Response of the American Planning Association to a Request for Information from the House Select Committee on the Climate Crisis

November 22, 2019

The American Planning Association has chosen to respond to a select portion of the questions presented by the Committee in their Request for Information to stakeholder organizations. We appreciate the opportunity to respond to questions that we are poised to answer based on our organizational expertise.

Sector-Specific Policies

1. What policies should Congress adopt to decarbonize the following sectors consistent with meeting or exceeding net-zero emissions by mid-century? Where possible, please provide analytical support that demonstrates that the recommended policies achieve the goal.

   a. Transportation

   Transportation is now the largest source of greenhouse gas (GHG) emissions in the U.S. The transport sector currently accounts for nearly 30% of total emissions. From 2005 to 2017, transportation emissions fell slightly (by about 6%) due mostly to improved vehicle efficiency, but that trend has reversed with transportation emissions growing since 2012. This renewed growth suggests that reducing emissions will require more than continued efficiency standards and will require more aggressive actions in addressing broader issues of land use and mobility options.

   This reality makes planning particularly important as a tool for addressing the climate crisis. The American Planning Association (APA) urges Congress to consider reforms in four key areas to reduce emissions and mitigate climate impacts related to transportation. To achieve these reductions, APA believes federal policy should make climate a required component of federally required transportation plans, significantly boost investment in lower emission transportation options, support technological innovation and smart infrastructure, and reward resiliency and emission reduction in competitive programs.

   Federal law requires transportation plans that address specific factors and incorporate a range of performance measures. These plans are important for overall emission impacts as they connect transportation with land use and other key factors such as housing and job centers. Transportation plans should be the conduit for connecting transportation infrastructure investment with land use decisions. That linkage is critical for achieving desired emission reductions.
APA believes that transportation plans can be a tool for measuring, monitoring, and achieving climate goals. This can be accomplished by requiring that GHG emission reductions be specifically addressed in long range transportation plans. GHG emission reductions should be an additional planning factor with requirements for measuring emissions, monitoring progress and setting specific goals as part of the plan.

To accomplish this through the planning process, the U.S. Department of Transportation (DOT) should support standardized models and methodology for transport sector GHG emission measurement and increase funding allocations for planning. Further, DOT should require linkage to meeting GHG emission reduction goals in the project selection process in Transportation Improvement Programs (TIPs).

Federal policy can also support GHG emission reductions by increasing support for a range of transportation options. Support for public transportation, biking, and walking takes some single occupancy automobile trips off the road. The next surface transportation reauthorization needs to do much more to support transit, active transportation, and safety. These investments will reduce overall GHG emissions while also creating resilient, healthy communities.

Federal transportation policy can also support technological innovation and clean energy infrastructure with a specific climate change section in the next reauthorization legislation. APA supports dedicated funding for electric vehicle charging infrastructure and smart, connected infrastructure technology that can reduce congestion-related emissions. The emergence of ‘smart cities’ technology offers promising avenues for increasing network efficiency and reducing emissions. Restoring the “Smart Cities Challenge” program would benefit communities by creating models for how to plan for and integrate new data and technological approaches into transportation and land use systems. Targeted planning assistance in this area could provide significant emission reduction and system resiliency benefits. Innovation would also be boosted by funding new network design and pricing options that account for freight, delivery, TNC mobility options, and autonomous vehicles.

Climate change objectives would also be advanced by incentivizing emissions reduction and resiliency in federal competitive grant programs and instituting resiliency standards for federal infrastructure investments. For example, BUILD grants should have an explicit criterion regarding emission reduction and resiliency. Resiliency standards should be developed for federally funded projects and incorporated into post-disaster assistance through programs such as CDBG-DR. Given the critical role of freight transportation in climate emissions, federal policy could provide incentives in existing programs and new incentives for innovative approaches that reduce freight-related emissions and congestion.

