



## **Beyond Copenhagen: How Governments Can Increase Investment**

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International commitments will be helpful when nations and voters are ready, but there are many other ways to reduce greenhouse gas (GHG) emissions. Obviously, voters and leaders are not ready to make binding reduction commitments, particularly when spending is involved. But nations are feeling political pressure internally and externally; for the first time, China and India have signed the same agreement as the US and have publicly stated emissions goals. Until voters pressure leaders for larger commitments, the good news is that sharp emissions reductions can be achieved without binding international agreements.

Fortunately, several factors work in our favor:

- National, state, local, private, and nonprofit policies can help reduce emissions with or without international treaties, often with no new spending.
- Emissions can be reduced sharply through off-the-shelf methods and money-saving efficiency investments alone.
- Technology growth will eventually help reduce emissions dramatically, but the speed and deployment of technology will depend largely on private investment.
- The speed and scope of private investment will depend largely on government policies that facilitate property rights, markets, and incentives.

I want to focus on the last, least-obvious point above: what can governments do at low or no cost? Fortunately, from a policy perspective, it is much easier to convince people to act in their own self-interest and to save money than to ask people to spend money to help younger, foreign, or unborn generations. The challenge is to quickly convince governments to broaden the scope of working policies already in place; quickly adopt policies proven elsewhere; and to experiment with new, redundant, and hybrid environmental policy approaches that encourage both public and private investment. A range of environmental policies should be in place and tested as quickly as possible by states and municipalities, to lead the way for national and global efforts.

Successful approaches are many and diverse: creating markets through carbon pricing and selective cross-subsidized incentives<sup>1</sup>; reducing transaction costs such as environmental information asymmetries between buyers and sellers of polluting buildings, products, and

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<sup>1</sup> A cross-subsidy here refers to a dedicated Pigouvian tax, intended to internalize environmental externalities—the social costs of pollution. A dedicated cross-subsidy would likely attract more political support if required to be used only for environmental investment, adaptation, or remediation. Some politicians would likely want to use Pigouvian taxes to reduce other taxes, but doing so might reduce public support for a more limited and direct cross-subsidy.

services; requiring new buildings to meet emissions standards; and facilitating the long-term financing of GHG-reducing projects. Many other environmental policy approaches have proven successful, and many are being tested by governments at every level.

The range of environmental policies must extend beyond markets alone to include incentives and mandates. One example where such hybrid and redundant approaches will be frequently needed to encourage environmental investing is in the area of avoided deforestation. Deforestation causes 15–20% of world GHG emissions and is much more feasibly addressed with international cooperation. Avoided deforestation and reforestation efforts are unlikely to succeed on a global scale without national planning and enforcement, international satellite and other monitoring, and funding from industrialized nations. Copenhagen deforestation efforts within the United Nations Framework Convention on Climate Change Reducing Emissions from Deforestation and Forest Degradation (UNFCCC REDD) did not result in firm commitments, but negotiations are continuing. High wood values suggest that the market price of emission offsets for environmental services to avoid deforestation may not be enough, in many areas, to deter logging without both national and community efforts and, in some cases, outright bans. A more viable and affordable mechanism than market forces alone may be for the industrialized nations to fund national and regional government enforcement efforts, including improved measuring, reporting, and verification (MRV) alongside carbon markets, national mandates, and a variety of local community policies.

Post-Copenhagen international talks should first focus on the self-interested benefits that individuals, organizations, companies, investors, and governments can achieve by investing in efficiency. These are steps that, from a long-term investment perspective, will clearly pay huge dividends even at current energy prices. While energy efficiency investments may not always offer the highest short-term returns, they do offer very predictable and very low-risk long-term returns that, with or without governments' help to appropriately create and facilitate markets, could be very appealing investments for pension funds or other fixed income investors. These investments could be set up as local government efficiency bonds, utility-issued efficiency bonds, national investment vehicles, or other types of loan pools or securities.

If peak oil and growing demand cause oil prices to rise in the future, as many experts predict, GHG-reducing investments today will not only dramatically reduce emissions, but will pay even greater dividends in the future. Detailed climate change-oriented discussions of discount rates for spending to 2100 typically discuss climate change costs in terms of spending, not the benefits of

90 years of compound interest gained from efficiency savings.<sup>2</sup> Broader analyses that estimate environmental risks, economic risks, the inherent uncertainty of estimates, the insurance value of efficiency investments, and appropriate estimates of the costs of business as usual seem more likely to assist in framing the debate over appropriate environmental investment policy.<sup>3</sup>

Until nations and voters are ready to make binding international commitments to reduce emissions, governments can still take action to increase environmental investments using property rights, developing cap-and-trade markets, creating consumer markets enabled by uniform green labeling, encouraging efficiency investments, and enacting mandates to increase environmental investment to preserve forests. These policy actions need not be expensive to taxpayers directly or indirectly. Whether or not international negotiations yield more significant results soon, the United Nations Framework Convention on Climate Change (UNFCCC) and affiliated UN organizations might choose to help governments by seeking to objectively research model governmental policies and to measure program and policy success. When a government wants to take action, these model statutes, good practices, program evaluations, and benchmarks would be a good first source as they research potential policy changes.

