁹ These proposals also aim to upgrade aging US infrastructure so as to make it more resilient and adapt to the impacts of climate change, while also seeking to address environmental justice issues.

The fact that Biden appointed experienced veteran administrators or politicians with robust environmental records to key positions within his administration, such as John Kerry as his climate envoy, Michael Regan at the helm of the Environmental Protection Agency or Jennifer Granholm as Energy Secretary, highlights his desire to implement far-reaching climate policies.¹⁰ Already, the Biden administration has proposed to Congress an ambitious infrastructure bill, known as the 'American Jobs Plan', which currently constitutes his main push on climate change. Indeed, up to half of Biden's proposed \$2 trillion for the American Jobs Plan seems to be invested in sectors that fall in the general categories of climate change, clean energy and environmental justice.

However, a number of activists have been disappointed with the proposal, arguing that it doesn't come close to being sufficient in terms of what the US needs to contribute in order to achieve the long-term goals of the Paris Agreement.¹¹ What is more, Biden faces major impediments for enacting his ambitious 'Clean Energy Revolution'.¹² For instance, despite unexpected successes for Democrats during the runoff elections in Georgia last January, their majority in the Senate remains very slim since they hold only fifty seats, which makes them dependent on Vice-President Kamala Harris to cast the decisive vote in the event of a tie. Likewise, while Democrats kept their majority in the House, they lost ten seats during the elections in 2020, and there is a risk they could lose their House majority during the 2022 mid-term elections. Because of this, Democrats do not have enough votes to circumvent a 'filibuster' from Republicans, an obstruction technique relying on the right of legislators to hold the floor and speak without interruption. Likewise, a number of centrist legislators are not committed to the more ambitious aspects of the 'Clean Energy Revolution' agenda. Indeed, the 2020 campaign highlighted growing divergences between so-called 'progressives' (such as Alexandria Ocasio-Cortez) and 'moderates' (such as Joe Manchin) within the Party.

9. <https://www.wri.org/blog/2021/04/american-jobs-plan-climate-jobs-us>

10. Barichella A. (2021), US Climate Politics under Biden: Is the Clean Energy Revolution Under Way?, Éditoriaux de l'Ifri.

11. <https://newrepublic.com/article/161878/biden-worried-deficit-not-worried-enough-climate-change>

12. Pellerin-Carlin T. and Knudsen E. (2020), Making Transatlantic Relations Green: A Common Agenda for Climate Action, Jacques Delors Institute.

However, due to changes in public opinion impacting moderate and young conservative voters, some Republican legislators have now become more supportive of climate legislation. This includes moderate Republican Senators like Susan Collins, John Barrasso or Lindsey Graham, who support what they describe as 'innovation over regulation' to address climate change. The latter tends to involve support for financing research & development of new green technologies such as carbon capture and storage, as well as nuclear power and infrastructure upgrades.¹³ Hence, some bipartisan support in Congress can be built to enact legislation on these issues.

Yet, these moderate Republicans still represent more of the exception than the rule. A clear majority within the Party, under the influence of powerful fossil fuel lobbying groups and the lingering impact of Trump's Presidency, continue to deny climate science and reject environmental policies, which stand accused of harming the economy and stifling competitiveness. The influence of neoliberal and neoconservative ideologies within US conservative circles has also been a factor, since the latter tend to oppose governmental regulation over the economy at large, and multilateral agreements such as the Paris Climate Agreement are seen as intrusions on national sovereignty. Hence, Democrats will probably face significant challenges in Congress when trying to enact the more ambitious aspects of the 'Clean Energy Revolution' agenda.

As a result, it is likely that Biden will use his executive authority to implement many of his climate policy proposals, like Obama during his second term. It should be noted that a lot can be accomplished in this way. However, executive orders tend to lack durability, since they can quickly and easily be repealed by a future President. What is more, over the last four years, Trump appointed many conservative federal justices, along with three Supreme Court judges, who have the power to rule against Biden's executive orders and climate policies. In this regard, it is worth mentioning that the Supreme Court already struck down Obama's Clean Power Plan in 2016, when its composition was more balanced and did not include as many conservative judges as today.

For these reasons, even though the Biden administration is likely to enact several important initiatives, **a number of elements of the 'Clean Energy Revolution' will probably be blocked**, and a certain level of gridlock may thus continue. Likewise, there is also a risk that Republicans could win the next Presidential election in 2024 and seek to repeal once again what Democrats put in place under Biden. The EU needs to take these US domestic constraints into consideration in order to formulate realistic proposals for transatlantic cooperation on climate and energy over the short and medium run. In fact, Biden might be able to rely on successful EU-US climate collaboration to bolster his green credentials and potentially push through more ambitious domestic reforms on certain issues.

¹³. Barichella A. (2019), The Battle Heats Up: Climate Issues in the 2020 US Presidential Election, Éditoriaux de l'Ifri.

