



Chapter V

CLEAN AIR REGULATION

The primary vehicle for regulation of air pollution is the Clean Air Act (the “Act” or “CAA”), 42 U.S.C. §7401, *et seq.* Federal legislation in this area began with the Air Pollution Act of 1955 and the Motor Vehicle Act of 1960, both of which authorized research into air pollution problems. The Clean Air Act was originally enacted in 1963, and provided for the development of air quality criteria by the Department of Health, Education and Welfare (“HEW”), and federal abatement action in cases of pollution endangering health and welfare. The 1965 Motor Vehicle Air Pollution Act later authorized HEW to set emission standards for new vehicles.

The 1967 Air Quality Act strengthened the program by directing HEW to establish air quality standards based upon the HEW criteria, and to implement those standards. It also provided that federal emission controls on new vehicles preempt state regulation.

Because these efforts were inadequate to deal with increasing air pollution problems across the nation, Congress adopted the 1970 Clean Air Amendments. The Amendments required national ambient air quality standards, national emission standards for stationary and mobile sources, and state implementation plans (“SIPs”).

The Clean Air Act Amendments of 1977, among other things, extended the deadlines for meeting SIPs, and added the Prevention of Significant Deterioration program. The Clean Air Act of 1990 addressed such issues as nonattainment of ambient air quality standards, hazardous air pollutants, and acid rain control.

The Act is broken up into the following titles:

Title I	Air Pollution Prevention and Control
Title II	Emission Standards for Mobile Sources

Title III	General
Title IV	Noise Pollution
Title IV-A	Acid Deposition Control
Title V	Permits
Title VI	Stratospheric Ozone Protection

The Act is administered by EPA through extensive regulations. CAA contemplates implementation of a large portion of the regulatory program by the states. A state program must be at least as strict as the federal requirements in order for a state to obtain authorization to administer applicable portions of the program.

Many states have their own regulatory program. New York State has its own air pollution laws set forth at ECL Article 19, and regulations at 6 N.Y.C.R.R. Parts 200 to 317, which are administered by DEC. In New York and many other states, enforcement of the CAA has been largely delegated to the state.

A. MOBILE SOURCES

A large portion of the Act's strategy relies on technology forcing emission restrictions on new motor vehicles, which are set forth in Title II. Generally, these include tailpipe emission controls for carbon monoxide, hydrocarbons, and oxides of nitrogen, as well as fuel efficiency requirements for new motor vehicles. These provisions preempt state provisions, except to the extent waivers have been given to California to promulgate its own standards. Act §209, 42 U.S.C. §7543. While other states can mandate California standards, they cannot require a “third vehicle” which differs from a vehicle or engine certified in California under California standards. *Motor Vehicle Manufacturing Assoc. v. DEC*, 79 F.3d 1298 (2d Cir. 1996). These mobile source provisions were revised in the Clean Air Act of 1990, but will not be discussed in detail.

B. NATIONAL AMBIENT AIR QUALITY STANDARDS

The heart of the regulatory program under the Clean Air Act is the requirement that EPA establish national ambient air quality standards (“NAAQS”). “Ambient air” is considered “that portion of the atmosphere external to buildings, to which the general public has access.” 40 C.F.R. §50.1(e).

Under the Act, EPA must identify air pollutants which “may reasonably be anticipated to endanger public health or welfare,” and then issue “air quality criteria” setting forth the “identifiable effects on public health or welfare” of such pollutants. Act §108(a), 42 U.S.C. §7408(a). It must also publish “control techniques” for the pollutants. Act §108, 42 U.S.C. §7408.

Then, EPA must prescribe national “primary” and “secondary” NAAQS for each pollutant for which such criteria are established. §109(a), 42 U.S.C. §7409(a). A primary NAAQS is defined as a standard “the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing adequate margin of safety, are requisite to protect the public health.” §109(b)(1), 42 U.S.C. §7409(b)(1). A secondary NAAQS is “a level of air quality... requisite to protect the public welfare from any known or anticipated adverse effects” of the pollutant. §109(b)(2), 42 U.S.C. §7409(b)(2).

