ES-1 EMISSIONS POLICIES AND OVERARCHING ITEMS

1.1 GHG cap and trade

A cap-and-trade system is a market mechanism in which GHG emissions are limited or capped at a specified level, and those participating in the system can trade permits (a permit is an allowance to emit one ton of CO_2e). By allowing trading, participants with lower costs of compliance can choose to over-comply and sell their additional reductions to participants for whom compliance costs are higher. In principle, overall costs of compliance should be lower than they would otherwise be.

For every ton of CO_2e released, an emitter must hold an allowance. Therefore, the number of allowances issued or allocated is, in effect, the cap. The government can give allowances away for free, auction them, or some combination of the two. Participants can range from a small group within a single sector to the entire economy. The compliance obligation can be imposed "upstream" (at the fuel extraction or import level) or "downstream" at points of fuel consumption.

Among the important considerations with respect to a cap-and-trade program are: the sources and sectors to which it would apply; the level and timing of the cap; how allowances would be distributed (e.g., whether load-based or generation-based, how new market entrants are accommodated, how leakage is addressed, etc.); how allowances would be reduced over time; what if any offsets would be allowed; over what region the program would be implemented (e.g., nationally, regionally, etc.); and whether compliance with the cap could be achieved given leakage from non participating states and coal-fired generation located on tribal lands that would not be subject to the state-imposed cap. Other issues to consider include which GHGs are covered; whether there is linkage to other trading programs; banking and borrowing; early reduction credit; what, if any, incentive opportunities may be included; use of any revenue accrued from permit auctions; and provisions for encouraging energy efficiency.

The principal example of a GHG cap-and-trade system in the US today is the Northeast States' Regional Greenhouse Gas Initiative: http://www.rggi.org/.

1.2 Carbon (GHG) tax

A carbon or GHG tax would be a tax on each ton of CO_2e emitted from an emissions source covered by the tax. A GHG tax could be imposed upstream based on carbon content of fuels (e.g. fossil fuel suppliers) or at the point of combustion and emission (e.g., typically large point sources such as power plants or refineries). Taxed entities would pass some or all of the cost on to consumers, change production to lower emissions, or a combination of the two. As the suppliers respond to the tax, consumers would see the implicit cost of GHG emissions in products and services, and would adjust their behavior to purchase substitute goods and services that result in lower GHG emissions. GHG tax revenue could go completely to state revenue and be used in a variety of ways such as income tax reduction or policies and programs to assist with GHG reductions. GHG tax revenue can also be directed to helping the competitiveness of industries or assisting communities most affected by the tax.

1.3 Generation Performance Standards or Mitigation Requirements

A generation performance standard (GPS) can take various forms. One type of GPS requires that load serving entities (LSE) to acquire electricity (e.g., California's Emissions Performance Standard, SB 1368). Another form requires that power plant developers build and operate new generation, with an emission rate (e.g., X lbs CO_2/MWh) below a specified mandatory standard (e.g., in OR and WA). Finally existing power plants can be subject to GHG standards (as in Massachusetts). A market-based variation of a GPS would allow generators with emission rates lower than the GPS to sell their extra "credits" to generators with emission rates higher than the GPS.

In some cases, GHG offsets or credits can be used for compliance (e.g., OR and WA). GHG offsets are GHG emission savings from project-based activities in sectors or regions not covered by the standard or regulations, which typically need to meet specific criteria laid out in the regulation.

1.4 Voluntary GHG targets

Voluntary targets can take a number of different forms. A target can be voluntarily undertaken by a company outside the context of a government program for voluntary reduction and not be legally binding.

US companies are free to take on such voluntary CO2 reduction targets, and a number of them have done so. The Chicago Climate Exchange (CCX) is an example of a trading exchange driven by voluntary participants making and selling reductions. A target could also be negotiated with the government through a program for voluntary reductions. The government might offer certain incentives, and companies voluntarily agree to reduction targets in exchange for receiving those incentives. Such agreements can be legally binding or not. Trading can be a component of any of these voluntary target variations. The most active trading, however, is likely to result with a negotiated but binding agreement.

Monitoring, reporting and verification systems need to be in place to ensure that reductions are actually being made, as this kind of system would not involve allocated permits. If a company reduced GHG emissions beyond its target, and these reductions are verified independently, then it could sell those excess reductions to other participating companies that had difficulty meeting the target. If targets are not binding, however, companies may or may not actually achieve their reduction targets.