1.3 ■ Evolutions in US-EU relations towards other powers such as China, India or Japan, with the potential for the EU to act as a diplomatic bridge

Transatlantic collaboration on climate and energy issues is essential for a number of different reasons:

- The EU and the US together account for 32.3% of global GDP in terms of Purchasing Power Standard (16.3% for the US and 16% for the EU); hence, transatlantic collaboration can have a major impact in terms of setting global standards in energy markets, for example.¹⁴
- The US is still the world's second largest GHG emitter, and the EU is in third position, which means that joint transatlantic climate initiatives will also have significant sway over the global climate regime.
- Yet, both of them have been surpassed by China, which has been the world's largest GHG emitter since 2007, and is also on track to overtake the EU and the US and become the largest economy by the end of this decade.
- Similarly, India has just overtaken France and will soon surpass the UK in terms of nominal GDP rankings, and has also become the world's fourth largest GHG emitter. Due to its sheer size and growth trajectory, India is predicted to reach a position similar to that of China in terms of GDP and GHG emissions before the middle of the century, surpassing both the US and the EU.

Such changes in the geopolitical landscape mean that enhanced transatlantic collaboration, while a necessary first step due to shared historic ties and values, will not be sufficient on its own. The latter must be extended globally, so that **joint transatlantic climate and energy initiatives may subsequently integrate other major economies through concentric circles**. This can start with countries having close diplomatic and trade ties with both the US and the EU, such as the UK, Canada, Australia, South Korea and Japan –which remains the world's third largest economy and sixth GHG emitter. In several areas, it can and should also be inclusive towards other major powers, especially China and India.¹⁵

Transatlantic engagement with countries such as Japan or India is facilitated by the fact that they share common democratic values, even though the democratic situation in India has deteriorated lately. The US has strong historic ties with Japan, and has also reinforced collaboration with India over the last few administrations. The same cannot be said of China however, where authoritarian censorship has worsened over the last few years and Sino-American relations reached a nadir during Trump's presidency.¹⁶ Nonetheless, it should be noted that the EU has been able to maintain cordial relations with China on a number of different issues, including climate and energy policy. In fact, under Trump, the EU-China axis became the new backbone of the global climate regime and successfully saw through the elaboration of the rulebook and the initial implementation phases for the Paris Climate Agreement, against staunch US opposition at the time. Hence, **the EU is in a better position to act as a mediator and provide a diplomatic bridge for attempts by the US to re-engage with China on climate and energy issues**.¹⁷ Indeed, most of the Biden administration has indicated that it seeks to renew cooperation with China on climate and clean energy, as had been the case under Obama.¹⁸

14. <https://ec.europa.eu/eurostat/documents/2995521/10868691/2-19052020-BP-EN.pdf/bb14f7f9-fc26-8aa1-60d4-7c2b509dda8e>

15. Keating D., EU sees climate opportunity with Biden inauguration, Energy Monitor, 19 January 2021 (Updated on 4 February 2021).

16. Lazard O. (2021), Redesigning the Transatlantic Relationship to Face the Climate Crisis, part of Working with the Biden Administration: Opportunities for the EU (Balfour R., ed.), Carnegie Endowment for International Peace.

17. This is especially important since a significant portion of clean energy technologies are manufactured using rare earth minerals, the market for which is monopolized by China. Thus, joint EU-US diplomatic efforts will be essential to engage with China in order to secure supply chains, as well as to ensure that Beijing's 'Belt and Road' initiative promotes sustainable connectivity that respects environmental standards.

18. Still, this arguably represents a delicate balancing act, since the EU and the US cannot simply ignore China's escalating human rights violations. Thus, the challenge will be to reinforce collaboration with China on climate change, while maintaining pressure on other more sensitive topics.

2 ■ POTENTIAL AREAS FOR TRANSATLANTIC COLLABORATION ON CLIMATE AND ENERGY UNDER BIDEN, INCLUDING ENGAGEMENT WITH THE OTHER MAIN POWERS:

2.1 ■ Prospects for enhanced transatlantic collaboration within the process of international climate negotiations, especially in preparing joint positions for the upcoming COP26

On the very first day of his Presidency, Joe Biden fulfilled his campaign promise by recommitting the US to the Paris Climate Agreement. This is significant, since under Trump, US disengagement had a corrosive impact on the global climate regime, as it encouraged other countries to renege on their pledges. For instance, at COP24 in 2018, the US had joined Russia, Kuwait and Saudi Arabia, three major oil producing countries, in seeking to prevent full endorsement of the latest IPCC scientific report underlining the critical situation with regards to global climate change.¹⁹ Therefore, the US re-joining the Paris Climate Agreement will play a key role in generating a new positive momentum within the process of UN climate negotiations.²⁰ This move is very timely as preparations are under way for the next COP26, scheduled to take place in Glasgow (UK) for November this year. The summit will probably constitute the most significant COP since the Paris conference in 2015, because countries must update and submit a new round of Nationally Determined Contributions (NDCs). The latter are needed to help close the global emissions gap, as current NDCs are still far from sufficient to keep global temperature increase below the 2°C threshold. Thus, it is essential for the US –and the EU– to set the example by outlining an ambitious, renewed NDC in preparation for COP26, in order to galvanize other countries around the world to raise their level of ambition. Yet, if America's new NDC is not sufficiently ambitious due to the domestic constraints previously examined, this could have the opposite effect.

