UNIVERSITY OF CALIFORNIA Berkeley
Transportation Sustainability
RESEARCH CENTER

UC BERKELEY STUDY: FEWER CARS, IMPROVED EMISSIONS WITH CAR2GO ONE-WAY CARSHARING

First-Ever North American Impact Study Reveals car2go has Substantive Impact on Reducing Auto Ownership, Vehicle Miles Traveled, and Greenhouse Gas Emissions

BERKELEY, CALIF. JULY, 19, 2016 – The University of California, Berkeley Transportation Sustainability Research Center (TSRC) – a leading center on sustainable transportation and innovative mobility – today released results from the first-ever study of one-way carsharing in North America and its impact on mobility.

The findings clearly illustrate that one-way carsharing reduces the number of cars traveling on city roads and occupying parking spaces on city streets.

"Our exhaustive, three-year research effort into one-way carsharing reveals that car2go vehicles result in fewer privately-owned vehicles on the road, fewer vehicle miles traveled and a reduction in greenhouse gas emissions," said Susan Shaheen, Co-Director of TSRC. "Participation from car2go and its members, the largest free-floating one-way carsharing service in North America, gave us unprecedented access and insight into how this kind of innovative mobility service is impacting North American cities."

The study, which gathered data from nearly 9,500 North American car2go members residing in Calgary; San Diego; Seattle; Vancouver; and Washington, D.C. revealed the following across the cities:

- Between two percent to five percent of the car2go population sold a vehicle due to car2go across the study cities
- Another seven percent to 10 percent of respondents did not acquire a vehicle due to car2go
- Each car2go vehicle removes between seven to 11 vehicles from city roads (including sold and suppressed)
- One to three private vehicles were sold across the five cities per car2go vehicle
- In total, car2go took an estimated 28,000-plus vehicles off of the road and reduced parking demand
- A six percent to 16 percent reduction in vehicle miles traveled (VMT) across the study population (average of 11 percent)
- A four percent to 18 percent reduction in greenhouse gas (GHG) emissions across the study population (average 10 percent)
- Estimates suggest that car2go's one-way carsharing service prevented between 10 to 29 million VMT per year per city, depending on assumptions of suppressed mileage, which in-turn removed between 5.5 to 12.7 metric tons of GHG emissions per car2go vehicle annually (on average).

"car2go's mission is to improve the quality of people's lives by delivering instant and affordable mobility on their own terms," said Paul DeLong, president and CEO of car2go North America. "TSRC's findings

make it clear that one-way carsharing has a significant and beneficial impact in reducing private vehicle miles traveled and emissions in cities, ultimately helping more people get where they want to go more efficiently while helping to reduce traffic and parking congestion."

The study also revealed notable 2015 city-specific findings across the five cities analyzed.

- **Calgary**: Each car2go vehicle removed an estimated 11 vehicles from Calgary's roads: more than 6,000 vehicles total. In 2015, car2go in Calgary reduced overall VMT by up to an estimated 32.9 million miles. Each car2go Calgary vehicle eliminated up to 14 metric tons of GHG emissions. car2go Calgary also prevented up to an estimated 8,000 metric tons of GHG emissions from polluting Calgary's air.

- **San Diego:** Each car2go vehicle removed an estimated seven vehicles from San Diego roads: nearly 3,000 vehicles total. In 2015, car2go in San Diego reduced overall VMT by up to an estimated 20 million miles. Each car2go San Diego vehicle eliminated up to 13 metric tons of GHG emissions. car2go San Diego also prevented up to an estimated 5,300 metric tons of GHG emissions from polluting San Diego's air.

- **Seattle:** Each car2go vehicle removed an estimated 10 vehicles from Seattle's roads: more than 6,300 vehicles total. In 2015, car2go in Seattle reduced overall VMT by up to an estimated 34.2 million miles. Each car2go Seattle vehicle eliminated up to 14 metric tons of GHG emissions. car2go Seattle also prevented up to an estimated 9,000 metric tons of GHG emissions from polluting Seattle's air.