These standards are set by EPA regulation after notice and written comment by the public, §109(a)(1), 42 U.S.C. §7409(a)(1), and may be revised from time to time. §109(b), 42 U.S.C. §7409(b). NAAQSs have been set for SO₂, particulates, ozone, NO₂, lead, and carbon monoxide. These are often referred to as the “criteria pollutants.”

On July 18, 1997, EPA adopted new rules to change the NAAQSs for ozone and particulate matter. The ozone standard has been changed from .12 ppm to .08 ppm over an eight-

hour period, based upon the average of the fourth highest value in each of three years. The new standards for particulate matter of 2.5 microns or less (PM-2.5) will be an annual standard of 15 $\mu\text{g}/\text{m}^3$, and a 24-hour standard of 65 $\mu\text{g}/\text{m}^3$. The states will have to implement these rules through changes in their SIPs. After a long court battle, these standards were upheld. *See Whitman v. American Trucking Associations, Inc.*, 531 U.S. 457, 121 S. Ct. 903 (2001), *on remand American Trucking Associations, Inc. v. Environmental Protection Agency*, 283 F.3d 355 (D.C. Cir. 2002).

C. STATE IMPLEMENTATION PLANS

The NAAQSs are to be achieved through the state implementation plans. Act §110, 42 U.S.C. §7410. Each state is divided into one or more air quality control regions (“ACQR”), and must devise a plan which will result in attainment of each NAAQSs for each ACQR in the state, by way of strategies such as emission permits, transportation controls, and inspection and maintenance of vehicles. (Note that New York State has its own system of air quality control areas, by which each county outside New York City, and New York City itself, are given a classification.)

To the extent an ACQR has achieved the applicable NAAQSs, it is an “attainment area” for that pollutant. Otherwise, it is a “nonattainment area.” Nonattainment areas may be subject to stricter controls and sanctions, such as cutoff of federal highway funds, or a moratorium on new permits.

SIPs are subject to EPA approval. Once approved, they may be enforced by both EPA and the State. New York’s SIP has been approved by EPA (*see* 40 CFR §§52.1670-52.1689). While the 1977 Amendments postponed the deadline for attainment of NAAQSs to the end of

1982 (primary) and 1987 (secondary), many areas still failed to attain the standards. As a result, the Clean Air Act of 1990 provided additional requirements for nonattainment areas.

Title I of the 1990 Act addresses the Attainment and Maintenance of NAAQSs. It designates the northeastern states, including New York, as an “ozone transport region,” and subjected sources of 50 tons per year of volatile organic compounds (“VOCs”) to reasonably available control technology (“RACT”), including sources in attainment areas. Act §184, 42 U.S.C. §7511c.

This program requires 80% reduction from nonattainment levels, unless technically or economically infeasible. RACT technology is prescribed by EPA, and includes such things as controls on coatings and contents, incineration, carbon filters, and solvent recovery.

Further, the 1990 Act set additional requirements for ozone, carbon monoxide and particulate nonattainment areas, depending upon their levels of noncompliance. Ozone nonattainment areas are classified into six categories from marginal to serious, and subjected to a schedule to come into attainment. Act §181, 42 U.S.C. §7511. For example, in marginal ozone areas, RACT must be employed by sources of 100 tons/year or more of VOC, new sources are allowed an offset of 1.1 to 1, and the area was required to reach attainment within 3 years.

Another significant program under the Clean Air Act of 1990 is the acid rain control program set forth in Title IV. This puts a cap of 8.9 million tons per year on sulfur dioxide emissions from stationary sources, and allocates sulfur dioxide allowances between emission sources. Act §403(a), 42 U.S.C. §7651b(a). Specific provisions are made for an “allowance transfer system.” §403(b), 42 U.S.C. §7651b(b). A nitrogen oxides emission reduction program is also established.

New York also has its own State Acid Deposition Control Act, set forth at Title 9 of ECL Article 19. Further, the 1990 Act added Title VI, which provides for bans on certain chlorofluorocarbons in an effort to protect stratospheric ozone.

D. NEW SOURCES

The Act requires EPA to set forth new source performance standards (“NSPS”) for new stationary sources. Act §111, 42 U.S.C. §7411. This includes major modifications of existing sources. Further, under the 1977 Amendments, new sources in attainment areas are subject to the Prevention of Significant Deterioration (“PSD”) program, Act §§160-169, 42 U.S.C. §§7470-7479, while those in nonattainment areas are governed by the Nonattainment New Source Review (“NANSR”) program, §§171-178, 42 U.S.C. §§7501-7508. New York State is authorized to implement the PSD and NANSR programs, which it does in large part through its permitting program.