For these reasons, the EU needs to pro-actively engage with the Biden administration before the upcoming COP26, in order to ensure that joint transatlantic collaboration helps to generate a strong momentum ahead of this critical summit.²¹ It should be noted that the European Commission already highlighted within the new agenda for EU-US collaboration, released in the wake of Biden's election, its intention to "coordinate positions and lead efforts for an ambitious global agreement at next year's landmark UN Summit (...) starting with a joint commitment to net-zero emissions by 2050".²² Indeed, Biden's pledge for climate neutrality by 2050, as set out in the 'Clean Energy Revolution', matches with the EU's climate neutrality commitment presented in the European Green Deal. This should provide a basis for transatlantic efforts to engage with the international community in preparation for COP26, in an effort to convince as many Parties as possible to make similar pledges, and to back such pledges with concrete short-term measures and medium-term milestones. In this regard, it is worth noticing that other major Asian countries have also recently announced commitments to achieve climate neutrality by 2050, including Japan, South Korea, and even China

19. <https://www.bbc.com/news/science-environment-46496967>

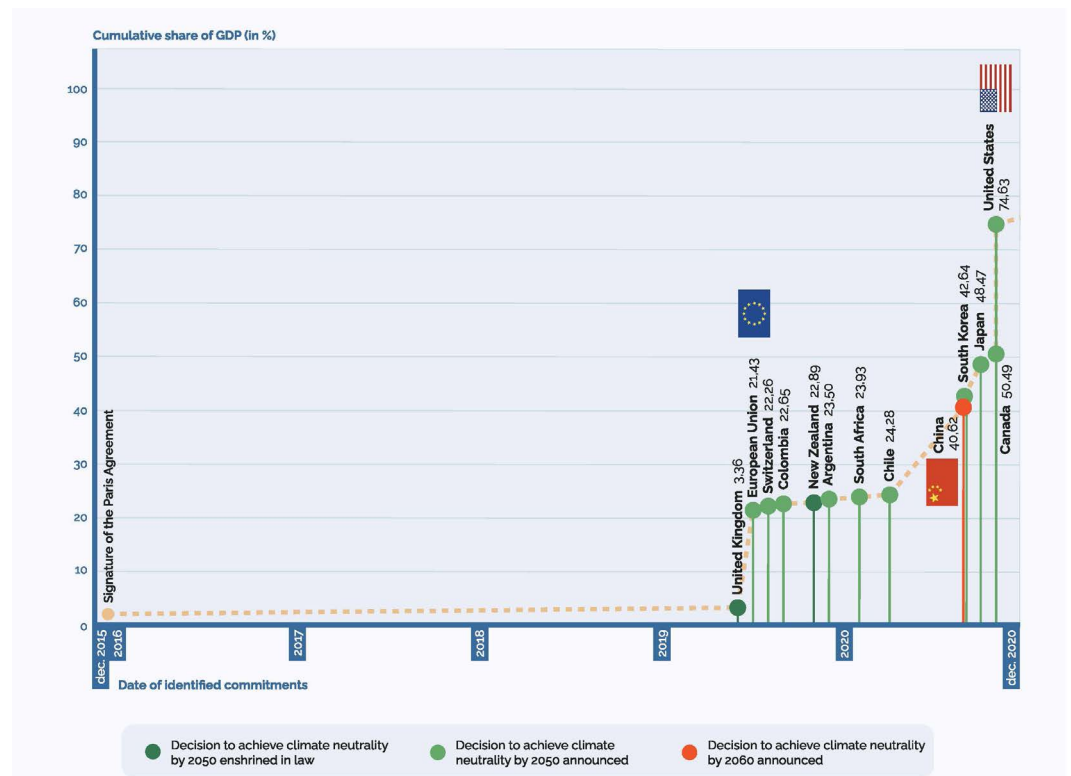
20. Tagliapietra S. (2020), 2021 can be a climate breakthrough, but Biden and Europe need to talk, Bruegel.

21. Hengel D. (2021), Quick Wins for the Biden Administration on Climate Cooperation with the EU, The German Marshall Fund of the United States.

22. EU Commission, A New EU-US Agenda for Global Change, December 2020.

(carbon-neutrality by 2060) (cf. figure 2) and that the UK, hosting COP26, remains committed to the 2050 target after Brexit. **Such a positive momentum must be sustained through joint diplomatic engagement by the EU and the US**, since the long-term 2°C objective of the Paris Climate Agreement is now within striking distance.²³

FIGURE 2 ■ Commitments from the world's largest economies to achieve climate/carbon neutrality by 2050-60



Source: Jacques Delors Institute base on 2018 World Bank data and its own collection of country declarations: cf. UK, EU, CH, CO, NZ, AR, ZA, CL, CK, KR, JP, CA, US. Note: the list of countries and their commitments is not exhaustive.

