Building an ambitious and robust U.S. climate target

A comprehensive process to catalyze national and subnational climate action for the next NDC

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GLOBAL WORKING PAPER #146
NOVEMBER 2020

UNIVERSITY OF MARYLAND 1856
SCHOOL OF PUBLIC POLICY
CENTER FOR GLOBAL SUSTAINABILITY

B | Global Economy and Development at BROOKINGS

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Working paper #146

Acknowledgements
I am grateful to Jonathan Pershing, Todd Stern, Amar Bhattacharya, Leon Clarke, Alden Meyer, Nigel Purvis, and Rick Duke for reviewing earlier drafts of this paper, providing helpful input to improve all aspects of this paper, and elucidating a few specific challenges and potential policy strategies. In addition, the concepts in this paper that relate to subnational action are rooted in work that I have done with the America's Pledge Initiative on Climate, including with Leon Clarke, Ryna Cui, Haewon McJeon, Morgan Edwards, Christina Bowman, Shannon Kennedy, and others at the Center for Global Sustainability, as well as Carla Frisch, Paul Bodnar, Kevin Kennedy, Koben Calhoun, Tom Cyrs, Wendy Jaglom, and others at the Rocky Mountain Institute and World Resources Institute; and collaborators at We Are Still In and other organizations. They have all contributed to a shared vision for the possibility of an "all-in" national climate strategy of the kind I describe here and I am grateful to have had the chance to work and learn with them over the past few years. All opinions (and any mistakes in interpretation) expressed in this paper do not necessarily reflect the views of any reviewers or others mentioned here. Dr. Jiehong Lou at the Center for Global Sustainability provided research support.

Contents

Summary

The opportunity is now at hand for the United States to build a new, comprehensive, and ambitious national climate policy strategy for the United States and to re-engage with the international community to address climate globally. Such a strategy would catalyze a broad transformation that delivers a vibrant economy and broadly shared benefits while also delivering significant emissions reductions that support scientifically informed global climate goals. Even as the executive branch has in recent years wrought damage to federal policies and international engagements, actions across the country from subnational leaders (in states, cities, businesses, and others), combined with quickly evolving clean technology market trends and shifts in public opinion, have built a stepped-up basis for accelerating action nationally from the bottom up. The U.S. is therefore in a strong position for a rapid and vigorous re-engagement by the federal government.

A central component that links the domestic climate policy strategy to support higher international action from other countries is the climate target that the U.S. will communicate as part of the Paris Agreement, called the Nationally Determined Contribution or NDC. This entails developing a new, "all-in" climate policy strategy that fuses new federal actions from the executive and potentially Congress (for example, as part of a stimulus and recovery package), with existing and new actions from an expanding set of subnational actors such as states, cities, businesses, and investors. Importantly, the NDC process also creates a critical opportunity to integrate key stakeholders—to gather input, solicit feedback, generate broader understanding of the opportunities and constraints for action, and to catalyze greater action from subnational actors. Such an integrated process can not only build a more broadly rooted strategy with more widely understood domestic benefits and long-term robustness, but also can increase international confidence and thereby create leverage for other countries to do more as well.

This paper reviews the global and U.S. experience of such strategies from the past six years, and sets forth a set of recommended features of a process to create a new national strategy and NDC, focusing on national long-term emissions strategies for mid-century, the first round of NDCs in advance of the

Paris negotiations, and recent experience with U.S. subnational actors. It then provides four recommendations for building an open and inclusive process to build a U.S. national strategy and target; inviting a parallel process of formal and informal assessment and setting ambition from the subnational community; and linking between these two. Such a process will provide the best chance of realizing both maximum ambition and maximum action toward a new climate strategy for transformation at home that, through the NDC, can leverage new action globally.

Introduction: Federal re-engagement to accelerate U.S. climate action

It is globally recognized that the United States—at the federal level of government—has for the past four years actively pursued policies both internationally and domestically that contravened scientifically informed and broadly shared global goals of addressing climate change. However, the reality of climate action in the United States is quite different and more robust than recent executive branch actions would suggest. Although significant damage has been wrought from the executive, actions across the country from subnational leaders, combined with quickly evolving market trends and shifts in public opinion, have generated a stepped-up basis for additional action and have placed the U.S. in a relatively strong position for a re-engagement by the federal government.

The incoming Biden-Harris administration now has a chance to grasp this opportunity. Rooted in this existing groundwork, the United States can now develop a new and comprehensive approach to address climate change, and in the process, build an economic recovery that underpins a transformational and rapid clean economy transition toward sustained growth. This will entail a dual strategy of policies that deliver domestic benefits and re-establish international credibility, and then using this renewed credibility to lead on increasing action with all countries toward a more sustainable and climate-friendly global economic pathway. The central, and critical, link between these domestic and international processes is the creation of a comprehensive U.S. national climate strategy. As part of this process the U.S. will also develop an associated national target and set of goals that are shared internationally in the form of so-called Nationally Determined Contributions (NDCs). With a strategy to deliver an NDC that is widely seen as ambitious, credible, and robust, the U.S. can re-establish its global leadership position and bolster international action, thereby rendering both U.S. and other nations' actions more effective—and raising global ambition to be in line with solving the climate crisis.

