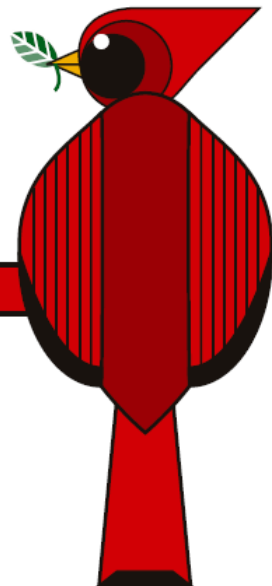


# UNIVERSITY OF LOUISVILLE



*UofL sends its old coal-fired boiler to the recycler, replacing it with a cleaner natural gas boiler in the summer of 2010.*

## GREENHOUSE GAS EMISSIONS INVENTORY 2006 – 2010



[louisville.edu/sustainability](http://louisville.edu/sustainability)

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### Report Prepared For:

American College & University Presidents' Climate Commitment

### Date of Submission:

September 15, 2011

**University of Louisville  
Greenhouse Gas Emissions Inventory  
Fiscal Years 2006 – 2010**

## **EXECUTIVE SUMMARY**

This report summarizes the estimated greenhouse gas (GHG) emissions for the University of Louisville (UofL) for the fiscal years 2006 through 2010. This is the first inventory update since our baseline GHG inventory, submitted in 2009. It follows the submission of UofL's [Climate Action Plan](http://rs.acupcc.org/cap/700/) in 2010 (<http://rs.acupcc.org/cap/700/>).

This inventory provides an estimate of greenhouse gas emissions resulting from the activities of some 28,565 (full- and part-time) students, faculty and staff at all three of the university's campuses, including the Belknap, Health Science and Shelby campuses.

This inventory represents UofL's on-going effort to track GHG emissions for the purpose of developing and refining strategies to reduce our emissions. ***Due to variations in methodologies, scales and contextual settings, this report is not intended to be used for comparison to other higher education institutions nor for any regulatory requirements.***

### **BACKGROUND**

On August 1<sup>st</sup>, 2008, University of Louisville President, James R. Ramsey, took the bold step of signing the American College & University Presidents' Climate Commitment. This pledge expresses UofL's long-term commitment to sustainability and a move toward climate neutrality. The University remains true to this commitment, having determined a baseline inventory of greenhouse gas emissions in 2009 and having developed a comprehensive [Climate Action Plan](#) in 2010. This Plan acts as a living document for UofL and serves as roadmap to achieve net climate neutrality by 2050, with interim goals for emissions reduction along the way.

The enclosed findings are estimates only, based on an admittedly imperfect system of data gathering. The University will continue to strive to improve data collection methods and to more accurately track emissions.

### **METHODOLOGY**

The data summarized herein includes utilities data for some 115 buildings on all three campuses which are owned by the University, comprising approximately 8,146,802 gross square feet of building space on 660 acres of land. The data encompasses all the University's academic, health science, medical, dental, athletic, dormitories, research, and office buildings and grounds.

Several buildings which are associated with the University but not owned or operated by UofL are not included in this report. Examples of these include fraternity and sorority houses, residence halls operated by third parties, the University Hospital, and off-campus leased space.

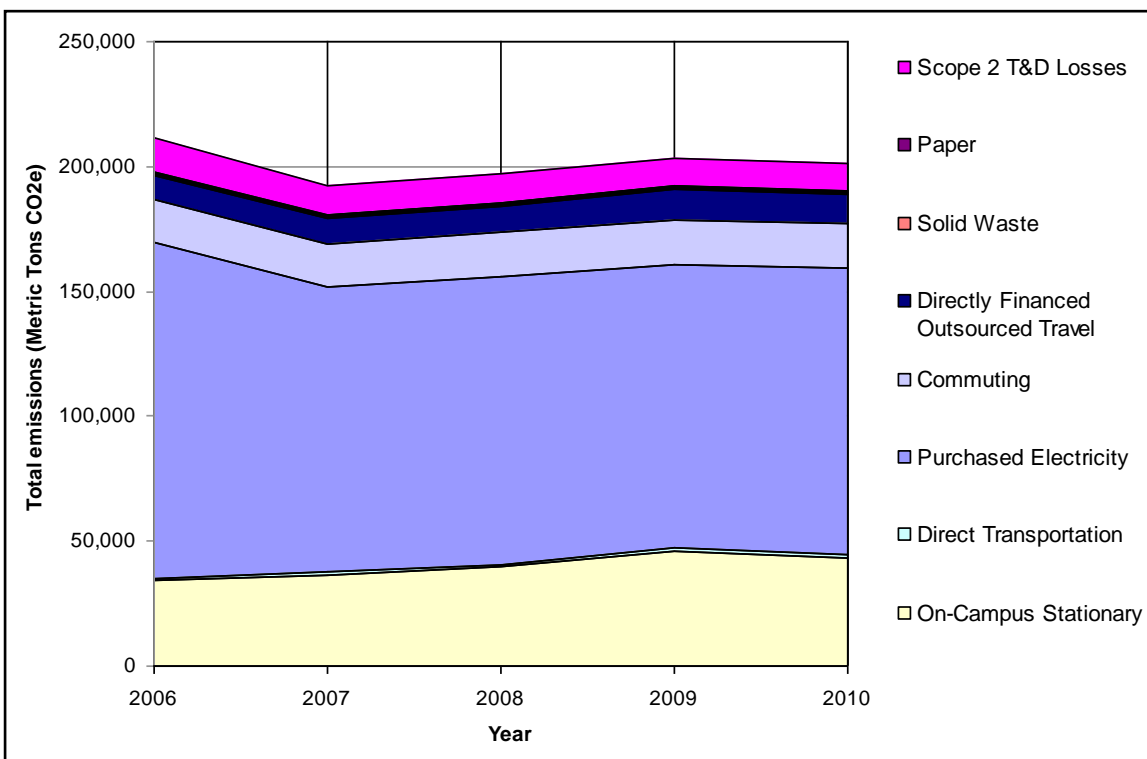
GHG emissions are typically broken down into three categories and defined as scope 1 (on-campus sources), scope 2 (off-campus sources), and scope 3 (indirect sources). All three categories are included in this report.