Another area where transatlantic collaboration is important in preparation for the upcoming COP26 has to do with the technical issues currently at stake in the process of UN climate negotiations.²⁴ In this regard, given their combined economic and geopolitical weight, the elaboration of joint EU-US positions, or even combined EU-US-China positions where possible, would help to push other countries to raise their level of ambition. For instance, the US, the EU, as well as China, are considering new carbon pricing initiatives on a domestic level. Hence, it would be beneficial for them to develop a common position regarding market-based tools, governed under Article 6 of the Paris Climate Agreement.²⁵ Furthermore, the EU and the US should also work together to protect their interests in negotiations concerning loss and damage for developing countries due to climate impacts. Likewise, a common transatlantic position would also be useful in relation to the new global climate finance mechanism of \$100 billion per year to support developing countries, as well as for options on new, enhanced climate finance levels in the future.

²³. Transatlantic collaboration will also be essential to put diplomatic pressure so as to ensure that these countries in fact fulfill their climate pledges over the medium to long run. This can also be achieved within other multilateral institutions such as the G20, the Clean Energy Ministerial or 'Mission Innovation', for example.

²⁴. Lazard O. (2021). *Op. cit.*

²⁵. Mallet V. and Keohane D., France sees EU-US push for carbon tax under Biden, Financial Times, 3 December 2020.

2.2 ■ Prospects for enhanced transatlantic cooperation on clean energy research and innovation

Research and innovation are vital for delivering climate neutrality.²⁶ As global population and economic production grows, the creation and deployment of new technologies, business models, processes, financing schemes and practices are necessary to reduce global GHG emissions, and eventually reach climate neutrality. This is clearly understood in the US context. Even under Trump's presidency, US public authorities actually increased government support for clean energy research and innovation, thanks to support from both Democrats and Republicans in the Senate.²⁷ The importance of clean energy innovation is increasingly prevalent in the US debate, with powerful voices like multibillionaire Bill Gates calling on governments to adopt policies that support clean energy innovation.²⁸ Biden's climate plan is also bold on innovation, as it aims both to build on existing programmes (US Department of Energy, ARPA-E, etc.), as well as develop new tools such as a new 'Advanced Research Projects Agency-Climate (ARPA-C). Furthermore, Biden plans to invest \$325Bn in research and development as part of his recovery programme, with tens of billions of new investments to support clean energy innovation.

The situation is different in Europe. Despite positive political posturing, the 27 EU Member States reduced public support for clean energy research and innovation during the last decade.²⁹ As part of its recovery programme, it is unclear how much of EU money will go towards clean energy innovation, but current trends point to a lack of prioritization for investments in clean energy research and innovation, from both the EU and Member States.³⁰ This widens the gap between ever-more-ambitious long-term EU objectives and the means available to reach those very objectives.³¹ At the same time however, this also creates historic opportunities for EU-US cooperation. **Both sides could commit to increasing domestic public investment in clean energy innovation as part of global initiatives** such as 'Mission Innovation'. A joint EU-US target could be set for investing, say, 0.1% of their GDP in clean energy and clean mobility research and innovation – compared to the current levels of 0.03% for the US and 0.02% for the EU. Such increases in public investment will help to drive private investment³² and boost the economy. Public investment is vital for clean energy innovation, but it is only half the story. The other half focuses on the demand-side of the equation.

In the coming years, innovators will need public authorities that rely on their green public procurement power to provide new markets for clean products. Both the EU and the US federal government may learn from the 'California Buy Clean Act' experience, and work together on setting common green standards, which could also be adopted by other economies that aim for climate neutrality such as Japan, South Korea or Canada. Over the next 5-20 years, innovators will need public policy to deliver clean innovation-friendly regulatory frameworks,

26. <https://institutdelors.eu/wp-content/uploads/2018/01/energyunioninnovationstrategy-pellerincarlinserkine-jdi-june16.pdf>

27. As energy scholar Varun Sivaram recalls, this increase should not be attributed to the Trump Administration, but to the bipartisan work of Republicans and Democrats who sought to increase federal funding for clean energy innovation.

