

Action Policies to Enhance Mitigation Ambition March 2014

Submission of the Climate Law & Policy Project (www.clpproject.org) in response to the ADP's invitation to submit information on opportunities for actions with high mitigation potential, including those with adaptation and sustainable development co-benefits, with a focus on the implementation of policies, practices and technologies that are substantial, scalable and replicable.

Climate Law & Policy Project (CLPP), an accredited observer organization, is a non-profit organization established in 2007 to develop and promote sound and safe policies to slow, stop, and ultimately reverse the buildup of greenhouse gases in the atmosphere and ensure that vulnerable communities are protected from climate impacts that cannot be avoided. In particular, CLPP concentrates on policies that focus all resources on achieving reductions, rather than on making emissions more expensive.

Introduction

This submission proposes that Parties consider utilizing reduction-focused “action” policies to scale up mitigation ambition. Action policies – which could take the form of an action tax, action cap, or action target – focus all efforts and resources on achieving reductions. Such approaches can enable more real, permanent, and verifiable reductions for a given cost than a conventional cap or carbon tax. Depending on their design, action policies can also have adaptation and sustainable development co-benefits.

What is an Action Policy?

An action policy is a climate policy that focuses all expenditures by emitters on achieving real, permanent, and verifiable reductions.

In the case of an action tax or action cap, covered emitters would spend money to pay the tax or to purchase allowances, just as they would with a typical carbon tax or cap-and-trade approach. However, those revenues would go into a government fund, which would be used to conduct reverse auctions to purchase additional reductions. By converting the tax or cap to an “action” approach, the focus moves from making emissions more expensive to achieving cost-effective reductions.

In the case of an action target, the obligation to achieve or obtain reductions is placed directly on the emitters. The government collects no revenue and purchases no reductions. Under an action target, emitters must achieve or obtain a fraction of a ton of reductions for each ton they emit, in what could be thought of as a pay-as-you-go approach. For example, if the action target is 20%, an emitter would have to achieve or acquire one-fifth of a ton of reduction for each ton it emits. Emitters pay to achieve or obtain reductions, but they do not pay for their emissions, as they would under a tax or cap.

In either case, the emitter's obligation is based on the size of its emissions, and all of its expenditures are focused solely on achieving reductions. It can be shown that, for a given amount of reductions, the cost to companies and consumers will be the same under all three approaches. However, it is likely that action taxes and action caps could be put in place more quickly than action targets and thus may be particularly well suited to boosting pre-2020 mitigation ambition.

Real-World Examples of Action Policies

There are already real-world examples of action policies, or at least aspects of them.

The Regional Greenhouse Gas Initiative (RGGI) in the Northeast and Mid-Atlantic United States, for instance, is very similar to an action cap (absent the use of a reverse auction). RGGI is a regional cap-and-trade system for the electric power sector, and each RGGI state decided from the outset to use some or all of the revenues from auction sales to achieve additional reductions. From 2009-2012, RGGI states invested more than \$700 million into state programs to advance energy efficiency, clean and renewable energy, and greenhouse gas abatement (as well as, in some states, rate relief).¹

California and the EU similarly have action components to their caps. In California, auction proceeds go into a Greenhouse Gas Reduction Fund to support programs that further the purposes of the California Global Warming Solutions Act, including programs supporting sustainable communities and clean transportation, energy efficiency and clean energy, and natural resources and waste diversion.² In the EU, the EU ETS Directive stipulates that at least half of auction revenues should be used to fight climate change.³

In Australia, the new government has proposed a climate Direct Action Plan, which includes an Emissions Reduction Fund that will hold reverse auctions for purchasing emission reductions.⁴

The Clean Development Mechanism (CDM) has developed methodologies to account for emission reductions. It is not an action policy, as its reductions are used only to offset emissions. However, despite various alleged shortcomings, it clearly has established a credible global market for emission reductions.⁵

¹ RGGI, *Regional Investment of RGGI CO2 Allowance Proceeds, 2012*, Feb. 2014, www.rggi.org/docs/Documents/2012-Investment-Report.pdf

² State of California, *Cap-and-Trade Auction Proceeds Investment Plan: Fiscal Years 2013-14 through 2015-16*, May 14, 2013, http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final_investment_plan.pdf

³ European Commission, *Climate Action: Auctioning* website, http://ec.europa.eu/clima/policies/ets/cap/auctioning/index_en.htm

⁴ The Hon. Greg Hunt MP, Minister for the Environment, *The Coalition Government's plan to tackle climate change, reduce emissions and reduce pressure on electricity prices*, Oct. 2013, <http://www.environment.gov.au/minister/hunt/2013/sp20131024.html>

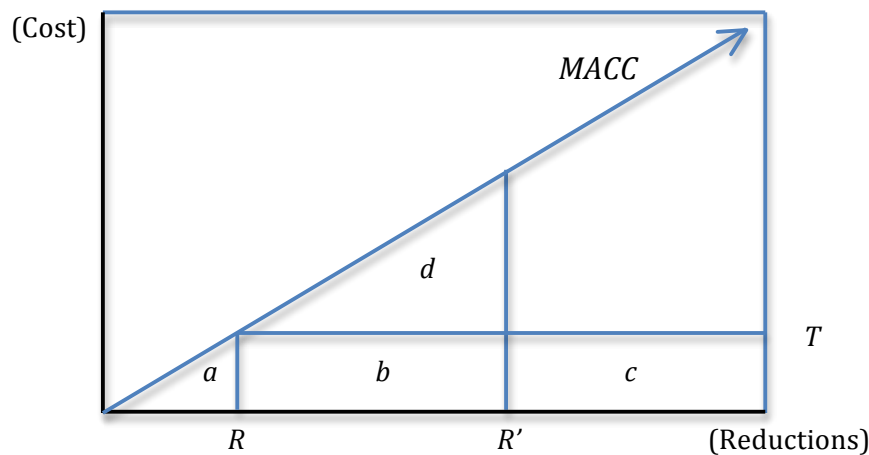
⁵ See Michael Gillenwater and Stephen Seres, *The Clean Development Mechanism: A Review of the First International Offset Program*, Prepared for the Pew Center on Global Climate Change, March 2011,

