

Student Sustainability Committee RFP – Green Bike Sharing Initiative

November 23, 2010

Updated January 31, 2011

Title: Green Bike Sharing Initiative

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Project Description:

Create excitement around sustainability and promote healthy exercise / lifestyle by implementing an innovative on-demand solution to reduce the carbon impact, congestion and accidents arising from motorized vehicle use on and around the Urbana-Champaign campus community. This proposal will build on the success of the 2008 and 2009 Campus Bike Parking, Bicycling Infrastructure and Mapping sustainability proposals.

Use of a bike sharing program that easily integrates into the transportation system of the surrounding cities should reduce the environmental footprint of the University of Illinois as well as Urbana-Champaign and increase the quality of life in the University community. It should inspire students, staff and faculty about cycling as a viable mode of transport in cities and stimulate and support the use of cycling as a means of urban transport throughout Illinois and the United States. This solution is mature, economically viable and long-lived.

Using vendor supplied systems, students, staff and faculty would use a smart card for identification and access to the bicycle and its infrastructure, by using an issued smart card it will allow users to have greater freedom of use, creating a floating system rather than a static system, allowing it to be used anywhere on campus and in the community. Campus distribution points or stations could be created at locations of heavy use, due to the floating nature of the system, bikes may be accessed all over the campus and community. No special infrastructure is needed to park the bikes outside of the distribution points.

The system would be controlled / managed by the use of a smart card. Each bicycle contains a freestanding unit equipped with a RFID reader, GMS/GPRS module for communication with a central

system and positioning of each bicycle, a lighting unit, electronically controlled lock, an accelerometer to measure movements and shock, and a hub-generator as an on-board power source for lighting and electronics. A central communications module will control and grant access to bikes, remotely unlock/lock or reserve bikes for use and to transmit the bikes position when needed.

Users would need to register to be able to access use the bike share system. When registering they would provide a credit card to create a unique account assigned to a smart card which is used to reserve, use, unlock a bike. Registration could be done at a central distribution station, automated kiosks, by phone or Internet with a card sent to the user.

Phase I

Validation and Selection: With consultation from the student sustainability committee, immediately form a 10-person campus committee (consisting of both faculty and student representatives) to validate the project and perform a feasibility study of bike sharing programs, alternatives as well as benefits for the Urbana-Champaign campus. The committee's work should examine existing programs (such as Minneapolis, Portland, California and Denver) as well as assessing alternative options (investigating suppliers / vendors such as Nice Ride, Green Bike, ZotWheels, B-cycle, Yellow Bike, Smart Bike, etc) for their viability at Illinois and make a recommendation of the top 3 providers. This work will also include the preparation of a projected operating budget (including startup cost, 3 year operating cost and projection of revenues). The third deliverable for the campus committee will be to illustrate and validate the benefits to the students at Illinois. The resulting documentation will clearly show the expenses associated with a Bike Share program as well as demonstrate the benefits to the Urbana-Champaign campus faculty and student body. Michael Hites and Michael Lyon will serve as project champions and committee chairs until others volunteer or are appointed through the process.

Funding request: \$10,000 to be used for honoraria, consultant fees, travel costs, evaluations, software, etc.

Timing: Committee will form by March 1, 2011 and produce a recommendation by May 1, 2011.

Phase II

Based on the recommendation, the committee will work with vendors to develop a detailed project plan along with initial and recurring budget projections for our bike sharing project and any additional infrastructure such as a campus bike center and RFID infrastructure.

Funding request: \$490,000 with \$245,000 from the Student Sustainability Committee and \$245,000 matching from the University administration.

Timing: Make a recommendation by July 31, 2011.

Initial Funding Projections:

Initial proposal for \$500,000 (half from the sustainability committee and half from a match from University Administration) would be to establish approximately 14 bike share stations around the Urbana Champaign campus with approximately 130 bikes. Further expansion could be funded through partnerships with local government and businesses if desired.

Opportunities for grant funding, participation by community businesses for advertising space on the bicycles can help with expansion of the system and adoption of the use throughout the community. Similar projects of varying scale are in place at St. Xavier (Green Bike), University of California (Zotwheels) and in Minneapolis Minnesota (NiceRide).

