The rapid growth of bike sharing has further reduced the barriers to bicycling in urban areas.

SimpleCycle electrifies bike share systems by adding electrification units (EUs) that are capable of attaching to both bike share bikes and personal bikes, converting both into electric bikes.

EUs are made available to urban cyclists at existing bike share stations and at newly constructed stations located outside of the coverage area of the existing bike share.

Individual users gain access to the EUs at SimpleCycle or existing bike share stations either by paying a fee to augment their existing bike share membership, or a higher per-use service fee.

Urban cyclists beyond the coverage area of the existing bike share gain access to electric power for their personal bikes, and use the existing network as pick-up and drop-off locations for the EUs.

Commuters want to start bike commuting.

The average car commuter can significantly reduce the annual cost of their commute by switching to biking.

Across all U.S. bike share systems, user fees are not high enough to cover the costs of operating the system. By creating a more expensive type of service, SimpleCycle provides bike share operators with a means of increasing revenues. In practice, SimpleCycle negotiates a service contract with existing bike shares. In return for increasing usage of the bike share, SimpleCycle earns $1 for each trip made using an electrification unit.

The largest bike share in the United States, Citi Bike, is located in New York City. The Citi Bike share has over 300 stations and supports between 20 to 50 thousand trips per day. The figure below shows how SimpleCycle’s projected profitability and the scale of projected operations following a launch in New York City.
The electrification of bike shares contributes to the solution of several significant environmental problems associated with the overabundance of cars in American cities. In 2012, Americans drove almost 3 trillion miles, enough to travel to the sun and back more than 16,000 times. Cars emit pollutants which negatively affect human health, and impact ecological systems at broad regional scales. Beyond local and regional issues, the transportation sector accounts for 28% of total U.S. carbon-dioxide emissions, which are a major driver of anthropogenic climate change. The dominance of cars also contributes to a dearth of physically active transportation, and traffic congestion, both of which impose a high cost on society.

By taking cars off the road, SimpleCycle not only mitigates the effects of motor-vehicle air pollution but also helps people become more active in their daily lives and reduces urban traffic congestion. Finally, SimpleCycle contributes to building the social and political inertia for a transition to less fossil-fuel intensive transportation systems.

We are very grateful for the help from our fellow Eco-E teams in the Class of 2014; our Faculty Advisors Emily Cotter and Gary Libecap; Gina Auriemma; The Eco-Entrepreneurship Advisory Council; and the Santa Barbara Social Venture Partners especially Paul Gertman, Mark Levine, and David Kramer.