STATEMENT

OF

City of Portland

BEFORE THE:

HOUSE COMMITTEE ON ENERGY AND COMMERCE
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Chairman Latta, Ranking Member Schakowsky and members of the Digital Commerce and Consumer Protection Subcommittee, my name is Kyle Chisek and I am the Director of Bureau Relations in the Office of Mayor Ted Wheeler of Portland, Oregon. Thank you for the opportunity to provide testimony today on smart city initiatives and how they can reduce energy dependence, harness big data and achieve sustainability goals as well as recount some of the challenges and opportunities relating to the futures of smart cities. As you may know, Portland has been a national leader in transportation through utilizing innovative technology, improving public health, and decreasing reliance on fossil fuels. We were honored to be one of the finalists for the U.S. Department of Transportation's Smart City Challenge in 2016.

We are appreciative of this opportunity to highlight the innovative efforts occurring in Portland and how federal programs and funding focused on prioritizing technology innovation in large urban areas can achieve federal policy objectives.

Transportation Innovation

Portland is a city of innovation and collaboration. Our scale as a "small big city", in combination with the region's economic interdependence and Oregon's strict land use planning framework, means we must collaborate fiercely to compete with larger cities in a global economy – and we have a history of doing it well. In the transportation arena, we have created innovative collaboration structures to bring partners together for critical investments. The Portland Streetcar (TriMet Transit Authority, the City of Portland, and private sector partners) and the Aerial Tram (City of Portland and Oregon Health Sciences University) are examples of collaborative success. Today, the Port of Portland and FedEx are sharing freight data to improve delivery efficiency.

In 2001, Portland led the way with America's first modern streetcar system. Portland's streetcar system is a national model for transit oriented development, public-private partnerships, and reducing energy consumption in our downtown core. For the past two decades, Portland has seen $6.5 billion of new real estate construction value for the city and residents along Streetcar lines; growth like this supports local businesses, new jobs and increased tax revenue.[1] This dense development reduces fossil fuel dependence by contributing to land use patterns that allow for people to walk, bike, or take transit to work.

Our government and agency partners (Metro regional government, Multnomah County, Oregon Department of Transportation, the Port of Portland, and TriMet) are integral to delivering an innovative transportation system that allows citizens to access information and services quickly and easily. We continue to build on a history of collaboration to deliver innovation. ODOT's Road Usage Charge program (OReGO) is a potential partner for our connected vehicle fleet. Portland State University (PSU) hosts the National Institute for Transportation and Communities, one of five USDOT National University Transportation Centers, which links studies of transit, biking, urban planning, housing, and computer science. PSU's Business Accelerator has spawned Smart City startups like Globe Sherpa (now known as Moovel). PSU is also working with the City to design and implement an Open Data Cloud, building on a history of open data and development of open data standards in the Portland region. Portland was one of the first

[1] 2016 Portland Streetcar Annual Report https://storage.googleapis.com/streetcar/files/Portland-Streetcar_Annual-Report_Digital-2016.pdf

cities in the U.S. to adopt an open data resolution and create an open data portal, CivicApps, back in 2009.

Portland's regional public transportation agency, TriMet, partnered with Google in 2005 to develop a standard for how real time transit schedule information is structured. This standard, the Global Transit Feed Specification (GTFS), is now used by transit agencies around the world, allowing software developers to build transit apps that work consistently across jurisdictional boundaries.

In 2016, TriMet, was awarded a mobility-on-demand (MOD) sandbox grant from the Federal Transit Administration[2]. This grant will allow Portland to build on the success of its Hop FastPass ticketing system to incorporate multimodal and shared-use mobility options into its trip planning tool. The goal of allowing Americans to plan, book, and pay for car sharing, bike sharing, and public transit from the convenience of a single app has been the dream of U.S. cities for the past decade. In fact, this was a common theme on almost every finalist proposal to the U.S. Deptartment of Transportation's Smart City Challenge last summer. We expect that the result of TriMet's Mobility On Demand effort will reduce reliance on single occupancy vehicles and fossil fuels.

