



Catalog of State Actions

Residential, Commercial, and Industrial (RCI) Technical Work Group

A catalog of state-level, greenhouse gas (GHG)-reducing actions and policy options prepared by the Center for Climate Strategies (CCS), Kansas Energy and Environmental Policy Advisory Group (KEEP), and others based on actions undertaken or considered by Kansas and other states, including regional, state, local, and private actions.

Important Note: The state actions are numbered in this catalog solely for convenience in referencing them. Their numbers do NOT reflect a ranking or prioritization of the actions.

Key to Future Rankings of Options in the Tables That Follow

Potential GHG Emission Reductions*	Potential Cost or Cost Savings* [†]
High (H): At least 1.0 million metric tons (MMt) carbon dioxide equivalent (CO ₂ e) per year by 2020	High (H): \$50 per metric ton CO ₂ e (tCO ₂ e) or above
Medium (M): From 0.1 to 1.0 MMtCO ₂ e per year by 2020	Medium (M): \$15–\$50/tCO ₂ e
Low (L): Less than 0.1 MMtCO ₂ e per year by 2020, or 1 MMtCO ₂ e by 2050	Low (L): Less than \$15/tCO ₂ e
Uncertain (U): Not able to estimate at this time	Uncertain (U): Not able to estimate at this time
	Negative (Neg): Net cost savings

*Several measures may overlap in terms of emissions reductions and/or cost impacts. Estimates assume measures would be implemented independently from other measures.

[†] Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.

Definition of “Priorities for Analysis”

- **High:** High priority options will be analyzed first.
- **Medium:** Medium priority options will be analyzed next, time and resources permitting.
- **Low:** Low priority options will be analyzed last, time and resources permitting.

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in KS
RCI-1	ENERGY EFFICIENCY PROGRAMS, FUNDS, AND GOALS					
1.1	Utility Demand-Side Management (DSM) for Electricity (including expansion of same)					
1.2	Utility Demand-Side Management (DSM) for Natural Gas, Propane, and Fuel Oil					
1.3	Non-Utility Demand-Side Management (DSM) Programs for Electricity					
1.4	Energy Efficiency Funds (e.g., public benefits funds) administered by state agency, utility, or third party (e.g., Energy Trust)					
1.5	Regional Market Transformation Alliance					
1.6	Reduced cost or free residential energy audits					
1.7	Reduced cost energy audits for businesses					
1.8	Low-cost Loans for Energy Efficiency improvements					
1.9	Saving energy, savings sales tax					
1.10	Reduce energy use by 10% in state-owned buildings					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in KS
RCI-2	BUILDINGS					
2.1	Improved Building Codes for Energy Efficiency					
2.2	Training of building code and other officials in energy code enforcement”					
2.3	Improved Design and Construction, “Government Lead-by-Example”_					
2.4	Increased Use of Blended Cement (substituting fly ash or other pozzolans for clinker)					
2.5	Support for Energy Efficient Communities Planning, “Smart Growth”					
2.6	Promotion and Incentives for Improved Design and Construction (e.g., LEED, green buildings) in the Private Sector_					
2.7	Feebate program to encourage energy efficiency in building design					
2.8	Incentives for retrofit of existing residential buildings					
2.9	Training and Education for Builders and Contractors (e.g., heating, ventilation, and air conditioning [HVAC], sizing, duct sealing)					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in KS
2.10	Energy Management Training/Training of Building Operators					
RCI-3	APPLIANCE STANDARDS					
3.1	Expansion of State-level Appliance Efficiency Standards					
3.2	Support for Federal-level Appliance Efficiency Standards					
3.3	Require high-efficiency appliances in new construction and retrofits					
RCI-4	EDUCATION AND OUTREACH					
4.1	Consumer Education Programs					
4.2	Energy Efficiency School Curriculum					
4.3	Truth-in-Advertising Campaign					
4.4	In-home energy displays					
RCI-5	PRICING AND PURCHASING					
5.1	Green Power Purchasing for Consumers					
5.2	Net-metering for Distributed Generation					
5.3	Time of use rates					
5.4	Tiered (increasing block) rates for electricity and natural gas use					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in KS
5.5	Bulk Purchasing Programs for Energy Efficiency or Other Equipment					
RCI-6	CUSTOMER-SITED DISTRIBUTED ENERGY AND COMBINED HEAT AND POWER					
6.1	Incentives to Promote Implementation of Renewable Energy Systems					
6.2	Incentives and Resources to Promote Combined Heat and Power (a.k.a. cogen)					
6.3	Efficient transformers on the customer side of the meter					
6.4	Incentives for passive solar heating					
6.5	White Roofs, Rooftop Gardens, and Landscaping (including Shade Tree Programs)					
6.6	Focus on specific end-uses/technologies					
6.7	Passive solar heating design					
6.8	Solar hot water heating					
6.9	Appliance Recycling/Pick-Up Programs					
RCI-7	NON-ENERGY EMISSIONS (HFCs, PFCs, SF₆, CO₂ PROCESS EMISSIONS)					
7.1	Voluntary Industry-Government Partnerships					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in KS
7.2	Promotion and funding for Leak Reduction/Capture, Recovery and Recycling of Process Gases					
7.3	Promotion and funding for Process Changes/Optimization					
7.4	Use of alternative gases (other HFCs. Hydrocarbon coolants/refrigerants, etc.)					
RCI-8	GHG EMISSIONS—SPECIFIC GOALS AND POLICIES					
8.1	Support for switching to less carbon-intensive fuels (coal and oil to natural gas or biomass)					
8.2	Industry-specific emissions cap-and-trade program					
8.3	Negotiated Emissions or Energy Savings Agreements					
8.4	Local government program for voluntary emissions targets by businesses					
8.2	Provide tools and information for residents, businesses, and communities to perform GHG inventories					
RCI-9	OTHER					
9.1	Government agency requirements and goals					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions in KS
9.2	Reduce energy use by 10% in state-owned buildings					The Kansas Facility Conservation Improvement Program (FCIP). To date, the FCIP has completed over \$138.7 million in energy efficiency improvements in nearly 30 million square feet of public building space, avoiding nearly \$11 million in utility costs annually.
9.3	State building carbon-neutral requirement					
9.4	Municipal Energy Management					
9.5	Statewide effort to retrofit existing buildings (residential, commercial, public, and industrial) for energy efficiency					
9.6	Focus on specific market segments					
9.7	Energy efficiency reinvestment funds					
9.8	Industrial audits					
9.9	Focus on Industrial ecology/ by-product synergy					