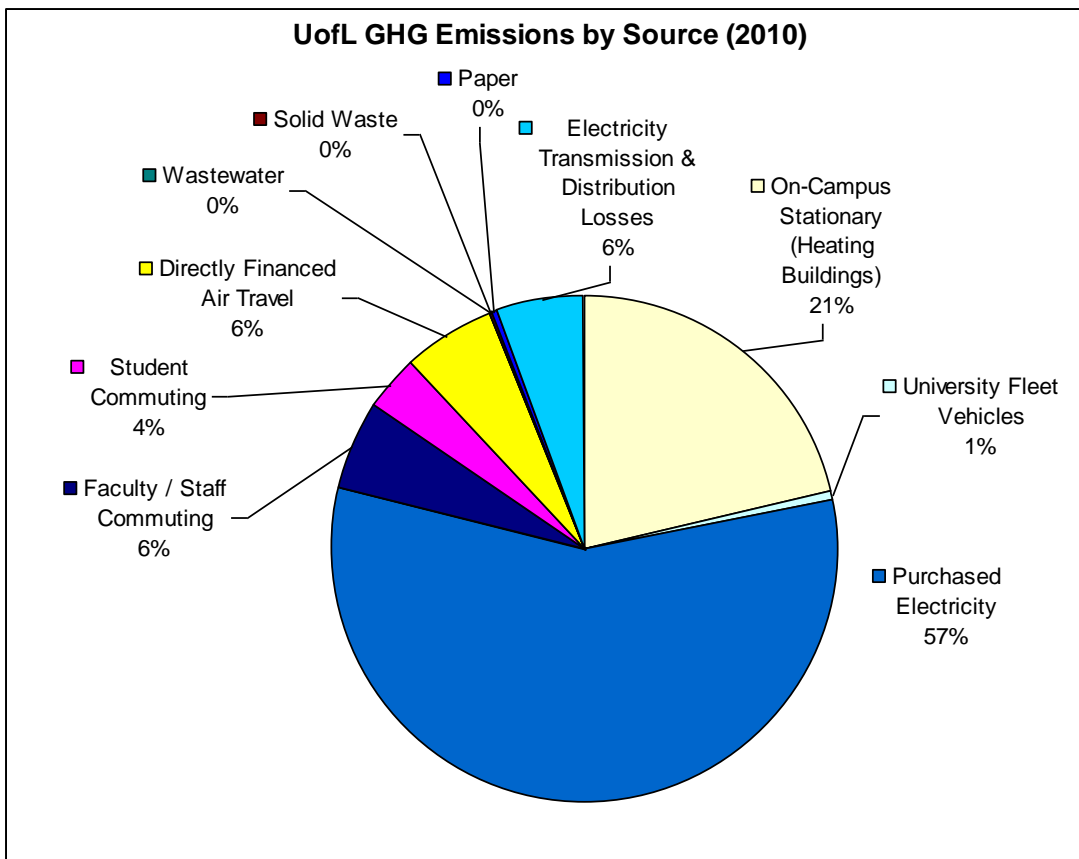
The University’s emissions were estimated using the Clean Air-Cool Planet® Campus Carbon Calculator v6.7 software and based upon collected facility data.

Emissions not reported because levels were considered to be *de minimus* include nitrous oxides used in the medical and research facilities, perfluorocarbons used in eye surgeries and MRIs, sulfur hexafluorides used in ultrasound imaging, and hydrofluorocarbons from campus refrigeration systems.

## FINDINGS & RECOMMENDATIONS

For fiscal years 2006 through 2010, the University of Louisville produced annual average net emissions of **200,414 metric tons** of carbon dioxide equivalent (MT CO<sub>2</sub>e) from all sources. Both in absolute terms and relative to growth in the size of the University, net emissions appear to have leveled or have, indeed, begun to decrease.