The PSD program applies to “major sources,” defined as those which have the potential to emit 250 tons of air pollutants per year, as well as sources in specified categories which have the potential to emit 100 tons per year. Act §169(1), 42 U.S.C. §7479(1). These sources must attain the “best achievable control technology” (“BACT”), §169(3), 42 U.S.C. §7479(3), which is established on an industry-by-industry basis by EPA regulations.

Stricter requirements apply to NANSR review of new sources in nonattainment areas. In these areas, all sources of 100 tons per year of air pollutants are considered major sources subject to NSPS. Further, these sources must go beyond BACT, and emit only the “lowest achievable emission rate” (“LAER”). §173, 42 U.S.C. §7503. Moreover, in order to be authorized to build a new source, an increase in air quality must be achieved by elimination of other sources that results in a greater than 1:1 offset.

E. NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

CAA §112, 42 U.S.C. §7412, requires EPA to set national emission standards for hazardous air pollutants (“NESHAPs”). NESHAPs are standards to limit the emission of these hazardous air pollutants, and may include a “design, equipment, work practice or operational standard” where a strict numerical limitation is not feasible. §112(h), 42 U.S.C. §7412(h). They apply to both new and existing sources.

Because EPA only acted to set NESHAPs for radon, beryllium, mercury, vinyl chloride, radionuclides, benzene, asbestos and inorganic arsenic, Congress required that NESHAPs be set for 189 chemicals in Title III of the 1990 Amendments, by redefining hazardous air pollutants as those chemicals on the list inserted at Act §112(b), 42 U.S.C. §7412(b), as well as others which may be later added by EPA.

Further, Title III of the 1990 Act required EPA to develop regulations which will require the “maximum achievable control technology” (“MACT”) to reduce hazardous air pollutants for about 250 categories of sources, taking into consideration costs and non-air health and environmental impacts. Act §112(d), 42 U.S.C. §7412(d). This standard applies to sources emitting 10 or more tons per year of a particular hazardous air pollutant, or at least 25 tons for all hazardous air pollutants. MACT is defined as at least as stringent as the control technology employed by the best 12% of existing sources. However, if a source attains a 90% reduction, it can obtain a six-year extension of time to attain MACT.

Moreover, the 1990 Act added new strategies that must be implemented to control hazardous air pollutants. “Area sources” (such as dry cleaners and gas stations) must be controlled so that a 90% reduction of the 30 most serious area source pollutants is achieved.

§112(k), 42 U.S.C. §7412(k). Further, accidental release reporting has been required for at least 100 extremely hazardous air pollutants. §112(r), 42 U.S.C. §7412(r).

F. PERMITTING

While permits are required for new sources under the NANSR and PSD programs, many states, including New York, had adopted much more extensive emission permitting systems, and apply these requirements at lower thresholds. Under Title V of the Clean Air Act of 1990, permits were required for all major sources, and affected sources subject to the Title IV acid precipitation controls, beginning 5 to 8 years after enactment. These permits must include compliance plans and schedules, monitoring, inspection, emitting, reporting, and fee requirements, and review by EPA and contiguous states.

New York State adopted a permitting program to comply with Clean Air Act Title V at 6 N.Y.C.R.R. Part 201. Under the program, certain activities are exempt or deemed “trivial,” and do not require permits. 6 N.Y.C.R.R. Part 201-3. “Minor facilities” are only subject to registration requirements. 6 N.Y.C.R.R. Part 201-4. Detailed procedures are prescribed for major facilities that require Title V permits. *See* 6 N.Y.C.R.R. Part 201-6. Other major facilities require “state facility permits.” *See* 6 N.Y.C.R.R. Part 201-5.

Permits must assure compliance with all applicable Clean Air Act standards, including NAAQSs, SIP, NSPS, NESHAP, NANSR, and PSD. Further, they must be in compliance with state categorical regulations set forth at 6 N.Y.C.R.R. Part 203 through 236, which in many cases are stricter than federal requirements.