The City of Portland has also partnered with Waze and Google to better manage the transportation system. Not only is Portland providing Waze with updated information about street closures, Waze is committed to working with Portland on its goals to provide safe routes to schools for children and to help meet the City's Vision Zero goals.

Technology to Improve Traffic Safety

Portland is one of about two dozen large American cities formally committed to reducing traffic fatalities to achieve Vision Zero. Vision Zero is a guiding principle that no amount of loss of life is acceptable on public streets and that government has an affirmative obligation to eliminate traffic-related fatalities and serious injuries. To achieve our Vision Zero goals, we are using technology to make streets safer. This spring Portland launched fixed speed cameras on a few of our high crash corridors which reduced speeds by 90%. Not only does automated enforcement make our streets safer, it saves time for City Police and allows them to focus on other serious crimes.

Portland is excited to identify opportunities for piloting autonomous vehicles and contributing to policy that prioritizes safety. Portland City Council has been supportive of efforts to ensure that autonomous vehicles are helping to solve mobility challenges instead of driving around empty on our already congested streets. We believe the introduction of autonomous vehicles has the ability to significantly change our transportation systems and our cities. Ensuring this change is positive is dependent on local, state, and federal policy that prioritizes safe, shared-use, and electric autonomous vehicles.

[2] MOD Sandbox grant background: http://news.trimet.org/2016/10/trimet-awarded-678000-federal-grant-to-expand-trip-planning-it-platform/

We suggest that:

- Cities plan for fully automated vehicles and not half measures. Going halfway with partially automated vehicles, instead of fully automated, would require drivers to take over if the vehicle encounters a dangerous situation. In practice, such vehicles have been shown to encourage unsafe driving behavior, with more drivers texting, reading, and engaged in other distracting behaviors.
- Create data sharing requirements for automated vehicles, given the potential to create more useful and cost efficient data than is currently collected through more laborious means.
- Evaluate how congestion pricing options, starting with autonomous vehicles, might cost-effectively reduce congestion by more efficiently using our limited capacity, as well as accelerating smart city investments.

Ladders of Opportunity

Ensuring access to opportunity and allowing our transportation network to enhance social mobility is a key goal for the City of Portland. Toward that end, the Portland Bureau of Transportation (PBOT), has been prioritizing smart city investments in east Portland and historically underinvested neighborhoods. Our goal is to provide our residents with benefits of improved air quality and reduced fossil fuel dependence by investing in access to transit improvements such as enhanced crosswalks.

We are also exploring the opportunity to deploy 20 smart kiosks that provide real time travel information, free public Wi-Fi, and in turn provide data to the City. We believe these tools will increase access to employment opportunities and decrease reliance on fossil fuels. Increased financial assistance from the federal government would allow cities like Portland to expedite and increase the number of informational kiosks thereby resulting in more people choosing to use transit.

One other technology element we are piloting in Portland is air quality sensors near arterials. A growing body of research suggest communities of color and low-income population areas often have more exposure to more toxic chemicals related to fossil fuel pollution.[3] Our pilot project is a partnership between the City, Portland State University and the National Institute of Standards and Technology that will help us better identify the effects of fossil fuel related pollution for people residing and walking near major transportation arterials. This research has the potential to inform transportation, public health, and environmental policies for all levels of government.

Public-Private Partnerships

Public-private partnerships (PPPs) provide cities with alternative and innovative project delivery options, not replacement for traditional federal funding sources. PPPs can make sense for cities when they provide expedited project delivery through management expertise that exceeds public

[3] For more information, see Environmental Protection Agency's Environmental Justice 2020 Action Plan https://www.epa.gov/environmentaljustice/ej-2020-action-agenda-epas-environmental-justice-strategy

options, but not when the partnership requires the privatization of public assets. In fact, Portland is strongly against the privatization of public roads, highways and other transportation assets for the profit of private companies and investors.