Creating such a U.S. national strategy and articulating a clear set of goals to both domestic and international audiences is therefore a necessary first step. NDCs are the lynchpin of the Paris Agreement, in which countries around the world

assess domestically their opportunities, set their national goals, and then communicate those targets to the international community. In advance of next year's climate conference, COP26 in Glasgow, countries are preparing and offering a second round of new and enhanced targets beyond their initial Paris NDCs. In this context, the world awaits a new, 2030 U.S. NDC as a signal of the degree to which it will re-energize its action and international leadership. This is particularly salient as an indicator of near-term commitment to achieve the previously announced Biden-Harris goal of achieving net zero emissions in the United States by 2050.[1]

Fortunately, the U.S. has a strong basis in place for advancing climate action, for three reasons: (1) a broader and more ambitious base built on subnational actions; (2) a radically altered cost structure for clean energy; and (3) significantly improved public support for action on climate. First, despite the visible and retrogressive actions from the U.S. executive branch in the past few years, U.S. action on climate has actually advanced across a significant cross-section of the country based on sub-national leadership, and many factors are in place to support an acceleration of such action with under renewed climate leadership from the executive and, possibly, legislative branches of the federal government. As previous work has shown (Hultman et al., 2019; Hultman et al., 2020), U.S. states, cities, and businesses already committed to climate action now represent nearly 70 percent of U.S. GDP—roughly equivalent to the world's second largest economy. These actors have been implementing a wide variety of policies that in aggregate have had, and will continue to have, a significant impact on the overall U.S. emissions trajectory. Second, continued and precipitous cost decreases for clean energy technologies such as wind, solar, and batteries, as well as other innovations for non-CO_2 emissions, enable much faster and deeper actions than were thought plausible just a few years ago. Third, public opinion in the U.S. in support of climate policy and clean energy has actually grown much stronger—for example, nearly 80 percent now support prioritizing renewables over fossil fuels; and even COVID-19 appears not to have impacted deployment of clean energy in the U.S. (Jaglom et al., 2020). Moreover, recent climate-related extreme weather events, including western wildfires and

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[1] In parallel to generating a new 2030 NDC, the U.S. will need to revise its Mid-Century Strategy from 2016 in light of the Biden-Harris administration's 2050 net zero target. This long-term process would ideally take place concurrently with NDC planning, but time constraints likely favor a staged process similar to what was done earlier, with the 2014 announcement of the U.S. NDC and the 2016 release of the MCS.

the record number of tropical storms and hurricanes hitting the Gulf Coast and Southeast have also increased public awareness of the threat posed by climate change.

In addition, the incoming Biden-Harris administration has put something big on the table: a net-zero 2050 goal for the United States and a 2035 100 percent clean electricity target. A critical challenge for incoming administration will thus be to leverage those existing strengths to articulate a pathway toward these goals by generating a shared vision for what is possible, an understanding of how to get there, and an approach to delivering specific and thoroughgoing changes rapidly across the entire U.S. economy. Because broad economic recovery will be a central part of national policy strategy in coming years, including a long-overdue rebuilding of American infrastructure. The incoming administration thus has the opportunity to not only "build back better" but also in doing so to embody, in new investments and infrastructure, the structural change that will be needed to underpin not only an ambitious next NDC for 2030 but also the eventual 2035, 2040, 2045, and 2050 NDCs. Expanding knowledge and support for this vision by engaging a broad array of stakeholders will be a critical step toward building a basis for sustained action. This is a large but tractable task, but generating maximum ambition and maximum likelihood for robust implementation will need to balance these sometimes-divergent goals; in this context, integrating lessons on this process from earlier experience, both in the U.S. and globally, will be central to success.

The importance of shared national goals for global action

There is a long history of the development and creation of national strategies for energy, and more recently for climate. These strategic planning processes draw from broadly common methods and often carry an intention of generating a shared understanding, set expectations for subsequent process and outcomes, and steer action. They can also expand the degree of buy-in from important stakeholders. In this sense, these processes are similar to broader national planning processes that some countries undertake regularly—for example, national economic development strategies or the well-known five-year planning process in China. But historically energy or climate strategies have been much more narrowly scoped, not only in their topical coverage, but also in the communities that they have engaged—often just the ministries of environment or energy; energy experts; specific sectors such as energy or transportation. In addition, such processes had been done primarily as national exercises, and were not linked into a broader process or timeline. Countries that wanted to set forth a new plan for, say, their energy system for the next 20 years, might undertake a one-off process, perhaps at the start of a new national political regime, produce a report, and then track more or less effectively toward that plan depending on the level of political support, funding, leadership commitment, and more. Whether this impacted other countries was rarely if ever part of the calculus.