1.5 Technology R&D

R&D funding can be targeted toward a particular technology or group of technologies as part of a state program with a mission to build an industry around that technology in the state and/or to set the stage for adoption of the technology for use in the state. For example, an agency can be established with a mission to help develop and deploy energy storage technologies. R&D funding can also be made available to any renewable or other advanced technology through an open bidding procedure (i.e., driven by bids received rather than by a focused strategy to develop a particular technology). Funding can also be given for demonstration projects to help commercialize technologies that have already been developed but are not yet in widespread use. Funding could be provided to increase collaboration between existing institutions for R&D on technologies.

ES-2 RENEWABLE ENERGY AND ENERGY EFFICIENCY

2.1 Renewable and/or Environmental Portfolio Standard

A renewable portfolio standard (RPS) is a requirement that utilities must supply a certain percentage of electricity from an eligible renewable energy source(s). For example, an RPS of 5% would mean that for every 100 kilowatt hours (kWh) that a utility or a "load serving entity" (LSE) supplies to end users, 5 kWh must be generated from renewable resources. About 20 states currently have an RPS in place. In some cases, utilities can meet their requirements by purchasing or generating renewable-based electricity or by purchasing renewable energy credits (RECs).

An environmental portfolio standard (EPS) expands the RPS notion to include energy efficiency as an eligible resource as well, exchangeable or not with renewable energy obligations, depending on design. In some cases, utilities can also meet their RPS (or EPS) requirements by purchasing certificates from eligible energy projects, typically referred to as Renewable Energy Certificates (RECs) in the case of RPS policies.

Anyone can build an eligible renewable facility and earn RECs for the electricity that it generates. Anyone with RECs can sell them to a utility that needs to meet its RPS requirement. In this way, utilities themselves may not need to build and operate renewable generating facilities. By providing this flexibility, a market in these credits is created, which will provide an incentive to companies that are best able to generate renewable energy.

A "safety valve" can be put in place that limits the price of RECs at a specified level by allowing utilities to purchase RECs from the state at the "safety valve" price. The "safety valve" would provide a degree of cost certainty, but could make the penetration of renewables and corresponding GHG reductions uncertain if the actual price of RECs moves above the "safety valve" level.

2.2 Grid-based Renewable Energy Incentives and/or Barrier Removal

This policy option reflects financial incentives to encourage investment in renewable energy sources by businesses that sell power commercially. These financial incentives for renewables include: (1) direct subsidies for purchasing/selling distributed renewable technologies given to the buyer/seller (e.g. via a public benefit fund); (2) tax credits or exemptions for purchasing distributed renewable technologies given to the buyer/seller, (3) feed-in tariffs, which provide direct payments to renewable generators for each kWh of electricity generated from a qualifying renewable facility; (4) tax credits for each kWh generated from a qualifying renewable facility; and (5) regulatory policies that provide incentives and/or assurance of cost recovery for utilities that invest in customer-owned renewable energy systems.

2.3 Distributed Renewable Energy Incentives and/or Barrier Removal

This option is focused on renewable energy located on-site at consumer facilities that whose principal business is not power sales. Financial incentives can be similar to those noted for the previous option. There are numerous barriers to distributed renewable energy, including inadequate information, institutional barriers, high transaction costs because of small projects, high financing costs because of lender unfamiliarity and perceived risk, "split incentives" between building owners and tenants, and utility-related policies like interconnection requirement, high standby rates, exit fees, etc. The lack of standard offer or long-term contracts, payment at avoided cost levels, and lack of recognition for emissions reduction value provided also creates obstacles. Policies to remove these barriers include: improved interconnection policies, improved rates and fees policies, streamlined permitting, recognition of the emission reduction value, financing packages and bonding programs, power procurement policies, education and outreach, etc.

2.4 Green Power Purchases and Marketing

This option would provide support, incentives or requirements for the purchase of qualifying "green" power. ADD GENERAL TEXT

One option is to require state facilities to acquire minimum portions of their electricity from specified renewable resources. A State renewable purchase requirement is similar in concept to an RPS. It stipulates a date and level by which a portion of total electricity consumption by state agencies is met by renewable energy sources. New York, Maryland, and New Jersey have adopted this approach . In New York, Executive Order 111 called for state agencies to obtain 10% of their electricity needs from renewable sources, such as wind, solar, biomass, geothermal, and fuel cells by 2005, with the percentage increasing to 20% by 2010. The order applies to state buildings and those of quasi-independent organizations. The order also calls for state agencies to implement energy efficient practices, increase purchases of energy efficient products, and follow green building standards for new construction and renovation projects. In New Jersey, the current renewable purchase level is 152,000 MWhs or 15% of the bid state contract for electricity which was estimated to be 85% of the state facilities electric use.

