TOWARD A SUCCESSFUL CLIMATE AGREEMENT: BUILDING TRUST AND AMBITION

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Executive Summary

The contours of the international climate change negotiations are pretty clear: the U.S., EU and Japan are going to commit to incremental reductions by 2020, more dramatic ones by 2030, and very steep ones by 2050. They are looking to developing countries to more aggressively abate their emissions in the near term, and to start reducing them in the 2030 timeframe, with real reductions coming by mid-century. Developing countries want a steeper commitment by industrial countries, and want to sequence any of their own potential commitments based on whether industrial countries actually live up to their agreements. Industrial countries will also work to increase their commitments on helping developing countries adapt to a changing climate, and on helping poorer nations finance efforts to reduce greenhouse gas emissions and to protect carbon-capturing forests. Whether or not an agreement can be forged on that by Copenhagen is still very much up in the air.

In that context, the U.S. can demonstrate real leadership in four ways. First, stressing the long-term nature of the challenge, the U.S. should help the international community begin to understand that Copenhagen is one step along the way, and that it should be seen as an "agreement to agree" where binding obligations are neither punitive nor competitive arrangements. Instead, Copenhagen should be

understood as the basic rules of the road that are in everyone's best interests. Second, the U.S. can begin to shift the emphasis to concrete, near term reductions that capture the world's imagination, which are as important in the near-term as forging the long-term agreement. Third, the U.S. needs to focus on concrete partnerships with key countries—especially India and China—as a way of demonstrating progress and cooperation between nations, as opposed to competition, confrontation and deadlock. Fourth, the U.S. needs to take a leadership position on both renewable energy and nuclear energy. This last point could be very useful in a difficult domestic setting; it is also critical internationally, where much uncertainty remains.

Introduction

Media attention already has begun to focus on the global climate negotiation about to take place in Copenhagen this December. Can the agreement address the climate crisis? Will industrial and developing countries come to terms on a global pact? Already, the tensions between rich and poor nations are starting to emerge, where these two sets of nations "failed" to reach agreement in advance of this summer's G8 Summit and the Pittsburgh G-20 Summit.

Perhaps the pivotal issue in the midst of all these talks is trust. After a decade of American inaction, the EU does not trust that the U.S. will cut its emissions in the 2020 timeframe. Developing countries share this view—bolstered (in their mind) by lapsed commitments in spheres such as trade and nuclear arms control talks—and will not contemplate their own reductions until wealthy nations demonstrate real action. American legislators, on the other hand, do not trust the EU based on their failure to fully comply with the Kyoto Protocol. And they certainly do not trust that developing countries will make reductions in some future period. The real question for the U.S. is: can it build trust and ambition at the same time?

U.S. Climate Ambition in a Domestic Context

On June 6, 2008, 10 Democratic senators signed a letter to Senators Harry Reid and Barbara Boxer. "A federal cap-and-trade program is perhaps the most significant endeavor undertaken by Congress in over 70 years and must be done with great care." The good news is that, one year later, those members are the last hurdle between the president and a major step forward in fighting climate change. The bad news is that the ambition of such a plan worries these senators, and the president needs nearly all of their votes. Moreover, he is unlikely to get them.

In this context, the first and most significant ambitious step the Obama administration and Congress can do is to gain Senate passage for the American Clean Energy and Security Act (ACESA), which was approved in late June by the House of Representatives. Taken together with the $43 billion in spending on energy efficiency and renewable energy in the 2009 Economic Recovery and Reinvestment Act, this would be as ambitious an energy undertaking as the nation has ever seen.

ACESA would cut emissions to 17 percent below 2005 levels by 2020, to 42 percent below by 2030, and to 83 percent by 2050. It would also help the world's poor in addressing and adapting to climate change, in several regards. U.S. emitters could seek up to 5 percent of their reductions in overseas forest projects—potentially leading to hundreds of millions of dollars in forest protection. The bill provides for technology offsets overseas for countries that certify that

these investments are helping them reduce emissions below business as usual baselines, helping stimulate investment in carbon capture and other abatement technologies. And it provides for additional offsets dedicated to helping address climate adaptation in the developing world. The Environmental Defense Fund estimates that at $10 per ton permit prices, these offsets would "amount to a total of approximately $66 billion for adaptation and clean technology ($33 billion for each) over the period of years covered by the bill." In addition, the administration has sought over $1.2 billion in direct spending in its FY2010 budget for international efforts to combat climate change, including $313 million for adaptation, $745 million for clean energy (much of this through a new Clean Technology Fund), and $170 million for forests, principally through the World Bank's Carbon Partnership Facility.

