2 SETTING THE RIGHT GREEN AGENDA

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Climate and energy issues will be some of the most urgent challenges facing the next U.S. president. These issues will need immediate attention to create a policy framework that will enable timely reductions in greenhouse gas emissions while minimizing the economic burden on American working families.

Much of the potential for effective U.S. government action depends on the ability of the next president to develop a coherent executive branch strategy, deftly navigate a complex congressional landscape, and ensure that American priorities help shape the post-Kyoto Protocol international climate agreement, despite weakened U.S. credibility. Implementing an effective and efficient domestic cap-and-trade program will require strong leadership and intense focus, not only to make complex trade-offs across potential legislative features but also to withstand the onslaught of pressures for special provisions that has plagued recent bills in the U.S. Senate.

Given the enormous economic implications of transforming the U.S. energy system and the environmental necessity for reducing greenhouse gas emissions, the new administration should pursue a climate protection strategy that cuts emissions while protecting the American economy—no easy balance. What follows is a sketch of one approach that would minimize the economic burden while spurring new technologies and adaptation, as well as setting a course for a stabilized atmosphere.

THE GLOBAL CONTEXT

At the heart of the international debate on climate policy lie two key tensions. First is the tension between the worldwide need to avoid damaging disruption to the Earth's climate and the critical importance of reducing global poverty. Analysts agree that the world's already-heavy dependence on fossil fuels is only likely to worsen if developing countries continue to stoke their rapid economic growth in traditional carbon-intensive ways. The second tension is over the distribution of costs and the competitive implications of mitigating greenhouse gas emissions. China and India argue not only that they cannot reduce emissions without technology and financing from rich countries but also that developed countries should act first because they are responsible for the buildup of greenhouse gases in the atmosphere. And though the members of the European Union and most other developed countries are unlikely to

meet their targets, they have tried to take action by ratifying the Kyoto Protocol and taking steps to implement it. In sharp contrast, the U.S. rejected Kyoto and has taken no regulatory action at the federal level. As a result, the U.S. lacks credibility in international negotiations and will find it difficult to prevail until it makes a serious domestic commitment to action.

Therefore, despite dramatic recent growth in greenhouse gas emissions by developing countries and projections for more, the spotlight will be on the next president of the United States to reengage in the United Nations Framework Convention on Climate Change process and push for serious domestic emissions reductions. Clearly, the next president will need to act; the question is how.

THE CHALLENGE

Both major-party candidates for U.S. president have promised a cap-and-trade system for the control of greenhouse gas emissions with an eye toward reductions by 2050 of 60 to 80 percent relative to 1990 levels. Long-run objectives notwithstanding, the new president will need to focus more on getting the broad structure of the cap-and-trade system right and less on aggressive reductions that would undermine support for it. The next president will need to proceed judiciously to establish sound institutions, create incentives for new technology and build an effort that can endure for generations. Here's how to do it:

AMERICA'S OPPORTUNITY

- **Use the cap-and-trade program to set a modest but growing price on carbon and other greenhouse gases.** Moving to a low-carbon economy will require large long-term investments by all sectors of the economy. To encourage those investments, the government should provide clear, predictable long-term payoffs for them through a modest but credibly increasing price for emitting greenhouse gases. The price incentive can efficiently shift the economy to a low-greenhouse gas future. Starting modestly will reduce costs by allowing new technologies to develop before steep emissions cuts kick in.

- **Keep it simple.** Though it would be tempting to offer a "comprehensive energy plan," favor certain sectors and technologies, introduce goals other than climate protection and create new institutions, the simpler the better—both now and in the long run. Policies such as low carbon fuel standards, biofuel mandates, and renewable portfolio standards significantly raise costs by dictating how the cap must be met. They can also introduce unintended consequences such as deforestation and higher food prices. Giving free allowances for certain kinds of reductions (such as carbon capture and storage) or preferred sectors also raises costs by distorting investment away from least-cost solutions and forgoing revenue recycling. The key goal must be to create a clean, clear price signal with minimal bureaucracy.

- **Create incentives to sustain the program.** Firms will only invest in new technologies if they think the price on greenhouse gas emissions will endure and grow, so strong long-run incentives to keep the program intact are important. A variety of mechanisms could be used, ranging from creating multiple-year emissions allowances to auctioning allowances that won't be valid until future years. In either case, creating future emissions rights that can be traded (but not used) today will create a constituency of permit owners with a strong financial interest in continued climate protection, and could bring in extra revenue early on to fund research.

- **Control the risk of inadvertent stringency and laxity in the cap.** Chances are good that the trading price of allowances won't be exactly what lawmakers expect when they set the cap. If the allowances price is too high, consumers and the economy could suffer enough that the policy would be repealed. If it's too low, investors would have little incentive to look for cost-effective reductions and could miss greenhouse gas emissions targets. This could be avoided by establishing an annual preset allowance price range that would allow firms to buy extra allowances at the ceiling price. The best means to impose a price floor would depend on how the program sells or otherwise allocates allowances. Alternatives, such as a committee that can intervene at its discretion, could do more harm than good by increasing uncertainty in the allowance market.