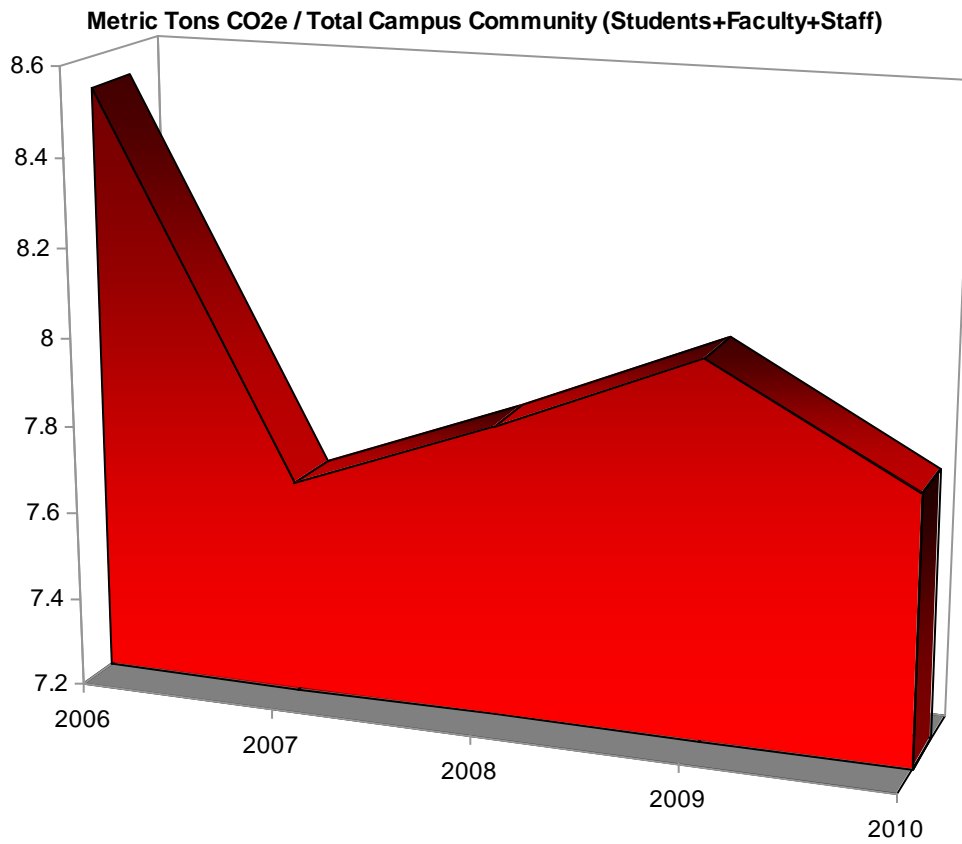
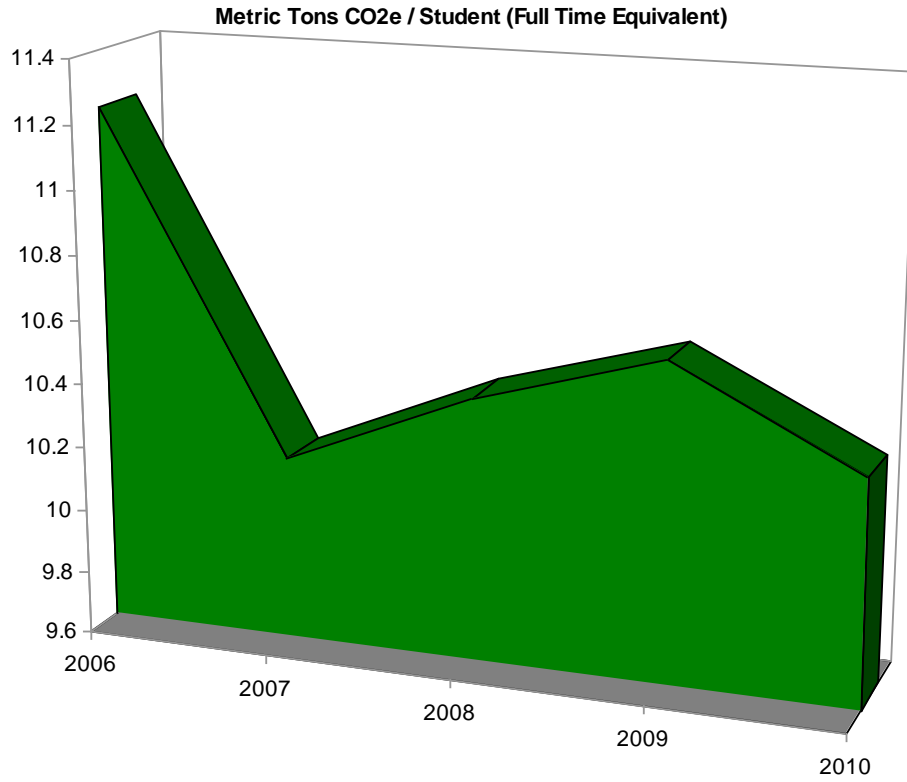