While it is possible to argue that the administration could have been more ambitious, this effort may already be beyond what can be accomplished politically. That is, Senate passage is far from certain. Senate rules require 60 of the Senate's 100 members to agree to end debate. Even with Democrats now controlling 60 Senate seats, most recent attempts to count supporters for the current legislation come up with only about 50 votes. Of the 10 members who signed the June 2008 letter, not one has yet to publically endorse the bill. They are mostly Midwestern and Mountain West Democrats—particularly from coal and industrial states—and they find the costs too high. For every one of their votes that the president does not get, he will need to convince a Republican to support the legislation.

Among the possible inducements for this group to support ACESA are more resources for carbon-capture technology, or for nuclear power, or for renewable energy, or for international offsets, or for some combination of all of the above. And that does not even take into account the rest of the autumn legislative agenda—the massive overhaul of healthcare legislation, ongoing attention to the financial crisis, and increasing criticism by Republicans and a growing number of centrist Democrats that the Obama administration lacks fiscal discipline. If, for instance, the administration chooses a relatively expensive healthcare plan and/or it begins to consider another stimulus, it might alienate climate change swing voters. If the stars do align, the international community should see it for what it is: a major step forward, requiring political sacrifice.

U.S. Climate Ambition in an International Context

For several reasons, however, the international community may not give the administration the credit it deserves. For one, the administration will not overemphasize the ambition of this effort between now and December. Negotiations in the Senate require that the administration play down both climate change and international cooperation as motives for action. With unemployment exceeding double digits in many Midwestern states, ACESA will be sold to the Senate—and the American people—for its "clean energy" and "security" benefits.

Moreover, other nations are likely to dismiss the ambition of ACESA. By 2020, Europe has already pledged a reduction of 20 percent below 1990 levels, compared with the U.S. pledge of 17 percent below 2005 levels. In advance of the 2009 G8 Summit, five major emerging market nations—China, India, South Africa, Brazil and Mexico—called on industrial countries to reduce emissions 40 percent below 1990 levels.

Assessing the ambition of the U.S. effort pivots on whether the U.S. should be held accountable for Bush administration inaction. While Europe, Japan and other industrial nations have nearly met their pledges to reduce emissions below 1990 levels, since Kyoto U.S. emissions have grown about 20 percent above 1990 levels. The Obama administration has asked for a clean slate, selecting 2005 as the baseline from which its action should be judged. Many Europeans scoff, urging America to match European ambition for 2020. The administration's response has been to ratchet up ambition into *future* emission reduction periods—namely, by pushing for aggressive targets in 2030 and 2050.

Europe undeniably deserves credit for drawing global attention to the issue and for establishing a continent-wide regime to cut emissions. In the last decade, Europe had been able to come close to meeting Kyoto targets. That said, even some Europeans (such as Sir Anthony Giddens) acknowledge that comparing U.S. and EU action overstates Europe's own accomplishments. Most of Europe's reductions had little to do with intentional action to address climate change. Ambitious targets were achievable, thanks in part to actions that preceded even an awareness of climate change—the shutting down of the inefficient East German economy after the fall of the Berlin Wall, the effort to develop nuclear power in France, and Margaret Thatcher's effort to close the coal mines. (Note the irony: Europe has successfully claimed credit for cutting emissions done for other reasons, while the U.S. will avoid taking credit for the climate benefits of the Waxman-Markey bill as part of its strategy to gain Senate approval.)

Major emerging market countries also have some justification for criticizing the U.S., but within limits. Developing countries have not contributed historically to the problem. They mostly still have very low per capita emissions. They are appropriately upset about a decade of American inaction. Moreover, many have begun taking important steps to improve energy efficiency. Nevertheless, major emerging nations such as India, China and Brazil, continue to ask for specific and extremely ambitious reductions from the United States in the absence of any pledge to reduce their own emissions.

Developing countries point to an agreement made in Berlin in 1995, where industrial and developing countries accepted different responsibilities for fighting climate change. Industrialized countries were rightly seen as principally responsible for the vast CO_2 concentrations in the atmosphere, and for the warming that had and will continue to occur. Developing countries were made exempt from—in fact, they were actually prohibited from—adopting the same kind of binding obligations as industrial countries. Of course, this agreement did not anticipate the explosive economic transformation that occurred between 1995 and 2005, lifting a billion people out of poverty.