Any federal policy that places a price on carbon – whether in the form of a direct levy or a cap and trade system – should use a portion of that revenue to support planning and projects related to climate resiliency. Additional investment in pre-disaster mitigation and planning, as well as data and mapping are vital for enabling communities and regions to reduce their risk and minimize potential loses. Additionally, climate policy will need to account for additional support aimed at highly vulnerable communities.

Investing in these needs could be accomplished through a Climate Crisis Block Grant program modeled on the successful Community Development Block Grant program (CDBG). The block grant, funded through a portion of carbon pricing revenues, would support resiliency, mitigation, and data. Like CDBG, the grants would also incorporate planning support and requirements. The predictability of the block grant model would allow for regular investment and closer coordination with other state and local
This policy approach would supplement support for climate mitigation and adaptation through other existing formula programs.

d. Buildings

The built environment sector is both a significant contributor to GHG emissions and an opportunity for lowering those emissions and mitigating climate change. Investment in built environment resiliency and mitigation has a proven return and benefit. A National Institute of Building Sciences study in 2018 found mitigation funding returns $6 for $1 invested.

Further, we know that improved and targeted building codes and code enforcement can reduce risk and loss of both life and property. A review of ten years of insurance loss data in Florida following the adoption of strong building codes in 2001 found not only lower claims but also the total value of claims was 72% lower for building built since updated codes were enacted. In that period, the state received $3.50 in benefit for every $1 in additional costs associated with the code.

In the context of a changing climate, mitigation and code measures are critical policy elements. State and local building and development codes can be enhanced to better accommodate climate change related risks. APA recognizes that there are affordability issues associated with codes and regulatory structures. These impacts are more than offset by the benefits, and localized impacts can be mitigated through related policies and funding for housing and infrastructure. These resiliency standards must be appropriate to the hazards faced. Federal policy should play an important role in this effort by promoting standards, incentivizing modernization, and supporting enforcement.

Standards should also be incorporated into federal infrastructure investment programs and should focus on economic and institutional resiliency, in addition to physical resilience. Federal, state, and local land-use planning decision frameworks should avoid locating development, especially critical infrastructure and vulnerable populations, in areas subject to hazard risks. Congress should encourage the use of green infrastructure approaches to hazard protection, wherever possible.

In 2015, the Federal Flood Risk Management Standard (FFRMS) was established by Executive Order to improve the resilience of communities and federal assets against the impacts of flooding. The standard was required for federally funded assets, which were defined as “actions where Federal funds are used for new construction, substantial improvement, or to address substantial damage to a structure or facility.” This meant that federal agencies had to consider current and future risk when building or rebuilding near floodplains. The standard was repealed by Executive Order in August 2017, and Houston was devastated by flooding from Hurricane Harvey less than two weeks later. The Administration promised a replacement standard, but that has not yet happened. APA supports the reinstatement of this standard, or congressional action to codify the standard in statute.

Congress must permanently authorize the Community Development Block Grant – Disaster Recovery (CDBG-DR) program. Reforms could help provide certainty in the post-disaster recovery process. Congress should ensure that disaster assistance money is dispersed as soon as possible after CDBG-DR appropriations are approved. Funds should continue to benefit low- and moderate-income people, but they should also be balanced to better meet the needs of renters as well as homeowners; and infrastructure, as well as housing. Rebuilt and repaired structures in flood-prone areas must meet critical mitigation standards.
Congress made progress with passage of the Disaster Recovery Reform Act in 2018 and the creation of the National Public Infrastructure Pre-Disaster Mitigation Fund with increased set-aside funding. This represents a shift in emphasis from post disaster to pre disaster funding that needs to be continued and expanded. Congress should do more to ensure that post disaster rebuilding is done to higher standards of resilience.

Federal agencies should expand data sharing, including data on damage and how federal assistance was spent, including effects on housing displacement and transportation capacities. Communities face critical data and mapping needs when conducting advanced modeling for hazards, geographic, and demographic change. These models can be essential in improving local decision-making and capital investments. Federal data agencies can play an essential role by ensuring that data is available and scaled for local and regional planning uses. Updated and digitized maps and datasets provided by federal agencies can help localities and states meet climate and hazard mitigation goals.