The Paris Agreement transformed the logic and audiences for these goal-setting processes. Whereas previously, most energy or climate planning processes were undertaken essentially for domestic purposes—with the possible exception of international emissions trading architectures—the Paris process created a new dynamic with broad international visibility that, in turn, provides additional incentive for domestic engagement. The critical innovation of Paris was thus neither an invention of the domestic strategic planning for climate (as it has been around for a while) nor the idea that an international process could lead to a cycle of positive global action (which has also been a goal of international climate policy from the outset); rather, the critical innovation of Paris was the linking of these two processes to create power where before there was none.

The value of *rooting the international process in domestic actions* is by now a well-recognized and core innovation of the Paris Agreement. Probably the biggest factor behind this evolution is that in the climate context, an internationally driven process ultimately has no ability to compel countries to undertake specific actions within their own domestic economies. This was a central lesson from the Kyoto Protocol, and much has been written about it (Victor, 2011). This earlier approach stalled not because there was something wrong in the details, but rather owing to some a less effective architecture, essentially expecting too much from an international agreement and not rooting it enough in domestic action; the disjoint international response also resulted in several developed countries withdrawing (including but not limited to the U.S.), leaving just the EU and a few others representing only about 15 percent of global emissions. Paris, on the other hand, simply invites countries to share their own domestic goals in an open and transparent way, with clear outside pressure on adequacy and implementation. It thus provides a framework in which those goals can be discussed and progress assessed. Rooting the international process in domestic actions thus creates a more effective international engagement mechanism—and addressing one of the primary reasons for pursuing an international strategy on climate change, which is that climate change is global and requires some coordination of response to encourage broad participation and reduce free-riding.

The formal *linking of the domestic strategic planning process to the international discussion* is perhaps the less well-understood dimension of innovation. The Paris Agreement created two related pressures that served to change the nature of domestic planning processes. First, it created a significant new demand for targets. Instead of strategic planning being driven for a purely domestic audience on an ad hoc timeline, the structure of Paris generated a new outlet and a structured process for domestic generation of these targets. Moreover, the audience was expanded to explicitly include other countries and the broad set of international stakeholders. Such an expansion justifies increased attention toward the elements of the target and bolsters those groups within any government who advocate for such efforts. In addition, the regular gathering of a large set of international targets increases the interest in comparability across targets, thereby supporting the development of a shared sense of good practice. In turn, these new audiences and expectations create domestic pressure for robust domestic processes with better stakeholder engagement and analytical input.

The Paris process additionally creates a timeline, a framework for consistent reporting, and an expectation of repetition. While there is no ultimate power within the Paris Agreement or the Framework Convention on Climate Change to compel action from the international community, these elements create accountability and expectations for delivery, not only from other countries, but critically from domestic stakeholders as well who have more direct access to their governments. Moreover, the repetition of the cycle every five years clearly signals additional expectations for continuity, reporting, and raising of national ambition. Linking domestic planning process to international action thus generates a new set of helpful pressures within national governance systems and stakeholder groups to build ambitious strategies that are transparent and follow both globally accepted science and an evolving of good practices. The new, external demand and audience focuses effort on scoping domestic opportunities for reductions and policy mechanisms to deliver them.

A third contribution of Paris is the *linking of short-term and long-term climate policy planning*. The Paris Agreement calls on countries to deliver two types of communications. The first, which is by far the more developed, focuses on short-term target setting through the NDCs. This element has more concrete language and process embedded within the Agreement, and has been a central and high-profile element of the overall Paris process. The second, which is included in the Agreement more modestly, calls for countries to deliver long-term low-carbon development strategies. While not as central to the overall process as the NDCs, this call for countries to communicate about their long-term strategies activates the same processes described earlier. Until recently, this lower profile has meant that these long-term strategies targets have until recently not been as visible as the NDCs. Recently, however, a number of key countries—China, the EU, U.K., Japan, South Korea, and now President-Elect Biden—have announced new long-term net zero targets for mid-century; collectively these countries represent over half of global emissions.

The linking of these long-term targets to near-term action is critical: pathways to long-term deep decarbonization always require near-term steps, and in some cases, steps in the wrong direction can hinder more ambitious long-term national goals. For example, it now seems likely that electric vehicles are going to be a critical component of global decarbonization, so in this context, national policies to subsidize biofuels for light duty vehicles might encourage short-term emissions reduction but would not provide the right platform for continuing

reductions. While it may not have been directly intentional, Paris's contribution of linking short- and longer-term strategies creates a positive pressure for countries to develop such longer-term plans that are consistent with their near-term NDCs, and vice versa.

Experience 2014-2020

While the Paris Agreement was not finalized until December 2015, the potential of the Paris Agreement crystallized well over a year earlier in November 2014[2]—when the U.S. and China jointly announced the world's first set of national targets from key emitters. Subsequently, other key actors their own targets in advance of the Paris negotiations in 2015, and the world has now six years of experience with understanding both the strengths and limitations of that first round of actions. These can be thought of in roughly four categories that will be relevant to improving on the processes during this next phase.

