

Key Design Elements for a System to Control Global Warming Pollution from the Transportation Sector¹

SUMMARY OF TRANSPORTATION RECOMMENDATIONS

The *cap* should apply to fuel refiners and importers of refined product, who should be required to submit emissions allowances for each ton of fossil carbon emitted when the fuel is used.

Performance standards should include:

- Vehicle performance standards such as greenhouse gas emission or fuel economy standards
- Clean fuels standards such as a renewable fuels standard (with greenhouse performance requirements) or a low-carbon fuels standard on the mix of transportation fuels sold.

Incentives should include:

- Auto manufacturer retooling incentives and consumer purchase incentives supported by the allowance system and other sources.
- Similar incentives for rapid deployment of cellulosic ethanol and other low-fossil-carbon resources.

NRDC Recommends a Hybrid System: Upstream Cap-and-Trade with Vehicle and Fuel Standards

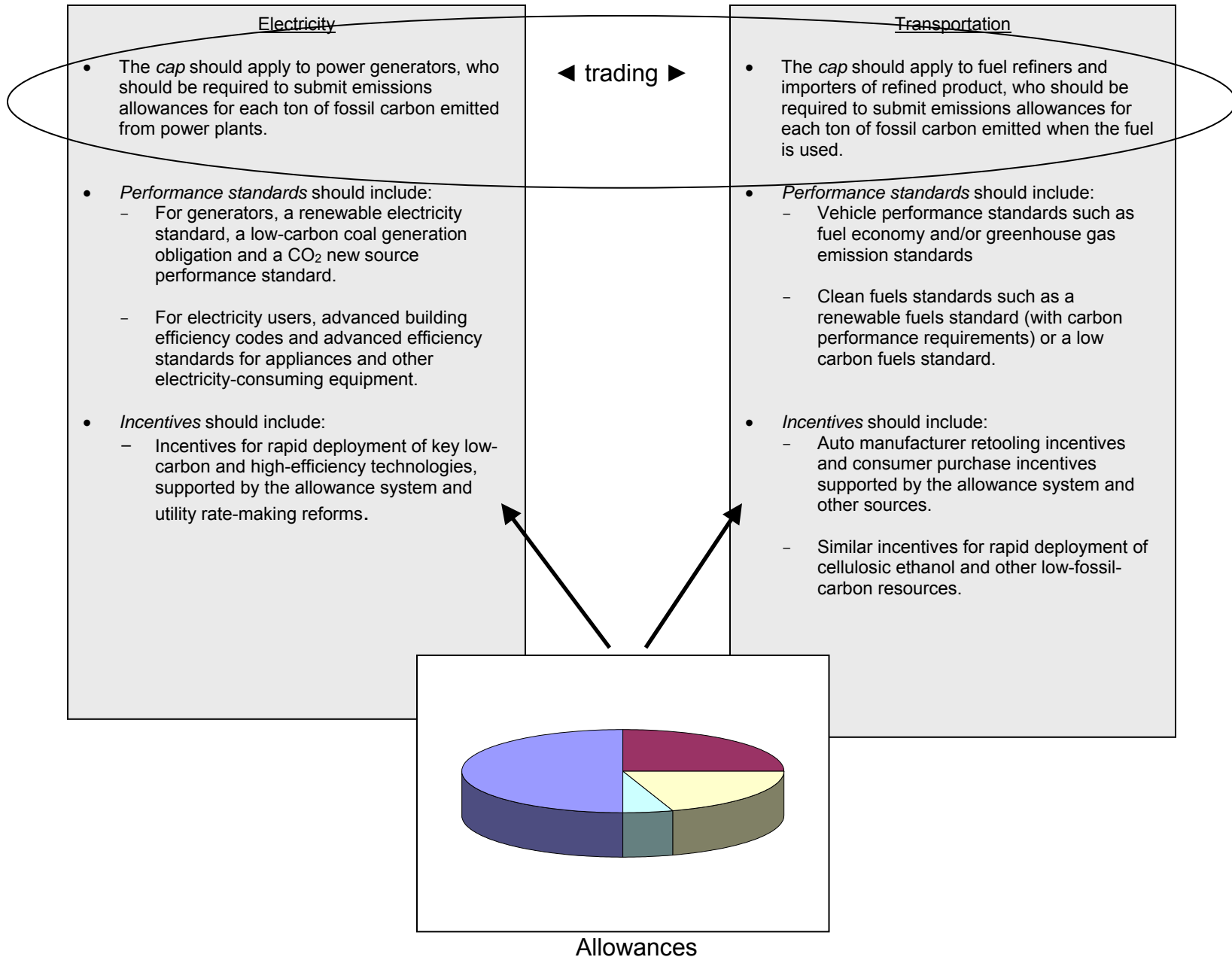
NRDC supports legislation to establish an economy-wide cap-and-trade program together with performance standards and complementary incentives that will help reduce costs and assure the early deployment of technologies needed to make emission reductions on the necessary scale over the coming decades. It is essential to have a hybrid program in order to reduce costs and accelerate the deployment of needed technologies (see Figure 2 from our full response.) These additional policies – performance standards and incentives – should be targeted at key low-emitting and energy-efficient technologies. Without such policies, the cap-and-trade system alone runs the risk of producing unnecessarily high allowance prices and inadequate technological progress in key sectors, especially in the near- and mid-term.