Federal policy for addressing climate and resiliency in the built environment should also include expanded support for the modernization and energy efficiency of public and publicly subsidized housing. Addressing the capital maintenance backlog in public housing and providing clean energy and green building standards to this work can have a significant impact on both resident health and quality of life, as well as climate and hazard mitigation. This can most effectively be accomplished by improving existing capital funding streams as opposed to the creation of new grant programs that could prove duplicative and challenging for lower capacity communities and agencies to navigate.

3. What policies should Congress adopt to ensure that environmental justice is integral to any plan to decarbonize these sectors?

The impacts of climate change are likely to fall heaviest on low-income communities in particularly vulnerable locations. In many cases, these same communities have already suffered from previous disproportionate environmental and social impacts. The nation has a special obligation to incorporate social equity and environmental justice considerations into comprehensive climate change policies.

Planning for climate equity requires an understanding of the intersections of climate change with power dynamics, highlighted by the many environmental justices that already exist in low-income communities and communities of color within the United States. Planning for sustainable development and poverty reduction amidst the cross-cutting challenges of climate change will require planning for a vulnerable future with increasing risks.

To address equity in planning for climate change, we must encourage community-scale approaches to building resilience by partnering with community experts and professionals to identify areas of high risk. Establishing representative community-based equity planning committees and processes would link technical experts to communities. Identification of these areas should be mandatory elements of existing federal requirements for hazard mitigation plans and consolidated plans for Community Development Block Grants (CDBG). These designations in the planning process can be used to target assistance before and following disasters. Further, the designations could be used to prioritize investments in climate, resiliency, and infrastructure related competitive grant and revolving loan programs. These communities should also qualify for lower or amended local match requirements when federal aid is associated with mitigation of climate impacts and future extreme weather.
Congress should direct additional funding and technical assistance for climate resiliency planning for highly vulnerable communities and further encourage the incorporation of hazard and resiliency planning through incentives associated with mitigation funding. Any carbon pricing policy should dedicate a portion of revenues for planning and mitigation activities in targeted, highly vulnerable communities.

Congress should target disaster recovery funds at mitigation efforts that incorporate equity thinking into Community Development Block Grant-Disaster Recovery appropriations for disaster-affected households that may be experiencing repetitive losses. Public policy should better account for hazard mitigation actions taken as they relate to the National Flood Insurance Program’s Community Rating System. Traditional cost-benefit analysis must be expanded to include qualitative social equity considerations, as well as quantitative demographic-driven metrics.

Policy decisions should look at ways to revise the criteria for awarding federal transit funding to rely less on cost-per-rider metrics and more on transit-dependent populations in awarding Capital Investment Grants for transit projects and expansion. Congress could codify rules of environmental justice, per Executive Order 12898 that requires consideration of environmental and human health effects when siting new transportation facilities. Avoid disproportionate impacts on minority and low-income populations where possible, and determine mitigation measures through community engagement, if such impacts cannot be avoided.

**Cross-Cutting Policies**

5. Innovation:

   a. Where should Congress focus an innovation agenda for climate solutions? Please identify specific areas for federal investment and, where possible, recommend the scale of investment needed to achieve results in research, development and deployment.

Federal support for innovation, new technologies, data analytics, and supportive infrastructure will be vital to effectively and quickly scaling and deploying climate and resiliency solutions.

Federal policy should also advance cooperative standard setting in emerging areas, such as smart cities technology, resiliency planning, and clean energy infrastructure. The National Institute of Standards and Technology at the U.S. Department of Commerce has begun work on “frameworks” to facilitate the connection of the public and private sectors around smart cities. These efforts should be accelerated and expanded to incorporate climate mitigation and adaptation specific efforts.

Increased connectivity and data will also reshape America’s energy use and needs. Increased numbers of electrical vehicles and smart devices will create electrical demands in new locations. Federal programs should support the deployment of electric vehicles, autonomous vehicles, and connected infrastructure with funding for research, standards, infrastructure, and incorporation into planning and network design.

