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Title: Rethinking Our Streets for Future Mobility

Abstract: This paper presents an overview of creative partnerships that meld solar mobility and placemaking to yield adaptive solutions for resilient communities working to reduce their carbon emissions. As cities and universities plan for the challenges of the 21st century they must incorporate new forms of multifaceted sustainable energy and transportation services into their climate resiliency plan. Rethinking on a massive scale is required to change global energy consumption within the next 10 years to meet the goals set by the Paris Agreement. Could micro-mobility services and flexible infrastructure help cities and universities reshape the land they have previously dedicated to the automobile? Transportation leaders project that future mobility options will focus on multi-model services and not a product (private vehicle). Mobility innovators are launching shared and on-demand electric vehicle services that connect with public transit and cyclist infrastructure. User experience and research related to rapid changes in mobility and energy, local and national commitments to the UN's Sustainable Development Goals and public space design practices demand that we rethink how to shape our cities and embrace micro-mobility infrastructure. This paper will explore turning outdated parking spaces into car free bike lanes with supporting solar charging stations that connect to public transit hubs and provide shelter from the weather. What role should cities play in supporting micro-mobility regulation processes to help reshape their sustainable transportation and energy infrastructure? Ridehailing services like Uber and Lyft are investing in urban electric bicycle share systems because they see 2-5 miles trips being done faster and cheaper on two wheels. Expanding micro-mobility services are proving to be cheaper and more convenient than car ownership for a range of people. New free-floating elective bicycle and scooter startups like Lime Bike, Jump Bike, Scoot, Bird and Skip have exploded in popularity with \$1-\$3 rides in cities like San Francisco, Barcelona, Austin, Santa Monica, Seattle and beyond. Cities are now faced with navigating new permitting process, parking regulations, theft and a need for more light wheeled vehicle lanes and charging infrastructure. Mobility regulators must work collaboratively with designers, startups, researchers, venders, city managers, and utilities to give people as many flexible options as possible to reduce private vehicle ownership and re-envision our streets. As micro mobility grows in popularity, there is an exciting future for adaptable green infrastructure and regenerative placemaking that will meet the needs of different urban climates, terrains and communities.