- **Vancouver:** Each car2go vehicle removed an estimated nine vehicles from Vancouver's roads: more than 8,200 vehicles total. In 2015, car2go in Vancouver reduced overall VMT by up to an estimated 37.5 million miles. Each car2go Vancouver vehicle eliminated up to 11 metric tons of GHG emissions. car2go Vancouver also prevented up to an estimated 10,000 metric tons of GHG emissions from polluting Vancouver air.

- **Washington, D.C.:** Each car2go vehicle removed an estimated seven vehicles from Washington, D.C.'s roads: more than 4,600 vehicles total. In 2015, car2go in Washington, D.C. reduced overall VMT by up to an estimated 21.3 million miles. Each car2go Washington, D.C. vehicle eliminated up to 10 metric tons of GHG emissions. car2go Washington, D.C. also prevented up to an estimated 6,500 metric tons of GHG emissions from polluting Washington, D.C.'s air.

The average age of vehicles car2go members reported selling averaged 14.4 years across all the cities, thus helping to remove more polluting vehicles with older emission systems from city streets.

To download a PDF copy of the complete UC Berkeley TSRC one-way carsharing study, please visit http://innovativemobility.org/wp-content/uploads/2016/07/Impactsofcar2go_FiveCities_2016.pdf

About the TSRC Mobility Research Team
Susan Shaheen is an internationally recognized leader in innovative mobility research, focusing on mobility and the sharing economy. She has authored 57 journal articles, over 100 reports and proceedings articles, four book chapters, and co-edited one book. She is an editor of *Transport Policy* and has also served as a guest editor for *Energies*, the *International Journal of Sustainable Transportation* (IJST), and *Transport Policy*. Her research projects on carsharing, smart parking, and older mobility have received national awards. In May 2016, she was named one of Eno's top 10 academic thought leaders in

transportation. For more information on Susan Shaheen and her research, please visit http://tsrc.berkeley.edu/SusanShaheen.

Elliot Martin is an Assistant Research Engineer at the University of California, Berkeley TSRC. His work spans the subjects of shared mobility, freight transportation, public transit, and parking. He has authored over 22 journal articles, as well as nearly 30 reports and proceedings. He earned his PhD in Civil and Environmental Engineering from the University of California, Berkeley.

About UC Berkeley Transportation Sustainability Research Center
The Transportation Sustainability Research Center (TSRC) was formed in 2006 to combine the research forces of six campus groups at UC Berkeley: the University of California Transportation Center, the University of California Energy Institute, the Institute of Transportation Studies, the Energy and Resources Group, the Center for Global Metropolitan Studies, and the Berkeley Institute of the Environment.

Since TSRC was founded, it has been a leading center in conducting timely research on real-world solutions for a more sustainable transportation future. In addition to performing research informed by a diverse array of perspectives, TSRC also engages in education and outreach to promote its core values of sustainability and equity to ensure that we are able to meet the transportation needs of the present without compromising future generations.

About car2go N.A. LLC
car2go N.A., LLC, a wholly-owned subsidiary of Daimler North America Corporation, offers an innovative mobility solution in rapidly growing urban areas via a carsharing network of eco-friendly smart fortwo vehicles around the world. A flexible and "on demand" mode of transportation, car2go complements existing public transportation by bridging the gaps between the "first and last mile" of a member's commute. Today, car2go's global operation is the largest, fastest-growing carsharing program in the world with more than 1,900,000 registered members and a fleet of over 14,100 vehicles in 30 locations across the globe.

The innovation and environmental sustainability of car2go have earned international acclaim, including TripAdvisor's 2015 "Travelers' Choice" award, "Best Carshare" from the Vancouver Courier, "2015 Best CarSharing Service" from Best of D.C., "2014 Best CarSharing App" from Best of D.C., recognition from the Austin Chamber of Commerce with the "Greater Austin Business Award" for its positive impact on the city's traffic, and the prestigious "2010 EPA Clean Air Excellence Award" from the U.S. Environmental Protection Agency. Further information on car2go is available at car2go.com and car2go.com/NA/en/press/.

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