The federal government has been a leader in research and development for decades. Federal research into alternative energy, development of carbon capture and sequestration technologies, production of energy-efficient and climate-resilient building and construction materials reduces development risks and achieves cross-disciplinary research cooperation, in order to create new climate technologies. Expanding
federal investment in basic and applied research is critical, but so too is providing support for the development and dissemination of successful practices and models for deployment and adoption. Providing local governments with technical assistance and information clearinghouse resources will promote faster adoption.

Congress can promote an innovation agenda for climate solutions by focusing on the future of transportation technology. The Highway Trust Fund should be used to create competitive grant programs to expand and modernize charging and fueling infrastructure along designated alternative fuel corridors that will be accessible to electric and alternative fuel vehicles.

Cities, vehicle manufacturers, and ride-sharing services have continued to pursue partnerships for the development and expansion of autonomous vehicle (AV) technology. Congress should support the expansion of AV technology by working to better establish a Department of Transportation regulatory framework for AV technology and promoting design and transportation planning solutions that help ensure AVs support climate and emission reduction goals instead of contributing to congestion. Upcoming transportation reauthorization legislation should include support for research and information sharing regarding community impacts and design solutions related to AV deployment and EV infrastructure needs.

With the decreased cost of computing and communications, millions of software and hardware sensors are being deployed, installed, and connected to the Internet across communities. Solar panels, smart energy sensors, water, wastewater smart-grid energy transmission networks, automated highway tolling, signal data, and real-time public transport data all constitute smart infrastructure and Smart Cities. These many additional numerous devices all generate a huge amount of data. Key to the development of AVs, Smart Infrastructure, and Smart Cities is data infrastructure, and the security of those connected devices and the networks to which they are connected. Research and infrastructure funding are needed for the information and data technologies needed to full deploy these smart technologies to maximize efficiency and build the well-planned smart cities of the near future. Congress should restore the Smart Cities Challenge, with an emphasis on planning support and climate impacts.

Technology advancements in transportation should not just be for urban areas—rural, exurban, and suburban communities should also use intelligent transportation systems, adaptive signals, active arterial management, or other technology options currently in use in urban areas today or that are feasible in the near term. Rural and exurban areas provide good opportunities to test and evaluate connected and autonomous vehicle technology for broader deployment.

Congress should fund research and development programs to support alternative energy and fuel production, development of carbon capture and sequestration technologies, production of energy-efficient and climate-resilient building and construction materials such as “cool roofs” and heat-resistant pavement, development of effective storm surge barriers to protect ports and other coastal infrastructure, climate mitigating and adaptive agricultural practices, and other technologies, materials and measures that are effective in climate change mitigation and adaptation.

b. How can Congress incentivize more public-private partnerships and encourage more private investment in clean energy innovation?
Clean energy innovation and broad deployment of new technologies will require partnership between the private sector and government. Public sector involvement can ensure connectivity, promote efficiencies through technology for infrastructure, and support financing needs to rapidly scale solutions.

Transportation may offer some useful models for facilitating public-private partnerships. The Department of Energy could establish an internal office to aid in development of P3s for clean energy in the same way that U.S. DOT established the ‘Build America Bureau’ for transportation partnerships. Additionally, a credit assistance and loan guarantee program similar to the Transportation Infrastructure Finance and Innovation Act (TIFIA) could significantly aid in climate, clean energy, and smart cities technology development and deployment. This financing support could also be used for specific hazard mitigation and resiliency projects.

The current electrical system is very large with power originating in relatively few locations, but new solar and wind energy projects will assuredly result in more microgrids. Urban microgrids will promote resiliency in the face of hazards like flooding or extreme heat. The federal government can support this energy innovation by expanding funding for programs overseen by the Department of Energy (DOE)’s Office of Energy Efficiency and Renewable Energy (EERE). Grants from the Grid Modernization Initiative could be helpful in incentivizing private investment. The Cities Leading through Energy Analysis and Planning (Cities-LEAP) project provides helpful localized energy data and analysis that also prove helpful in energy innovation and decision-making. This program should be expanded.

