**2014 iCAP Transportation 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 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 almost entirely 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. iCAP Transportation Targets**

**Current Targets\***

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

a) 30 percent by 2015

b) 40 percent by 2020

c) 50 percent by 2025.

d) 100 percent by 2050

**\***Our committee recognizes that the 2015 goal of reducing carbon emissions by 30 percent relative to the 2008 baseline is unrealistic. Similar concerns can also be raised regarding the more distal targets. It is the position of our committee that insufficient information is available to provide adjusted transportation emission targets at this point in time. Until such time as substantive decisions have been made regarding strategies to reduce carbon emissions and/or to allow the purchase of carbon offsets, it will be difficult to develop more specific data-based targets for transportation emissions.

**Comments and concerns regarding the current targets:**

* The campus decision to commit to achieving carbon neutrality by 2050 is an ambitious and laudable goal. However, to date, no progress has been made relative to the 2008 baseline figures against which emission reduction progress is measured. While minor reductions have been achieved with respect to motor vehicle emissions (fleet & commuting), these have been overshadowed by a thirty percent increase in emissions due to air travel. Given the centrality of air travel to the academic mission of the university, it is unlikely that carbon neutrality can be achieved without resorting to the purchase of offsets to adjust for air travel emissions.
* The current 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. In order to provide an indication of the *relative efficiency* of transportation energy strategies, the campus should evaluate BOTH absolute and relative carbon emission status, providing data for fleet, commuting, and air transportation adjusted *per capita* and *per vehicle* whenever possible.
* Establishing separate carbon emission targets in each of the three areas of transportation (fleet, commuting, air travel) will help in the identification of more effective strategies and action steps. Insufficient information is available to propose separate targets at this point in time and there is a need for additional data on which such predictions could be based.
* Many members of the university community remain unaware of the iCAP targets. It is not clear who on campus has the primary responsibility for coordination of efforts to implement the campus iCAP targets and strategies.   
  It is important that more information be provided to the campus community about (1) the iCAP plan, (2) the process used for estimating carbon emissions and determining targets, (3) the strategies that have been proposed to achieve the targets, and (4) the level of commitment it will require from all members of the campus community in order to achieve these targets. Concerted efforts will be needed in these areas if we are to make progress towards achieving carbon neutrality by 2050.
* In order to establish new and more realistic targets, it is recommended that the campus initiate a comprehensive study, develop more specific objectives relative to each of the three domains of transportation, and institutionalize the regular collection and dissemination of data.

**3. iCAP Transportation Strategies**

**Strategy 1: Reduce GHG emissions from commuting by providing incentives and implementing infrastructure changes**

**Action Steps:**

* 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 options, public transportation, and ridesharing when time, weather and other circumstances permit.
* Motivate commuters to use more fuel efficient vehicles by providing incentives, 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.
* Extend shuttle services for neighboring communities to reduce travel for employees
* Explore the possibility of establishing shuttle services for employees from remote locations not presently served by public transportation options
* Explore the degree to which enhanced support for electronic vehicles for commuting purposes could assist in the reduction of GHG emissions

**Strategy 2: Reduce GHG emissions from University fleet vehicles through new fleet vehicle acquisitions and infrastructure changes**

**Action Steps:**

* Explore the feasibility of using Compress Natural Gas for University fleet vehicles.
* Increase the use of biodiesel blends in University fleet vehicles
* Require and activate anti-idling equipment for all new class 6 and above trucks purchased by the University.
* Explore the degree to which enhanced support for electronic vehicles for university vehicles could assist in the reduction of GHG emissions

**Strategy 3: Implement the Campus Bicycle Plan.**

**Action Steps:**

* Implement the [2014 Campus Bicycle Plan](http://icap.sustainability.illinois.edu/files/project/37/Campus_Bicycle_PLAN_07_15_2014.pdf) that proposes 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 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.

**Strategy 4: Create and subsidize a bike sharing program:**

**Action Steps:**

* Small-scale departmental Bike Share Programs are feasible and cost-effective and should be encouraged. These can allow faculty, students and staff to move around campus during their workday without their car.
* The feasibility and cost-effectiveness of larger community-wide Bike Share Programs should be explored.
* F&S and CITES should consider supplementing fleet vehicles with bicycles with cargo trailers to move individuals and small tools and equipment across campus. Incentives could be provided for units and individuals who make use of these transportation alternatives.

**Strategy 5 - Develop and implement a system for purchasing air travel emission offsets**

**Action Steps:**

* Whenever possible, apply emission offsets or equivalent in such a way as to support on-campus and/or local projects that advance the iCAP mission.
* Track and report annual airline travel emission estimates per department through the DMI system.
* Track and report per capita airline travel emission estimates in addition to a total estimate for the campus.
* Develop a program to provide incentives for departments that reduce their annual air travel emissions.
* Provide improved facilities and services in support of participation in online conferencing and other virtual meeting technology.

**Strategy 6 - Hire a Sustainable Transportation Director**

**Action Steps:**

* Create a position with responsibility for leading iCAP transportation strategies and coordinating future efforts with campus and the greater Champaign-Urbana community.
* Charge the Sustainable Transportation Director with developing and implementing a iCAP transportation strategy/model that is feasible and efficient.