**iCAP Transportation Progress Report**

**October 2014**

**Transportation Subcommittee Members:**

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**Bryce Davis**

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**University of Illinois American College and University President's Climate Commitment (ACUPCC) Transportation Emission Status 2007-2014:**

**1. Status of ACUPCC Emissions 2008-2014**

In Table One below ACUPCC emission calculations for Fleet, Commuting, Air Transportation, and Total Transportation emissions for the Urbana-Champaign campus are presented.

Based on 2014 data, total ACUPCC emissions have increased by 30 percent since the 2008 baseline. The increase is due to a 52 percent increase in air travel emissions relative to 2008. Emissions for fleet and commuting are estimated to be down by 3 and 6 percent respectively. Although the most significant challenge for transportation emissions is clearly air travel, 2014 data also show disappointing findings for Fleet emissions as well for Commuting.

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| **ACUPCC Emissions** |
| **Fiscal Year** |  |  **Fleet**  |  **% change from FY08**  |  |  **Commuting**  |  **% change from FY08**  |  |  **Air Travel**  |  **% change from FY08**  |  |  **Transportation**  |  **% change from FY08**  |
|  |  **MT eCO2**  |  |  **MT eCO2**  |  |  **MT eCO2**  |  |  **MT eCO2**  |
| 2008 |   |  5,688  | n/a |   |  11,580  | n/a |   |  27,453  | n/a |   |  44,722  | n/a |
| 2009 |   |  5,599  | -2% |   |  11,945  | 3% |   |  21,992  | -20% |   |  39,536  | -12% |
| 2010 |   |  4,633  | -19% |   |  11,945  | 3% |   |  25,299  | -8% |   |  41,877  | -6% |
| 2011 |   |  4,948  | -13% |   |  10,236  | -12% |   |  24,033  | -12% |   |  39,217  | -12% |
| 2012 |   |  5,347  | -6% |   |  10,266  | -11% |   |  28,337  | 3% |   |  43,950  | -2% |
| 2013 |   |  5,147  | -10% |   |  10,566  | -9% |   |  32,381  | 18% |   |  48,094  | 8% |
| 2014 |  | 5,503 | -3% |  | 10,868 | -6% |  | 41,835 | 52% |  | 58,206 | 30% |

**Table One
ACUPCC Emissions 2008-2014
2. Status of iCAP Transportation Targets**

**Current Targets:**

**Reduce carbon emissions related to transportation (including air travel, com- muting, and fleet vehicles) from fiscal year 2008 baseline.**

**a) 30 percent by 2015**

**b) 40 percent by 2020**

**c) 50 percent by 2025.**

**Comments regarding feasibility of targets:**

* The campus decision to commit to achieving carbon neutrality as soon as possible is an ambitious and laudable goal.
* The transportation targets are based on a reduction in the absolute annual values of estimated carbon emissions (relative to a 2008 baseline) and do not take into consideration growth of the university, either with respect to the number of students and employees, or the number of vehicles.
* The transportation targets are not well connected with specific objectives and strategies to achieve them.
* Many members of the university community remain unaware of the iCAP targets.
* Currently it is not clear who on campus has the primary responsibility for coordination of efforts to implement the campus iCAP targets and strategies.

**Possible alternative proposals:**

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* Establishing the targets in each of the three areas of transportation will help make more effective objectives and strategies. The new targets can also specify what amounts of carbon reduction can be achieved by the campus communities and how much should be supplemented by emissions offsets.
* To establish new targets, it is recommended that the campus initiate a comprehensive study, develop more specific objectives in various areas, and institutionalize regular data collection.

**3. Status of iCAP Transportation Strategies**

**Strategy 1:**

**Impose a GHG charge on cars purchasing parking permits based on their relative efficiencies by 2015. Assess a similar fee for students bringing cars to campus but not purchasing parking permits. Revenue will be used to reduce transportation emissions.**

 **Comments regarding feasibility of strategy 1:**

* In general, fuel efficiency improves with new models of vehicles and more expensive hybrids, plug-in vehicles, etc. A fee (increased cost) for older, less fuel-efficient vehicles could be seen as a financial penalty for those individuals least able to afford the increased cost. Implementation of such a fee would be difficult.
* A GHG charge could serve as a disincentive for individuals to utilize fewer, but larger vehicles to rideshare.
* There is a significant difficulty involved in identifying students bringing vehicles to campus. How would the University differentiate a student’s vehicle on campus from a visitor, vendor or general public? Would the cost of collecting this information be prohibitive? Are there privacy issues involved? There should be more focus on incentives for desired behavior and less on disincentives for unwanted behaviors.