Permits generally contain various conditions, including sampling, recordkeeping and reporting. They are transferrable to a new owner, pursuant to DEC procedures, if the “mode of

operation and emissions do not change.” 6 N.Y.C.R.R. §201-1.3. Violations on account of an “emergency” may be excused if reported within two working days. 6 N.Y.C.R.R. §201-1.5.

G. AIR ACCIDENTAL RELEASE REQUIREMENTS

Clean Air Act §112(r), 42 U.S.C. §7412(r), required that EPA establish regulations to require regulated stationary sources to implement accident assessment, prevention and response measures and procedures. In 1994, EPA promulgated the List of Regulated Substances and Thresholds for Accidental Release Prevention. *See* 59 F.R. 4478 (Jan. 31, 1994), 40 C.F.R. §68.130.

On June 19, 1996, regulations were promulgated that set forth procedures for facilities to prepare and implement a risk management plan (“RMP”). *See* 40 C.F.R. §§68.10-68.220. These rules became effective June 21, 1999. Many industrial facilities were required to comply with these new emergency planning requirements.

The regulations apply to “stationary sources” (including buildings, structures, and equipment) that have “more than a threshold quantity of a regulated substance in a process.” 40 C.F.R. §68.10. These are referred to as “covered processes.” 40 C.F.R. §68.3. Each such facility must compile a risk management plan that satisfies requirements set forth at 40 C.F.R. §§68.150-68.190. The RMP must include an “offsite consequence analysis” of worst case scenario(s), §§68.20-68.39, 68.165, a five-year accident history, §§68.42, 68.168, and an emergency response program. §68.180. The RMP may also be written to satisfy the OSHA process safety management standard, set forth at 29 C.F.R. §1910.119, which has similar requirements.

Additional requirements are imposed for prevention programs for “Program 2,” 40 C.F.R. §§68.48-68.60, 68.170, and “Program 3,” 40 C.F.R. §§68.65-68.87, 68.175, facilities.

Furthermore, these facilities must develop and implement an emergency response program, §68.95, and develop a management program to oversee implementation of the RMP. 40 C.F.R. §68.15.

Facilities are eligible for less stringent “Program 1” treatment if they have not had serious accidents within the last 5 years, “[t]he distance to a toxic or flammable endpoint for a worst-case release assessment... is less than the distance to any public receptor,” and “[e]mergency response procedures have been coordinated between the stationary source and local emergency planning and response organizations.” 40 C.F.R. §68.10(b). Program 3 is required for processes covered by NAICS codes 32211, 32411, 32511, 325181, 325188, 325192, 325199, 325211, 325311, or 32532, and for processes subject to the OSHA process safety management standard set forth at 29 C.F.R. §1910.119. 40 C.F.R. §68.10(d). Program 2 facilities are those that do not fall under Programs 1 or 3. 40 C.F.R. §68.10(c).

This law was amended in 1999 by the Chemical Safety Information, Site Security and Fuels Regulatory Relief Act, P.L. 106-40, to remove flammable materials being used as fuels or held for sale at a retail facility from being covered by the law, and to limit public information to worst-case scenarios that could be used by terrorists. Regulations at 40 C.F.R. Part 1400 govern access to the information, and include reading-room access to paper copies after proper identification, and only limited internet information.

H. ADMINISTRATION AND ENFORCEMENT

While EPA is generally subject to APA, the Clean Air Act sets forth its own separate administrative procedures applicable to certain proceedings. Act §307, 42 U.S.C. §7607. Like the Clean Water Act, the Clean Air Act provides for citizen's suits against persons alleged to be “in violation of” emission standards or limitations, or related EPA or state orders, as well as

violations of PSD and NANSR requirements, and against EPA for failure to perform any non-discretionary duty. §304, 42 U.S.C. §7604. Like under the Clean Water Act, notice must be given at least 60 days prior to suit, citizen action is barred by diligent prosecution by the government, and a prevailing citizen may be awarded attorney's fees. The 1990 Amendments strengthened the citizen's suit provision, and allow for actions against past repeated violations as well as those “in violation.”

