

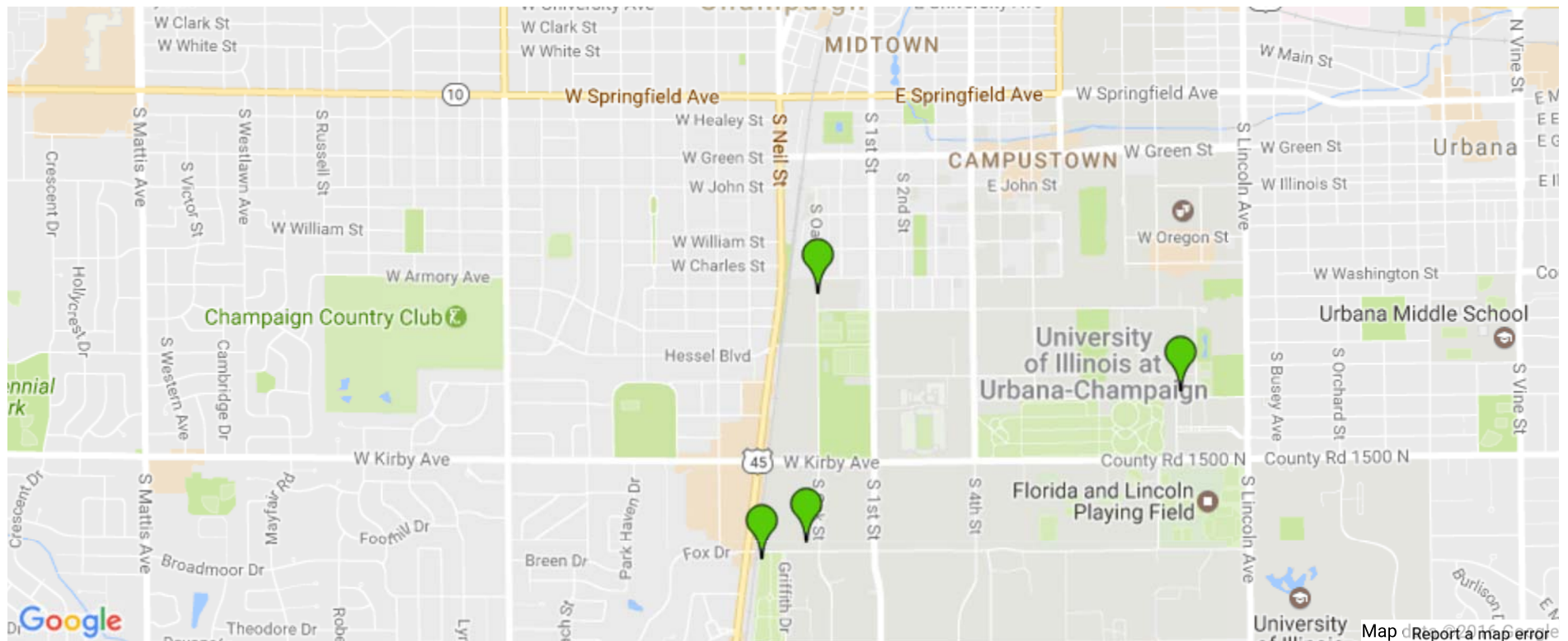


iCAP Portal
Institute for Sustainability, Energy, and Environment
University of Illinois at Urbana-Champaign