28. <https://www.gatesnotes.com/Energy/My-new-climate-book-is-finally-here>

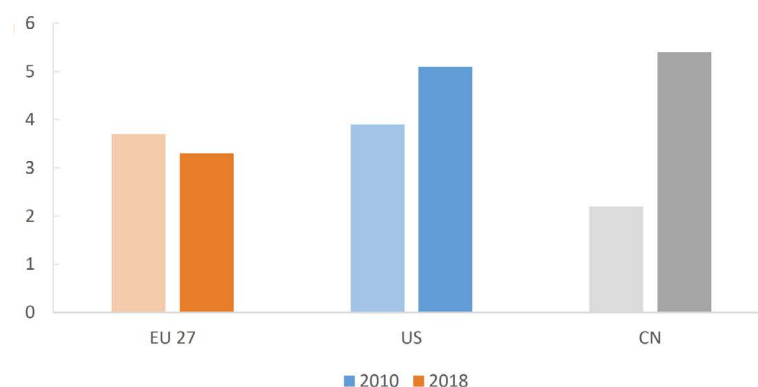
29. Between 2010 and 2018, public investment in research and innovation, in areas identified as priorities for the EU Energy Union, have decreased both in terms of GDP percentage (from circa 0.03% to 0.02%), and in absolute volume (from 4Bn€ to 3.5Bn€). Source: European Commission, Report on progress of clean energy competitiveness, 14 October 2020, p.9.

30. <https://www.greenrecoverytracker.org/>

31. https://9tj4025o153byww26jdkao0x-wpengine.netdna-ssl.com/wp-content/uploads/E3G_Design-principles-for-a-climate-neutral-energy-sector.pdf

32. Clean Tech Group, Cleantech for Europe – seizing the EU's man on the moon moment, March 2021.

FIGURE 3 ■ Public clean energy R&I (in €bn, current prices)



Source : Jacques Delors Institute, based on JRC and the International Energy Agency's *Energy Technology RD&D Budgets, 2020 edition*.

which provide the right degree of certainty to boost clean innovation.³³ Here, **the EU is and should continue to lead the way as it reforms its regulatory frameworks for energy, carbon pricing, buildings, and mobility**, including with the forthcoming 'Fit For 55 package' that the Commission will table in June 2021. The bolder the European Union is, the easier it will be for the Biden Administration to convince both Democrats and Republicans of the need to change US federal regulations to ensure American clean technology firms do not lag behind their European competitors.

2.3 ■ Joint EU-US decisions for a global green economic recovery within multilateral fora, including public investment in green R&I

The EU and the Biden administration must also work together to fight climate change through multilateral fora like the G20. Although politicians on both side of the Atlantic talk about "building back better" and making a 'green recovery', their current policy decisions do not fully match their rhetorical ambition. Rather than a genuine green recovery programme, we rather see recovery programmes with some green elements.³⁴ The 'glass half full version' of the story is that those programmes are the greenest ever implemented in both EU and US history. The 'glass half empty version' of the story is that those programmes are not ambitious enough to redirect investment flows, away from polluting assets and towards green assets. A green recovery would moreover be beneficial from a macroeconomic perspective, as a recent International Monetary Fund working paper suggests that green spending multipliers "are about 2 to 7 times larger than those associated with non-eco-friendly expenditure".³⁵ In other words, greening economic recovery programmes is not only good for the environment and human health, it is also good for the economy.³⁶

So why is global green economic recovery not happening? Obstacles are numerous, and likely include some influential and specific vested interests, as well as a lack of courage and creativity from some decision makers. To overcome this and seize the potential of a green recovery, we recommend that EU leaders, including President von der Leyen, and Pre-

33. Bachelet M. & Pellerin-Carlin T. 2021. "Make regulations fit for innovation. How EU regulations can enable innovations for a climate neutral economy?", Policy paper 263, April.

34. See: E3G's tracker <https://www.greenrecoverytracker.org/>

35. <https://www.imf.org/en/Publications/WP/Issues/2021/03/19/Building-Back-Better-How-Big-Are-Green-Spending-Multipliers-50264>

36. https://institutdelors.eu/wp-content/uploads/2020/05/GreenerAfter_Lamy-et-al_200514.pdf

sident Biden work hand in hand during the forthcoming Leaders' Summit on Climate (April 22nd 2021), which will help to prepare the forthcoming and very important G20 summit next October. As Italy leads the G20 this year, Prime Minister Mario Draghi should rely on his financial sector credentials to make the case that the greener recovery programmes are, the more beneficial they will be for a sound and transformative recovery of the global economy.

In practical terms, what the next G20 Summit could deliver, is a political declaration on green recovery. Such a text should be drafted in a way that provides maximum political support for EU, US and national policy makers to increase public investment in green infrastructure, redirect fossil fuel subsidies towards clean energy subsidies, and invest in the development of clean technologies and innovations. Such a declaration should help Biden make his case domestically, in order to push his infrastructure investment plan through both Houses of Congress, ideally with the support of some moderate Republicans. It should also help the European Commission put pressure on EU Member States to amend their economic recovery programmes (i.e., National Recovery and Resilience Plans, to be submitted by April 30th, 2021) in a way that favours green investments, so as to make European recovery genuinely transformative and future-proof.