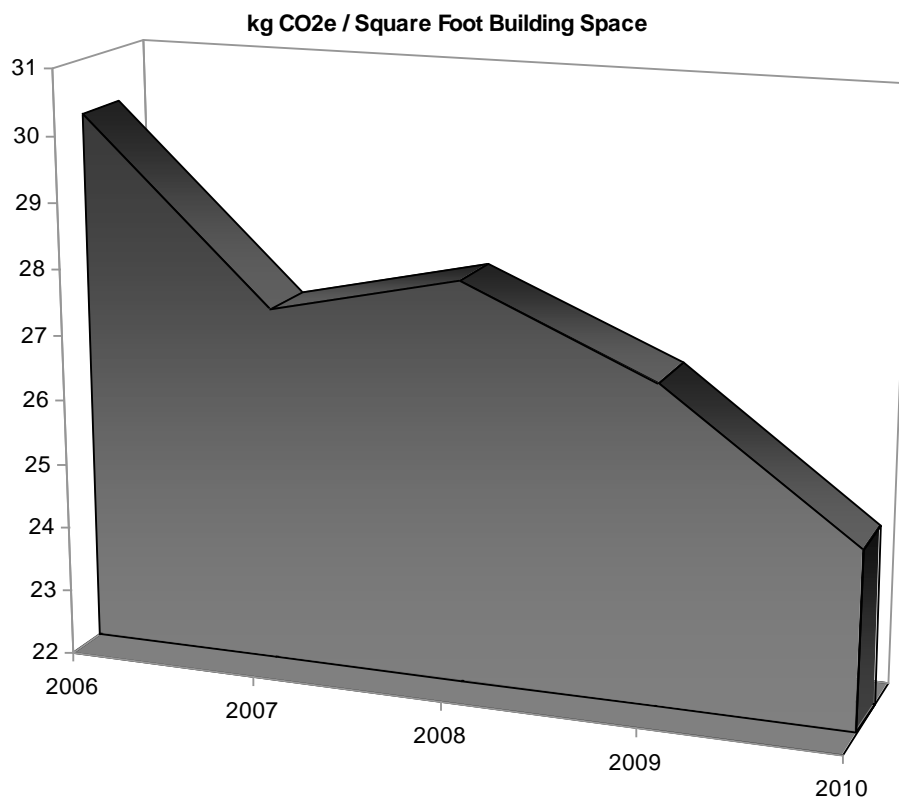


As of the most recent available data (FY2010), the largest portion of the University's carbon footprint (57%) can be attributed to the emissions produced from purchased electricity generated almost exclusively from coal. The next largest portion of UofL's carbon footprint (21%) is derived from its on-campus stationary combustion emissions. Scope 3 indirect emissions are the smallest percentage of overall emissions. While the percentage of the total emissions derived from the University's fleet vehicles is small (0.6%), commuting to campus and university-related air travel represent a sizable fraction (9% and 5.7% respectively).

Though the University's population, budget and land holdings have grown over this five year period, the net GHG emissions have not grown in proportion, and, in fact, have begun to fall. This indicates that UofL's efforts to reduce its environmental impact are trending in the right direction.

Fiscal Year	Net Emissions	Students	Community Members	Building Space	Operating Budget	Heating Degree Days	Cooling Degree Days
	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e / FTE Student	MT CO <sub>2</sub> e / Person	kg CO <sub>2</sub> e / ft <sup>2</sup>	g CO <sub>2</sub> e / Dollar	MT CO <sub>2</sub> e / HDD	MT CO <sub>2</sub> e / CDD
<b>2006</b>	210,672	11.2	8.5	30.2	173.7	50.1	157.7
<b>2007</b>	191,450	10.2	7.7	27.4	150.4	43.9	149.1
<b>2008</b>	196,261	10.4	7.9	28.1	148.6	45.0	159.7
<b>2009</b>	202,830	10.6	8.0	26.9	148.7	47.6	131.5
<b>2010</b>	200,859	10.3	7.8	24.7	189.7	46.2	136.2
<b>Average</b>	<b>200,414</b>	<b>10.5</b>	<b>8.0</b>	<b>27.5</b>	<b>162.2</b>	<b>46.6</b>	<b>146.9</b>





The University is committed to greater energy conservation and expects to see significant reductions in our carbon footprint in coming years thanks, in part, to a nearly \$40 million investment in efficiency through a performance contract with Siemens. This represents a large step for UofL in emissions reduction, but it is only the first of many laid out in our [Climate Action Plan](#).

UofL's target goals for reductions in greenhouse gas emissions (from our 2008 benchmark estimate of 192,788 MT CO<sub>2</sub>e) are summarized below.