1. **Influences on the cycle of ambition**. As described earlier, the central pillar of Paris is that countries can support a cycle of positive action, with more ambitious national goals and implementation by key emitters enabling a broader, international engagement that further increases the level of global action on climate. Of course, this process can also unravel if confidence wanes. The experience of the past few years demonstrates both of these forces in tension. For example, the U.S.-China joint announcement of NDCs in 2014 helped spur urgent national conversations in other countries about their own possible targets. The about-face on U.S. domestic and international engagement in 2017 caused a shock through the system that was quelled, although only partially, because all other countries including the EU, China, India, and others, reaffirmed their support for the process.

2. **Continuity through changes in national governments.** It is inevitable that governments will change, and along with them, their approaches to climate change and greenhouse gas emissions. Over time, it may well be that the center of gravity on what is considered mainstream on climate will shift. Nevertheless, national strategies to address climate change will evolve and will sometimes experience abrupt shifts, as happened in the U.S., Brazil, and Australia during this time period. The abrupt reversal in U.S. leadership, for example, was undoubtedly a blow to global action on

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[2] While I argue this is when Paris "crystallized," the origins of Paris long predated 2014, easily dating back to the Copenhagen outcome in 2009 which had a nationally-determined element at its core.

climate. Nevertheless, that gap was at least partially filled by other countries (EU, China, and others), and partially by U.S. subnational leadership. The Paris Agreement's flexible architecture, by design, means that it does not collapse when new governments come and go, even ones from key emitters. Nor has it. But it's also clear that defections from more than a few key players would probably cause the process to unravel. Therefore, while this test against national government transitions has been partially passed on the international side, it is not an impervious architecture: the past four years have taught us that seeking ways to build more political robustness into national strategies on the domestic side will be a critical element. And, of course, a crucial test of the Paris approach is underway this year into next, when countries are under pressure to advance new NDCs that collectively enable continued global progress toward temperature limitation goals.

3. **Robustness and subnational action.** The flip side of experience with national-level governments that have weakened climate action is the experience with sub-national actions in those countries. Sub-national action has been part of international and domestic discussions on climate change for many years, and was even embedded in several international processes and was encouraged in the Paris Agreement itself. However, it has only been in the post-Paris context that the potential value of subnational actions has been recognized more broadly as a central component of national strategies, both from looking at case studies like the U.S. (Hultman et al., 2020), and from the perspective of international governance (e.g. Hale et al., 2020; Hsu et al., 2020; Kuramochi et al., 2020). The most salient national example of recent years is probably that of the United States, which witnessed a massive sub-national reaction to the national-level decision to pull out of the Paris Agreement and roll back environmental regulations (America's Pledge Initiative on Climate and We Are Still In, 2020). Current commitments from these actors have not only made a significant impact, but also can support higher national action (N. Hultman et al., 2019).

4. **Creating and improving the process**. The new structure encouraged by the Paris Agreement has driven experimentation in target design, process, and reporting and tracking. For example, the first round of target setting at the national level saw several approaches used by national governments,

ranging from internal processes that rested primarily on government analysis and decisionmaking, to more open processes that invited inputs and even broader debate across key stakeholder groups (Nate Hultman et al., 2019). Reflection on the first round has produced a sense of what constitutes good practices for both NDC construction and process (WRI, 2020). Within the formal structure of the Paris Agreement, countries have also sought to develop processes for communicating and reporting. Best practice for reporting is also evolving, driven by examples and conversation outside the formal regime as well.

The world has changed

Of course, the world is different now than it was in 2014-2015, and the "Round 2" of target setting, in the period of 2020-21, is happening in a different historical and market context than Round 1. Critically, we are now experiencing not only the climate crisis, but also a global pandemic, and an associated set of negative economic impacts that are being felt in diverse ways across the world. The near and longer-term consequences of the pandemic and the economic impacts remain unclear: near term demand is changing, commuting and working patterns are for the moment shifted, and taxation and investment are being refocused through stimulus and other support policies. Despite this, some trends in policy implementation seem to be holding up (Jaglom et al., 2020).

At the same time, the market context for energy has shifted dramatically, with demand depressed and more importantly the cost structure of new energy technologies tilting rapidly toward clean energy technologies such as wind, solar, and batteries. While many energy systems continue to rely on gas and the political economy of coal props it up in many national contexts, political pressure for action on climate has grown in important ways: not only measurable and broadening general support, but also with new leadership and voices emerging particularly from the youth movement.

Equally importantly, the concept of NDCs or national climate targets is now broadly recognized across stakeholders, leading to increased discussion and interest about both the actual target setting itself as well as stakeholder demand to engage in the target-setting process. Related to this, major emitting countries as well as civil society actors, including in the private sector, are committing to long-term, net zero targets. The Climate Ambition Alliance, for example, now includes more than 120 countries, 450 cities, 1000 businesses, and many others, all committed to net zero at latest by 2050 (Climate Ambition Alliance 2020). The private sector in particular has a different orientation to climate action than it did in 2015, with ramped up commitments from the corporate actors (such as net zero, or 100 percent renewable energy) and significantly more engagement from investors and the financial sector in understanding and responding to climate related risks in businesses—such as from continued coal construction. Finally, we have seen in several places, particularly the U.S., a groundswell of new

leadership from sub-national and other non-state actors—notably from states, cities, and businesses.

