ECO₂ Champion Awards

Celebrating the 2023 winners

ENERGYCAP®

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Executive summary

The 2023 EnergyCAP Eco Champion Awards serve as a recognition of organizations' exemplary achievements in energy efficiency and sustainability. Designed to celebrate and honor the efforts of businesses, institutions, and agencies committed to reducing energy consumption and promoting environmental stewardship, these awards highlight outstanding accomplishments in energy management and sustainability practices. Organizations recognized as Eco Champions demonstrate leadership, innovation, and dedication to achieving tangible results in reducing carbon footprints, implementing energy-saving initiatives, and fostering a culture of sustainability within their communities. Through this award program, EnergyCAP aims to inspire and motivate organizations across various sectors to prioritize energy efficiency and sustainability as integral components of their operational strategies, thereby contributing to a more sustainable and environmentally conscious future.

Join the Eco Champions Community

What is Eco Champions?

Eco Champions is EnergyCAP's online community of like-minded energy, sustainability, and finance leaders.

Who can join?

Anyone who is interested in learning more about the EnergCAP user community (this includes non-users).

Why should you join?

Join to learn from and collaborate with industry peers and EnergyCAP experts. Eco Champions is an opportunity to post questions, discuss topics, or view webinars.

How to join?

Sign up at **EnergyCAP.com/Community**

And the winners are...

Most Sustainable Organization

Winner

- Recognized as a top EPA Green Power Partner

- Ranked in the Sierra Club's "Cool Schools" rankings.

- Prioritizing full decarbonization over reliance on carbon offsets in their Sustainable Practices Policy

- Established the Fossil Free Task Force

- Tracking energy data informs ongoing efforts to complete decarbonization system-wide studies

University of California System

The University of California System has long been at the forefront of sustainability, consistently recognized for its efforts and achievements. From being the top **EPA Green Power Partner** for Annual Green Power Procurement to earning accolades in the Sierra Club's "Cool Schools" sustainability rankings, UC's commitment to sustainability is evident. This dedication serves as a driving force behind all UC initiatives, including the significant updates made to its **Sustainable Practices Policy** in 2023, which now prioritizes full decarbonization over reliance on carbon offsets.

Recognizing the urgency of the climate crisis, UC has shifted its focus towards direct action to decarbonize operations. Despite the complexity and costliness of this endeavor, UC remains steadfast in its commitment, establishing the **Fossil Free Task Force** and initiating comprehensive decarbonization studies across its campuses and medical centers. This shift towards direct action aligns with the university's goal of ensuring real, additional, and permanent emissions reductions, supported by primary sustainability metrics tracking Scope 1 and 2 GHG emissions through EnergyCAP.

UC's systematic approach to tracking and analyzing energy data plays a crucial role in monitoring progress towards sustainability goals. This organized data not only aids in reporting but also informs ongoing efforts to complete decarbonization studies system-wide. Through its unwavering dedication and exceptional efforts in sustainability, UC has positioned itself as an international leader in sustainable operations and climate action.

Most Sustainable Organization

Runners up

University of Cincinnati

Utilities at **University of Cincinnati** (UC) has made significant strides over the years, especially in 2023, towards energy efficiency and sustainability. A water reclamation project which has saved 16.01M gallons of water received the 2023 AEE Midwest US Region Energy Project of the Year Award. Their "Online Steam Turbine Wash" project saved the university $973,557, and earned them the 2023 AEE Midwest US Region Innovative Energy Project of the Year Award.

Watch the "Energy and Sustainability at University of Cincinnati 2023" video.

In 2023, UC Utilities was also awarded:

- Midwest Combined Heat and Power (CHP) Project of the Year Award
- National CHP Project of the Year Award
- AEE Midwest US Region Young Energy Professional of the Year Award
- AEE Energy Project of the Year
- AEE Young Energy Professional of the Year
- IDEA CampusEnergy Video Contest
- CHPA Combined Heat & Power Project of the Year Award
- MCA Inspiring CHP Project Award
- UC Staff Sustainability Award

Chesterfield County, VA

In 2023, **Chesterfield County, VA** made significant strides in sustainability, with the realization of long-term efforts to introduce **solar power** to government and school facilities. Despite challenges stemming from the COVID pandemic, including supply chain disruptions and increased labor and material costs, Chesterfield remained committed to building a clean renewable energy portfolio through a Solar Power Purchase Agreement (PPA). By December 2023, eight solar arrays were energized, reducing carbon emissions, providing STEM opportunities for students, lowering electric costs, and ensuring price stability for the next 25 years. With three more buildings in the installation process and **leases signed for six additional facilities**, Chesterfield's total solar portfolio now spans seventeen buildings. These efforts are estimated to offset 2,265 tons of CO2 annually and result in significant cost savings over the life of the arrays. Utilizing EnergyCAP to track usage and associated costs proved pivotal, aiding in determining the viability of solar for each facility and estimating avoided costs, with over $4 million projected for the life of the arrays.