Ability to Boost Mitigation Ambition

Compared to a range of other types of climate policies (e.g., cap-and-trade, taxes on carbon and other GHGs, intensity targets, baseline & credit, performance standards), action policies have several advantages. Perhaps most important in the context of the ADP is that for a given cost to companies and consumers, an action approach can deliver more reductions than can a conventional cap-and-trade system or carbon tax of equal stringency. In other words, action policies facilitate greater mitigation ambition.

This is because all the money spent by emitters to comply with an action policy is used to achieve reductions. It follows that, for any given cost, more reductions will be achieved under an action approach than under a conventional tax or cap. Figure 1 illustrates this.

Figure 1



Diagonal line: marginal abatement cost curve (MACC)
T: tax (or allowance price if cap is set at *R*)
R: reductions achieved by conventional tax (*T* or cap)
R': reductions achieved if additional reductions are purchased with revenue from tax (or auction)
a: cost to emitters of reductions achieved by conventional tax (or allowance price) *T*
b + c: revenue to government from tax (or auctioned allowances) priced at *T*
b + d: cost to government of additional reductions purchased with revenue from tax (or auction)

In Figure 1, if all revenues from a tax or cap (rectangle *b + c*) are used to purchase additional reductions, then the government will spend the funds (*b + d*) to boost reductions from *R* to *R'*.⁶ Table 1 below shows how powerful the effect of using revenues to purchase reductions can be. For example, a level of *T* that would achieve a 2% reduction under a conventional cap or tax would achieve a 20% reduction under an action policy. If *T* is

<http://www.c2es.org/docUploads/clean-development-mechanism-review-of-first-international-offset-program.pdf>

⁶ The equation for finding *R'* is: $R' = \sqrt{2R - R^2}$. While the derivation is mathematically elementary (it makes use of the quadratic formula), it is tedious and has been omitted from this paper.

increased to a level that would achieve a 5% reduction under a conventional tax or cap, that same level would achieve a 31% reduction under an action policy, and so on.

Table 1

R	2%	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
R'	20%	31%	44%	60%	71%	80%	87%	92%	95%	98%	99%	100%

Action taxes and caps are the easiest examples to explain, but it is not difficult to show that, for a given level of reduction, companies and consumers would bear the same cost under an action target.

Obviously, if an action policy can achieve more reductions for a given cost, it also can achieve a given number of reductions for a lower cost. Table 2 compares the cost of reducing a given percentage of emissions under an action approach to the cost of achieving the same level of reduction under a conventional cap or tax.⁷

Table 2

% reduction	5%	10%	20%	40%	60%
Cost ratio	1/39	1/19	1/9	1/4	3/7

It shows that to achieve a 5% reduction in emissions, the cost to emitters under a conventional tax or cap would be 39 times greater than the cost under an action policy. For a 10% reduction, the cost would be 19 times greater, and so on.

Ability to Support Sustainable Development and Adaptation

Unlike climate policies that focus squarely on whether emissions (or emission rates) have declined, action policies depend on the achievement of reductions, which means that reductions will have to be defined. The process of defining a reduction presents an opportunity to go beyond merely deciding whether an action will cause GHG emissions to go down. If desired, the definition or categories of acceptable reductions could also take into consideration the impact that reduction-creating actions will have on sustainable development, including social and economic effects on communities and environmental impacts in areas other than climate change.

In addition, an action cap or tax could easily be modified to ensure that some revenues go towards supporting developing countries' adaptation needs. While such an approach would somewhat reduce the mitigation boost that action policies can provide, it would still keep all expenditures focused on addressing climate change. Indeed, the provision of adaptation financing to developing countries could encourage them to boost their contributions to mitigation.

⁷ The equation for comparing the cost of an action approach (C_a) with the cost of a conventional tax or cap (C_c) is: $C_c = T[1 - (C_a/T)^2]$, where T is the marginal abatement cost of the "last" reduction.

Size, Scale, and Replication

Action policies are scalable, because they can be applied at any level of government. They can be adopted at the national, state, or municipal levels. They can be as substantial as the government is willing to make them. Their size depends only on the level of the tax, the stringency of the cap, or the percentage of the target. They are also replicable.

Governments can experiment with different types, levels, and combinations of action policies – and can draw on the experiences of existing policies – to find out what works best for a given region’s size, economy, and political preferences. Like the CDM, action policies can be improved through a process of learning by doing, and modifications that prove successful can be replicated.

Conclusion

Action policies can achieve more reductions for a given cost than a fixed target or a regular carbon tax. They can be designed to facilitate sustainable development and to provide adaptation finance. They are scalable, replicable, and can be as substantial as governments are willing to make them. Building on the examples of policies with action components that are already in place, action policies, particularly action taxes and action caps, can be implemented relatively quickly to boost pre-2020 mitigation ambition.