All of these developments have created a new context that is already re-shaping how people are viewing the needs and opportunities for climate action. Both the urgency of the crisis and the real possibility of a rapid transition toward a new economy have brought into focus the importance of an all-economy, broad-based transition strategy that links policy with economic investment and jobs—and does it in a way that has deep political roots to build robust and widely shared support.

From goal-setting to broad buy-in: A process to build robust action

The experiences of the past few years highlight the potential strength of this approach; raise a critical challenge; and also point the way toward a solution.

The strength of the approach for raising ambition is now demonstrated. Despite the loss of engagement from the U.S., Brazil, and others, the Paris target setting process remains robust as a method to catalyze, communicate, and support ambitious climate action globally. The European Commission has just proposed[3] a new and significantly more ambitious 2030 climate target, raising its goal from a 40 percent reduction to a 55 percent reduction below 1990 levels. Surprising everybody, China recently announced a 2060 net zero emissions target as part of its long-term planning process; Japan and South Korea quickly followed suit with 2050 net zero targets. These major contributions are part of a larger trend of 2030 and mid-century targets being set not only by key emitters but by other countries and many subnational actors around the world, including many U.S. states.

The critical challenge is to embody the target setting strategy with as much deeply rooted political support as possible. The reversals experienced at the national level in the U.S. and Brazil were jarring. But they were not the only areas in which previously set targets experienced headwinds. A number of other countries experienced sometimes milder "political evolutions" that, although not as dramatic as in the U.S., nevertheless heralded important policy shifts that undermined or hampered previous climate plans. Beyond the immediate impact of these changes on national and global emissions trajectories, these shifts illuminate a key challenge: How to make ambitious climate targets robust so that they are less buffeted by shifting political winds. While it is reassuring that the *international* process (through the Paris Agreement) has been robust, although not completely immune, from impacts of shifting positions from national governments, the recent rocky experiences in some, particularly democratically

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[3] This new proposal by the Commission has yet to be approved by the European Council of national leaders, so as yet remains not formal EU policy.

elected, national governments indicate the need to more strongly root national targets across domestic contexts and bolster their political robustness.

In this context, the challenge can be addressed by using the goal-setting moment to create broad buy-in through greater national and subnational engagement. The practice of goal-setting in itself is valuable in two ways: it catalyzes not just analysis for understanding what is possible, but also planning for concrete mechanisms to deliver on the goal. In this process, diverse actors focus on approaches to climate action and in doing so develop a better understanding of what both the opportunities and limitations are. In particular, actors that may have an overly limited view cost-effective actions—for example, because they retain prior, but now outdated, assumptions about relative costs of different energy technologies—can become familiar with new opportunities that enable higher levels of action. Similarly, actors that would like to push for dramatically higher ambition can become more familiar with the perspectives and policy constraints facing a national strategy. This presents a potential significant opportunity: reframing the expectation of target-setting from a more narrowly-focused view of developing a goal to a more broadly scoped process of engagement, analysis, and discussion that engages diverse stakeholders. Greater utilization of such a process can increase awareness of opportunities, buy-in for the goal, and effectiveness of implementation.

A three-part strategy for developing an ambitious and robust U.S. NDC

When the United States rejoins the Paris Agreement, it will also re-commit to the process of setting its own national targets. At this moment, the focus both in the U.S. and internationally will be not so much on the 2025 NDC but rather on a new target for 2030. The U.S. will likely begin developing this new target soon after inauguration day and aim to announce the new NDC sometime in 2021, in advance of a U.N. conference scheduled for later in the year in Glasgow.

As the U.S. undertakes this process, it will be seeking to integrate several components to understand what an ambitious and feasible, integrated strategy could yield for national emissions reductions. But as it does so, it should also integrate the lessons of recent years into its planning process and analytical approach. The basis for any new target will of course be the patchwork of remaining federal regulatory policies and programs, as well as a heterogeneous but, in aggregate, significant set of state, city, and other subnational policies (Hultman et al., 2018; N. Hultman et al., 2019). Layered on this, the strategy will be built to comport with the new administration's broad economic, energy, and climate goals and policies (Biden and Harris, 2020a, 2020b). These elements focus broadly on linking overall economic recovery with infrastructure investment and clean energy and other climate policies. They also include long-term goals of 100 percent clean electricity by 2035 and net zero emissions by 2050. However, the current vision is composed mostly in broad strokes: specific policy details remain to be filled in as the new administration assesses of what the near-term legislative and regulatory opportunities are in light of the anticipated composition of the U.S. Congress—with a potentially Republican-controlled Senate—and broader subnational space. Such a strategy will also need to consider the structure of any new policy approaches from the federal level relative to existing state and other policy approaches currently in place—with the goal to maximize the potential leverage from policies currently in place at the subnational levels, as well as to shape federal policies and agency activities to encourage expanded subnational ambition.