In general, civil fines for violations of the Act may be up to \$25,000 per day, §113(b), 42 U.S.C. §7413(b), and criminal violations can result in fines and up to 5 years in jail. §113(c), 42 U.S.C. §7413(c). Under the Act, “responsible corporate officers” can be liable for criminal violations, §113(c)(5)(D)(6), 42 U.S.C. §7413(c)(5)(D)(6), and the recent amendments extend this liability to knowing violations by non-senior management. EPA also may proceed by administrative enforcement proceedings. §113(d), 42 U.S.C. §7413(d).

Similarly, violations of New York State air pollution rules or permits are punishable by administrative and civil penalties of up to \$10,000, plus \$500 per day of continuation, ECL §71-2103, as well as criminal prosecution resulting in fines of up to \$10,000 per day and up to one year in jail. ECL §71-2105.

I. GLOBAL WARMING

The worldwide scientific community has reached consensus on the issue of the impact of human activities on worldwide climate change. In February 2007, the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) concluded that “the warming of the climate system is unequivocal,” and that “most of the observed increase in global temperatures since the mid-20th century is very likely due to anthropogenic greenhouse gas concentrations.” IPCC Fourth Assessment Report: Climate Change 2007 (the “4th Assessment Report”),

Intergovernmental Panel on Climate Change (IPCC), Summary for Policy Makers, 2 (Nov. 2007) *available at* <http://www.ipcc.ch/ipccreports/assessments-reports.htm>. Since 1750, fossil fuel use, land use changes, and agricultural practices have led to significant increases in atmospheric concentrations of the most important heat trapping greenhouse gases (GHGs): carbon dioxide (the most important), methane, and nitrous oxide. Worldwide, about 24% of current GHG emissions result from the combustion of fossil fuels for power generation (80% of which is associated with buildings and industrial uses), especially coal, 18% from tropical deforestation, 14% from the combustion of transportation fuels, 14% from manufacturing and construction (about 20% if power generation is included), 8% associated with buildings (20% if power generation is included), and 14% from agricultural emissions, especially nitrous oxide from fertilizer use and methane from livestock and rice cultivation. Nicholas Stern, Stern Review: The Economics of Climate Change, Cambridge University Press, Chapter 7 Annex. (2007) *available at* http://www.hm-treasury.gov.uk/stern_review_report.htm.

With less than 5% of the world's population, the United States is responsible for about 16% of the world's net GHG emissions. U.S. GHG emissions have a much different profile than global GHG emissions with about 39% resulting from electrical power generation, 31% from transportation, 13% from industrial uses, 8% from buildings, and about 6% from agriculture. Notably, the U.S. has net sequestration of GHG due to avoided deforestation, afforestation, and reforestation that offsets U.S. GHG emissions by 15%. U.S. Environmental Protection Agency, 2009 Greenhouse Gas Inventory Report (April 2009) *available at* <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>. Total U.S. GHG emissions have increased 17% since 1990.

The approach to reducing GHG emissions is distinguished from other air pollution control programs in that the most significant GHG gas, carbon dioxide, readily disperses into the atmosphere and does not have a significant local health impact. The heat trapping impact from carbon dioxide emissions is felt on a global scale so that a ton of carbon dioxide emitted in the U.S. has the same impact as a ton emitted in China. *See* 4th Assessment Report. As a result, the response to global warming has been primarily driven at the international level whereas most other pollution control regulation evolved from nuisance law and human health considerations.

The first significant international response to climate change was the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. United Nations Framework Convention on Climate Change, Art. 2, May 9, 1992, S. Treaty Doc. No. 102-38 (1992), 1771 U.N.T.S. 107 *available at* <http://unfccc.int/resource/docs/convkp/conveng.pdf>. The UNFCCC set as an objective the stabilization of GHG concentrations at a level that would prevent human interference with the earth's climate. The UNFCCC further provided general principles for rulemaking, but did not establish firm governmental commitments. The United States was a signatory to the UNFCCC and it was ratified by the Senate in 1992.

