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## Brief Description of Catalog of State Actions Cross-Cutting Issues (CCI) Technical Work Group (TWG)

*[Note that this listing is incomplete and will be fleshed out during the CCI TWG process. TWG members are encouraged to provide input on policies and programs in place in Kansas to assist in defining baselines. The “Notes” column of the CCI Catalog of State Actions should be used to record recently enacted policies and programs in Kansas relevant to a state action in the catalog.]*

### CCI-1. Greenhouse Gas Inventories and Forecasting

Greenhouse gas (GHG) emission inventories and forecasts are essential for understanding the magnitude of all emission sources and sinks (both man-made and natural), the relative contribution of various types of emission sources and sinks to total emissions, and the factors that affect trends over time. Inventories and forecasts also help to inform state leaders and the public on statewide trends, opportunities for mitigating emissions or enhancing sinks, and verifying GHG reductions associated with implementation of action plan initiatives. Responsibility for preparing GHG inventories and sinks often resides with the state environmental agency, which typically has the expertise needed to systematically compile information on GHG sources and sinks using established methods and data sources. Inventory and forecast efforts should be ongoing, reflecting improvements to the accuracy and completeness of data collected over time.

### CCI-2. Greenhouse Gas Reporting

GHG reporting reflects the measurement and reporting of GHG emissions at a statewide, sector, or subsector level to support tracking and management of emissions. GHG reporting can help sources identify emission reduction opportunities and reduce risks associated with possible future GHG mandates by moving “up the learning curve.” Tracking and reporting of GHG emissions can also help in the construction of periodic state GHG inventories. GHG reporting is typically a precursor for sources to participate in GHG reduction programs, opportunities for recognition, and a GHG emission reduction registry, as well as to secure “baseline protection” (i.e., credit for early reductions). Further, collaboration with other states in the development of a GHG reporting program can influence the development of GHG reporting practices throughout the region and nation and build consistency and reciprocity with other state or regional GHG reporting programs. Although GHG reporting is commonly voluntary, some states now require certain sources to report their annual GHG emissions.

**CCI-3. Greenhouse Gas Registry**

A GHG registry enables uniform measurement and recording of GHG emission reductions in a central repository. Typically, a registry also includes transaction ledger capability in order to support tracking, management, and ownership of emission reductions. Registries can help encourage sources to undertake GHG reduction efforts, enable potential recognition for such actions, provide baseline protection, and support the crediting of GHG mitigation actions. A registry can also provide a mechanism for regional, multistate, and cross-border cooperation. Examples of existing registries include The Climate Registry (<http://www.theclimateregistry.org/>) and the Chicago Climate Exchange (<http://www.chicagoclimatex.com/>).

**CCI-4. Statewide Greenhouse Gas Reduction Goals or Targets**

In states that have established GHG reduction goals or targets, the comprehensive, stakeholder-based climate action planning process typically serves to identify and quantify policies and measures by which these goals can be achieved. In states that have not specified goals or targets prior to the planning process, the establishment of goals or targets is often considered in concert with the state after the initial quantification results for other policy options become available.

**CCI-5. State, Regional, and Local Government and Academic Institutions GHG Emissions (Lead by Example)—Combined With Option 6**

In terms of GHG emissions, states are not only political jurisdictions that can provide incentives to, or impose regulatory requirements on, sources and citizens in order to reduce pollution. They are also significant emitters of pollution, by virtue of state-owned buildings, fleets, and various activities. States can reinforce the importance of reducing GHG, promote others to act in this direction, and often demonstrate the economic upside of doing so by putting their actions where their concerns are. For example, states can purchase low-emission vehicles for their fleets, utilize biofuels in their vehicles, construct and/or retrofit their buildings to be more energy efficient, purchase green or renewable electricity, or apply pollution prevention principles to GHG emission reductions. States can also commit to initiatives or actions focused on GHG reductions, such as The Climate Registry (<http://www.theclimateregistry.org/>) and the Chicago Climate Exchange (<http://www.chicagoclimatex.com/>). Some states have also elected to require recipients of state-funded projects to reduce the carbon footprint of the projects through the form of “climate-neutral bonding” (meaning no net increase in GHG emissions within the bond-issuing agency’s geographical jurisdiction after the project becomes operational). In addition, some states have included in their comments on environmental studies (environmental assessments and environmental impact statements) prepared for federal projects a request that GHG impacts of the projects be considered.