The U.S. target-setting process, if well-structured, will both draw from and inform this scoping of a new comprehensive policy platform. Five basic components connect this policy platform to an eventual NDC under Paris that projects a range for potential U.S. emissions reductions:

What is the target date?

This should be relatively straightforward. The U.S. currently has previously offered targets for 2020 and 2025, and has noted the importance of offering relatively near-term targets (i.e., roughly 10 years away) to ensure more near-term political accountability. That logic would support offering a target for the date of 2030. Moreover, since a key element for NDCs is transparency, some indication of an overall pathway through 2030 will be helpful in understanding the U.S. trajectory. A 2035 target, which maps onto the existing Biden-Harris goal for 100 percent clean electricity, has some logic as well; should this be the case, for transparency and continuity a dual 2030-2035 target could be offered.

What are the elements to be included?

Following good practice (and earlier U.S. precedents), the NDC should cover all major greenhouse gases and be on a net basis that includes carbon uptake through forests or other means. To facilitate transparency and consistency, it should also be based relative to 2005, the base year for previous targets. There is ongoing discussion as to the level of detail to include on other important aspects of a national climate policy, such as resilience, equity, finance, or others. For purposes of this paper, I will focus only on the emissions-related components.

What are the policies that inform the target?

Having established the answers for the first two questions, this becomes the central question that determines what range of emissions reductions can ultimately be featured in a public target. There are two important sub-questions that will confront the incoming administration. The first one is the extent to which the target is based on new actions from Congress. The previous U.S. NDC assumed only actions that were based only on earlier legislation, without additional near-term legislation from Congress. This approach has the advantage of being transparent and clearly achievable as it only assumes the administration's current policy authorities. However, more action could be taken

in partnership with additional legislation, so there will be a question of what potential new Congressional actions, whether they are stimulus related or otherwise, might further advance climate policy, and whether those could be included in an NDC. A related issue is whether only legislation that has been enacted and signed into law should be reflected in the NDC, or should a more expansive approach be taken that includes legislation for which the prospects for enactment appear to be good. The 2025 NDC only included the former, but arguably the latter could help integrate a legislative strategy more centrally.

The second key question is the extent to which the target builds on subnational actions? As discussed earlier, a lesson of the past few years is that subnational actors hold important experience and have already in many cases implemented high-ambition policies for some or all of their economic sectors. The interactions of these policies with possible federal approaches should be understood well, and potential lessons drawn from them as the U.S. creates an integrated national policy. Beyond the current policies, many of these subnational actors have set ambitious goals for 2030 and beyond that will require implementation of additional policies; whether the NDC should reflect these goals even where the policies to achieve them are not yet in place is an open question. This is similar to the national level considerations above: incorporating both the possibility of U.S. legislation as well as subnational actions (both existing and potential) could result in a more comprehensively built strategy, with broader but such considerations would have to balance the benefits of raising additional ambition with the possibility that some elements may not materialize.

What is the target?

Ultimately, our shared global atmosphere and climate system does not particularly care about how many actors are participating or even whether policies are based on a carbon price or a set of sectoral policies; rather, what matters for climate is how much each country is emitting and how they aggregate to global action. A central function of the NDCs is thus to enable clear communication about how much each country anticipates contributing to this global effort. Estimating and aggregating the impacts from a diverse set of policies is a necessary step toward this communication. All eyes will certainly be on the United States as it develops its policies, and expectations will be high for an ambitious estimated emissions reduction number. As one important set of anchors for these estimates, the Biden-Harris goals for 2050 net zero emissions

and 2035 clean electricity both help provide some boundaries that indicate the rough levels of ambition needed in 2030 to reach those goals. Moreover, there already exists some sense of a range for the ultimate U.S. 2030 number, based on earlier published analyses and estimates that help bracket the possibilities for 2030. As just one example, the set of analyses and reports that I helped lead would place the U.S. very broadly in a range of 37 percent reductions from 2005 levels by 2030 at the lower end, to an upper end estimate—with very high ambition, including from subnational actors, and full Congressional support—of 49 percent. Noting that full Congressional support is unlikely to materialize in a Republican-controlled or finely split Senate, expectations might be adjusted accordingly. It will thus be the job of the next administration, once their overall strategy and policy platform comes more into focus, to undertake a process to estimate the impact and report their target in the NDC.

What is the reporting strategy?

A less obvious question, central to the overall operation of Paris, is how the new administration will report on its goals and progress. Just as financial reporting practices are central to a transparent and smoothly functioning financial system, so too is national reporting on progress toward NDCs and long-term targets, in a transparent way, essential to support the international communication embedded in Paris. This in turn can increase global confidence to raise ambition. In this light, the new administration should also develop strategies to report on U.S. progress towards its new NDC as well as toward achieving its earlier 2020 and 2025 goals. This could be done in the context of submitting its long-overdue biennial national report that is required of all developed countries under the Framework Convention. The last iteration of this report was completed in early 2016. Other transparency and reporting strategies in addition to the biennial report could also be explored; the U.S. mid-century strategy report of 2016, for example, was a detailed elaboration of the very basic requirement embedded in Paris. Such complementary detail can be helpful for NDCs, as well as other countries, seek to better understand the logic and basis for domestic actions to support NDCs.