2015 iCAP Objectives

Map of projects



Project Listing

THEME	PROJECT	STATUS	DESCRIPTION
Education	Encourage Course Development or Modification	In Progress	The 2015 iCAP , chapter 10, objective 3 is, "Add at least five new sustainability-focused courses by FY20." Encourage development of courses and programs to fully address learning outcomes and gaps in campus educational offerings. There are gaps in the social dimension of sustainability as well as in the interconnections between social, environmental, and economic dimensions.
Education	Independent Student Projects	In Progress	The 2015 iCAP , chapter 10, objective 2 is, "Provide opportunities for undergraduate students to obtain research and practical experience by participating in independent study projects on sustainability topics." Often students work on sustainability projects as part of a class or for a graduate degree. Students can inquire about project opportunities by emailing sustainability@illinois.edu .
Education	Sustainability Minor	Completed	The 2015 iCAP , chapter 10, objective 1 is, "Offer an undergraduate minor in sustainability, starting with about 20 students in FY16, that will provide in-depth learning about the three dimensions of sustainability and enable students to make connections between the different disciplines to solve problems related to sustainability."
Energy	Energy Services Conservation Projects	In Progress	The 2015 iCAP , chapter 2, objective 3 is "Strengthen centralized conservation efforts focusing on building systems to achieve a 30% reduction in total campus building energy use by FY20. This includes

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			meeting LED Campus commitments." The Utilities and Energy Services (UES) division at F&S is responsible for providing campus utilities.
Energy	Explore Options for 100 Percent Clean Campus Energy	In Progress	The 2015 iCAP , chapter 3, objective 1 is "The Energy Generation, Purchasing, and Distribution SWATeam, in collaboration with Facilities & Services and topical Consultation Groups, will lead an exploration of options for 100% clean campus energy during FY16 and submit recommendations through the formal sustainability process." The campus community has considerable intellectual resources that can be brought to bear on the future of energy generation, purchasing, and distribution. The
Energy	Methane Capture on Campus	Proposed	The 2015 iCAP , chapter 6, objective 3, is "Utilize landfills with methane capture." Methane is one of the worst greenhouse gases, and this university has a number of methane producers on South Farms. There are beef cows, dairy cows, sheep, pigs, horses, and chickens. One of the strategies listed in the iCAP to reduce agricultural emissions is to install a methane capture process for additional energy generation by 2020, with a pilot project by 2015.
Energy	PPA for National Petascale Computing Facility	Proposed	The 2015 iCAP , chapter 3, objective 4, is "Offset all emissions from the National Petascale Computing Facility (and other successor facilities) by the conclusion of the current period of National Science Foundation support." The NPCF is under the purview of the National Center for Supercomputing Applications (NCSA).
Energy	Solar Energy on Campus	In Progress	The 2015 iCAP , chapter 3, objective 2 is "Expand on-campus solar energy production. By FY20, produce at least 12,500 MWh/year, and by FY25 at least 25,000 MWh/year, from solar installations on campus property." This project describes the overarching efforts for on campus solar production, with child projects for each effort (whether proposed, in progress, completed, or cancelled).

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Energy	Use Renewable / Low-carbon / Clean Energy	In Progress	The 2015 iCAP , chapter 3, objective 3, is "Expand the purchase of clean energy. By FY20, obtain at least 120,000 MWh, and by FY25 at least 140,000 MWh from low-carbon energy sources.
Transportation	2014 Campus Bike Plan	Completed	The University of Illinois at Urbana-Champaign has completed and approved the 2014 Campus Bike Plan, a master plan to direct our efforts for future bicycle infrastructure improvements and program development. The 2014 Campus Bike Plan outlines the various ways in which the University should improve for bicycles in the coming years.
Transportation	Appropriately Staff Sustainable Transportation Efforts	In Progress	The 2015 iCAP , chapter 4, objective 6, is "Appropriately staff sustainable transportation efforts, especially through the hiring of an Active Transportation Coordinator." The campus should hire a full-time Active Transportation Coordinator and a full time Campus Bike Center Manager. Currently, in 2016, there is a Visiting Active Transportation Coordinator in Facilities & Services, with a full-time Academic Hourly serving as the Campus Bike Center Manager. These positions have temp
Transportation	Decrease Emissions from UI Fleet	In Progress	The 2015 iCAP , chapter 4, objective 2, is "Reduce emissions from the Urbana-Champaign campus fleet by 20% for departmentally-owned and carpool vehicles by FY20." The UI Fleet includes hundreds of motor vehicles, used for a variety of purposes. These include large construction vehicles, trucks, sedans, and some individual mobility vehicles. The UI fleet emissions can be reduced through a reduction in trips, increased gasoline miles per gallon, reduced idling, and the integration of ele
Transportation	Develop Scenarios for Converting the UI Fleet to Renewable Fuels	Proposed	The 2015 iCAP , chapter 4, objective 3 is "Conduct a detailed study by the end of FY17 to develop scenarios for complete conversion of the campus fleet to renewable fuels."
Transportation	Offset Emissions from Plane Trips	Proposed	The 2015 iCAP , chapter 4, objective 1, is "Reduce air travel emissions from a

