

THE LEGAL AND INSTITUTIONAL FRAMEWORK FOR A PLURILATERAL GREENHOUSE GAS EMISSIONS TRADING SYSTEM

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II. ADVANTAGES OF USING EMISSIONS TRADING SYSTEMS TO ADDRESS GREENHOUSE GAS EMISSIONS

Emissions trading systems to control air pollutants have been developed in recent years to address some important limitations of traditional command and control environmental regulation. As confirmed by experience in the United States, which has the greatest experience with use of emissions trading systems, properly designed and implemented emissions trading systems have a number of important advantages over traditional command regulation. They can achieve emissions limitations at far less cost than traditional regulation. They afford sources wide flexibility in the means of limiting emissions, and at the same time provide continuing incentives for innovation and investment in less polluting, resource efficient products and processes. Further, the trading mechanism can provide infusions of capital and technology to upgrade existing industrial and commercial infrastructure or to build new, state-of-the-art plants and facilities. Emissions trading systems also enjoy administrative advantages. Under command regulations, government administrators must make detailed economic and engineering decisions about the required level and also often the means of control by particular sources. Under emissions trading systems, regulators must determine the appropriate overall level of emissions, but the decisions about each source's level of emissions and means of emissions control are made by the managers of sources in response to market prices and incentives.

These several advantages of emissions trading are especially pronounced as applied to GHG limitations. There are many different types of facilities and activities in different economic sectors that generate different GHGs, with wide variations in the costs of limiting GHGs among different sources and sectors and in sequestering GHGs in different kinds of sinks. There are generally even larger differences in the costs of controlling net GHG emissions among different nations because of differences in the current state of capital plant and technology, economic structure, geographical and ecological factors, stage of development, and available substitutes. The potential costs of limiting net GHG emissions are very large. It is therefore extraordinarily important that limitations be achieved in the most cost effective fashion, through market mechanisms that provide incentives and business opportunities for private entities. Reducing the costs of achieving limitations can also promote the likelihood of successful international agreement on and implementation of limitations measures. Emissions trading systems can further these objectives by capitalizing on differences in the costs of limiting emissions or enhancing sinks in different sectors and nations, and steering private sector investments to the lowest cost GHG-

reducing opportunities. Emissions trading can attract consent by nations to participate in arrangements to limit GHG emissions with fewer distortionary side-effects than command regulation or emissions taxes.

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Under a tradeable allowance system, a governmental authority issues a certain number of pollution quotas. Each allowance entitles the holder to emit a given amount, such as a tonne, of a pollutant. A source may not emit pollution in excess of the number of allowances that it holds. Total emissions by all sources are thus capped. Allowances are allocated to individual sources by auction or by administrative allocation. Allowances may be traded, bought, and sold, and held by anyone. Because allowances are scarce, they will be worth money. A source incurs a cost for each unit of pollution that it generates; it must either purchase an additional allowance or incur the opportunity cost of foregoing potential sale of an allowance that it holds and that would become surplus if its emissions were lower. Thus a tradeable allowance system imposes a price on each unit of pollution emitted; this price is set by market supply and demand. The price of allowances gives every source the incentive to innovate and adopt less costly ways to reduce emissions.

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Tradeable allowance systems also provide strong incentives for sources to reduce their emissions, since sources must pay for each unit of pollution that they emit. Each source will tend to reduce its emissions to the point where its marginal costs of limiting emissions equals the price of allowances. Sources with lower control costs will tend to control their pollution more, and sell or transfer their excess allowances to sources for whom it is more costly to control. Since all sources face the same allowance price, the marginal costs of emissions limitations will tend to be the same for all sources, producing a least-cost allocation of emissions limitations. The resulting cost savings over a command system can be enormous, cutting total emissions limitations costs by 20 to 50 per cent or more. [In the case of GHG, variations among countries in the sort of controlling different GHG are very wide. For international trading (including developing countries) and a comprehensive approach (enabling countries the flexibility to control different mixes of GHG or enhance sinks, based on a carbon equivalent index) to meet regulatory objectives could reduce the costs of achieving a given level of GHG limitation by 80-90% relative to a gas-by-gas, country-by-country command approach.]

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VI. LEGAL AND INSTITUTIONAL DESIGN AND IMPLEMENTATION OF A PLURILATERAL TRADING SYSTEM

1. Essential Legal and Institutional Elements For A Successful International Trading Market

A plurilateral GHG trading system should include the core essential requisites of a successful international emissions trading market, compatible with the different choices made by the different

participating countries regarding the design of their domestic emissions trading systems, as discussed above. Fortunately, the core requisites are relatively few in number, and can accommodate substantial diversity in domestic trading system design.