Not surprisingly, developing country emissions also grew dramatically—with China alone growing from under 3 gigatons per year, to well over 7 gigatons, surpassing the U.S. For emerging powers to help prevent catastrophic atmospheric warming before the end of this century, they must slow their own emissions growth by 2020 and start reducing them in the decade that follows. Still, as negotiators begin to contemplate ways for them to "graduate" into middle-income status, these nations are wary of taking on any commitment in the absence of real action by industrial nations.

Short of binding targets, many advanced developing countries have begun constructive steps to cut their emissions. Most have expressed a willingness to talk about Nationally Appropriate Mitigation Actions, which itself is a big step. But very few have been willing to talk about making these commitments internationally binding, out of fear that doing so will set them up for action that will not be reciprocated by industrial nations.

Four Additional Ways to Build Trust

Beyond assessing the ambition of targets and timetables, how can the U.S. help to establish trust? Trust between nations comes in various forms—at the negotiating table, in key emissions sectors, among national publics, and some that are a hybrid of all three of these. Even if no formal agreement is reached in Copenhagen, one idea from each of these areas may provide the outline for the U.S. in demonstrating its commitment to a long-term workable arrangement.

Defining "Binding" Commitments: Agreeing to Cooperate

In establishing government to government trust, the administration can start to more clearly define what it means by "binding obligations." Sovereignty-hawk nations—from the United States to China to India to Brazil—fear such entangling alliances. Here, it is useful to remember that for six decades, trade negotiations have developed an artful understanding of "binding." The GATT system built confidence through general agreements, which "bind" by synchronizing and increasing the ambition of domestic action among nations, and do this in a way that less directly calls national sovereignty into question.

In the GATT system, participating nations have pledged to cut tariffs and other trade barriers in a coordinated way—almost always taking on commitments which they knew they could meet. Countries could choose what counted as significant cuts, and would often trade fast action in one area for slow action in another. Countries monitored one another's behavior, and brought complaints to the dispute resolution mechanism. If a defendant country lost a dispute, it had a choice: change its domestic law, or allow a retaliatory tariff or other action by the plaintiff country. In this way, all countries felt the system to be self-enforcing.

Climate negotiators could likewise seek a General Agreement to Reduce Emissions (GARE). Like the GATT, the GARE would effectively link domestic action with an international agreement. If nations tie their fates to one another in "treaties," "general agreements" suggest a lower level of obligation: nations acknowledge one another's autonomy, but also their interdependence and desire to cooperate. As they build confidence in their ability to work together, they may become more willing to strengthen their regime.

Ideally, such an arrangement would occur for all nations through the U.N. Given the gaps that exist in trust and in the various countries perceptions about obligations, however, it might make more sense to lower the obligations suggested for both industrial and developing countries to a "general agreement" standard. Industrial country standards would be higher, but the agreement would provide an outline for how developing countries would graduate to industrial country commitments.

What level of "binding" is necessary for a climate agreement to succeed? First, a core element of success is that most states feel no need to violate the basic agreement. The simple fact of the agreement

allows states to do what they would prefer to do, but might not do because they fear non-compliance by others. Like the stripe down the center of a highway, the agreement gives states confidence that others will live up to the core elements of the bargain—that they will stay in their lane—thereby allowing states to act as they otherwise would. In this case, reduction commitments must be mutually robust so that countries can plan to cut emissions—that is, gear up their commitment—knowing that counterpart nations will do the same.

Second, some agreements succeed because nations realize that the net costs of violating an agreement exceed the benefits. In the case of a climate agreement, the consequences of non-compliance could mean being excluded from emissions trading or earning project credits for alternative energy, forest protection, or nuclear energy. Nations that find such benefits attractive would seek to join, comply and remain a party to the agreement. In this sense, the agreement would bind most nations the way speed limits "bind" most drivers: most people obey most of the time, for fear of getting a ticket or even losing their license.

Lastly, agreements work when nations accept and suffer consequences for their violations, and both the violating nation and the aggrieved nation feel the sanctions to be appropriate and adequate. Some nations that are party to a general agreement may find emissions trading or clean energy development not worth it, and choose to "opt out." They may pursue domestic reductions toward their international pledges, but may see full-compliance as unattractive, and forego the other benefits or accept sanctions.

Of course, this does raise the question of how to deal with those who persist in refusing to join the regime entirely. The Waxman-Markey legislation has one answer to this problem. The bill would require the purchase of emissions "border permits" for any imported good from countries that have not adopted sufficient national emission reductions. These permits would be the equivalent to the carbon footprint incurred in the making of that good.