Upstream Cap on All Transportation Fuels

The cap-and-trade program should cover all sectors of the economy that contribute significantly to global warming pollution. Transportation fuels would be covered at the refinery or importer level. Fuel providers would be allowed to trade with other sources covered under the cap (i.e., electric power generators, other major emitting sources categories and individual sources above an emissions threshold, and natural gas distributors). Together, these sectors account for more than 80 percent of U.S. emissions.

¹ Summarized from NRDC's March 19, 2007 response to Chairman Dingell's and Chairman Boucher's February 27, 2007 letter requesting answers to questions on global warming legislation.

Figure 2



Performance Standards: Vehicle and Fuel System Approach

Legislation that combines a cap-and-trade program with standards and incentives will achieve lower costs for consumers and society as a whole than a cap-and-trade program alone. A combined program will more quickly and fully capture existing cost-effective opportunities for low-carbon technologies, especially energy efficiency. A combined program also offers the opportunity to help key industries transition to new technologies much more quickly than under a cap-and-trade program alone. Furthermore, the performance standards must recognize that the vehicle and fuel are a system, both of which must be addressed to ensure the lowest cost reductions.

Vehicle Performance Standards

The standard can be either in the form of a CO₂-eq/mile (i.e., California and European approaches) or a system that is based on today's fuel economy program. All vehicle classes should be covered, including light-, medium-, and heavy-duty vehicles.

Fuel Performance Standards

An emission standard on the mix of transportation fuels sold to ensure that investments in low-carbon fuel production, infrastructure and vehicles are made in a timely manner. Options for this standard are a CO₂-eq standard on the entire mix of transportation fuels sold (i.e., the California and European Low-Carbon Fuel Standard approach), or in the form of a modified Renewable Fuel Standards (broadened to allow other low-carbon fuels to be used for compliance and with a specific CO₂-eq per unit of low-carbon fuel sold).

Standards Needed to Address Market Barriers and Reduce Costs

Standards are necessary to overcome the market barriers associated with adoption of cost-effective CO₂ reduction opportunities that exist in the vehicles sector. If the sole tool employed to address global warming in the transportation sector were a cap-and-trade program at the oil refiner level, these opportunities will not be captured because the resulting fuel price increase is unlikely to be sufficiently high to overcome the market barriers (the same barriers that affect large consumer appliances and equipment in the electricity field). Last year NHTSA essentially recognized the existence of market barriers when they recognized the improvement in social welfare resulting from a mandated increase in fuel economy standards for light trucks.

Many studies show that higher performance standards – expressed in terms of fuel economy or CO₂-eq emissions – would save consumers money, taking into account lifetime fuel savings. Focusing on the combined monthly payment for leasing a vehicle and paying for fuel, these vehicles are cheaper to own and operate. Based on a recent EPA study on vehicle technologies, NRDC estimates that when fuel savings are included,

the cost of controlling carbon from vehicles is *minus* \$43 to *minus* \$94/metric ton of CO₂ for midsize cars, and *minus* \$86 to *minus* \$126/metric ton of CO₂ for large SUVs.²

Performance-based standards (combined with complementary incentives) will also ensure that the nation reduces its dangerous petroleum dependency. For example, one recent assessment estimated that oil carries a \$5 to \$25 per barrel (12 to 60 cents per gallon) extra cost in terms of national security, economic security, and environmental harms other than climate change.³

Incentives for Retooling Auto Factories and Promoting Low-Carbon Fuel Production Based on Allowance Allocations

Emissions allowances will be worth tens of billions of dollars per year, and their value will increase over the first decades of the program as the pollution cap declines. To avoid windfalls, allowances should be held in trust for the public and distributed in ways that will produce public benefits. This can be done through an auction, with the revenue dispersed according to legislated formulae and criteria or by distributing the allowances themselves according to the same formulae and criteria. In either approach, the legislation should provide for a public trustee (like the Climate Change Credit Corporation proposed in the Olver-Gilchrest bill (H.R. 620)) to administer the allowances.

NRDC believes the allowance resources should be used for four broad objectives (see Figure 3 from our full response.) The first two categories are the ones that would primarily impact the transportation sector.

- (1) 50 percent of allowances should be allocated to reduce overall costs for individual and business consumers (especially low-income consumers) through energy efficiency investments, including incentivizing the purchase of fuel-efficient vehicles.
- (2) 25 percent of allowances should be allocated to accelerate deployment of the “big change” technologies that we will need to cut emissions in key sectors, including retooling factories to produce advanced drivetrains (including hybrids, clean diesels, batteries, and fuel cells), building refineries that convert cellulosic material to biofuels and assisting farmers to grow sustainable energy crops

² EPA, *New Powertrain Technologies and Their Projected Costs: Interim Report*, www.epa.gov/otaq/technology (Oct. 2005). The California Air Resources Board reached the same conclusion regarding the consumer savings from its greenhouse gas emission standards.

³ Parry, Ian, “The Case for a Pay-By-the-Barrel Oil Tax,” *Resources* 163, Fall 2006.

Figure 3: Allowance Allocation