2.4 ■ Prospects for transatlantic collaboration on energy and cyber security

The security dimension of energy policy has been essential at least since the first oil shock of 1973, and has become increasingly important for recent developments in transatlantic relations. Indeed, the EU continues to import a substantial amount of gas and oil from Russia, which makes it vulnerable to supply shocks when Moscow chooses to rely on its energy exports as a tool to pressure countries, often in relation to geopolitical tension points such as Ukraine.³⁷

Following the 2006 Russo-Ukrainian gas crisis, the EU has accelerated attempts to diversify its energy supply by importing natural gas from other countries than Russia, and through other routes than Ukrainian pipelines. As part of this diversification effort, some EU countries have sought to import more 'liquefied natural gas' (LNG), including from the US. Since enhancing Europe's energy security through LNG exports enjoys strong bipartisan support in the US (partly due to self-interest), this was continued by Trump over the last few years.³⁸ In fact, in July 2018, the EU-US Energy Council held its first business to business summit on transatlantic collaboration over LNG exports. Hence, the Biden administration has indicated that it also intends to continue with this policy.³⁹ While progress has been made in terms of diversifying Europe's energy supply, greater US implication can be useful in the short term to mitigate the dominant position that the Russian gas company Gazprom still enjoys within the EU's gas market. In the medium to long run however, renewable and energy efficiency policies aimed at reaching climate-neutrality should greatly limit EU dependence on natural gas, including from Russia.

³⁷. For instance, according to Eurostat, the EU continues to import nearly 30% of its oil and 40% of its gas from Russia. For some EU Member States such as Poland, Estonia, Slovakia or Finland, this figure can be as high as 75%. See: <https://ec.europa.eu/trade/policy/countries-and-regions/countries/russia/>

³⁸. This includes active US involvement in the 'Three Seas Initiative', where a group of Central and Eastern European countries have been working to enhance energy cooperation, including LNG transits between the Adriatic, Black and Baltic Seas. See: Barichella A. (2018), Multi-actor, multi-level governance for the transatlantic climate and energy dialogue, Sciences Po Law Review (n°14, pp. 71-85).

³⁹. Although it was somewhat neglected under Trump (except on the issue of LNG), the EU-US Energy Council has potential to become one of the main platforms for renewed transatlantic collaboration on climate and energy issues under Biden. Thus, it should undergo reform and set out a new working agenda for the next few years.

However, a potentially significant obstacle to greater transatlantic energy collaboration under Biden has to do with the Nord Stream 2 project, which is led by Gazprom in partnership with several European firms. The latter involves the construction of an almost completed new offshore natural gas pipeline between Russia and Germany, which could potentially deliver the same amount of gas as is currently transiting through Ukraine.⁴⁰ Hence, both Obama and Trump had raised strong concerns that this would risk enhancing Moscow's geopolitical leverage over Europe by reducing its energy security.⁴¹ Trump had even imposed extra-territorial sanctions on Russian and European companies involved in the project in 2019-20, and the Biden administration has indicated that it intends to continue with these controversial sanctions, confirming strong bipartisan US opposition to Nord Stream 2.⁴² Hence, the latter remains a highly thorny issue that could negatively impact transatlantic relations over the next few years, and which could be resolved by a more progressive position of the next German Government, especially if the German Greens were to enter or lead the next coalition after the September 2021 German Federal elections.

An emerging energy security concern is the cybersecurity protection for critical infrastructure. While the increasing digitization of the energy sector has provided notable benefits, it has also considerably enhanced cyber risks. Prominent examples of recent cyberattacks targeting the energy sector include a series of malicious software infecting critical infrastructure in Ukraine over the last few years. For instance, a virus known as 'Black Energy' was able to shut down up to thirty Ukrainian power stations in 2015, cutting off the electricity supply for hundreds of thousands of people during several hours. Due to the globalization of digital technologies, cyberattacks originating in Ukraine rapidly infected multinational firms through their subsidiaries, highlighting the risks of transnational propagation. Likewise, one of the worst cyberattacks targeting the US government, known as 'Sunburst', was uncovered in December 2020. This sophisticated, months-long breach affected several governmental agencies, especially the US Department of Energy, which is in part responsible for overseeing US nuclear weapons.

For these reasons, **the EU and the US have progressively worked to establish policies and regulations to protect the energy sector from cyberattacks.** While their respective approaches reveal many notable differences, they are also potentially complementary in several ways. On the one hand, the United States has developed what can be described as a 'security in depth' approach, which sets out rigorous and detailed rules in targeted sectors such as electricity and nuclear, that are enacted by federal institutions with coercive authority.⁴³ On the other hand, the EU has favoured a different approach that is more holistic and flexible, as exemplified by the 2016 Directive on Network and Information Security (NIS). The latter covers a broad array of different sectors, all the while providing Member States with a significant margin of manoeuvre for enacting cyber standards.⁴⁴ Therefore, the US and EU approaches display complementarities, with potential for enhancing transatlantic collaboration. This is becoming especially important since the latest cyberattacks highlighted risks of propagation stemming from the global interconnectivity of digital technologies. This may be one of the reasons why cybersecurity, including for critical infrastructure and the energy sector, is another issue that enjoys strong bipartisan support in the US; consequently, there has been policy continuity from Presidents Obama, Trump to Biden.