As the U.S. revisits these questions under the new administration, building a set of policies to realize a national strategy cannot be done in isolation, nor should it: a central lesson of the past six years is that a process to build a robust, achievable, and *higher-ambition* NDC should be rooted as much as possible in a

broader political buy-in and leverage action across the entire U.S. economy. Building a process, early in the next administration, to scope and understand the implications of the policy platform is therefore a critical task to assure long-term success for the U.S. and our global community. Fortunately, the United States has, in the course of developing its first NDC and subsequent subnational engagement, established several good practices that can be built upon and integrated in order to create an ambitious, robust, widely understood, and broadly supported NDC.

For the U.S., good practice in this next round of discussions will draw from a few principles. First, we should pursue a broad stakeholder approach to understanding our opportunities for emission reductions and their implications for emissions. This will include consultations with diverse stakeholders and perspectives, from different communities and diverse government leaders. Second, there can be multiple formal and informal inputs to this process, to ensure that diverse perspectives about potential policies and their implications are visible in the conversation. Third, the process should allow sufficient time for input but also extract maximum international leverage out of an ambitious U.S. NDC in advance of COP26. Regardless, a U.S. NDC should be delivered before COP26, implying an approximate window for mid- to late-2021. It is critically important not to rush this process. While this is undoubtedly a balancing act, it will be better to have a good, well-produced, and well-founded target rather than rush one out and lose the opportunity to ground it broadly.

Activating such a strategy can maximize the value of using the NDC process for building a broader, more robust, and more ambitious target. This will require focused planning and embedding this process into the broader thinking about opportunities for near- and longer-term climate action in the U.S. In addition, understanding the emissions implications of a diverse set of strategies is an analytical challenge that will require a renewal of eroded capacity across Federal agencies and healthy interaction with external stakeholders. While the details of the process can evolve, this paper proposes three critical elements:

1. **Integrate an all-of-government climate approach with NDC planning**. Very early in the term, the White House should initiate an all-of-government process, and formalize it institutionally, to understand the opportunities for climate policy action and to integrate climate considerations consistently across executive branch agencies. It should also establish conversations with Congress and seek to advance climate action across

multiple possible areas for legislation, ranging from stimulus and recovery, to budget, to specific climate policies across all sectors of the economy. Such conversations are typical of the coordinating function that normally happens from the White House. At this moment, however, it will be critical not only to re-establish this coordinating function early in the new Administration but also to re-envision the process to more broadly integrate climate, equity, investment, and jobs priorities across the entire federal government and its agencies—and integrating strategies that cover energy, agriculture and lands, industry, non-CO_2 gases, transportation, and more. NDC planning can be an important, immediate focusing mechanism for such discussions. Agency leads and offices can be asked to provide inputs in three dimensions: First, what policy opportunities can you see that integrate these issues broadly? Second, what stakeholder groups and sectors can you engage with? Third, how can you work with other levels of government to support their work and to leverage additional opportunities? Such inputs can catalyze broader strategic planning and communication internally as well as integrate with a broader set of actors outside agencies.

2. **Integrate input from sub-national governments and other stakeholders into the all-of-government process.** A key lesson of the last few years has been the importance of our "laboratories of democracy" model of state and other subnational action to innovate and advance new types of policies that work across diverse political contexts. It is therefore critical to maintain a connection to subnational leadership not only to draw ideas but also to continue supporting their actions and leadership in their own contexts. Informal consultations have historically been undertaken, but more effective would be establishing a formal mechanism to ensure robust interaction that provides significant benefits to informing a U.S. national strategy.

   One of several possible routes toward this goal is to invite contributions from states, cities, tribal groups, and other levels of government to create their own assessments of reductions and policy strategies to deliver on them, and then to integrate this into the NDC planning process. Such a process would create a more joint co-development of the national climate strategy. On the other hand, the challenges of timing (described below) could create obstacles to this strategy during this round—ideally, these

entities would have up to a year to evaluate their own targets before handing off to the national process, a timeline precluded by this year's compressed schedule which is set by the international process.

A second possible approach, not exclusive to the first, is for the White House to establish a high-level Task Force that includes both subnational and federal government members—including key leaders from diverse parts of the country, tribal groups, the private sector, and various levels of government, as well as key leaders within the Executive and Congress. Their job would be to assess and report across the entire set of actors on what new actions could be undertaken. If such a Task Force were to be implemented, a critical challenge will be to ensure that it is used effectively and well-integrated into the planning process. This will mean investing it with some genuine tasks and a clear timeline for providing inputs.