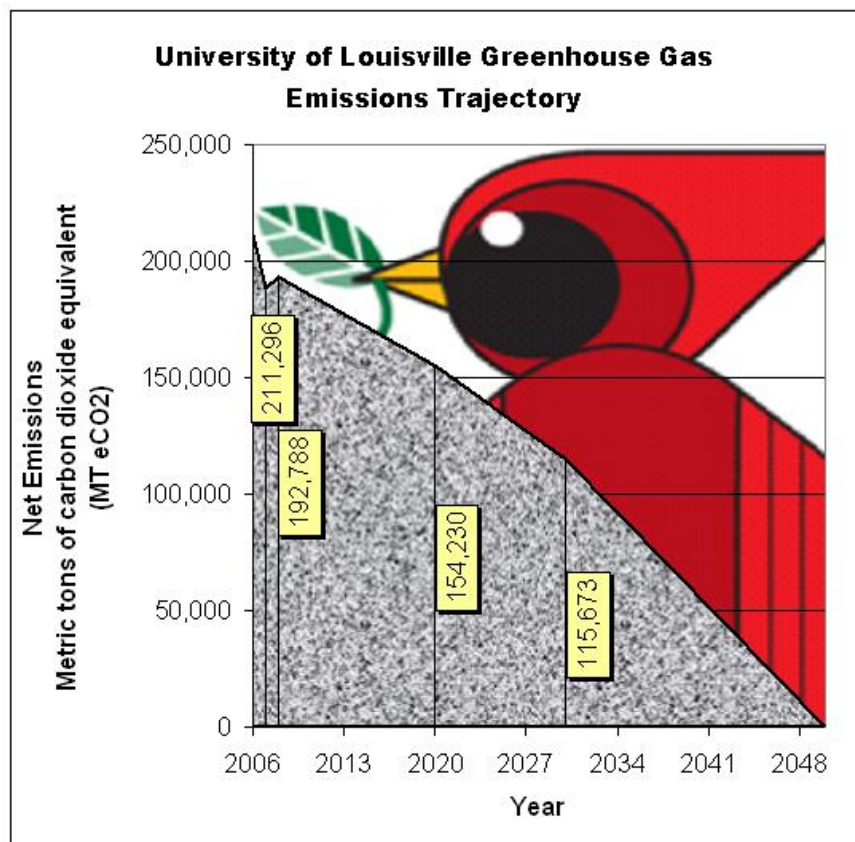
Goals	Timeframe	Percent reduction in net GHG emissions	Target maximum net GHG emissions (MT CO <sub>2</sub> e)
<b>Short Term</b>	<b>2010–2020</b>	<b>20%</b>	<b>154,230</b>
<b>Mid Term</b>	<b>2021–2030</b>	<b>40%</b>	<b>115,673</b>
<b>Long Term</b>	<b>2031–2050</b>	<b>100%</b>	<b>0</b>

Our plan for making progress toward climate neutrality is dynamic and multifaceted. We recognize that sustainability demands progress on multiple fronts and that lasting change cannot be achieved without coordinated, university-wide efforts. As such, we will be taking a variety of steps to lead UofL down a path toward climate neutrality.

A sample of projects from UofL's Climate Action Plan		
Project	Estimated emissions reduction (MT CO <sub>2</sub> e per year)	Progress towards goal (% reduction in GHG emissions)
20% renewable energy by 2020	22,284	11.5%
Implement phase 2 of energy savings performance contract on HSC & Shelby campuses	17,419	9%
Convert from coal to natural gas fuel at Belknap Steam & Chilled Water Plant	4,222	2.2%
Create dedicated bike lanes to connect campus to neighborhoods	3,283	1.7%
Increase fuel efficiency of the university fleet by 15%	136.3	0.7%

UofL's [Climate Action Plan](#) addresses current and future initiatives in the following areas:

- Green purchasing
- Energy conservation and efficiency
- Renewable energy
- Carbon sequestration
- Master planning
- Green building design
- Composting and horticultural practices
- Behavior change: Green Team pilot program
- Behavior change: university-wide
- Recycling
- Transportation
- Food
- Carbon offsets





## DATA LIMITATIONS

It must be stressed that these findings are *estimates* of GHG emissions, not actual measurements. The accuracy of these estimates is limited by the quality and extent of the data gathered. Actual emissions are likely to vary from the calculated estimates.

Limitations to the data used in this survey include:

- As the University does not track gallons directly, fuel consumption figures had to be estimated based on an average price per gallon.
- Emissions for leased off-campus spaces and private residence hall spaces not owned by UofL were not included.
- Fugitive emissions from laboratory animals used in medical research could not be accounted for.
- We have yet to capture fertilizer application data for our campus landscape.
- Bus commute data could only be provided to UofL without data about transfers.
- Air miles booked on behalf of the University but not using the University's contracted travel agent could not be directly accounted for.
- Miles commuted by car to campus were estimated based on the assumption that those who bought parking permits were driving an average round-trip distance from their home zip code at a rate of five times per week for employees and three times per week for students controlling for time-off and times between semesters.
- The Athletics department's transportation fuel usage, fertilizer applications and emissions resulting from Athletic events (other than utilities usage) were not incorporated into this report due to its separate budget and accounting system.
- Wastewater volume is not measured, nor is freshwater input as the water utility does not provide the University with annualized gallon data.

## BACKGROUND

Though many individuals on campus had been pursuing various environmental projects for years, the University of Louisville made a formal, institutional commitment to sustainability in 2008. On August 1<sup>st</sup>, 2008, President James R. Ramsey took the bold step of signing the American College & University Presidents' Climate Commitment.

As a further indication of the University's commitment to climate neutrality and a broader social and environmental responsibility, Provost Shirley Willinghamz established the university-wide Sustainability Council that same year. Comprised of representatives from a broad spectrum of University departments along with administrators and students, the Council aims to do the following:

- Oversee the work of three committees on sustainability initiatives (Operations; Education & Research; and Administration, Finance & Outreach);
- Develop and review policies to recommend for implementation to the President and Provost;
- Set metrics and provide oversight to measure progress using the categories in the Association for the Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking, Assessment and Rating System (STARS) and in other areas deemed important to the University;
- Serve as a clearinghouse of information and organizational hub for University activities related to sustainable practices;
- Encourage faculty, staff and students to become involved in sustainability efforts at all levels; and to
- Publicize sustainability initiatives internally and externally in order to create momentum for substantial change.

One year later, the University further solidified its commitment to sustainability by creating a new full-time professional and administrative staff position devoted exclusively to the effort. UofL hired its first-ever Assistant to the Provost for Sustainability Initiatives in August 2009.

