

CENTER FOR CLIMATE STRATEGIES

State Climate and Energy Policy Action Areas; Derived from State Climate Action Plans Since 2000

Detailed Actions Are Listed in the CCS Catalog of States Actions; Over 300 in Total at Last Count

November 29, 2006

1. Energy Efficiency and Conservation (stationary source fossil energy reduction – coal, oil, natural gas, etc.)

- a. Building design and operation
 - i. Building codes
 - ii. Leadership efforts (Green building initiatives, “reach codes”, government lead-by-example)
- b. Appliance and equipment efficiency
 - i. Appliance standards
 - ii. Combined water-energy use efficiency
- c. Other efficiency options
 - i. Advanced electricity transmission and distribution
 - ii. Methane reduction in natural gas production and distribution (e.g., leaks)
- d. Enabling policies
 - i. Efficiency funds, savings goals, and programs
 - ii. Tax and other incentives
 - iii. Electricity and gas rate design
 - iv. Market transformation initiatives; education / outreach
 - v. Verifiable corporate / institutional targets (GHG or energy)

2. Clean and Renewable Energy (stationary source fossil energy reduction, expansion of renewable and alternative stationary energy source uses – biomass, waste, wind, solar, etc)

- a. Renewable energy
 - i. Renewable goals or portfolio standards

- ii. Financial incentives / feed-in tariffs
 - iii. Green power programs
 - iv. Enabling conditions (e.g., net metering, grid access, adequate transmission and distribution)
 - v. Generation performance / carbon standards
 - vi. Advanced building codes and incentives to promote distributed renewables (e.g., “solar ready” roofs, siting, etc.)
 - vii. Research and development (e.g., energy storage to address intermittency)
- b. Advanced fossil fuel technologies
- i. Carbon capture and storage (for biomass as well)
 - ii. Incentives for advanced technologies (e.g. IGCC, FutureGen)
 - iii. Cleaner fossil fuel production and processing
 - iv. Generation performance / carbon standards
 - v. Research and development
- c. Waste energy recycling (capture/recovery and use)
- i. Incentives and barrier removal for combined heat and power
 - ii. Advanced Energy Portfolio Standards (including CHP, other waste energy recycling)
 - iii. Backpressure turbines instead of pressure reduction valves
 - iv. Combustion of industrial tail gases
 - v. Utility regulatory reforms (e.g., repeal private wires prohibition)
- d. Enabling Policies
- i. Environmental Disclosure
 - ii. Net Metering; Advanced Metering
 - iii. Pricing (e.g., increasing block rates; real-time pricing, etc.)
 - iv. Interconnection standards / requirements
 - v. Long-Term Standard Offer Contracts; Loan Guarantees

3. Transportation and Land Use Efficiency (mobile source fossil fuel reduction – petroleum; expansion of renewable and alternative mobile energy sources – ethanol, biodiesel)

- a. Transportation System Efficiency
 - i. Fuel Taxes and Vehicle Fees

- ii. Commuting Efficiency Programs
- iii. Fuel Efficient Auto Insurance
- iv. Other VMT-Efficiency Programs
- b. Location Efficiency
 - i. Smart Growth
 - ii. Multimodal System Infrastructure
 - iii. Transit Oriented Development
 - iv. Non-Motorized Transport Infrastructure
- c. Alternative Fuels
 - i. Various Ethanol
 - ii. Biodiesel
 - iii. Cleaner Diesels
 - iv. Other Low-Carbon Fuels
- d. Efficient Vehicle Design
 - i. Cleaner Cars
 - ii. Fuel Efficient Tires
 - iii. Diesel Engine Retrofits and Retirements
 - iv. Incentives and Feebates
- e. Operational Efficiency
 - i. Anti-Idling
 - ii. Speed Limits
 - iii. Intermodal Freight Initiatives
 - iv. Freight and Aviation Operations
 - v. Best Practices and Lead-by-Example

4. Agriculture and Forestry Conservation (expansion of renewable stationary and mobile source energy sources – biomass crops and waste, recycled animal waste, wind; reduction of stationary and mobile source fossil energy use – electricity, heat and petroleum/diesel)

- a. Land protection
 - i. Forest and farmland protection programs
 - ii. Disincentives for land clearing and conversion
 - iii. Support for growth management programs

- b. Land restoration
 - i. Forest establishment and tree planting
 - ii. Rehabilitation of damaged forests and farms
- c. Farming and forestry practices
 - i. Soil carbon buildup through improved practices
 - ii. Fertilizer and manure management practices
 - iii. Livestock and poultry waste management
 - iv. Improved animal feedstocks
 - v. Local grown farm and forest products
 - vi. Forest thinning and density management
 - vii. Sustainable wood products
- d. Bioenergy production
 - i. Biofuels, including starch and cellulosic ethanol, biodiesel
 - ii. Biomass heat and electricity, including fuel wood, crops, byproducts, and waste

5. Waste Management (expansion of renewable and alternative stationary and mobile source energy uses – biomass gas, electricity, power and liquid fuel; displacement of fossil energy for stationary and mobile sources)

- a. Solid waste
 - i. Waste reduction
 - ii. Recycling
 - iii. Energy recovery
 - iv. Composting
- b. Waste water
 - i. Water use efficiency
 - ii. Energy efficiency
 - iii. Energy recovery

6. Industrial Process Improvements (stationary and source fossil energy reduction – green and energy efficient products and processes and related electricity, heat, liquid fuel use; expansion of renewable and alternative stationary and mobile source energy uses – clean coal, clean oil and gas;)

- a. Raw material extraction

- i. Reduced leaks of GHGs at the wellhead or source
 - ii. Expanded use of land conservation practices during extraction
 - iii. Capturing and re injecting CO₂ during extraction
 - iv. Use of lower emitting raw materials
- b. Production process
 - i. Reduced leaks of GHGs in manufacturing process
 - ii. Reduction and recycling of production inputs
 - iii. Use of “green” product inputs, such as organic and recycled materials, or sustainable wood
 - iv. Chemical sequestration for production of products
- c. Packaging and distribution
 - i. Expansion of “green” product markets and materials
 - ii. Use of reduced fuel distribution systems