Oceans, Forestry and Public Lands

8. How should Congress update the laws governing management of federal lands, forests, and oceans to accelerate climate adaptation, reduce greenhouse gas emissions and maximize carbon storage?

Congress should provide statutory authorization to NOAA’s Digital Coast program, which provides data, tools, training and resources to communities to manage their coastal resources. APA is a member of the Digital Coast partnership. Digital Coast provides local planners with the information they need to adapt to climate change, with tools including coastal food exposure mapping and a sea level rise viewer.

Congress must ensure that there is accurate mapping of hazards throughout the country with more information on the risk of current and future hazards. Maps need to be updated in a timely fashion and available in easily usable digital formats, such as DFIRMS. All federal mapping agencies must be involved, and all hazards should be documented in a single mapping project. Silos of data and federal turf wars between agencies must be eliminated, with priority given to ensuring that mapping projects are readily accessible.

Congress should support with additional funding and incentives state and local planning that addresses hazard mitigation and land-use impacts of disaster preparation. The federal government should further incentivize the integration of state and local Hazard Mitigation Action Plans are into comprehensive plans and remove polices that hinder such integration.

Crops and forests represent important carbon storage resources. Afforestation, urban forestation, forest preservation, and conservation tillage practices can support carbon storage, minimize carbon emissions, and accelerate climate adaptation. Sustained and augmented funding for the Urban and Community Forestry Program assists government and nonprofit partners in managing urban and community forests.
Urban forests have innumerable health and economic benefits for cities, but they also play a crucial role as a carbon sink.

APA strongly supports full funding of $900 million annually for the Land and Water Conservation Fund (LWCF), but also stresses the importance of providing equitable appropriations for the State Assistance component of LWCF. For many years, the State Assistance portion of the appropriation has been smaller than the appropriation for federal land acquisition. Growth in revenue from the Gulf of Mexico Energy Security Act of 2006 (GOMESA) has meant that relative funding for state grants has been increasing, though it still lags behind federal land acquisition. Congress should increase LWCF appropriations for state assistance to help support green spaces that are closer to the daily lives of Americans. Programs like the Outdoor Recreation Legacy Partnership grants (ORLP) expands the ability of federal recreation resources to benefit community parks with significant benefits for emission reductions, natural carbon capture, and, increasingly, hazard mitigation through resilient park design.

**Climate Information Support**

12. Our understanding and response to the climate crisis has relied on U.S. climate observations, monitoring and research, including regular assessment reports such as the National Climate Assessment. What policies should Congress adopt to maintain and expand these efforts in order to support solutions to the climate crisis and provide decisionmakers – and the American people – with the information they need? Where possible, recommend the scale of investment needed to achieve results.

The federal government should utilize the Climate Services program as a central source of data and information concerning climate change. Congress should support the development and dissemination of climate data and information by other agencies as needed for specialized purposes under the “umbrella” of the Climate Services program. Climate and weather monitoring technology, such as satellites and terrestrially based weather stations, must be continuously modernized to ensure their ability to accurately capture critical data.

Development and dissemination of climate change data and information from a central federal source reduces duplication of effort and provides a more effective method of getting the full range of information to user groups and the general public. The Climate Services program has been created to serve these functions and should be supported by planners at all levels of government and in private practice. Climate and weather monitoring instruments and technology are essential tools in ascertaining climate change trends; as such, federal investment in maintaining and modernizing these instruments and technology is critical to ensuring effective mitigation of and adaptation to climate change.