**CCI-6. Comprehensive Local Government Climate Action Plans—Combined With Option 5**

The relationship between local government jurisdictions and the state echoes in many ways the relationship between states and the federal government. Therefore, it may be appropriate to

enable, assist, and otherwise encourage local governments to pursue comprehensive, multisector climate action plans within their jurisdictions. Analogous to the state effort, local climate planning initiatives could involve local stakeholders, identify and address local mitigation opportunities, establish local emission inventories and/or forecasts, set local GHG reduction goals or targets, consider local climate impacts and possible adaptation responses, develop long-term sustainability plans, etc. The state should encourage local governments in such efforts and contribute technical and other assistance to the extent possible.

#### **CCI-7. Public Education and Outreach**

Public education and outreach can comprise and/or support GHG emission reduction programs, policies, or goals. Public education and outreach is vital to fostering a broad awareness of climate change issues and effects among a state's citizens (e.g., co-benefits, such as clean air and public health). Ultimately, public education and outreach is the foundation for the long-term success of all policy initiatives.

#### **CCI-8. Market-Based Greenhouse Gas Reduction Policies**

Tax and cap policies (typically considered as carbon taxes and cap-and-trade programs, respectively) can be among the most economically effective means to reduce GHG emissions. By internalizing costs that are currently not assessed (i.e., are “externalized”), such policies create financial incentives for entities to reduce their emissions—reducing emissions reduces costs.

A carbon tax could be relatively simple and easy to implement and could apply to all sectors. A tax could be applied “upstream” to producers, processors, or shippers based on the amount of carbon dioxide equivalent (CO<sub>2</sub>e) emissions that the fuel will produce when it is consumed (or directly in the case of process emissions from industry). Or conversely, a tax could also be levied “downstream” on retail sales. In either case the revenue could be used to reduce other taxes or to finance other emissions reduction efforts. A carbon tax would also encourage efficiency improvement in many sectors, in addition to limiting greenhouse gas emissions. For further discussion on carbon taxes vs. cap & trade, see [http://kec.kansas.gov/reports/GHG\\_Review\\_FINAL.pdf](http://kec.kansas.gov/reports/GHG_Review_FINAL.pdf)

Cap-and-trade programs typically establish an upper limit on emissions (the “cap”), usually lower than current emissions, which creates the drive for reductions. Also established are “allowances” or “rights to emit,” which are allocated or auctioned to covered sources. Sources need to match their emissions to the amount of allowances that they hold, but can trade allowances freely among themselves. The result is that sources that can reduce emissions comparatively inexpensively tend to “over-comply” (i.e., have more allowances than they need) and can sell their allowances to sources with higher emission reduction costs. This dynamic encourages sources to pioneer innovative ways to make reductions, so they will need fewer allowances and may even be able to profit by selling allowances. The broader the universe of sources (types of sources covered, geographical region covered, etc.), the more likely it is that cost differences will be found, thereby reducing the overall cost of the program. The Midwestern

Governors Greenhouse Gas Accord is examining the viability of a regional cap-and-trade approach.

#### **CCI-9. Seek Funding for Implementation of KEEP Recommendations**

Allocation of some resources under existing state programs and initiatives can be targeted to achieving state climate goals. However, it is likely that additional resources may be needed to implement the recommendations in the state climate action plan. Therefore, the state and others will need to consider seeking and stimulating additional funding and investment in climate solutions identified in the state plan.

#### **CCI-10. Adaptation and Vulnerability**

Because of the build-up in the atmosphere of long-lived GHGs that already has occurred, states will experience the effects of climate change for years to come, even if immediate action is taken to reduce future GHG emissions. As such, it is essential that the state develop a strategy to manage and adapt to the projected impacts of ongoing climate change, particularly where the state is most vulnerable.