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Transportation	Reduce Cars (Vehicle Miles Traveled) on Campus	In Progress	<p>new FY14 baseline by 25% by FY20, 50% by FY25, and 100% by FY27." Air travel is a major source of greenhouse gas emissions. In the 2008 baseline carbon emission calculation for campus, 7 percent of the emissions was due to directly financed air travel. While some reduction in the air travel can be achieved through increased teleconferencing, the remainder will need to be offset. There are some airplane comp</p> <p>The 2015 iCAP, chapter 4, objective 4, is "Reduce the percentage of staff trips made using single-occupancy vehicles from 65% to 55% by FY20, 50% by FY25, and 45% by FY30." In order to have a sizable impact on transportation emissions, campus will need a multi-faceted program that encourages and educates the entire University community on alternative transportation options.</p>
Land & Space	Assess and Reduce Agricultural GHG Emissions	Proposed	<p>The 2015 iCAP, chapter 7, objective 1 is "Perform a comprehensive assessment of GHG emissions from agricultural operations, and develop a plan to reduce them, by the end of FY16." This assessment should include the identification or development of an agricultural emissions calculator that can be used on an annual basis to estimate related GHG emissions, along with the identification of the appropriate group of stakeholders in the relevant units who would annually provide the required i</p>
Land & Space	Carbon Sequestration	Proposed	<p>The 2015 iCAP, chapter 7, objective 5 is "Increase carbon sequestration in campus soils by determining the sequestration value of existing plantings and identifying locations for additional plantings, with a specific objective of converting at least 50 acres of U of I farmland to agroforestry by FY20." Carbon sequestration is the process through which land management practices absorb and sink carbon dioxide (CO2) from the atmosphere.</p>
Land & Space	Implement Energy Standards	Proposed	<p>The 2015 iCAP, chapter 2, objective 2 is "Identify the highest achievable energy standards for new buildings and major renovations, and incorporate these into the campus facility standards by the end of FY16." The Energy Generation and Building Standards SWATeam discussed this objective with</p>

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			SWATeam
Land & Space	Incorporate Sustainability Principles into Campus Master Plan	In Progress	The 2015 iCAP , chapter 7, objective 3 is "Incorporate sustainability principles more fully into the Campus Master Plan."
Land & Space	Maintain or Reduce Gross Square Footage	In Progress	The 2015 iCAP , chapter 2, objective 1 is "Maintain or reduce the campus gross square footage relative to the FY10 baseline." The Net Zero Space Growth Policy was enacted to halt the growth in gross square footage of campus buildings; to support the goal of reducing the campus footprint over time through more efficient space utilization; to fulfill the commitment under the
Land & Space	Sustainable Landscapes Plan	In Progress	The 2015 iCAP , chapter 7, objective 2 is "Design and maintain campus landscapes in a more sustainable manner; expand the specification of sustainable plantings in campus landscaping standards, and develop and implement a tree care plan by FY16 and an integrated pest management program by FY17." According to the 2010 Illinois Climate Action Plan, one of the major goals under the theme of Campus Lands and Space is the development and implementation of a plan for sustainable landscapes and
Water	Inventory and Benchmark Existing Landscape Performance	In Progress	The 2015 iCAP , chapter 5, objective 4 is "Inventory and benchmark campus' existing landscape performance by FY17."
Water	Obtain and Publicize Water Data	Proposed	The 2015 iCAP , chapter 5, objective 1, is "Obtain and publicize more granular water use data by FY16, including water quantity and quality data where available." The campus should obtain and publicize the usage, costs, and quality of water for campus.
Water	Reduce Cooling Tower and Chiller Plant Water Use	In Progress	The 2015 iCAP , chapter 5, objective 2 is "Improve the water efficiency of cooling towers by limiting the amount discharged to sewer to less than 20% of water intake for chiller plant towers, and less than 33% for stand-alone