The key requisites of an international GHG emissions trading system are the same as for a domestic system: to establish enforceable limitations on net emissions by domestic sources covered by the system; to establish a homogenous and fungible TEU (tradeable emissions unit) commodity defined and protected by well-established property rights and by ownership rules that allow anyone to acquire or hold TEUs; to provide for free transferability of TEUs without prior regulatory review or approval; to accord recognition in each participating country of TEUs from the other participating countries for purposes of determining compliance by domestic sources with domestic limitations on their emissions; to establish an integrated system for tracking TEU trades and holdings; and to provide adequate assurances that net emissions are accurately determined and reported and that sources comply with their emissions limitation obligations. Securing these requisites will, of course, be somewhat more difficult in an international context involving several countries than in a purely domestic situation, but the difficulties are far from insurmountable.

Emissions caps. Countries participating in a plurilateral trading regime must establish enforceable domestic caps on emissions of gases from sources and sectors participating in the regime. * * *

Homogeneous and fungible, mutually recognized TEU commodity. It is essential for the successful operation of the plurilateral trading market that the TEUs generated in all of the participating country be defined in the same way: tonnes of CO₂ or their equivalent, determined through the equivalency values endorsed by the COP for the first commitment period. TEUs should be fungible for purposes of regulatory compliance. Each country must agree to recognize TEUs issued by other participating countries, regardless of gas/sink or sector that generates them, and authorize its domestic sources to hold and use such TEUs on the same basis as domestically-issued TEUs for purposes of determining compliance with domestic regulatory requirements.

Property rights and ownership and transfer rules. The domestic laws of each participating country should establish TEUs generated by its domestic laws as legally protected property right, protected both against third parties and against government expropriation (subject to the right of the government to adjust the aggregate number of TEUs in response to changes in conditions). This protection must be extended to TEUs generated by other participating countries. Since domestic trading systems will necessarily provide for holding and trading by non-government entities, and a plurilateral system will develop out of those domestic systems, it is logical that the latter system provide for holding and trading of TEUs by non-government entities. The inclusion of those entities will promote the functioning and efficiency of the plurilateral market. There may be some sentiment to limit ownership to nationals or entities sited in the participating countries. However, allowing universal ownership, including ownership by brokers and speculators and environmental groups who are not nationals or entities sited in a participating country, will enhance the functioning and efficiency of the trading market. There must also

be assurances of free, undistorted trade in TEUs. Participating countries should provide that TEUs may be transferred both domestically and internationally without prior regulatory or other government approval or restrictions or tariffs or charges on same (except for registry fees, as discussed below). Participating countries should also provide that trade in TEUs should be subject to antitrust/competition laws in order to prevent the development of undue market power or other distortions.

TEU Registry. It will be necessary to establish an integrated or single registry of TEU holdings and transfers. Each participating country could establish its own registry for TEUs issued pursuant to its domestic programme. Arrangements could then be made to integrate these registries, for example, through a single on-line umbrella system listing all TEUs (by country) and transfers and holdings. Alternatively, a single registry for all participating countries could be established. Registrations should be electronically available to the public worldwide.

Mutual compliance assurances. In order to ensure the economic and environmental integrity of TEUs in a plurilateral trading system, it will be necessary to establish and secure mutual assurances on the part of all participating countries that net emissions from covered sources in each country are accurately monitored and reported. This will require the development of common procedures and criteria for monitoring emissions and sequestration, including the use of common default values for emissions and activity rates for sectors subject to greater measurement uncertainty, as discussed above. It will also be necessary to establish and implement mutual assurances that the respective domestic implementation and enforcement regimes will ensure that the respective domestic sources comply with their domestic emissions limitation obligations. These arrangements would, of course, be necessary in any international arrangement for joint emissions limitations, regardless of whether or not it provides for trading. If a participating country has an allowance trading system, it must ensure that sources hold TEUs equal to their emissions for the relevant accounting period. If it has a tradeable credit system, it must ensure that sources comply with applicable emissions limitations requirements, crediting any TEUs that a source acquires and debiting any TEUs that it has transferred. Unless there are such mutual assurances, there would be an unacceptable risk that source would not comply with their limitations and that TEUs that were transferred lacked integrity because, in the case of allowances, they were not surplus, and, in the case of credits, that they were not valid. Without adequate assurances of compliance by sources with applicable emissions limitations, demand for and hence the value of TEUs will be diminished, and those sources that wish to transfer TEUs that have integrity will find their market position undermined by TEUs that lack integrity. These problems would threaten the viability of the entire system. Developing and implementing adequate mutual compliance assurances will be the most difficult problem in the design and operation of a plurilateral GHG trading system, or of any international systems providing for emissions limitations, with or without trading.* * *