At the national level, solar energy will increasingly reach grid parity over the next several years in many regions. Electric cars will also likely reach price comparability in the next decade. Governments can encourage most of these investments through tax subsidies and higher fuel-mileage requirements. The US Congress can also increase these investments by setting a price on carbon itself, either through a carbon tax or a cap-and-trade system, or both. Voluntary carbon pricing, ideologically acceptable to all, should be popular. One easy Congressional measure to encourage the immediate growth of voluntary reductions and to reduce skittishness by investors caused by the uncertain treatment of voluntary credits under a cap-and-trade bill, would be legislation to guarantee that private emissions credits meeting certain requirements will be honored under any future energy bill that Congress passes to the extent they meet the new standards.

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<sup>2</sup> Certain popular academic approaches assume just the opposite: that meeting emissions reductions targets will require GDP reductions from spending by governments and private firms. See the global carbon abatement cost curve developed by McKinsey & Co. and the Vattenfall Institute of Economic Research in: "The Carbon Productivity Challenge: Curbing Climate Change and Sustaining Economic Growth," The McKinsey Global Institute, June 2008, pp. 15–16. Available from: [http://www.mckinsey.com/mgi/publications/Carbon\\_Productivity/index.asp](http://www.mckinsey.com/mgi/publications/Carbon_Productivity/index.asp). Accessed March 20, 2010. The firm finds that 70% of the emissions abatement potential for 2030 does not depend on new technology, and that energy efficiency measures alone could achieve dramatic GHG reductions over the next two decades. According to the analysis, these efficiency improvements, while requiring spending, could raise GDP, not lower it depending on substitution effects for current consumption. See also Deutsche Bank's "Global Climate Change Policy Tracker: An Investor's Assessment," DB Climate Change Advisers, Deutsche Bank Group (October 2007), a report that also highlights efficiency investments as sources of economic growth and jobs, not only as costs.

<sup>3</sup> For just one discussion of many on the assumptions of the economic modeling of climate change, see: Weitzman, Martin L., "A Review of 'the Stern Review on the Economics of Climate Change'." *Journal of Economic Literature*, 45 (3), September 2007, 703–724. For a broader discussion on choosing appropriate intergenerational social discount rates, see Moore, Mark A., *et.al.*, "Just Give Me a Number!: Practical Values for the Social Discount Rate," *Journal of Policy Analysis and Management*, 23, No. 4, Autumn, 2004, 789–812.

At the state and local level, standard home and building efficiency ratings—whether Energy Star, Leadership in Energy Environmental Design (LEED), or another standard—should be easily measured, widely recognized, and included in the Multiple Listing Service and similar comparisons, along with easily understood savings in percentage terms that could be expected from a specified building size, type, and efficiency rating. Governments can also use renewable portfolio standards (RPS) to induce energy investments. Net metering, feed-in tariffs, and other utility buy-back requirements from small producers do cost governments, but they can be carefully phased out and can help reduce utilities' required peak-load capacity requirements, saving some costs even for non-participating taxpayers. Subsidies such as feed-in tariffs and other incentives should be based on the differential between renewable and the least expensive fossil fuel source; in many cases these subsidies will decline rapidly while guaranteeing investors a fixed long-term return. If electricity prices for fossil fuels rise above renewable buyback prices, utilities and governments may make a profit for taxpayers in the future under fixed-return contracts.

If the general political environment does not support such investment, governments can create voluntary pools of citizen investors willing to pay an amount of their choosing into a pool to subsidize early adopters of renewable energy, to be paid back in reduced energy bills in the future should renewable electricity prices drop below those of fossil fuels. Governments and private investors can help to improve these methods' policy success through both public and private investment in an improved electricity transmission grid.

Voluntary investments by ordinary ratepayers, along with cross-subsidies from polluting energy sources, inefficient building property taxes, and gasoline-powered cars could sharply increase clean energy investments while making such policies relatively budget-neutral for governments. Incentives of this type would also help increase investments in efficiency while at the same time decreasing investments in high-emission facilities and technologies. Further, even small near-term cross-subsidies and investment-enabling policies, particularly if enacted by many states and localities, could have large effects in stimulating clean energy growth and development. Local governments are increasingly enacting low-cost policies such as accelerated approval of greener building projects and publishing planned schedules of increasing future building efficiency standards, mainly for new buildings.

Other large opportunities for environmental investment are created by government and building owners' management of their own facilities. Governments own 8% of all US office buildings, typically larger buildings, giving them the opportunity to be leaders in environmental investments while saving taxpayers future energy costs. Further, 83% of all US buildings are owner-occupied, typically in smaller buildings, making returns from energy efficiency more attractive through direct financial returns to owners.<sup>4</sup>

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<sup>4</sup> US Energy Information Agency. 2010. "Office Buildings: Who Owns and Occupies Them?" Available from: [http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbaweb/office/office\\_whoownocc.htm](http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbaweb/office/office_whoownocc.htm). Accessed March 22, 2010.

Long-term loans for efficiency improvements should be easier for banks and mortgage brokers to roll into new or even existing mortgages. Local and state governments might also create revolving loan funds to guarantee long-term, low-risk energy-efficiency loans to individuals and organizations, perhaps partly funded by federal loan guarantees that carry little cost and little risk. These types of loans have been successfully employed by states using federal funds to create clean water, wastewater, and transportation infrastructure revolving funds for public and private investments.

These are just a few of the government policy tools that are already increasing investment in low-polluting projects, and which together could help any national, state, or local government to reduce emissions to not only meet international environmental expectations or treaty standards, but also to reduce local pollution, increase local jobs, and help local economies compete both domestically and internationally through easily achievable efficiency savings.

## References

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## Biography

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