⁴⁰. Thomas Pellerin-Carlin and Jean-Arnold Vinois, *Nordstream-2: a decisive test for EU energy diplomacy*, Natural Gas World, December 2015.

⁴¹. The US has also voiced concerns that Nord Stream 2 might enable Russia to halt gas transits through Ukraine, all the while continuing to supply Germany and Central Europe, which would render Kiev much more vulnerable and enhance the Kremlin's leverage.

⁴². Morningstar R. (2021), *Prospects for Transatlantic Climate and Energy Cooperation*, Wilson Center – Global Europe Program.

⁴³. This includes the North American Electric Reliability Corporation (NERC) for the power grid, along with the Nuclear Regulatory Commission (NRC) for the nuclear sector.

⁴⁴. Barichella A. (2018), *Cybersecurity in the energy sector: a comparative analysis between Europe and the United States*, Études de l'Ifrri.

Over the last few decades, several platforms have been established for transatlantic collaboration on digital and/or energy issues, which can provide frameworks for EU-US initiatives on cybersecurity in the energy sector. This includes the EU-US Energy Council created in 2009, the EU-US Cyber Dialogue launched in 2014, the EU-US Working Group on Cybersecurity and Cybercrime established in 2010, together with the Information and Society Dialogue that is ongoing since 2002. While each of these platforms has been focusing more on digital issues involving critical infrastructure, none of them concentrates exclusively on cybersecurity in the energy sector; thus, it might be beneficial to create specialized working groups within these platforms.⁴⁵ Transatlantic collaboration is essential, since it would help to foster the harmonization of cybersecurity norms between the EU and the US. The latter could gradually lead to the establishment of common standards over time that would become rigorous international norms, thus decreasing the risks of propagation.

2.5 ■ Prospects for continued transatlantic collaboration between non-state and sub-national actors, including through transnational networks

In response to Trump's decision to withdraw from the Paris Agreement in June 2017, many US sub-national (cities, federal states) and non-state actors (private firms, civil society), mostly located on the East and West coasts, chose to double down on climate action. They announced their intention to uphold the Obama-era US pledges under the Paris Agreement within their borders and respective mandates.⁴⁶ Many even launched national networks to coalesce climate efforts from sub-national actors, such as Climate Mayors (427 cities) or the US Climate Alliance (24 states and 2 territories). These different networks were amalgamated under two national structures called 'We Are Still In' and 'America's Pledge', which brought together all US actors committed to climate action, including states, cities, as well as many private firms and civil society. While they are distinct, these two structures have closely collaborated and represent nearly half the US population (155 million Americans) and almost half of national GDP (\$9.45 trillion), covering all 50 states.⁴⁷

During Trump's Presidency, the EU tried to seize this opportunity for continued transatlantic climate collaboration at the sub-national level by encouraging links between national US networks and European equivalents. This includes joint initiatives with 'Energy Cities' (over 1000 cities from 30 different countries), the 'European Federation of Agencies and Regions for Energy and Environment' (FEDARENE, comprising over 80 regions from 23 countries), as well as the EU Covenant of Mayors (10,400 cities located in 61 countries). Likewise, many European and US sub-state entities were also able to continue collaborating via global and transnational climate networks. This includes the 'Under2 Coalition', which unites sub-national governments from around the world pledging to cut emissions from 80 to 95% by 2050, including many in Europe and the US such as New York, California, Baden-Württemberg or Alsace.⁴⁸ A further example is the C40 network, which comprises 94 of world's largest cities committed to climate leadership, engaging in a wide array of climate initiatives focusing on municipalities. A majority of its cities are located in Europe and the US, with the Mayor of Paris Anne Hidalgo serving as Chair from 2016-19, and the Mayor of Los Angeles Eric Garcetti acting as current Chair.⁴⁹

⁴⁵. *Ibid.*

⁴⁶. The Obama-era climate pledges had included reducing emissions between 26-28% by 2025, as well as by 32% up to 2030 (from 2005 baseline).

⁴⁷. Barichella (2018), Sciences Po Law Review.

⁴⁸. The Under2 Coalition brings together over 220 subnational jurisdictions from around the world, representing around 1.3 billion people and 43% of the global economy (\$34 trillion).

⁴⁹. C40 represents over 700 million people and more than one quarter of the global economy.

What is more, the 'Global Covenant of Mayors for Climate & Energy' (GCoM) has become the largest global climate network, as it coalesces more than 10,000 cities and local governments coming from 138 countries, although most are still located in Europe and the US.⁵⁰ The Global Covenant's Board is co-chaired by the European Commission Executive Vice-President for the European Green Deal Frans Timmermans who, along with Michael Bloomberg, seek to promote extensive transatlantic collaboration. Through its leadership role in transnational coalitions like the GCoM, the EU has sought to encourage European cities and regions to engage with their peers around the world, including those in the US, allowing them to continue collaborating in spite of Trump's former withdrawal from the Paris Agreement. Sub-state actor networks provide essential support in terms of technical information sharing and best practice exchanges, showcasing, tracking, data aggregation, as well as policy coordination and galvanizing, for example.