Congress should increase federal funding for technical assistance and critical planning data to state and local governments from federal agencies responsible for climate, weather, and hazard mitigation. The federal government should support improved climate model results that provide more localized information and predictions and should also support standardized monitoring and reporting GHG emissions. Many federal agencies have developed significant expertise and information regarding future climate change scenarios and potential measures to mitigate the effects of climate change. State and local governments need these resources as they develop responses.
Provide dedicated funding to the Administrator of FEMA to support the seven (7) recommendations of the “Future Conditions Risk Assessment and Modeling” report provided to the Administrator of FEMA by the Technical Mapping Advisory Council:

1. Provide **future conditions flood risk products**, tools, and information for coastal, Great Lakes, and riverine areas. The projected future conditions should use standardized time frames and methodologies wherever possible to encourage consistency and should be adapted as actionable science evolves.
2. Identify and quantify accuracy and uncertainty of data and analyses used to produce future conditions flood risk products, tools, and information.
3. Provide flood hazard products and information for coastal, riverine and Great Lakes areas that include the future effects of long-term erosion, sea/lake level rise, future development and land use change [includes recommendation 4 language].
4. Generate future conditions data and information such that it may frame and communicate flood risk messages to more accurately reflect the future hazard in ways that are meaningful to and understandable by stakeholders. This should enable users to make better-informed decisions about reducing future flood-related losses.
5. Perform demonstration projects to develop future conditions data for representative coastal and riverine areas across the nation to evaluate the costs and benefits of different methodologies or identify/address methodological gaps that affect the creation of future conditions data.
6. Data and analysis used for future conditions flood risk information and products should be consistent with standardized data and analysis used to determine existing conditions flood risk, but also should include additional future conditions data, such as climate data, sea level rise information, long-term erosion data; and develop scenarios that consider land use plans, planned restoration projects, and planned civil works projects, as appropriate, that would impact future flood risk.

Additionally, please provide dedicated funding to support the research of twelve (12) issues identified in the “Considerations for Future Study” section within the report.

The key is to produce predictive mapping of future conditions, not just historic mapping of prior conditions. Moreover, the next generation of flood risk products need to reflect the impact of increased frequency, duration and intensity of non-tropical storm events and that flooding comes not only from water rising from the main body of water, but also from stormwater drainage trying to reach that main body of water.

Congress should expand and fund state and federal programs that supply vital data related to climate change and its impacts to local and regional planning agencies, by requiring new reporting and measurement of climate impacts in planning and development processes and reviews. The wisdom of past land use decisions must be evaluated in light of climate change vulnerability and adaptation considerations to determine future areas of growth and capital investment. This research will help regions and communities plan for future urban development locations and patterns, identify and protect natural assets, and develop strategies to support local agriculture as it deals with changing climate.

*International*
13. The climate crisis requires a global response. U.S. leadership is critical for successful global solutions. What policies should Congress adopt to support international action on the climate crisis?

Climate action requires both a top-down and bottom-up approach by Congress. From the top, Congress needs to recognize and support the ongoing activities of the international community including:

- The Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC)
- The Paris Climate Accord
- UN Habitat’ Agenda 2030 and
- The Sustainable Development Goals (SDGs)
- The Sendai Framework for Disaster Risk Reduction

In addition to these high-level accords, Congress needs to support the grassroots efforts of planners and our allies at the local level to integrate global climate adaptation and mitigation actions through local and regional plans. APA is a founding member of Planners for Climate Action, the Climate Heritage Network and the Global Planners Network. Each of these organizations should be regularly consulted by Congress for advice and updates on effective climate action strategies and results. Through our members and allies, APA is positioned to promote and implement actions that will result in lower carbon emission as well as reducing the impact of climate change on communities.

Over the past decade, local and regional governments have been increasingly recognized as critical actors. The Paris Agreement has recognized that they are vital to strengthening the global response to climate change. As national governments design strategies towards implementing the Paris Agreement, it is crucial that not only local and regional governments play a critical role in achieving Nationally Determined Contributions, but also non-State actors involved in planning and designing cities. Planners are key players in that process and need to be integrated in preparing and implementing strategies and plans in order to scale-up climate action. The role of planners and plans in addressing climate change is explicit in the UN Habitat’s 2030 Agenda for Sustainable Development and New Urban Agenda. The important role of planning and planners in SDG Target 11.b: “By 2020, increase the number of cities and human settlements adopting and implementing integrated policies and plans towards... mitigation and adaptation to climate change...”. Congress’ support for the SDG’s and the important role of planners is essential.