- **Sell allowances and recycle the revenue.** Pricing carbon raises the prices of goods and services more broadly, effectively reducing the value of working families' wages, which are already subject to payroll and income taxes. The cost of this important "tax interaction effect" to the economy could be even higher than the direct cost of abating greenhouse gas emissions. The good news is that using revenue from allowances sales to lower other taxes (or the federal deficit) can offset the burden significantly.

- **Make serious investments in basic science and in technology research and development.** Higher carbon prices will provide strong incentives for private companies to accelerate development technologies that are nearly ready for the market. However, basic research on the underlying science and engineering will also be needed and will not be undertaken by the private sector alone. Funding that research should be a top priority for the

federal government. Priority research areas should include low-greenhouse-gas technology; large-scale carbon capture and sequestration; better means to adapt, such as improved crops and water management; and basic climate science to reduce uncertainty around the problem. In addition, much more research is needed on geoengineering, which could be needed if the climate begins to change rapidly.

- **Protect the poor.** All households will gradually feel the pinch of the carbon price, but the poor will be hit the hardest and soonest. The government should use some of the proceeds from allowance sales to benefit the poor, for example with lump-sum rebates, but it will need to recognize that every dollar used for redistribution will raise the total cost of the program by forgoing the benefits of revenue recycling.

- **Use domestic action to promote binding commitments by major developing countries.** Initially, the U.S. should introduce its domestic cap-and-trade program unconditionally. As the U.S. carbon price ramps up, the U.S. should parlay its domestic efforts into commitments by all major economies to reduce their greenhouse gas emissions, even relative to baseline projections. Although the competitiveness of U.S. industry vis-à-vis China is a potent political issue, domestic climate policies would have little effect on most industries that are exposed to international competition. Apart from a few sectors, such as aluminum refining, energy accounts for only a small share of the cost of most manufactured goods. Indeed, most energy is used for nontraded goods and services, such as local transportation and electric power generation. Introducing tariffs or border adjustments on imported goods to compensate for differences in climate policies among trade partners would be far more trouble than it would be worth. It would be administratively complex and impede trade, while producing very little protection for domestic industries and having little effect on the so-called leakage of emissions reductions to countries with low energy costs.

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Antholis, William. "Lessons for Governing Global Climate from World Trade," as prepared for Brookings forum "Climate Change, Trade and Competitiveness: Is a Collision Inevitable?" on June 9, 2008, www.brookings.edu/events/2008/~/media/Files/events/2008/0609_climate_trade/2008_antholis.pdf

Brainard, Lael, Abigail Jones, and Nigel Purvis, eds. *Development in the Balance: How Will the World's Poor Cope with Climate Change*? Brookings Institution Press, forthcoming.

Brainard, Lael, and Isaac Sorkin, eds. *Climate, Trade and Competitiveness: Is a Collision Inevitable*? Brookings Institution Press, forthcoming.

Hamilton Project. "A Carbon Tax Swap to Mitigate Global Climate Change." Brookings Hamilton Project Policy Brief 2007-12, 2007, www.brookings.edu/~/media/files/rc/papers/2007/10carbontax_metcalf/10carbontax_metcalf_pb.pdf.

Hamilton Project. "A U.S. Cap-and-Trade System to Address Global Climate Change." Brookings Hamilton Project Policy Brief 2007-13, 2007, www.brookings.edu/~/media/files/rc/papers/2007/10climate_stavins/10climate_stavins_pb.pdf.

McKibbin, Warwick J., and Peter J. Wilcoxen. *Climate Change Policy after Kyoto: A Blueprint for a Realistic Approach.* Brookings Institution Press, 2002.

McKibbin, Warwick J., and Peter J. Wilcoxen. "A Credible Foundation for Long-Term International Cooperation on Climate Change," in *Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World*, ed. Joseph Aldy and Robert Stavins. Cambridge University Press, 2007.

McKibbin, Warwick J., Peter J. Wilcoxen, and Wing Thye Woo. *Preventing the Tragedy of the CO_2 Commons: Exploring China's Growth and the International Climate Framework*. Brookings Global Working Paper 20, 2008, www.brookings.edu/papers/2008/07_china_climate_change_woo.aspx.

Sandalow, David. "Climate Change: Beyond Bali," 2007, www.brookings.edu/opinions/2007/1217_climate_change_sandalow.aspx.

Talbott, Strobe, and William Antholis. "Tackling Trade and Climate Change: Leadership on the Home Front of Foreign Policy," 2007, www.brookings.edu/papers/2007/02trade_antholis_Opp08.aspx.