It should be noted that American sub-national actors acquired a strong momentum during Trump's Presidency, which they are likely to sustain over the next few years. Thus, following Biden's election in 2020, national US climate networks have sought to re-invent themselves. Instead of directly opposing the federal government, they now aim to provide a channel for non-state/sub-state actors to collaborate and dialogue with the Biden administration on all aspects of climate and energy policy. For instance, 'We Are Still In' has been renamed the 'America Is All In' Coalition. Cities and states in the US have started to receive renewed funding and support from the federal government, allowing them to expand their activities even further, including via national and global coalitions. Since sub-national actors enjoy broad powers and autonomy under the American federal system, coalitions of non-state actors play an essential role by acting as a relay for national climate policies. Hence, Biden has sought to rely on them as a springboard to enact his own ambitious federal climate agenda.⁵¹

For these reasons, **it is essential that the EU continues supporting initiatives by cities, regions and other non-state actors in Europe to engage with their counterparts in the US**, including via transnational networks. In this regard, it is worth mentioning the EU's announcement of a mission on 100 Climate-neutral Cities by 2030, which forms part of its upcoming Horizon Europe programme on research & innovation. Likewise, while sub-national actors do not have legal authority to sign international treaties like the Paris Climate Agreement, federal US states still have the possibility to negotiate non-binding sectorial climate deals with foreign governments. For instance, former California Governor Jerry Brown travelled to Beijing in June 2017 to finalize an agreement with Chinese President Xi Jinping that includes collaboration on clean energy and trade in green technologies. Hence, there is potential for the EU and Member States to negotiate similar non-binding sectorial climate deals with US federal states. Indeed, several of them such as California and New York, partly in response to Trump, have enacted some of the most far-reaching climate policies in the world, with many possibilities to connect with new green initiatives in the EU.

Supporting sub-national actors in this manner is essential, since they have a vital role to play in terms of closing the global emissions gap stemming from inadequate NDCs from State Parties, as they can introduce climate actions that exceed national pledges. In cases where sub-state initiatives overlap with those of national governments, they can help the latter achieve NDCs more rapidly and thoroughly. Moreover, local policy innovation and experimentation can galvanize further climate action from the bottom-up, driving changes

⁵⁰. The Global Covenant of Mayors was launched in 2017 after the merger of what had previously been the two largest global climate coalitions: the Compact of Mayors and the EU Covenant of Mayors.

⁵¹. Barichella A. (forthcoming 2022), *Comparative Transatlantic Perspectives on the Global Climate Regime and the Articulation of Multi-Level Governance*, Palgrave Macmillan, Energy, Climate and the Environment Series.

in economic/technological systems.⁵² Indeed, mayors and sub-national executives often have the ability to take direct action to address climate change, in contrast to cumbersome national procedures. Likewise, cities and local actors also have control over many key sectors including buildings, transportation, waste management, as well as energy and the power supply, which are essential for climate mitigation and adaptation.

CONCLUSION ■

The election of Joe Biden as the 46th US President has opened-up many new possibilities for renewing transatlantic collaboration on climate and energy issues over the next few years. This comes at an appropriate time since the EU has recently set out a far-reaching European Green Deal, with many opportunities for establishing links with the Biden administration's 'Clean Energy Revolution' plan. Yet, Democrats are likely to continue to face major domestic obstacles for implementing their ambitious climate proposals, including staunch Republican opposition in Congress. Therefore, a new agenda for transatlantic climate and energy collaboration under Biden must be realistic and focus on areas where there is a genuine possibility for enhancing EU-US relations over the short run.

This includes reinforced cooperation in the process of international climate negotiations and the preparation of joint positions for the upcoming COP26; the development of a closer cooperation on clean energy innovation; coordinated decisions for a global green economic recovery in multilateral fora; along with more transatlantic cooperation on the salient issues of energy and cybersecurity. There is also potential for EU-US initiatives on climate and energy to integrate non-state and sub-national actors, which were especially active under Trump and have vowed to accelerate their efforts under Biden. Finally, because climate and energy challenges are global in nature, it is essential that enhanced transatlantic collaboration serve as a springboard to engage with the other main powers, including China, India and Japan and the UK.

Overall, after four years of decline in EU-US relations under Trump, this paper argues that climate and energy issues offer a tangible and realistic pathway for renewing the transatlantic partnership. The election of Joe Biden and the US re-joining the Paris Climate Agreement have generated a positive new momentum ahead of the crucial COP26 next November, where countries must update their national pledges. The long-term objective of keeping global temperatures below the 2°C threshold by the end of the century remains possible. Hence, the EU and the US must seize this historic opportunity to enhance transatlantic collaboration on climate and energy, to increase humanity's chances to avoid a climate disaster. ■

⁵². Hale T. (2018), The Role of Sub-state and Non-state Actors in International Climate Processes, Chatham House.

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