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**U.S. House of Representatives Committee on Transportation and
Infrastructure**

**Hearing: Realigning Federal Infrastructure Policy to Mitigate and
Adapt to Climate Change**

Good morning Mr. Chairman and distinguished members of the committee. Thank you for the opportunity to testify today. My name is Dan Sperling.

- I am the Distinguished Blue Planet Prize Professor of engineering and environmental science and policy and founding Director of the Institute of Transportation Studies at the University of California, Davis.
- I am also a Board member for the California Air Resources Board, holding the transportation seat for the past 12 years—first appointed by Governor Schwarzenegger. CARB, as we call it, is the agency in California principally responsible for administering its climate and air quality policies.
- Like Professor Arroyo, I've also chaired the Transportation Research Board of the National Academies.

I am here to share experiences from California, and my insights from over 30 years studying the transportation system of this country.

Let me frame the challenge before us.

The number one priority for California—like the rest of America—is to maintain and repair our deteriorating road infrastructure. That is widely accepted.

The point of this hearing and my testimony, however, is to address the additional goal of aligning transportation spending with environmental goals—as well as with social goals.

First, we need to acknowledge that our transportation system is failing. Not only are our roads deteriorating, but congestion, traffic deaths, transit ridership, and greenhouse gases are all worsening—and many people are marginalized with poor access to jobs, health, and education.

We can fix this. We have a once in a lifetime opportunity to do so—thanks to the waves of transformational innovations starting to sweep through transportation. I refer to these innovations as the three transportation revolutions—electrification, shared mobility, and automation.

The challenge is to refocus and restructure how we fund and manage our transportation system, such that we direct these many innovations toward the public interest. It won't happen by itself nor through the workings of the marketplace.

This simple aspiration—to guide transport innovations toward the broader public interest—is indeed quite revolutionary. It is revolutionary because the transportation community has been quite insular for 100 years. That is not a criticism. It was intentional—and was appropriate.

The state and federal DOTs were called upon in the 20th century to build and operate a massive new highway and rail transit infrastructure system. They were amazingly successful with this engineering mission. But the organizational culture that was created, and the set of rules and formulas that were put in place, are now outdated—and frankly have been for some time.

As we approach reauthorization of the FAST Act, we need a paradigm shift in how we address transportation. It means focusing on new formulas and performance standards—to stimulate innovation, expand the mission of our transportation institutions, and knock down silos within transportation.

Back to California. We have made extraordinary progress in some ways. We instituted:

- the most successful carbon cap and trade program in the world,
- an effective Low Carbon Fuel Standard, and
- a variety of requirements for electrification of cars and buses.

Together these initiatives continue to fund many billions of dollars in electric cars, trucks, and buses, as well as electric vehicle charging stations and hydrogen fuel stations, and even affordable housing and high speed rail. I provide a description of these many programs in my written testimony.

We have been less successful in addressing vehicle use—both passenger and freight. We are now shifting our programs and incentives in California to fix this shortcoming.

I would characterize California's evolving strategy on vehicle use as 4-fold:

- 1) Encourage more mobility and accessibility (i.e., more PMT), while at the same time reducing vehicle miles traveled (VMT).
- 2) Create more choice for travelers. Create options that enhance mobility and reduce costs for both users and road infrastructure providers—including micro-transit; pooled services by Lyft, Uber and others; carsharing; and dockless scooters and bikes.
- 3) Increase investment in protected lanes and infrastructure for e-scooters and bikes.
- 4) Electrify all passenger vehicles and passenger services, as well as many freight vehicles

In conclusion...

Transportation is in desperate need of a fix.

Fortunately, innovation is sprouting everywhere in transportation—in a major way for the first time in half a century. California is pioneering some initiatives, but so are many others. Much more can be done—especially in urban areas, but also in rural areas.

Our top priority should be to reform federal and state policies to incentivize change—to encourage innovation to flourish. Funding should support innovative and beneficial initiatives.

Thank you and I look forward to answering any questions you might have.