Such an approach would provide real leverage for nations to actually transfer the costs of non-compliance on a public good—a trade barrier that the WTO may or may not allow. A critical question may be whether this provision were to enter into force before or after industrial countries began to demonstrate progress on reducing their emissions. But regardless of how the WTO rules, if such a provision entered into force before industrial countries took real actions, and before developing countries had been given sufficient time to put together more substantial emission cuts of their own, it might breed resentment and undermine trust.

Concrete, Near-term Reductions

Another way the U.S. can establish trust is to demonstrate concrete, near-term reductions, especially between sectors and companies in industrial and developing nations. A number of such undertakings have already taken place in the last decade under the Kyoto Protocol's Clean Development Mechanism, largely on a company-to-company basis. The U.S. could ramp up such ventures in key sectors, particularly where major, near-term emission reductions are possible.

One such area would be an emphasis on the non-CO_2 gases that cause climate change—particularly black carbon, nitrous oxide, methane, and the synthetic planet-warming gases. For instance, black carbon (soot) is not only a local air pollutant, but it also

causes greater local and global warming. Ramanathan and Carmichael claim that "emissions of black carbon are the second strongest contribution to current global warming, after carbon dioxide emissions." By absorbing heat rather than reflecting it, black carbon contributes to the melting of the Himalayan glaciers and even to declines in the polar ice caps.

Mark Jacobson from Stanford believes that major cuts in black carbon emissions could slow the effects of climate change for a decade or two, helping the climate system avoid a "tipping point" such as the further erosion of the Greenland ice sheets. This could help buy policymakers more time to reduce CO_2 emissions.

Reducing black carbon is relatively easy, especially when compared to abating CO_2. Since 1950, industrial nations already have reduced black carbon emissions five-fold, with considerable health benefits. China and India now account for about one third of total global soot emissions, with the vast majority of the rest coming from other developing nations—particularly poorer ones. Since this problem has largely been addressed in industrial countries, there are available literally off-the-shelf solutions, including wider use of basic clean-coal scrubbers, diesel filters, fuel switching, and more efficient cook-stoves. For instance, the court-ordered shift in New Delhi from diesel to compressed natural gas for public transportation (including buses, taxis, motorized rickshaws, etc.) was the equivalent of cutting local CO_2 by as much as 30 percent.

Wealthy nations could agree to subsidize the delivery of these technologies to developing nations in key sectors such as transport or coal-fired power plants. Poorer nations could agree to an aggressive adoption through incentives and regulation. If the United States or another industrial nation were to pay for such an undertaking, it could count some portion of those emissions against their national cap.

Concrete Partnerships with Key Countries—Especially China and India

A third way to establish trust is for the people of various nations to understand the constraints and possibilities of other nations. In particular, partnerships between cities and states in countries with similarly-sized and similarly-positioned localities can be extremely effective. Power generation and distribution is often done at the state or provincial level, as are major energy intensive infrastructure such as transportation, housing, water and sewer. In the last decade, the United States and Europe cooperated at the local level on a range of climate issues, from regional emission trading arrangements to shared experiences on infrastructure or renewable portfolio standards.

This kind of cooperation can and should start with big emerging nations, and then extend even to poorer ones. China and India, in particular, each share attributes with the United States and Europe that are critical in establishing national plans. Both are enormous federations, with vast numbers of regional and local stakeholders. Different parts of each country—urban and rural, industrialized and underdeveloped, energy intensive and un-electrified, mobile and stationary—will need to come to terms with a new energy future.

David Sandalow and Kenneth Lieberthal encouraged a "Green Cities" program between the United States and China. Both with respect to China and India, these could be expanded to Green Cities and States programs, led by at least two prominent may-

ors and governors from each country—one each from a successful state and city, and one each from states and cities who are at the early end of the reduction process. Indeed, it is possible to imagine an annual "four by four congress" between leading American, European, Indian and Chinese city and state leaders. First, it could provide a real exchange of ideas on key areas. Moreover, having a standing yet rotating group of participants could provide continuity as these various leaders change. Local and state governments also often produce national leaders, providing a long-term pipeline of ideas for national governments.

Big Policy Drivers: Renewable Energy and Nuclear Energy

As the previous example began to suggest, some of the most important policies involve hybrids of corporate, local, state, national and even international interaction. Perhaps the two largest in this regard are renewable energy and nuclear energy. In both areas, the United States can provide real leadership in helping developing and poorer nations move forward.