Miami-Dade County, FL

Miami-Dade County approved a $65 million waste-to-energy facility and sustainability campus, transitioning from RDF combustion to mass burn technology. The Resource Recovery Facility processes over 660,000 tons of waste annually, reducing greenhouse gas emissions by 452,000 metric tons of CO2, equivalent to removing 97,000 passenger vehicles from the road for a year. It generates 77 megawatts of electricity, enough to power 25,000 homes for a year, and recovers 21,100 tons of metal for recycling annually, sufficient to build 15,000 cars. To further Miami-Dade County's commitment to using renewable energy in county buildings and reducing its carbon footprint, Miami-Dade County Department of Corrections and Rehabilitation installed a large-scale solar array of 1709 panels at **Metro West Detention Center** that will reduce approximately 880 tons of carbon dioxide emissions each year. The solar panels are projected to provide about 24% of the building's annual electricity use saving the county and taxpayers thousands of dollars. This solar installation is the second of three large-scale solar pilot projects being deployed in Miami-Dade County. The first was at the **North Dade Regional Library**, and the next will be completed later this year at the **South Dade Regional Library**.

Miami-Dade County Department of Transportation and Public also began a significant project in 2023 to convert approximately 29,000 unmetered streetlights to metered LED smart lighting, with around 1,000 streetlights already upgraded. The cost avoidance calculations have yet to be determined, but it will be a significant cost avoidance and reduction in GHG emissions..

In addition to reducing Miami-Dade County's carbon footprint, saving money is important too. To track credits from the Water and Sewer Department for repaired underground and concealed leaks, Miami-Dade County uses EnergyCAP's Cost Recovery feature. With recent use of this feature, it is easy to report the accounts were adjusted and received total credits of $215,395.29.

Most Sustainable Organization

Rising star

AFL Global

In a short timeframe, **AFL Telecommunications** has made remarkable progress in sustainability, by embracing Science-based Targets and releasing its first annual Sustainability Report within two years. In 2023, AFL developed a comprehensive Sustainability Program following a materiality assessment, including initiatives such as a Greenhouse Gas Inventory assessment, commitment to Science-based target initiatives, and partnerships with EnergyCAP for progress tracking. AFL aims for a 50.4% reduction in Scope 1 and 2 emissions and a 30% reduction in Scope 3 emissions by 2032, alongside reducing energy intensity by 10% and waste and water intensity by 5% by 2027. They've implemented a reel reuse program, established a sustainable product and packaging initiative, and opened a landmark facility in Poland, achieving BREEAM certification and incorporating various sustainable features. This significant progress demonstrates AFL's commitment to sustainability and their trajectory to become a future Most Sustainable Organization Eco Champion.

▸ Visit **AFL's Corporate Responsibility** website.

▸ Learn about **AFL's sustainability and environmental stewardship**.

Most Energy Costs Avoided

Winner

▶ Jenna Faupel led the development and oversight of the Department of State's Bureau of Overseas Buildings Operations global Energy Analytics program.

▶ Managed EnergyCAP operations across 244 worldwide locations, with billing intricacies in 45 languages and 130 currencies.

▶ Achieved substantial utility cost savings of $1.3M annually, with potential savings exceeding $5M.

Department of State

Jenna Faupel, as Energy Manager for the **Department of State's Bureau of Overseas Building Operations (OBO)**, spearheaded the development and oversight of the Department's global Energy Analytics program. Her responsibilities encompassed coordinating EnergyCAP operations across 244 worldwide locations, managing billing intricacies in 45 languages and 130 currencies, and navigating relationships with over 700 vendors and 1,300 rate schedules, resulting in over 40,000 transactions annually. Despite these challenges, Jenna's focus on granular data analysis led to substantial utility cost savings of $1.3M annually, with potential saviangs exceeding $5M, and facilitated institutional changes for energy management within OBO. Notably, the efforts of Jenna and her team in 2023 alone yielded a cost reduction of $739,000 through strategic modifications to utility agreements across various diplomatic sites.

This vigilance led to the identification and rectification of two major billing errors in 2022, resulting in the recovery of $140,000 for the U.S. Embassy Port au Prince. Jenna's innovative approach and adept management of the Energy Analytics program have garnered recognition and inquiries from other agencies, cementing her as a driving force behind transformative energy management practices within OBO.

Jenna Faupel and her team have been innovative advocates for energy analytics. This work has transformed the Bureau of Overseas Buildings Operations, and their exceptional ability to manage the program globally despite its complexity has been nothing short of remarkable.