International recognition of the need for legally binding targets and timetables led to the adoption of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol) in December 1997. Kyoto Protocol to the United Nations Framework Convention on Climate Change (Dec. 11, 1997), 37 I.L.M. 22 *available at* <http://unfccc.int/resource/docs/convkp/kpeng.pdf>. The Kyoto Protocol provides that the industrialized "Annex I" countries, including the United States, shall reduce their aggregate carbon dioxide equivalent emissions of listed greenhouse gases to at least 5% below 1990 levels in the commitment period of 2008 to 2012. Under the Kyoto Protocol, each Annex I country has

an emission reduction or emission limitation commitment, measured by the net changes in GHG emissions as well as net changes of GHGs associated with GHG “sinks” attributable to land use changes and forestry activities. Under the Clinton Administration, the U.S. was a leading participant in the negotiation of the Kyoto Protocol, and the United States was a signatory and Annex I country. However, the Kyoto Protocol was never ratified by the Senate and thus has never been binding on the United States. The United States is the only one of 39 Annex I countries and one of only two signatory countries (the other is Kazakhstan) to have not ratified the Kyoto Protocol.

The Kyoto Protocol represents a broad regulatory scheme providing a market driven approach to implementing GHG emission reduction projects and has spun off a number of similar “cap and trade” carbon trading schemes such as the European Union Emission Trading System, the Norway Emissions Trading Scheme, and the Japan Emissions Trading Scheme that operate within the Kyoto Protocol. The “cap and trade” approach uses an emission currency, generally referred to as an emission “allowance,” equal to one ton of carbon dioxide equivalent (tCO₂eq) GHG emissions. Each Annex I (industrialized) country is assigned a quantity of allowances equal to the number of tCO₂eq allowed under the Kyoto Protocol and the allowances can be traded like any other commodity (this market is often referred to as the “carbon finance” market).

Kyoto defined three flexibility mechanisms for industrialized parties to lower the overall cost of reducing GHG emissions by allowing inter-governmental trading of emission reductions, both within and with other industrialized countries as well as with non-Annex I (developing) countries. An underlying premise of these mechanisms is that, because GHGs disperse evenly into the atmosphere, the effect for the atmosphere of limiting emissions is the same, irrespective

of where the action is taken. The scheme that enables emission trading with developing countries, referred to as the Clean Development Mechanism or CDM, allows the industrialized countries to invest in emissions reduction or clean energy projects in developing countries and take credit for the emissions reductions as part of their committed reductions under the Kyoto Protocol. The intent of the CDM is provide an incentive for investment in sustainable development in developing countries (which include rapidly growing economies such as India and China) by permitting more economical emission reduction projects to be applied to industrialized country emission targets. *See The Mechanisms Under the Kyoto Protocol, UNFCCC, http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php.*

The Kyoto Protocol expires in 2012 and negotiations for the successor agreement began in 2007. The Obama administration has committed to taking an active role in the development of a successor protocol.

Because the United States did not ratify the Kyoto Protocol, much of the efforts in the U.S. to implement mandated GHG emissions reductions have been driven by the states. These efforts include renewable energy portfolio standards, energy efficiency programs, regional and local GHG cap and trade schemes, and requirements for consideration of GHG emissions in environmental review processes. *See e.g. DEC, Assessing Use of Greenhouse Gas Emissions in Environmental Impact Statements, Draft Policy (March 11, 2009) available at http://www.dec.ny.gov/docs/permits_ej_operations_pdf/dftgrnhsegas.pdf.* The states have also pushed the federal government to address GHG emissions through Clean Air Act litigation. Additionally, private companies and environmental NGOs have partnered to focus on GHG emission reductions (becoming “carbon neutral”) spawning a voluntary carbon finance market in the U.S.

Renewable portfolio standards (RPS) are intended to address climate change by encouraging GHG emission free electrical power generation – the largest source of GHG emissions in the U.S. – through the use of such energy sources as wind, solar, geothermal, landfill gas, and ocean waves and tides. Thirty-three states have adopted an RPS of some form. *See* U.S. Department of Energy, Energy Efficiency and Renewable Energy, *States with Renewable Portfolio Standards*, available at http://apps1.eere.energy.gov/states/maps/renewable_portfoliostates.cfm#chart. Under a typical RPS, a state sets a mandatory yearly target for the percentage of electrical power generated using renewable sources, usually as a mandatory purchase requirement for the electric utility companies. New York established an RPS in 2004 and currently has a target of obtaining 25% of its electricity from renewable sources by 2013. New York's target is higher than most states because it generated 19% of its electricity from renewable hydropower prior to enactment of the RPS. New York currently obtains 21% of its electricity from renewable sources and most of the additional renewable energy needed to meet the RPS commitment will be obtained through wind energy development, with some also coming from landfill gas and solar power. *See* NYSERDA, *The New York Renewable Portfolio Standard*, available at <http://www.nyserda.org/rps/index.asp>.