2.5 Combined Heat and Power (CHP) Incentives and/or Barrier Removal

ADD TEXT PON HOW CHP REDUCES EMISSIONS, EDIT THE FOLLOWING

Financial incentives for combined heat & power (CHP) could include: (1) direct subsidies for purchasing/selling CHP systems given to the buyer/seller; (2) tax credits or exemptions for purchasing/selling CHP systems given to the buyer/seller; (3) tax credits or exemptions for operating CHP systems; (4) feed-in tariff, which is a direct payment to CHP owners for each kWh of electricity or BTU of heat generated from a qualifying CHP system; and (5) tax credits for each kWh or BTU generated from a qualifying CHP system.

There are also numerous barriers to combined heat and power (CHP), including inadequate information, institutional barriers, high transaction costs because of small projects, high financing costs because of lender unfamiliarity and perceived risk, "split incentives" between building owners and tenants, and utility-related policies like interconnection requirement, high standby rates, exit fees, etc. The lack of standard offer or long-term contracts, payment at avoided cost levels, and lack of recognition for emissions reduction value provided also creates obstacles.

Policies to remove these barriers include:

- Improved interconnection policies
- Improved rates and fees policies
- Streamlined permitting
- Procurement policies
- Education/outreach

2.6 Pricing strategies to promote renewable energy and/or CHP (e.g. net metering)

ADD GENERAL TEXT

Net metering is a policy that allows owners of grid-connected distributed generation (generating units on the customer side of the meter, often limited to some maximum kW level) to generate excess electricity and sell it back to the grid, effectively "turning the meter backward." This policy allows for low transaction costs (e.g., no need to negotiate contracts for the sale of electricity back to the utility) and is attractive to DG owners because they are compensated equal to their full cost of purchased electricity (i.e., the sum of wholesale generation, transmission and distribution, and utility administration costs) rather than just the utility's avoided costs. This has the effect of paying retail electricity rates for the generation up to total on-site usage. These are considerably higher than wholesale prices available to other generators.

2.7 Renewable energy development issues (zoning, siting, etc.)

2.8 Demand-side energy efficiency (RCI focus)

SUMMARIZE RCI OPTIONS HERE
…e.g. Pricing strategies can provide electricity consumers much greater opportunity to manage their electricity consumption in response to price signals.

2.9 Technology-focused initiatives (biomass, energy storage, etc.)

ADD GENERAL TEXT

ES-3 FOSSIL FUEL AND NUCLEAR ELECTRICITY

3.1 Advanced fossil fuel technology incentives, support, or requirements (IGCC, CCS, etc.)

Advanced fossil technologies are more efficient than conventional fossil technologies and, therefore, have lower CO2 emission rates. Advanced fossil technologies combined with carbon capture and sequestration or reuse (CCS) could enable significantly lower CO2 emissions. Policies for advanced fossil technologies may include mandates or incentives to use advanced coal technologies for new coal plants. A mandate might require that new coal plants achieve a certain CO2 emission rate that is only achievable with advanced technology. Alternatively, a mandate might require that all new coal plants be of a certain type, e.g., Integrated Gasification Combined Cycle (IGCC). A mandate might also be a requirement that a certain percentage of new coal plants be IGCC or employ advanced fossil technologies. Incentives may be in the form of direct subsidies or assistance in securing financing and/or off-take agreements. A combination of mandates and incentives is also possible.

Policies to encourage CCS could include a state agency or department within an existing agency tasked with promoting CCSR, evaluation studies to identify geologically sound reservoirs, R&D funding to improve CCS technologies, financial incentives to capture and store carbon or to capture and reuse it, and/or mandates to capture and store carbon or capture and reuse it.