**Possible alternative proposals:**

* Rather than imposing a surcharge on less efficient vehicles, the campus should consider providing incentives for more fuel efficient vehicles such as designated parking spaces close to buildings, preferential consideration for parking spaces in lots with waiting lists, etc.
* Support and provide incentives for employees who rideshare.
* Support efforts to remove legislative and procurement restrictions on University vehicle purchases
* Require and activate anti-idling equipment for all new class 6 and above trucks purchased by the University.
* Provide opportunities for employees to purchase less than full-time parking privileges at a reduced cost. This will enable employees to take advantage of healthy commuting and ridesharing options when time, weather and other circumstances permit.

**Strategy 2**

**Immediately begin to implement the Campus Bicycle Master Plan and improve bicycling infrastructure. Work with cities to improve bicycle feeder routes to campus. Provide campus investment and supplement with revenue from GHG emissions charge on cars.**

**Comments regarding feasibility of strategy 2:**

* Illinois is developing a newly updated [2013 Campus Bike Plan](https://icap.sustainability.illinois.edu/files/project/37/May_2013_Draft_Campus_Bike_Plan.pdf) (currently in the late-draft stage).
* The Plan suggests using the Five E’s approach to improving bicycling to-and-from and on-campus. They are:
	+ Engineering – This includes bikeway improvements, bike parking areas, and bike fix-it stations.
	+ Education – This includes dissemination of bike-related informational resources of various types, and bike-related classes.
	+ Encouragement – This includes the primary mode-shift efforts for transitioning people on campus from single-occupancy vehicles to active modes of transportation, such as Bike Month and building a culture for good cycling behavior, through programs like the Campus Bicycle Center.
	+ Enforcement – This includes bicycle registration programs, and enforcement of both the Illinois Rules of the Road and the forthcoming UI Bike Code.
	+ Evaluation and Planning – This includes tracking progress toward be a Bicycle Friendly University, such as counting bikes through the Every Bikes Count census events, gathering public input through the online bicycle feedback form, and prioritizing bike-related needs for campus.

**Possible alternative proposals:**

* It is unclear that an alternative set of strategies to those identified in the Campus Bike Plan is needed. Rather, there is an urgent need to begin implementation of the Bike Plan.

**Strategy 3**
 **Create and subsidize a bike sharing program by 2012.**

 **Comments regarding feasibility of strategy 3:**

* Bike sharing is one option the campus can pursue to achieve its goals to reduce transportation emissions and increase the use of active transportation.
* Additional steps must be taken before large-scale bike sharing can be successfully implemented for student or public use.

i. The campus bicycle infrastructure such as bikeways and parking must be improved.

ii. Education programs should be made available to employees to ensure that cyclists, pedestrians, and vehicle drivers can all function safely together on campus.

**Possible alternative proposals:**

* Small-scale departmental Bike Share Programs can work. These can allow faculty and Staff to commute around campus during their workday without their car.
* Units like F&S and CITES have fleets of inefficient vehicles that move about campus each and every day. While these vehicles cannot be replaced they can be parked during good weather and bicycles with small cargo trailers could be used to move individuals and small tools and equipment, thereby reducing carbon emissions, transportation times and costs. Incentives could be provided for units and individuals who make use of these transportation alternatives.
* Revisit the feasibility of a campus-wide bicycle share after significant progress has been made on the implementation of the 2013 Campus Bike Plan.

**Strategy 4**

**Enact a system for purchasing local emissions offsets from air travel impacts, with a voluntary program beginning by 2012 and recommend to the Board of Trustees to move to mandate a required program by 2016.**

**Comments regarding feasibility of strategy 4:**

* It is difficult to envision what source of funds could be legitimately used to pay for either voluntary or mandatory offsets. It is not currently possible to use either state funds or external research funding for these purposes.
* The university does not currently report airline travel per department. This makes it difficult to differentiate between units that are working hard to reduce air travel from those that are not.
* Many units on campus have grown substantially since the 2008 baseline data were collected. Without an adjustment to account for increased FTE, it is difficult to assess how units have responded to requests to decrease their air travel.

**Possible alternative proposals:**

* Track and report on annual air travel for each department as well as calculate a figure that is adjusted for FTE.
* Develop a program to provide incentives for departments that reduce their air travel/FTE.
* Provide improved facilities and services in support of participation in online conferencing and other virtual meeting technology.
* Consider rewarding units by providing incentives for instances when multiple employees take the same plane when traveling to the same destination.