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			building towers, by FY20." The results of the Illinois Sustainable Technology Center's True Cost of Water Study yielded five action items and two pilot studies.
Water	Reduce Nitrates from Agricultural Stormwater	Proposed	The 2015 iCAP , chapter 7, objective 6 is "Reduce nitrates in agricultural runoff and subsurface drainage by 50% from the FY15 baseline by FY22."
Water	Stormwater Management Program	In Progress	The 2015 iCAP , chapter 5, objective 6, is "Investigate the water quality impacts of stormwater runoff and potential ways to reduce stormwater pollutant discharges by FY18." Stormwater can transport pollutants on the ground to storm drains, where they eventually pollute our creeks and rivers. The University has a Storm Water Management Program to minimize such pollution.
Water	Use of Non-Potable Water	Proposed	The 2015 iCAP , chapter 5, objective 5, is "Through an open solicitation process, implement at least four pilot projects to showcase the potential of water and/or stormwater reuse by FY20, with the objective of implementing a broader program by FY25." Non-potable sources of water will also be utilized when appropriate, including untreated raw water, sump pump discharge, cooling tower wastewater, stormwater, and graywater.
Water	Water Audit / Inventory	Proposed	The 2015 iCAP , chapter 5, objective 3, is "Perform a water audit to establish water conservation targets — and determine upper limits for water demand by end-use — for incorporation into facilities standards by FY16."
Funding	Allocate Existing Resources	Proposed	The 2015 iCAP , chapter 9, objective 1 is, "By the end of FY16, develop criteria and a review process for the iCAP Working Group to allocate funding for feasibility studies of SWATeam-recommended sustainability projects and initiatives, using funds provided by campus administration and other sources." The campus budget could be directly allocated for sustainability projects.

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Funding	Allocate Savings	In Progress	The 2015 iCAP , chapter 9, objective 2 is, "By the end of FY16, increase the size of the Revolving Loan Fund (RLF) to a level commensurate with our aspirational peers, expand the reach of the Fund, and increase the use of Energy Performance Contracting." There are various efficiency projects that lead to a cost reduction for future years. By allocating the savings from these conservation projects back to additional conservation projects, the campus can build upo
Funding	Develop Local Carbon Offset Program	Proposed	The 2015 iCAP , chapter 8, objective 3 is, "By the end of FY18, develop a program of local or regional mission-linked verified carbon offsets, so that our purchases of offsets will also support our institutional missions."
Funding	Develop Process for Purchasing Carbon Offsets	In Progress	The 2015 iCAP , chapter 8, objective 1 is, "By the end of FY16, conduct a Request for Proposals process for verified carbon offsets — and undertake the first campus purchase of offsets." iSEE is developing a Request for Proposals (RFP) for purchasing carbon credits, aka carbon offsets.
Funding	Identify funding for projects without payback	Proposed	The 2015 iCAP , chapter 9, objective 3 is, "By the end of FY16, identify the amount of funds that are available across campus for projects that do not offer a rapid financial payback, but which are nevertheless important for improving campus sustainability, and identify options to increase that amount annually."
Funding	Internal price on carbon	Proposed	The 2015 iCAP , chapter 12, objective 3 is, "By the end of FY16, evaluate the feasibility of internally putting a price on carbon emissions."
Funding	Use Carbon Credits to meet Commitments	Proposed	The 2015 iCAP , chapter 8, objective 4 is, "By FY20, utilize offsets to meet all iCAP emissions targets that have not been met by direct emission reductions."