UofL's environmental progress has a rich, collaborative history. In 1992, the University of Louisville established the Kentucky Institute for the Environment and Sustainable Development (KIESD), with the mission "to provide multidisciplinary research and applied scholarship, teaching and educational outreach, and public service on issues of the environment, its protection, and sustainable development at the local, state, national and international levels."

KIESD has achieved these goals through the work of a variety of centers focused on different aspects of sustainability, including:

- The Center for Environmental Education
- The Center for Environmental Engineering
- The Center for Environmental and Occupational Health Sciences
- The Environmental Cardiology Center (Public Health)

- The Center for Environmental Policy and Management
- The Environmental Finance Center (EPA Region IV)
- The Center for Environmental Science
- The Center for Land Use and Environmental Responsibility
- The Center for Sustainable Urban Neighborhoods
- The Kentucky Pollution Prevention Center

Based at the University of Louisville J.B. Speed School of Engineering, the Kentucky Pollution Prevention Center (KPPC) runs programs state-wide designed to help private organizations reduce their carbon footprint. KPPC helps businesses, industries and other organizations develop environmentally sustainable, cost-saving solutions for improved efficiency. Since 1994, the center has provided free, non-regulatory waste assessments to nearly 500 Kentucky businesses with total savings reaching nearly \$6 million.

In August 2004, the University teamed with local schools and the city to manage environmental resources better through the Partnership for a Green City. As the first of its kind in the country, the partnership represents a collaborative effort to improve environmental education, health, and management by combining the resources of three of Louisville's largest public entities: the University of Louisville, the Jefferson County Public Schools, and Louisville Metro Government.

In total, the partner agencies employ some 26,000 people, enroll 120,000 students, and own more than 500 buildings, 7,000 vehicles, and 25,000 acres of land. Through the coordination of efforts and cooperation, the partnership has been able to realize real results that will have long-term impact on the health, education, and well-being of our citizens while also improving and institutionalizing environmental practices within the organizations themselves.

In December 2006, the partnership formed a Climate Change Committee that commissioned a Climate Action Plan. Part of the plan was to develop an inventory of the community's GHG emissions based on 2006 data. This initial effort, in which the University participated, laid the groundwork for the University to develop its own Climate Action Plan.

Today at UofL, the purchasing department and food vendors is using more locally-sourced, recycled, and renewable materials. Faculty members from many disciplines are offering classes that focus on various aspects of the sustainability puzzle. Our researchers are conducting investigations to help further develop renewable forms of energy and are developing pilot devices that will let our technology operate more efficiently and save our land and waterways.

The University is doing a lot, but can, and will, do more. One of the goals of the strategic plan for 2020 is to be "creative and responsible stewards" of resources. For the University, part of that stewardship means making a commitment to sustainability and efficiency; and to tracking our progress through STARS. As a Charter Participant in STARS, UofL received a [Silver](#) rating from AASHE in January 2011.

## INSTITUTIONAL DATA

Founded by decree of city council on April 3rd, 1837, with roots stretching back to 1798, the University of Louisville is today a premier metropolitan research university with two campuses in downtown Louisville and one on the urban fringe. UofL is a state supported institution located in Kentucky's largest metropolitan area. It was a municipally supported public institution for many decades prior to joining the statewide university system in 1970.

The University has three campuses. The 287-acre Belknap Campus is three miles from downtown Louisville and houses seven of the University's 11 colleges and schools. The Health Sciences Center is situated in downtown Louisville's medical complex and houses the University's health related programs and the University of Louisville Hospital. The 243-acre Shelby Campus is located in eastern Jefferson County.

Under the leadership of its seventeenth president, James R. Ramsey, the University of Louisville has become known especially for teaching, research, and service to its community and the advancement of educational opportunity for all citizens thereof. With a total enrollment of 22,290, and a growing number of full-time and residential students, UofL's academic programs continue to attract students from every state and from countries all over the world.

### A Growing University

	Employees (excluding instruction/research assistants)			Students				Total Campus Population	Operating Budget
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full-time Equivalent		
2006	4,678	1,086	5,764	15,643	6,117	21,760	16,246	27,524	\$697.8 m
2007	4,830	1,119	5,949	15,804	6,037	21,841	16,483	27,790	\$769.3 m
2008	4,993	1,145	6,138	16,061	5,628	21,689	17,214	27,827	\$867.4 m
2009	5,307	779	6,086	16,377	5,654	22,031	17,897	28,117	\$946.3 m
2010	5,481	794	6,275	16,818	5,472	22,290	18,295	28,565	\$1.191 b

Employing 6,275 people and operating with a budget of \$1.191 billion, UofL is a major economic force in the community, lending even greater import to its policies with respect to environmental stewardship.

The University owns and maintains a fleet of roughly 200 road vehicles in addition to a number of pieces of heavy machinery used for grounds maintenance (backhoes, tractors, etc.). Physical Plant is responsible for maintaining the majority of these, as well as over 115 buildings (8,146,802 gross square feet) and 660 acres of land on all three campuses. Physical Plant also operates and maintains a central steam and chilled water plant on the Belknap campus and a 13,800-volt distribution system at the Health Sciences Center and Belknap campuses.