3.2 Nuclear Power Support and Incentives

GENERAL TEXT NEEDED, THE REST CONDENSED

ES-4.1 New Nuclear Capacity and Licensing

As of the end of last year, there were 104 commercial nuclear generating units that are fully licensed by the U.S. Nuclear Regulatory Commission (NRC) to operate in the United States. Of these 104 reactors, 69 are categorized as pressurized water reactors (PWRs) totaling 65,100 net megawatts (electric) and 35 units are categorized as boiling water reactors (BWR) totaling 32,300 net megawatts (electric). Although the United States has the most nuclear capacity of any nation, no new commercial reactor has come on line since 1996 (this was the Watt's Bar reactor in Tennessee, owned and operated by the Tennessee Valley Authority which began commercial service in May 1996). The current Administration has been supportive of nuclear expansion, emphasizing its importance in maintaining a diverse energy supply and its potential for producing electricity with negligible greenhouse gas emissions during operation. As of October 31, 2005, however, no U.S. nuclear company has yet applied for a new construction permit. (source: http://www.eia.doe.gov/cneaf/nuclear/page/nuc_reactors/reactsum.html)

ES-4.2 Nuclear Plant Relicensing

Nuclear plant relicensing allows a nuclear power plant to extend the life of the facility for twenty years past its original 40-year license term. The Nuclear Regulatory Commission (NRC), the nation's regulatory authority for nuclear power, considers the relicensing program one of its major cornerstones of current regulatory activity. The NRC has promulgated new regulations pertaining to the safety and environmental reviews associated with license renewal and has reported that they are consistently able to complete licensing action reviews typically within 30 months from start to finish.

The NRC reports that there are many benefits of the renewal program that had not been anticipated such as licensees completing significant component upgrades and refurbishments, activities that they argue have significantly enhanced the safety and inspection procedures of plants with renewed licenses. In addition, the NRC argues that developing a successful license renewal process has breathed new life into the nuclear industry in the U.S. Detractors of nuclear plant relicensing argue that relicensing is ill-advised because nuclear power stations pose tempting terrorist targets and aging equipment will pose safety hazards for surrounding communities. (source: http://www.nrc.gov/reading-rm/doc-collections/commission/speeches/2004/s-04-004.html)

ES-4.3 Nuclear Plant Uprating

A nuclear power plant uprating is a process whereby a licensee receives approval from the NRC to operate a plant at a higher power level than the level authorized in the original license. The NRC has actually been reviewing and approving power uprates since the 1970's. With the advent of license renewal, however, the NRC has received more of these requests due to the refurbishment and replacement of major components that would enable operation at a higher power level. To date, the NRC has approved over 100 power uprate increases resulting in a gain of almost 4,200 megawatts electric at existing plants. Collectively, an equivalent of more than four large nuclear power plants has been gained through implementation of power uprates at existing facilities. Over the next five years or so, it is expected that a number of power uprates requests will be received by the NRC which, if approved, would add the equivalent of another two large nuclear plants to power supply. There have been a number of unanticipated operational concerns have resulted from the NRC’s approval of plants operating at extended power levels. For example, several boiling water reactor units have experienced cracking in non-safety related steam dryer parts. (source: http://www.nrc.gov/reading-rm/doc-collections/commission/speeches/2004/s-04-004.html

3.3 Efficiency Improvements and Repowering Existing Plants

Efficiency improvements refer to increasing generation efficiency at power stations through incremental improvements at existing plants (e.g., more efficient boilers and turbines, improved control systems, or combined cycle technology). Repowering existing power plants refers to switching to lower or zero emitting fuels at existing plants, or for new capacity additions. This includes co-firing biomass at coal plants fuels or the use of natural gas in place of coal or oil. Policies to encourage efficiency improvements and repowering of existing plants could include incentives or regulations as described in other options, with adjustments for financing opportunities and emission rates of existing plants.

3.4 Biomass co-firing at fossil fuel power stations

3.5 Technology-focussed initiatives (fuel cells, energy storage, etc.)

ES-4 Fuel Production, Processing, and Delivery

4.1 Oil and Gas Production: GHG Emission Reduction Incentives, Support, or Requirements

There are a number of ways in which methane (CH_4) and CO_2 emissions in the oil and gas industry can be reduced. Natural gas consists primarily of methane; therefore, any leaks during production, processing, and transportation/distribution should be addressed. In addition to reducing GHG emissions, stopping these leaks may be economically beneficial because it can prevent the waste of valuable product.

The EPA Natural Gas STAR program offers numerous methods of preventing leaks. These methods, called Best Management Practices (BMPs) and Partnership Reduction Opportunities (PROs), are divided by industry sub sector: production, processing, and transportation/ distribution. Among the practices recommended are: *preventive maintenance*: (improving the overall efficiency of the gas production and distribution system), *reducing flashing losses (releases when pressure drops at* storage tanks, wells, compressor stations, or gas plants), and changing and replacing parts and devices to reduce leaks and improve efficiency, among others.