Nice Ride Minnesota Three Month Experience¹ - The Data

Example data from the Nice Ride Minnesota program at the three month mark for an installation of 65 bike share stations and 700 bikes follows; while on a larger scale than we are proposing at the Urbana Champaign campus it illustrates the success, adoption and use rate in a Midwest city –

Total trips by bike for all subscribers: 57,645

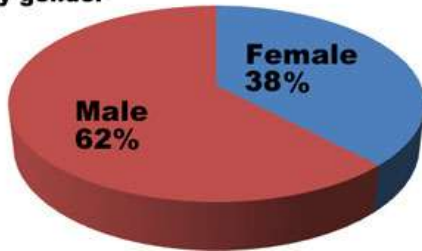
- Yearly, student and 30-day trips: 23,703
- Casual (24hr) trips: 33,942
- Bikes missing presumed lost: 2
- Significant incidents of vandalism >\$100: 2
- Reports of accidents with injury involving Nice Ride bikes: 0

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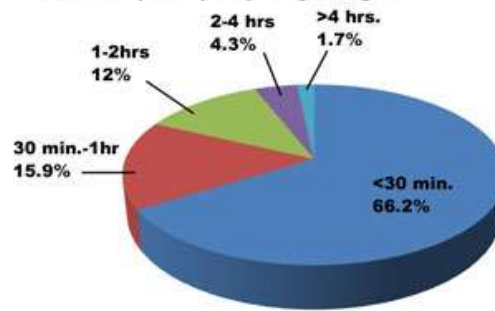
http://www.niceridemn.org/news/2010/09/15/21/3_month_update

Yearly and 30-day subscriber demographics

Yearly and 30-day subscribers by gender



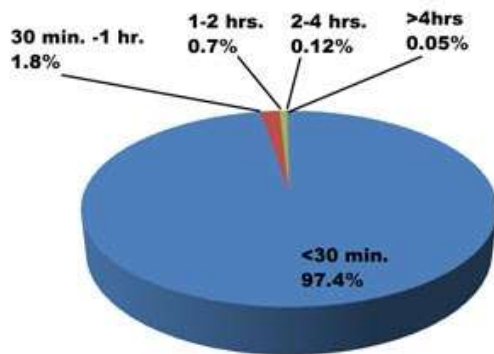
Casual (24hr) trips by length



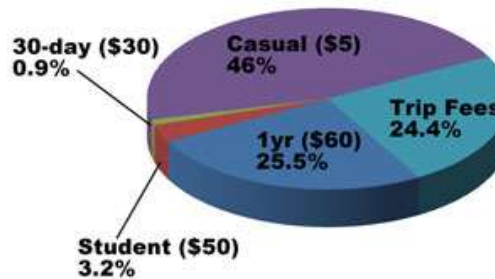
Length of trips, prevalence of trip fees

(all numbers 8/1/2010 - 8/31/2010)

Yearly & 30-day trips by length



Revenue 5/26 – 8/31



Subscriptions:Yearly (\$60) : \$62,277

Student (\$50) : \$7,706

30-day (\$30) : \$2,295

24hr subscriptions (\$5) : \$112,376

Trip fees: \$59,593

January 31, 2011 - Update to Green Bike Sharing Initiative

Our goal is to continue to promote sustainable cycling for transportation and recreation to reduce tailpipe admissions, reduce traffic congestion, promote healthy lifestyle, conserve gas and decrease transportation costs. We believe that these goals are appropriate, reasonable and realistic for us to accomplish on the Urbana –Champaign campus.

Over 90 universities offer some form of a bicycle program, sustainable examples would include programs such as Nice Ride² (Minneapolis MN / University of Minnesota), Green Bike³ (St. Xavier), and

² <http://www.niceridemn.org>

³ <http://www.cityryde.com/blog/first-3rd-generation-university-bike-share-saint-xavier-university/>

ZotWheels⁴ (University of California – Irvine) that have all implemented successful bike-sharing programs. Other bike provider programs include B-cycle, Yellow Bike and Smart Bike⁵.

Since our initial proposal for a sustainable Green Bike Sharing Initiative on November 23, 2010 we have additional information and wish to share first-hand experience of a program in operation (NiceRide in Minneapolis Minnesota). We remain convinced that this is a sustainable project that would be embraced by the students, faculty and staff at the Urbana Champaign campus. We have requested the startup & program materials⁶ from Mr. Steve Sanders, the Campus Bicycle Coordinator at the University of Minnesota to help the project have a detailed approach for consideration.

In order for us to propose a viable and appropriately scoped and sustainable program for the Urbana-Champaign campus, we propose a two-phase approach to this important effort.

⁴ <http://www.parking.uci.edu/zotwheels/main.cfm>

⁵ <http://www.amartbikedc.com>

⁶ <http://www.bikewalktwincities.org/news-events/news/interview-university-minnesota-campus-bicycle-coordinator-steve-sanders>