#### **CCI-11. Participate in Regional and Multistate GHG Reduction Efforts**

Regional approaches can offer broader and more streamlined market opportunities to reduce GHG emissions in collaboration with partner states or other organizations. Regional and multistate organizations have formed in several parts of the country to reduce GHG emissions. Examples are the Northeast States Regional Greenhouse Gas Initiative (RGGI) (<http://www.rggi.org/>), the Midwestern Regional Greenhouse Gas Reduction Accord (<http://www.midwesterngovernors.org/govenergynov.htm>), and the Western Climate Initiative (<http://www.westernclimateinitiative.org/Index.cfm>).

#### **CCI-12. Identify or Create a Clearinghouse To Facilitate Investment in Climate-Related Business Opportunities**

The intent of this policy option is to encourage and facilitate the involvement of funding and investment sources, business interests, and entrepreneurs in pursuing business opportunities associated with GHG reductions and global warming solutions as quickly and as significantly as possible. The creation of a clearinghouse-like entity may make it possible to match technology developers and other climate solution entrepreneurs with necessary financing more effectively and expeditiously. As a result, a state's ability to identify and secure early business opportunities associated with climate change may be enhanced, increasing its global competitive advantage and job creation within the state.

Potential funding sources include philanthropic organizations, high-net-worth individuals, or others interested in supporting innovative, environmentally effective market solutions. Recognizing that fortunes are likely to be made in the "new energy economy," for-profit investors, pension funds, mutual funds, and/or venture capitalists may be looking to fund similar

business opportunities. Although technology entrepreneurs are often cited as offering potential global warming solutions, equally progressive solutions may lie in the fields of law, accounting, marketing, production, and government relations and lobbying. The objective of this policy option is to leverage a state's specific talents for global warming solutions into securing the business opportunities and market advantages that well-supported "early-bird" efforts are likely to reap in a carbon-constrained world.

**CCI-13. Encourage the Creation, Enhancement, or Expansion of a Business-Oriented Organization To Share Information and Strategies, Recognize Successes, and Support Aggressive GHG Reduction Goals**

Successful state GHG reduction efforts are highly dependent on active participation of the business community, particularly in the energy, agriculture, transportation, development, and manufacturing sectors. To facilitate a strategic approach that has an optimal impact, a statewide proactive business organization could be formed to address climate opportunities and risks.

**CCI-14. Dedicate Greater Public Investment to Climate Data and Analysis**

To ensure cost-effective investment of resources, it is essential to have accurate and current data and information about GHG emissions and impacts, along with state-of-the-art computer modeling capabilities. High-quality data and accurate predictive capabilities are key elements in being able to plan strategically and track progress over time in reducing GHG emissions. It is also important to integrate efforts of multiple entities gathering GHG data, so that additional monitoring and data collection resources are effectively utilized. One example might be the formation of a state climate data and analysis center to develop and provide objective, state-specific information regarding climate data, analysis, assessment of options and directions, identification of trends, development or improvement of computer modeling, and other information to government, business, and the public.

**CCI-15. Facilitate the Development of an Effective Carbon Credit System, Using State, Regional or National Approaches**

Carbon credit systems can encourage development of carbon markets (and offset techniques). The state could purchase carbon credits associated with its own activities, function as a purveyor of credits to others, act as a certification entity of other carbon exchanges or participate in a regional credit system if one is part of a Midwestern Governors GHG Accord cap-and-trade system.

The CCI TWG may want to recommend that a "Market Advisory Group" of experts be formed to provide guidance to the state on the design of market-based compliance programs to manage GHG emissions. California has formed a Market Advisory Committee (MAC) to help develop a GHG cap-and-trade program in the state; the MAC has formulated guiding principles and recommendations for the program.

*[Note: This option may overlap with elements of other work groups such as the Energy Supply (ES) TWG. The CCI TWG will coordinate with the ES TWG to ensure consistency and to avoid duplication of effort during development of CCI-15, if chosen.]*