4.2 Natural Gas Transmission and Distribution

4.3 Oil Refining and/or Coal-to-liquids production : GHG Emission Reduction Incentives, Support, or Requirements

There are a number of ways in which CH_4 and CO_2 emissions can be reduced in the production of liquid fuels at oil refineries or coal-to-liquids plants. These options include various efficiency measures including enhanced combined heat and power along with carbon capture and storage. Coal-to-liquids (CTL) plants are energy-intensive, and produce about 10 times more CO_2 emissions than conventional oil refineries in order to produce liquid fuels; however, with carbon capture and storage (and co-production of electricity and liquid fuels) such emissions can be substantially reduced.[1] Regulations, incentives, and/or support programs can be applied to achieve these reductions (see ES-5 for some examples).

4.4 Coal Production: GHG Emission Reduction Incentives, Support, or Requirements

4.5 Coal-to-liquids Production: GHG Emission Reduction Incentives, Support, or Requirements

[1] International Energy Agency, 2006. *Energy Technology Perspectives.* Well-to-wheel GHG emissions from coal liquids are approximately twice those of conventional oil products. Cogeneration and carbon capture and storage can reduce those emissions to levels similar to, or slightly below, those of conventional oil products.

4.6 Low-GHG Hydrogen production incentives and support

ES-5 Carbon Capture and Storage or Reuse

5.1 CCSR enabling policies (administration, regulation, liability, incentives)

NEEDS GENERAL TEXT

The ability to implement CCS at a given site may rely on the existence of an infrastructure for transporting the CO2 to a suitable location for sequestration or reuse. The US currently has more than a thousand miles of CO2 pipelines, which are primarily used for enhanced oil recovery (whereby CO2 is pumped into old non-producing oil reservoirs to pump additional oil out of each well). This option would provide incentives for developing and investing in CO2 pipelines to serve CCS operations. It would also help coordinate the creation of a CO2 pipeline infrastructure with sites generating CO2.

5.2 CCSR incentives

Carbon capture and storage or reuse (CCSR) involves capturing carbon dioxide and either (1) sequestering it permanently in a geologically sound reservoir or (2) reusing it to aid in oil and gas extraction or as a feedstock for industrial processes, and perhaps eventually as a feedstock that when combined with water can be reformed into liquid fuels. Where excess CO_2 is found in some natural gas reservoirs – pipeline natural gas can contain only up to 2.5% CO_2 by volume, and some gas fields have a higher concentration – it is typically vented to the atmosphere in gas processing plants. Carbon can also be captured in the process of gasifying coal to liquid fuels. This process is well established in the chemical industry and forms the basis for Integrated Gasification Combined Cycle (IGCC) electricity generating plants.

Policies to encourage CCSR could include a state agency or department within an existing agency tasked with promoting CCSR, evaluation studies to identify geologically sound reservoirs, R&D funding to improve CCSR technologies, financial incentives to capture and store carbon or to capture and reuse it, and/or mandates – coupled with technical feasibility and cost and investment recovery mechanisms, if appropriate – to capture and store carbon or capture and reuse it.

5.3 R&D for CCSR

ES-6 Other Energy Supply Options

6.1 Transmission System Upgrading

Satisfying the long-term demand for electricity requires not only new generating capacity, along with demand-side measures, but measures to improve transmission to reduce line losses and bottlenecks and enhance throughput. Entirely new transmission capacity may also be necessary.

Siting new transmission lines can be a difficult process given their cost and their actual or perceived impact on health, environment, and the use, enjoyment, and value of property.

New construction and retrofit activities on the transmission grid could incorporate advanced composite conductor technologies, capacitance technologies, grid management software, and other technologies that may become available to increase transmission capacity that can increase line carrying capacity as much as threefold.

6.2 General Distributed Generation Support (Interconnection Rules, Net Metering, etc.)

NEEDS WORK

A standardized interconnection rule is a policy to increase the amount of clean distributed generation (DG). Standardized interconnection rules, which are generally developed and administered by a state's public utility commission, establish clear and uniform processes and technical requirements for connecting DG systems to the electric utility grid. These rules are an important mechanism for improving the market conditions for clean DG as utility interconnection can be a critical component of a successful DG project. Connecting to the grid enables the facility to: a) purchase power from the grid to supply supplemental power as needed, for example, during periods of planned system maintenance, b) sell excess power to the utility, c) maintain grid frequency and voltage stability, as well as utility worker safety. The primary objective of a standard interconnection rule is to obtain the benefits that clean DG can provide without comprising grid safety or reliability. This topic is of particular interest as the Energy Policy Act of 2005 (EPAct 2005) directs states to consider upgrading their standards for interconnecting small generators within one year of enactment. (source: http://www.epa.gov/chp/pdf/interconnection_factsheet.pdf)