## METHODOLOGY

With the help of an engineering student intern, the Sustainability Council, in conjunction with the Office of the Vice President of Business Affairs, the department of Physical Plant Operations and University Planning, Design and Construction gathered data to update our inventory of UofL GHG emissions over the summer of 2011. Strategies for gathering the necessary data had been developed two years prior for UofL's baseline emissions inventory.

GHG emissions are typically broken down into three categories and defined as scope 1 (on-campus sources), scope 2 (off-campus sources), and scope 3 (indirect sources). All three categories are included in this report.

**Scope 1** emissions refer to those occurring from sources owned or controlled by the University. These consist of direct operations on campus that produce greenhouse gases, such as on-site fuel consumed (i.e. natural gas burned for heat and fuel consumed by campus fleet vehicles).

**Scope 2** emissions refer to those produced off-site by the electric utility as part of the generation process. The University purchases electricity from Louisville Gas & Electric, which has coal-powered generating stations located on the Ohio River.

**Scope 3** refers to other indirect emissions generated off-site by commuter travel, business travel and waste transported to landfills. These emissions, although not produced directly on campus, are a result or consequence of university activities.

Estimated emissions were calculated using the **Clean Air-Cool Planet® Campus Carbon Calculator v6.7** software utilizing annual facility data. The calculator was used for university data collection, storage and conversion into a common greenhouse gas emission unit, metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e). In the conversion process, the calculator uses scientifically-based factors for specific activities leading to GHG emissions (e.g., commuter miles traveled, tons of waste disposed, gallons of fuel burned, etc.). These conversion factors have been modified as more is learned about the global warming effects of various greenhouse gases.

The default emissions coefficients supplied in the Clean Air-Cool Planet® Campus Carbon Calculator were used in preparing this report. The version of the Carbon Calculator we employed uses a global warming potential (GWP) factor from the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

GWP is the ratio of the degree of warming to the atmosphere that would result from the emission of one unit of a given GHG compared to one unit of carbon dioxide over a specified time period. This is used to convert emissions of other GHGs into units of carbon dioxide equivalents (CO<sub>2</sub>e).

Fiscal Year	Heating Degree Days	Cooling Degree Days
2006	4222	1340
2007	4379	1288
2008	4373	1233
2009	4277	1547
2010	4361	1479

In calculating our carbon footprint, the University used rough, upper-bound estimates to designate as *de minimus* (or materially insignificant) small emissions sources that collectively comprised less than 5% of the University's total GHG emissions. Some emissions considered *de minimus* for this report include nitrous oxides used in the medical and research facilities, perfluorocarbons used in eye surgeries and MRIs, sulfur hexafluorides used in ultrasound imaging, and hydrofluorocarbons from campus refrigeration systems. While emissions from these sources were excluded from this inventory, the University recognizes the very real contribution to global warming that these emissions make. It is the intention of the University to continue to seek ways to minimize all GHG emissions, whether they are closely tracked and reported or not.

Other limitations to the collected data include:

- Calculations to determine total fuel consumed in University vehicles were based on an average price per gallon. Total fuel consumption figures include fuel used to power equipment in addition to fleet vehicles.
- Wastewater volume is not measured, nor is freshwater input as the water utility does not provide the University with annualized gallon data. In the future, gallons of water consumed by the University could be calculated based on average costs, but currently there is no central repository for the information and the University receives some 150 different water bills each month.
- We have yet to capture fertilizer application data for our campus landscape.
- The University recognizes that its true carbon footprint includes emissions from facilities that it does not own (such as private residence halls and leased off-campus space); however it is difficult for the University to track or control these emissions.
- While the University houses no farm animals, it is responsible for laboratory animals used in medical research. Fugitive emissions from these animals (e.g. releases of methane produced as part of normal digestive processes) could not be monitored.
- The TARC bus service tracks each leg of any trip taken by university-affiliated customers, and not rides taken on transfers. Thus, the University estimated an average of 1.5 rides for each trip reported in order to control for transfers inflation.
- Miles commuted by car cannot be directly tracked. Instead, the University estimated that those who bought parking permits were driving an average round-trip distance from their home zip code at a rate of five times per week for employees and three times per week for students, controlling for time-off and semester breaks.
- Air miles booked on behalf of the University but not using the University's contracted travel agent could not be directly accounted for. Instead, the University estimated based on a historic average of 51% of University air trips booked through contract and prorated miles traveled for the additional 49%.
- The Athletics department has a separate budget from the University. Athletics was unable to report travel statistics so the associated emissions are not included here. We were also unable to include an accounting of emissions resulting from Athletics events, other than utilities consumed (as these are paid out of general funds).