Renewable energy remains a vastly underdeveloped enterprise, involving a mix of market signals. Most experts agree that some combination of price signals, technology, and regulation will be needed to double renewable energy and approach 20 percent of national energy. Indeed, many industrial nations have moved ahead much more aggressively, with Europe already having established an EU-wide 20 percent standard as a goal by 2020. Some analysts believe China may even surpass the United States in its renewable production in this time period.

The adoption and achievement of a national goal—with a common set of sub-industry standards—would help internationally to drive down production costs, from photovoltaic solar panels, to wind turbines, to geothermal systems, to a wide variety of bio-fuels, to appliance standards. Having taken that step, the U.S. could then help establish global standards for the trade and accounting of these approaches.

American leadership could make similar breakthroughs internationally on nuclear energy—but only if the U.S. is prepared to actively address the full range of challenges that would entail. Choosing an aggressive nuclear energy strategy could be a breakthrough approach. The time has perhaps arrived for such a choice, but it is one that should not—and would not—be taken lightly.

An aggressive nuclear policy would signal to developing nations such as China and India that the U.S. will help develop a carbon-free power source shared by all. The U.S. civilian nuclear deal with India is certainly one step in that direction. India envisions more than doubling its nuclear capacity in the next 25 years, from just over 4 percent of total power to 9 percent. Their efforts, however, had been stymied for years because of their refusal to sign the Nuclear Non-Proliferation Treaty, which thus excluded them from the benefits of the Nuclear Suppliers Group. Should the U.S. choose to move aggressively forward in this regard, it could be tied to a more fulsome commitment by India to cut emissions.

Domestically, this choice could also help gain the support of swing votes in the Senate for comprehensive energy legislation. Having not built new nuclear reactors in nearly three decades, several new reactor projects have filed for permits. The Nuclear Regulatory Commission expects to receive as many as 30 new applications by 2010. This builds on growing public acceptability; nearly two-thirds of Americans surveyed in 2005 had a positive view of nuclear energy.

Still, nuclear power's future remains uncertain both in the United States and abroad. In the U.S., getting from the application stage to the construction phase is no small feat. Loan guarantees by federal, state and local governments are critical to almost all projects, and these have not been easy to come by. Cost overruns and delayed construction on high profile reactor projects in Europe have gained attention, leading many to question the economics of the enterprise. Moreover, the local storage and handling of nuclear waste has meant that support for nuclear power tends to drop when it comes to specific projects.

And the international development of nuclear power with nations such as India and beyond will need to be done with strict attention to the safety and security of nuclear materials. Concerns about nuclear weapons remain high, both for a few key nations—notably Iran and North Korea—and for several non-state actors. Other nations that are seen as less hostile internationally may also choose to develop nuclear weapons. This makes a global development of civilian nuclear power highly questionable in the absence of an established way of managing the fuel-cycle.

At some level, the choice is rather simple for the United States. It must decide whether to make nuclear energy a priority. In addition to all the domestic questions, it needs to assess how likely it is to establish an international system for managing nuclear material for civilian reactors. If it feels that it can do so, a major step in that regard could have big payoffs in fighting climate change. But it will need to be done with a seriousness of purpose which has not yet been demonstrated.

Conclusion: Keep Our Eyes on the Prize

The contours of the negotiations are clear: rich countries will commit to incremental reductions by 2020, more dramatic ones by 2030, and very steep ones by 2050. They are looking to developing countries to more aggressively abate their emissions in the near term, and to start reducing them in the 2030 time frame, with real reductions coming by mid-century. Developing countries want a steeper commitment by industrial countries, and want to sequence any of their own potential commitments based on whether industrial countries actually live up to their agreements. Industrial countries will also work to increase their commitments on helping developing countries adapt to a changing climate, and on helping poorer nations finance efforts to reduce greenhouse gas emissions and to protect carbon-capturing forests. Whether or not an agreement can be forged on that by Copenhagen is still very much up in the air.

The glue that will hold all of this together is trust, based on ambition. In that context, the U.S. can continue to demonstrate the latter, and thus foster the former, in four additional ways. First, stressing the long-term nature of the challenge, the U.S. should help the international community begin to understand that Copenhagen is one step along the way, and should be seen as an "agreement to agree," where binding obligations are neither punitive nor competitive arrangements. Instead, Copenhagen should be understood as the basic rules of the road that are in everyone's best interests. Second, the U.S. can begin to shift the emphasis to concrete, near term reductions that capture the world's imagination, which are as important in the near-term as forging the long-term agreement. Third, the U.S. needs to focus on concrete partnerships with key countries—espe-

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