For example, design-build PPPs can be more likely to finish projects on time and on budget than public alternatives, especially if the public entity does not have a track record of delivering mega-projects. These partnerships can capitalize on private sector efficiencies in asset management, for instances providing long term maintenance and operations services for a new facility. This traditional type of PPP replaces public delivery mechanisms, but it does not substantially decrease the overall cost of infrastructure to taxpayers.

Another version of PPPs focuses on the private sector technology advantage, a model that Portland has taken advantage of with companies like Waze, and the Multi-Modal App, Hot FastPass and multi-modal app work through MOD sandbox. These agreements with private companies give Portland access to cutting edge technologies needed for smart cities programs.

As we have seen with Portland Streetcar and other public-private partnerships, when cities work in tandem with the private sector, it builds community trust and contributes to increased private development near public infrastructure. Many of our public transportation projects also act as economic development projects due to their ability to leverage development and smart growth land use patterns.

Portland is excited about the opportunities that PPPs can provide, especially to further our Smart City agenda. However, we must be clear that PPPs are not an alternative to federal funding and privatization of transportation assets is not a long term plan for smart city infrastructure investment.

Organization

The City of Portland's implementation strategy for smart city initiatives involves an organizational structure developed around three principles. First, the organizational structure must be nimble, responding quickly and efficiently to change while continuing to deliver high performance, and be open to innovation. Second, the City, as the grant recipient, must be accountable and transparent about the expenditure of public funds. Finally, the community must feel a sense of ownership for the project.

The organizational structure has the advantage of having already worked effectively to implement the City's most important infrastructure projects. It is a tried and true model of project delivery when the project is complicated and community support is essential. The proposed implementation structure uses the same model that has been used for major projects in Portland for many years: Portland Streetcar, the OHSU Aerial Tram, and Transit Mall Management. The private non-profit implementation entity provides nimble responsiveness, the board of directors ensures consistent policy leadership, inclusiveness, and focus, and the City Council still retains the bottom-line assets and fiscal authority.

Challenges

Our successes are real, and our city's prosperity is growing. However, Portland's advantages have not been equally shared. Too often, local government implemented policies and made decisions that harmed minority communities. Many transportation and redevelopment projects have caused the displacement of families and communities. Urban renewal and freeway expansion in the 1960s was followed by gentrification because of rising home prices in the 1990s and 2000s. One traditionally African-American neighborhood, for example, experienced a 40% increase in average rent over the past 5 years. As a result, the neighborhoods best served by transit are less accessible to low-income Portlanders.

In addition, Vision Zero safety data reveals that people living in historically underserved neighborhoods suffer the highest number of fatal and serious injury crashes. Pedestrians are especially at risk: someone walking or using a mobility device in east Portland, particularly east of Interstate 205, is 2.3 times more likely to die or be critically injured than a pedestrian in or near the central city. Moving forward, Portland and other cities need to own, understand, and strive to correct these historic inequities. Smart Cities will help us achieve that.

Another challenge with the increased presence of technology includes the concern for safety. Over 40,200 people died in traffic crashes in America in 2016, the highest in nine years.[4] As technology penetrates vehicles and the attention of motorists, the risk to others increases significantly. This poses even greater risk to those walking, biking, and taking transit due to their vulnerability and because this technology may not take into account people who walk without smartphones. Federal funding programs and policy must incentivize and contribute to safer cities.

Other challenges for smart city initiatives include initiatives that often do not fit in neatly to existing federal funding programs due to their overlap between transportation, energy, and commerce. However, over recent years we have realized how critical smart city infrastructure is for Portland and other large urban areas. Smart city investments and infrastructure provide cities with data to better manage traffic, provide residents with more information to enjoy their city, and spur economic growth.

In conclusion, with increased federal investment related to smart city initiatives and multimodal transportation, the federal government will realize significant returns on investment in the form of decreased reliance on fossil fuels and sustainable land use patterns that contribute to vibrant cities and strong economic growth.

We appreciate the opportunity to testify today and I am happy to answer any questions that you might have.

[4] http://nacto.org/2017/02/15/statement-40200-deaths-on-american-streets/