## FINDINGS & RECOMMENDATIONS

The following table summarizes the GHG emissions estimates produced by this survey for the University of Louisville:

Fiscal Year	Scope 1 Emissions On-Campus		Scope 2 Emissions Off-Campus	Scope 3 Indirect Emissions				Sequestration	TOTAL
	Stationary Combustion	Mobile Combustion	Purchased Electricity	Commuting	Air Travel	Solid Waste	Paper Purchasing	Due to composting & trees	Net Emissions
	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e
2006	34,552	796	134,491	16,771	10,078	668	653	-640	210,672
2007	36,697	873	114,338	17,195	10,382	711	586	-640	191,450
2008	39,887	909	114,830	17,857	10,752	682	628	-640	196,261
2009	46,282	989	113,603	17,576	12,546	684	555	-640	202,830
2010	43,175	1,223	114,739	18,245	11,544	691	540	-646	200,859

The largest portion of the University’s carbon footprint (57%<sup>1</sup>) can be attributed to scope 2 emissions produced from purchased electricity. Since the electricity available from the grid in Louisville is produced almost exclusively from the burning of coal, a vital part of our strategy for reducing our carbon footprint must be a reduction in the use of this purchased electricity. This will be achieved through a multi-pronged approach involving:

1. **Renewable Energy:** The University will seek to produce more of our own electricity on campus from renewable sources, with an initial goal of 20% renewable energy by 2020. The University is also conducting locally-relevant research on renewable energy technologies and sharing the findings with the utilities and industries to help speed the transition away from fossil fuels.
  
2. **Energy Conservation:** The ‘greenest’ energy is that which is not wasted. The University is taking a wide variety of steps toward reducing its overall and peak demand for electricity. UofL is implementing a wide variety of energy saving measures through a performance contract with Siemens Corp. Now in its second phase, the nearly \$40 million project includes lighting upgrades, high efficiency motors, building envelope improvements, water conservation measures, and improved HVAC systems and temperature controls on all three UofL campuses.
  
3. **Behavior Change:** A key component of the Climate Action Plan is to implement strategies for changing the campus culture and individual behaviors associated with energy use. This effort began in 2008, when UofL’s College of Arts & Sciences Green Team conducted energy audits in all 700 individual offices of the

<sup>1</sup> Percentages based on 2010 data.

College and employees were provided with comparative data about their energy use. Now sustainability and energy conservation are woven into all new student and new employee orientation programs at UofL. New members of our community are encouraged to sign a “Cards Go Green!” pledge to reduce their contribution to UofL’s environmental impact by selecting individual actions they will take to reduce consumption and waste. Weekly green tips in campus publications help reinforce this message regularly.

The next largest portion of UofL’s carbon footprint is derived from its scope 1 on-campus stationary combustion emissions (21%). These are primarily produced from our central steam and chilled water plant in the heating of buildings on the Belknap campus, which switched from coal to natural gas in 2010. The switch to natural gas, combined with on-going efficiency improvements in the way we heat and cool buildings will help lead to a significant reduction in this portion of UofL’s carbon footprint.

In terms of scope 3 emissions, while the percentage of our total emissions from the University’s fleet vehicles is small (0.6%), commuting to campus and university-related air travel represent a sizable fraction (9% and 5.7% respectively). UofL is tackling this issue by actively promoting transportation alternatives and by increasing the percentage of students living on campus. Though UofL has historically been a commuter school, the University’s strategic plan sets a goal of 32% of students living on campus by 2020 and we’ve already made significant progress toward that goal.

Fiscal Year	Scope 3 Indirect Emissions Sources					
	Faculty / Staff Commuting	Student Commuting	Directly Financed Air Travel	Solid Waste	Paper Purchasing	Scope 2 Transportation & Distribution Losses
	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e	MT CO <sub>2</sub> e
<b>2006</b>	10,182	6,589	10,078	668	653	13,301
<b>2007</b>	10,506	6,689	10,382	711	586	11,308
<b>2008</b>	10,876	6,981	10,752	682	628	11,357
<b>2009</b>	10,982	6,593	12,546	684	555	11,235
<b>2010</b>	11,132	7,114	11,544	691	540	11,348

The University has been able to offset its emissions by a small fraction (0.3%) through on-campus carbon sequestration. This is the result of the preservation of 1100 trees on Belknap campus and at UofL's mostly forested 200-acre [Horner Conservation Property](#) (also referred to as the Moore Observatory). The University also composts organic wastes from grounds maintenance and began composting kitchen wastes from campus dining facilities in July 2010. We estimate that these practices sequester nearly as much carbon as is released due to the solid waste UofL sends to the landfill.



## CONCLUSION

With this update to our greenhouse gas emissions inventory, the University of Louisville is proud to uphold its climate commitment and to continue tracking its emissions. While we recognize that these numbers are merely estimates and not a complete and precise accounting, we remain focused on the primary purpose of this effort – to continue developing and refining strategies to **reduce** our emissions, as laid out in our [Climate Action Plan](#). The University recognizes the need to further refine our techniques for gathering more and better data about our climate impact and we continue working on strategies to do so.

**It is important to note that, as we continue to capture a more complete picture of university-affiliated emissions, the net *reported* emissions numbers may rise in future years even if our *actual* emissions stabilize or decline.**

The University very much expects the trend in actual emissions to improve as it continues to make significant improvements in energy efficiency throughout the institution. With President Ramsey's commitment to achieve climate neutrality and the day-to-day work of the Sustainability Council, the Assistant to the Provost for Sustainability Initiatives, and numerous individual staff, faculty, researchers and students across our campuses, the University of Louisville is bound for a brighter, greener future.

UofL's mission is to teach the next generation and research solutions to our pressing problems. In striving for climate neutrality as an institution, the University of Louisville is leading by example and providing our students and employees vital lessons in stewardship and responsibility.

We invite you to learn more about our sustainability initiatives and get involved through our [UofL Sustainability website](http://louisville.edu/sustainability): <http://louisville.edu/sustainability>.