

Carbon Neutral Cities Alliance, Innovation Fund
Project Selection Committee

April 13, 2017

Project Selection Committee Members:

The City of Portland, Oregon, the Natural Resources Defense Council (NRDC) and the Southern California Association of Governments (SCAG) are writing to express our interest in developing a proposal for the Carbon Neutral Cities Alliance Innovation Fund for 2017. We plan to develop a proposal that evaluates the effectiveness of various automated vehicle (AV) deployment policies and regulations that are crafted specifically to achieve carbon reduction goals. The widespread use of AVs poses both opportunities and challenges. AVs could decrease traffic fatalities, increase the adoption of electric vehicles, and provide mobility services to disadvantaged communities. They also have potential to significantly increase transportation carbon pollution. One recent evaluation of nine regional travel demand models showed a possible increase of 68% in vehicle miles traveled (VMT), up to 26% increase in vehicle trips, and as much as a 43% reduction in transit trips.

Portland and other cities are developing policies and test projects to increase the likelihood that AV and TNC vehicles advance our safety, climate, and equity policy goals. However, we face a knowledge gap: which policy and management levers are most likely to cut vehicle carbon pollution? We will develop a proposal to evaluate policies such as dynamic congestion pricing, right of way management, and behavioral economic strategies for potential carbon reduction effectiveness. We would also like to analyze the political viability of these strategies and how they might be received by the private sector.

We know that for any US city to meet its transportation related carbon reduction goals, we will need to promote transportation choices that result in a reduction in the "empty miles" from single-occupancy vehicle (SOV) and zero occupant vehicle (ZOV) driving. Empirical evidence from around the world suggests that congestion pricing policies have been more effective than other policy mechanisms at nudging commuters away from SOV driving and towards more sustainable transportation choices such as transit, walking and biking. While exploring congestion pricing as a tool to manage the potential VMT and carbon impacts of AVs, we are also interested in exploring how congestion pricing could contribute to a reduction in personal SOV driving, which remains the lions share of all VMT. We have a short time window to implement AV policies and practices before widespread deployment makes a strong regulatory framework more challenging. Policies such as congestion pricing, which have been politically difficult to introduce in existing transportation systems, may find an easier entry point with a new technology such as automated vehicles.

We will partner with Natural Resources Defense Council (NRDC) to develop our pitch and final proposal. We have also received interest from the Southern California Association of Governments, which represents 191 cities in 6 counties in the Los Angeles region, in participating in this work, and plan to reach out to other cities including San Francisco, Seattle, Vancouver, BC, and Boulder. We believe that this work would be applicable to any city contemplating how to incorporate AVs into their transportation system. The primary contact for this grant proposal will be Ann Shikany, Senior Analyst, Legislative and Resource Development, Portland (Oregon) Bureau of Transportation;

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Carbon Neutral Cities Alliance
Innovation Fund
Project Selection Committee

June 22, 2017

Project Selection Committee Members:

The City of Portland, Oregon, the Natural Resources Defense Council (NRDC) and the Southern California Association of Governments (SCAG) are providing an update to our original Letter of Interest sent in April for the Carbon Neutral Cities Alliance Innovation Fund for 2017. We are continuing to develop a proposal that evaluates the effectiveness of various automated vehicle (AV) deployment policies and regulations that are crafted specifically to achieve carbon reduction goals. The widespread use of AVs poses both opportunities and challenges. AVs could decrease traffic fatalities, increase the adoption of electric vehicles, and provide mobility services to disadvantaged communities. They also have potential to significantly increase transportation carbon pollution. One recent evaluation of nine regional travel demand models showed a possible increase of 68% in vehicle miles traveled (VMT), up to 26% increase in vehicle trips, and as much as a 43% reduction in transit trips.

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Portland, OR is already working to implement AV congestion pricing into planned AV pilot activities. The city has posted for comment a draft AV permit, which requires AV companies to pay a number fees including both a congestion fee within highly congested areas of the city, and a general road user and vehicle fuel efficiency charge for all other areas. However, these charges are theoretical currently since Portland has not yet launched a pilot and has not identified a technology to collect the fees.

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The Southern California Association of Governments has also been working to explore the technical and political feasibility of mobility pricing policies in an effort to tackle Los Angeles' notorious traffic congestion. SCAG has been developing a concept of operations.

If this cohort were selected to receive CNCA funding of \$100,000 or more, the proceeds could fund up to four activities to support the implementation of AV congestion pricing:

- Evaluation of a range of pricing approaches for both Portland and Southern California to determine which are most likely to reduce climate pollution and congestion from SOV trips;
- Evaluation of fee collection technologies to be used during pilot activities;
- AV pilot design that includes congestion pricing elements; and
- A public engagement campaign for congestion pricing, including any authorizations required from any other government entities.

Portland, OR and Southern California are the core areas for this proposal, and the Natural Resources Defense Council (NRDC) is providing guidance as we continue to develop a final proposal. Observing cities at this time include London, UK, Stockholm, SW, Auckland, NZ, Vancouver, BC, Washington, DC, Chattanooga, TN, Nashville, TN, Miami, FL, Seattle, WA, Los Angeles, CA, San Jose, CA and San Francisco, CA. We believe that this work would be applicable to any city contemplating how to incorporate AVs into their transportation system. The primary contact for this grant proposal will be Ann Shikany, Senior Analyst, Legislative and Resource Development, Portland (Oregon) Bureau of Transportation; Ann.shikany@portlandoregon.gov; 503-823-2417 and Portland's primary CNCA member is Michael Armstrong; Michael.Armstrong@portlandoregon.gov; 503-260-2570.



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