6.3 Reduce Transmission and Distribution Line Loss

6.4 Environmental (emissions) Disclosure

Emission disclosure consists of establishing requirements that GHG emitters publish their estimated GHG emissions on a regular (e.g., annual) basis. In addition to emissions, disclosure can also include an accounting of business risks due to climate change, such as assets in danger of weather-related damage, threats to market share, and risks of future regulation. Environmental disclosure allows investors and consumers to have information regarding a firm's GHG emissions and climate risks so as to better make purchasing and investment decisions. In the case of energy supply, environmental disclosure would take the form of providing consumers with information on carbon emissions per kWh in a form that it would help them make decisions about electricity purchases and consumption. It is effective particularly if coupled with the opportunity for consumers to select their electricity provider.

Sources: Carbon Disclosure Project www.cdproject.net/

World Economic Forum GHG Registry www.weforum.org/ghg

Survey of Greenhouse Gas Standards in Other States

State	Start Date	GHG Emissions Performance Standard	Applicability	Additional information
Greenhouse Gas Emission Performance Standards (Long-term financial commitments to electrical generating resources) – "load-based"				
California: Senate Bill No. 1368 (approved Sep 2006)[2] CPUC interim opinion (Jan 2007)[3]	2007	Equal to or less than a new, combined-cycle natural gas power plant. Interim rule: 1100 lbs of CO_2e/MWh	New long-term financial commitments to baseload electricity generation by load-serving entities. (Applies to in-state or imported electricity.)	Ensures no reduction in energy supply reliability Emissions based on net emissions from electricity production. CO_2 stored in geologic formations shall not be counted as emissions from the power plant (interim opinion: for sequestration projects, lifetime emissions count, plan but immediate storage not needed) Allows for added return where applicable (1/2-1%) for zero- or low-carbon generating resources.
Washington: PSSB 2399 (in Senate consideration)[4]	July 1, 2008 (if approved)	The lesser of 1100 lbs of CO_2e/MWh or emissions of a combined-cycle natural gas power plant with 100 units in operation for at least 3 years	New, long-term financial commitments to baseload electricity generation by IOU and consumer-owned utilities.	Ensures no reduction in energy supply reliability Emissions based on net emissions from electricity production. CO_2 stored in geologic formations shall not be counted as emissions from the power plant.
Carbon Dioxide Emission Standards For *New* Energy Facilities – "facility-based"				
Oregon: HB 3283[5]	1997 Updated 2003	Meet emissions standard 17% better than the most efficient base-load gas plant currently operating in the U.S. (0.675 lb. CO_2 per kWh)	New energy facilities	Compliance options: - implement offset projects directly - pay a fee of \$0.85 per metric ton CO_2 using a qualified organization that purchases/manages offsets (below market cost of offsets).
Washington: HB 3141 & RCW 80.70.020, WAC 173-407	2003 Updated 2004	CO_2 mitigation plan to offset 20% of CO_2 equivalent emissions over a 30 year period	New energy facilities > 350 MW (EFSEC rules); 25-350 MW (Dept Ecology rules); or output increases at existing facilities	Compliance options: - implement offset projects directly - pay a fee of \$1.60 per metric ton CO_2 using a qualified organization that purchases/manages offsets (below market cost of offsets).
Carbon Dioxide Emission Standards For *Existing* Energy Facilities – "facility-based"				
Massachusetts: Amendment to 310 CMR 7.29[6]	2006 cap 2008 rate	Cap: Emissions cannot exceed historical emissions Rate: Emissions must not exceed 1800 lb CO_2/MWh	Six current power generation facilities in MA	Compliance may be met via emission reductions, avoided emissions, or sequestered emissions.

[2] http://www.energy.ca.gov/ghgstandards/documents/sb_1368_bill_20060929_chaptered.pdf
[3] http://www.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/64072.htm
[4] http://apps.leg.wa.gov/billinfo/summary.aspx?bill=6001
[5] http://www.oregon.gov/ENERGY/SITING/docs/ccnewst.pdf ;

[6] http://trinityconsultants.com/State_Regulatory_News.asp?st=MA&n=313; http://www.mass.gov/dep/air/laws/ghgappb.pdf