3. **Establish a national platform, chaired by an appointed panel, for non-governmental inputs**. Creating a robust target is not simply about governmental processes and policy options; it also includes a broader scoping by diverse stakeholders of opportunities and their implications for emissions reductions. To this end, a parallel, non-governmental approach, with links to appropriate governmental processes, should be established to solicit and discuss ideas and limitations across a broad stakeholder group. Such input can be provided through a set of workshops, roundtables, or other convenings. However, it will be important to provide a formal link to the overall NDC planning process, including the all-of-government approach and the subnational government consultations (or Task Force). This can be done by appointing a non-governmental panel to solicit inputs and conversations around opportunities for U.S. action, both at national and subnational levels. Such inputs can be delivered into the overall NDC process. One additional element of such a process will be to establish a public comment opportunity. There is ample precedent and experience with public comment as an input to Federal rulemaking and such a process would provide a helpful route toward expanding not only the engagement but also the opportunities for better understanding new opportunities that may not otherwise have been identified.

While these strategies can enhance the overall target, they face several significant challenges. First, the scale and scope of interactions suggested here are significantly larger than previous U.S. target planning processes. Addressing this would require a careful planning process in the early days of the next administration, creating clear responsibilities and staffing strategies across the administration for delivering it, and utilizing existing capacity in both Federal agencies in line, for example, with larger consultative processes for rulemakings; and potentially engaging sub-national actors.

In addition, the likely timeline is tight—ideally around 6-9 months, but perhaps shorter—versus roughly a year for the U.S. 2025 NDC. This too will require quick early planning both during the transition period as well as in early days of the next administration. Such a process could potentially be signaled or announced when President-elect re-joins the Paris Agreement on the first day of his term. On the positive side, we have a better sense now (compared to 2014) of how to construct such a target, what kinds of analysis to bring to bear, and what processes might be most effective. Fortunately, the process is not really starting from zero: over recent years, significant work has already gone into understanding the possibilities for U.S. action, from America's Pledge and other organizations, research teams, and initiatives, and the U.S. presidential campaign generated significant new policy development, including from the Biden-Harris campaign. All of these serve as de facto existing inputs, whether formally or informally, to a potential U.S. NDC.

A third challenge is the risk for an open and consultative process to become a forum for either re-fighting old political battles or otherwise grandstanding, or even just simple public confusion about certain admittedly arcane or technical dimensions of a U.S. climate strategy. Any of these would bog down the effort and generating new obstacles. While a constructive and open process could produce broader stakeholder awareness and buy-in, a process that devolves would certainly be counterproductive to enhancing U.S. ambition. Guarding against this is possible, but will require clarity on the boundaries of what is being asked for as well as guidance as to what elements will be most productive for input. Mixing formats to include roundtables, open forums, and other comment strategies familiar to rulemaking processes can also serve to reduce the importance of any one event, platform, or strategy.

Linked with this risk management strategy should also be a careful consideration of the types of inputs to facilitate conversation around. While the central goal of an NDC process is to understand the overall U.S. emissions trajectory, such targets can be hard to grasp conceptually. For example, the core contribution of the first U.S. NDC was a "26-28 percent reductions in net emissions from 2005 levels by 2025." This is itself a substantively worthy contribution, and squarely the kind of target needed for an NDC under Paris, but it not be the most broadly compelling framing for broader discussion across stakeholders. Accordingly, conversations may benefit from reframing around more clear or graspable concepts, such as the recent trend toward "Net Zero" as an organizing principle for national trajectories. Similar kinds of targets and timelines for discussion could include goals for achieving 100 percent clean (or renewable) electricity; no new coal or no new gas; coal phaseout; all-electric new building construction, 100 percent electric vehicles, and more. These topics may be more easily communicated and discussed across diverse audiences, and moreover some have the added advantage of being more concretely manageable through specific policy interventions from the federal or subnational governments.

A final challenge is the diminished—though not eliminated—capacity across the U.S. federal government as a result of four years of attack from the current administration. Of course, this is an issue across many agencies and topical areas beyond climate. As a result, the rebuilding of capacity across the board will require immediate and broad remediation, and will likely be an element of the Biden-Harris administration's overall strategy. Nevertheless, the timescale for identifying and hiring in significant new capacity for climate and energy in the agencies would be certainly weeks to months. In many cases, it will not be possible to re-build the capacity in federal agencies to the level they were under previous Presidents. Nevertheless, there is at least some remaining capacity around which to rebuild, and that can provide helpful support to the process. U.S. national labs and universities also have significant capabilities that could be critically helpful in this period of rapidly generating inputs to support a broad NDC process, even while the government rebuilds.

Despite these obstacles, our experience from the past six years underscores the importance of a broad, open, and integrated process. We can look to recent strengths in mobilizing across diverse stakeholders to support climate action. Running such a process, and including contributions from sub-national actors and others, will help ensure maximum ambition, robustness, and the likelihood of

success for a next U.S. NDC. This process should be one in which the goal is not simply setting a target, but also leveraging broader contributions to set the United States on an ambitious, well-considered, and broadly supported pathway toward a renewed and innovative economy, an expanding set of opportunities for 21st century jobs in clean technologies, and a stable climate.

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