Three regional GHG cap and trade schemes, similar to the Kyoto Protocol approach, have, or are being developed through, agreements among various states and Canadian provinces. The only currently operative scheme is the Regional Greenhouse Gas Initiative (RGGI), which is an agreement among 10 northeastern states to reduce CO₂ emissions by 10% by 2018 from electric power generation through a cap and trade mechanism. *See* Regional Greenhouse Gas Initiative, *Memorandum of Understanding* (2005) available at <http://www.rggi.org/about/documents>.

A collective of seven western states and four Canadian provinces are in the process of developing the Western Climate Initiative, which will be a comprehensive cap and trade system covering electrical power generation, industry, transportation, and residential and commercial fuel use with a GHG emission reduction target of 15% by 2020. *See* Western Climate Initiative, *Design Recommendations for the WCI Regional Cap-and-Trade Program* (March 13, 2009) available at <http://www.westernclimateinitiative.org/the-wci-cap-and-trade-program/design-recommendations>. Nine Midwestern states and two Canadian provinces have signed the Midwestern Greenhouse Gas Reduction Accord, which is an agreement by the member and observer states and provinces to develop a working group to develop a cap and trade plan to reduce GHG emissions. *See* Midwestern Greenhouse Gas Accord (2007) available at <http://www.midwesternaccord.org/>.

In perhaps the most significant effort on the part of the states to push the federal government to act on climate change, twelve states, as well as several local governments and NGOs, brought an action against the EPA for “abdicat[ing] its responsibility under [Section 200(a)(1) the Clean Air Act to regulate the emissions of four greenhouse gases, including carbon dioxide.” *Massachusetts v. EPA*, 549 U.S. 497, 504, 127 S. Ct. 1438 (2007). Specifically, the states in *Massachusetts* asked the Court to resolve “whether EPA has the statutory authority to regulate greenhouse gas emissions from new motor vehicles; and if so, whether its stated reasons for refusing to do so are consistent with the statute.” *Id.* First, the court, determined that the states had standing to bring the action because Massachusetts faced “a risk of harm [from rising sea levels] ... that is both ‘actual’ and ‘imminent’...[and] [t]here is...substantial likelihood that the judicial relief requested will prompt EPA to take steps to reduce that risk. *Id.* at 521. Next, the Court found that “the broad language of §202(a)(1) [provided the] EPA [with the] statutory

authority to regulate the emission of [greenhouse gases] from automobiles.” *Id.* at 532. Finally, the Court found that EPA’s explanation for refusing to regulate GHGs arbitrary and capricious and that EPA, consistent with the Clean Air Act, must determine “whether [greenhouse gas emissions] cause[s], or contribute[s] to, air pollution which may reasonably be anticipated to endanger public health or welfare. If EPA makes a finding of endangerment, the Clean Air Act requires the agency to regulate emissions of the deleterious pollutant from new motor vehicles.” *Id.* at 532-33.

Subsequent to *Massachusetts*, the EPA proposed an endangerment finding that GHGs pose a threat to the public health and welfare and would thus be required to regulate GHGs under the Clean Air Act absent a legislative solution. *Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act* (April 24, 2009) available at <http://epa.gov/climatechange/endangerment.html>. The proposed endangerment finding is seen as a stick to prompt Congress to act on comprehensive climate mitigation legislation. Bills currently under development include a nationwide GHG cap and trade scheme, a national renewable energy portfolio standard, and incentives for the purchase of fuel efficient vehicles. Additionally, the Obama Administration has recently announced a major increase in fuel economy standards for cars and light trucks which is designed to achieve a 30% GHG emission reduction by 2016. *See Notice of Upcoming Joint Rulemaking To Establish Vehicle GHG Emissions and CAFE Standards* (May 22, 2009) available at <http://www.epa.gov/EPA-AIR/2009/May/Day-22/a12009.htm>.