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Funding	Virtual Storeroom for Carbon Offsets	Proposed	The 2015 iCAP , chapter 8, objective 2 is, "By the end of FY17, develop an administrative mechanism to enable campus units to voluntarily purchase carbon offsets."
Procurement & Waste	Appropriately Staff Zero Waste Efforts	In Progress	The 2015 iCAP , chapter 6, objective 4 is "Appropriately staff Zero Waste efforts through the hiring of a full-time Zero Waste Coordinator." The Purchasing, Waste, and Recycling SWATeam submitted a recommendation to the iCAP Working Group (iWG) in support of this position, and the iWG requested they divide the position into two half-time roles. One half-time Zero Waste Coordinator at Facilities & Services (F&S), and one Zero Waste Coordinator in the Office of Business and Finan
Procurement & Waste	Develop Sustainable Purchasing Policies	In Progress	The 2015 iCAP , chapter 6, objective 1, is "By FY17, environmental standards will be applied to purchases of office paper, cleaning products, computers, other electronics, and freight/package delivery services. At least 50% of purchases in these categories will meet campus standards by FY20, and 75% by FY25." In support of iCAP, University Sourcing has developed the following language for inclusion in requests for proposals (RFPs).
Procurement & Waste	Increase Recycling Rates	In Progress	The 2015 iCAP , chapter 6, objective 2, is "Reduce municipal solid waste (MSW) going to landfills. This involves reducing nondurable goods purchases, effectively reusing materials, and recycling. In the latter category, campus will increase the diversion rate of MSW to 45% by FY20, 60% by FY25, and 80% by FY35, while also increasing the total diversion rate to 90% by FY20 and 95% by FY25.
Procurement & Waste	Sustainable Food Practices	In Progress	The 2015 iCAP , chapter 7, objective 4 is "Implement a project that examines the food service carbon footprint for Dining and other on-campus food vendors, while increasing local food procurement to 40% by FY25." Although increasing local food purchases were the primary food procurement initiative outlined in the Illinois Climate Action Plan (iCAP), there are several other sustainable aspects the University has tried to increase in their food

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			purchases.
Procurement & Waste	Use Landfills with Methane-capture Technology	In Progress	The 2015 iCAP chapter 6, objective 4 is "Utilize landfills with methane capture."
Outreach	Contribute to a Regional Climate Action Plan	In Progress	The 2015 iCAP , chapter 11, objective 2 is, "Strengthen and communicate about sustainability outreach programs. Specifically, at least half of the full-time campus staff will be participating in the Certified Green Office Program by FY20." In coordination with the Chancellor's Office work with representatives from Champaign, Urbana, Savoy, MTD, and the Regional Planning commission to evaluate the potential for a region-wide Climate Action Plan.
Outreach	Institute for Sustainability, Energy, and Environment (iSEE)	In Progress	The 2015 iCAP , chapter 12, objective 1 is, "Create a hub for the sustainability community: to develop a comprehensive online gateway for faculty, staff, students, potential donors, and all interested parties to find information about sustainability research, education, outreach, initiatives, and operations." In the quest to become a pre-eminent research university with a land-grant mission and global impact, integrating sustainable practices in our research, classes, and buildings – ev
Outreach	Major Annual Events	In Progress	<p>The 2015 iCAP, chapter 11, objective 3 is, "Organize and promote three major sustainability events on campus each year: Earth Week, Campus Sustainability Week, and the iSEE Congress."</p> <p>iSEE Congress</p>
Outreach	Student Sustainability Leadership Council (SSLC)	In Progress	The 2015 iCAP , chapter 11, objective 1 is, "Support and communicate about co-curricular student sustainability programs." The Student Sustainability Leadership Council (SSLC) is iSEE's finger on the pulse of student-led initiatives in sustainability.

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Research	iSEE Thematic research	Proposed	The 2015 iCAP , chapter 12, objective 3 is, "Foster “actionable” research: to encourage and support research that provides real-world solutions to society’s grand challenges in sustainability, energy, and the environment. iSEE research themes are broken into five categories: Climate Solutions, Energy Transitions, Secure and Sustainable Agriculture, Sustainable Infrastructure, and Water and Land Stewardship."
Research	Scholars Program	Proposed	The 2015 iCAP , chapter 12, objective 2 is, "Build connections: to bring together scholars from across campus to encourage collaboration, and to enhance research endeavors."

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