APPROACHES FOR ALL LEVELS OF GOVERNMENT: STATES AND CITIES FOR CLIMATE ACTION

EXECUTIVE SUMMARY

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The Challenge

States, territories, tribes, and cities play an essential role in implementing and innovating decarbonization. The U.S. federal system allows state and city governments to set policies and targets, design laws and standards, implement financial mechanisms to develop and support markets (e.g., green bonds), and enforce regulatory compliance. While cities and states are both empowered to undertake many roles in regard to climate action, they have limited agency in regard to overarching jurisdiction and resources. Cities and states require multiple funding sources to deliver essential resources for low-carbon development and climate risk management. These limitations can be overcome by a coherent set of policies across city, state, and federal levels.

The Solution

U.S. cities have significant power to address climate action due to their ownership of key assets, their ability to set and control budgets for city functions, and the ability to set their own vision and policy.[1] The majority of regulatory and siting decisions for utilities, transportation planning, building codes, and other important aspects of energy and transportation decision-making take place at the state and regional levels. The limited agency of cities and states can be overcome by a coherent set of policy priorities.

- *Renewable Portfolio Standards (RPS) and Climate Action Plans (CAP)*: RPSs specify a minimum percentage of energy purchased by utilities come from renewable sources and provide significant economic returns in reduced emissions and pollution.[2] CAPs allow cities and states to tailor emissions reduction strategies to the specific culture, landscape, and economy of that municipality or region.
- *Buildings and housing*: Implementing energy efficiency projects in municipal facilities allows states and cities to lead by example, engage the private sector, and demonstrate that reducing emissions can also save money. States and cities should implement municipal building policies that standardize and institutionalize sound energy management. Decarbonizing existing buildings can be achieved through a combination of the lowest-cost energy efficiency retrofits and electrification, so that a building's energy comes from renewable sources, including utility-scale wind and solar, community solar projects (also called solar gardens), and rooftop solar.
- *Land use and zoning*: Cities should adopt transit-oriented development policies that

decrease single occupant vehicle trips and vehicle-miles traveled, such as expanded public transportation options, improved infrastructure for safe walking and biking, and urban mixed-use development with legitimately affordable housing. Municipal permitting offices and public utility commissions should streamline and accelerate the build-out of EV charging infrastructure, particularly for public chargers near commercial areas or multifamily residential units. Municipalities should reform single-family zoning which impedes the densification of housing, and reduces the viability of reasonable access to public transit.

- *Avoiding lock-in*: Interdependencies between infrastructure, technologies, institutions, and behavioral norms need to be considered when integrating strategies for mitigation and adaptation to climate change to avoid locking into high-emission pathways and low-resilience urban futures.[3] An effective decarbonization plan focuses on long-lived infrastructure, replacing assets at the end of their life with low-carbon successors, and policy interventions. A learning-by-doing approach, combined with permanent intervention, is necessary for effective structural change.[4]
- *Measurement, Reporting, Verification (MRV)*: States and cities need MRV data associated with climate mitigation and adaptation actions to understand trends, create strategy, determine the effectiveness of adaptation and mitigation approaches, assure accuracy of information, and adjust strategies.[5]
- *Transportation*: While vehicle emissions standards are the jurisdiction of the federal government, California's zero emission vehicle requirements have accelerated emissions reductions nationwide, as well as the development and commercialization of advanced technology.
- *New Technologies*: States can partner with the federal government on Research, Development, Demonstration, and Deployment (RDD&D) of technology for carbon capture and storage,biofuel production and more.
- *Transitioning from a Linear Economy*: The municipal authority's ability to improve solid waste management also provides large opportunities to mitigate climate change and generate co-benefits, such as improved public health and local environmental conservation.[6]
- *Equity*: As states and cities plan and implement bold strategies for reducing GHG emissions, an opportunity exists to address existing disparities and to create stronger, more equitable communities for everyone. Making climate action plans more responsive to equity concerns will also help to galvanize broader constituencies of support for bold climate solutions.

Policy Recommendations

No-Regrets Policies

- Promote interstate and interagency coordination, including electricity demand modeling as well as land use change and land-based activities.
- Local governments and states should engage in regional planning efforts that bring multiple states and municipalities together.
- Direct resources toward a just transition through a variety of approaches including workforce programs and hiring preferences.

Transportation Strategies

- State-level vehicle standards and zero emissions vehicles policies should be encouraged by the Federal Government as some states may be able to go further faster.
- Link federal and state transportation funding for metropolitan planning organizations to per capita vehicle miles traveled reductions.
- Create state and city pricing systems that encourage more intensive use of vehicles and shared public transportation options.

Aligning Policies Across Scales

- States and cities should implement land use policies that promote densification, transit-oriented development, and complete streets.
- Cities should align incentives and programs for building retrofits with state climate goals and begin efficient retrofit of existing buildings.
- Provide jurisdiction to cities/municipalities that enables them to create hauler contracts for sorting and separation quality of materials.
- Reduce post-harvest losses by 50 percent compared to 2010 levels. Reduce household-level food waste from 30 percent to 15 percent by 2050.
- The 2018 Farm Bill would benefit from federal-state coordination to disseminate information to potential applicants, and it should be linked to other long-term policy initiatives to promote its use and longevity.

Public Private Partnerships

- Allocate RDD&D investments toward industrial process and product redesign, electric and low-carbon manufacturing process development, and enhanced material efficiency.
- The Federal Government should invest directly in key parts of the national energy system, including inter-state power transmission, public land use for power generation, and supporting infrastructure.
- Establish state-level programs to promote forest conservation and restoration, agroforestry, and urban forestry.

Outcomes

States and cities are key to the development of decarbonized infrastructure and the implementation of effective policies. State and local zoning decisions will drive the smart growth and urban densification policies that are critical for cost-effectively reducing transportation-related emissions and maintaining our terrestrial carbon sink. In the realm of energy policy, states have led the charge on energy efficiency standards. Local governments have often been leaders on climate and sustainability. While state and local governments are limited in some areas, they have the ability to set their own vision on climate policy and lead the effort to achieve zero-carbon regardless of the national agenda.

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