Most Energy Costs Avoided

Runner up

University of Cincinnati

Since the early 1900s, the University of Cincinnati has focused efforts on energy savings and efficiency. Energy generation at the University of Cincinnati goes way back to the year 1910 when the power plant was first built on campus. In 2004 the central plant expanded to start producing up to 100% of the electricity needed for the university. Co-generation alone has saved the University of Cincinnati $109 million in almost two decades. Utility costs for the university have remained consistent for the past 8 years and are projected to stay flat for the foreseeable future.

A recently deployed water reclamation project—winner of the 2023 AEE Midwest US Region Energy Project Award - has saved 16.01M gallons of water and $152,948 in 2023. UC's "Online Steam Turbine Wash" project saved the university $973,557, and earned them the 2023 AEE Midwest US Region Innovative Energy Project of the Year Award.

▸ For more details on savings, **watch the "Energy and Sustainability at University of Cincinnati 2023" video.**

Most Energy Costs Avoided

Runner up

Charlotte County, FL

The **Charlotte County** Facilities Department has embarked on a revitalized initiative to track energy consumption and monitor countywide energy accounts under the leadership of energy efficiency coordinator Sean Gray. In its inaugural year, remarkable progress has been made, with substantial strides achieved in curbing energy usage and expenses using EnergyCAP and a data-centric approach. The Facilities Department's unwavering dedication to energy efficiency has had tangible impacts across various departments, showcasing a steadfast commitment to efficiency and making the department a standout choice for this award.

Charlotte County, FL identified ~$87,000 in total savings for 2023:

- ▸ FPL Rate savings of **$49,500**
- ▸ Water Cost Avoidance: **$17,800**
- ▸ Electric Cost Avoidance: **$1,400**
- ▸ Live Oak Point Project: **$13,800**
- ▸ Rebates: **$4,600**

The Trifecta Award

Winner

- ▸ Prioritizes sustainable leadership to support missions of education, research, and patient care.
- ▸ Collaborates with faculty, students, and staff to reduce waste and promote eco-conscious attitudes.
- ▸ Utilizes EnergyCAP's suite of solutions since 2017.
- ▸ Expanded use includes data collection, bill capture, chargebacks, and leveraging submetering and interval data.
- ▸ Proactive measures like interval data analysis led to identification and rectification of energy inefficiencies, resulting in significant savings.

University of Texas Medical Branch

The University of Texas Medical Branch (UTMB) in Galveston, Texas, is a prestigious academic medical center spanning 10 million square feet, housing the region's oldest medical school established in 1891, a Level 1 Trauma Center, and the renowned Galveston National Laboratory.

The Sustainability Department at UTMB prioritizes sustainable leadership to support the institution's missions of education, research, and patient care. UTMB is committed to efficient energy management and resource conservation, ensuring responsible stewardship of natural resources for present and future generations. Faculty, students, and staff, collaborate to reduce waste and promote eco-conscious attitudes and education initiatives enhance awareness and community engagement.

Since 2017, UTMB has brought the management of EnergyCAP in-house and have utilized the software's complete suite of solutions, which includes **EnergyCAP UtilityManagement™**, **EnergyCAP SmartAnalytics™**, and **EnergyCAP CarbonHub**™. They have expanded their use of these solutions, incorporating data collection, bill capture, chargebacks, and leveraging submetering and interval data to identify inefficiencies and promote energy-saving projects. Through proactive measures like interval data analysis, UTMB has identified and rectified energy inefficiencies, such as a malfunctioning chilled water valve in the Customs House building, resulting in significant savings of $25K within a year.

UTMB's commitment to EnergyCAP and their contribution to promoting energy sustainability is unparalleled. They are worthy recipients for the Trifecta Award, recognizing their continued commitment to EnergyCAP's suite of solutions in achieving their energy and sustainability goals.

▸ **Read the press release** about UTMB embracing EnergyCAP's full suite of solutions.

The Trifecta Award

Rising stars

University of New Mexico

The University of New Mexico is a pioneer in sustainability and a committed steward of the Earth's natural resources. In 2023, UNM adopted EnergyCAP's newest solutions, EnergyCAP CarbonHub and EnergyCAP SmartAnalytics, making them one of the first customers to embrace EnergyCAP's complete solution suite. Since partnering with EnergyCAP in 2008, UNM has been able to avoid costs totaling nearly $146 million and decrease their energy consumption by an impressive 26.3%. The addition of CarbonHub will let UNM accurately track their greenhouse gas emissions and comply with the ever-increasing number of regulations.

▸ Read **University of New Mexico's EnergyCAP success story**.

University of Nebraska-Lincoln

University of Nebraska-Lincoln has long trusted EnergyCAP as it's primary tool to support its high performing **Energy and Sustainability program**. UNL sets the gold standard for higher education by its energy efficiency, cost savings, and detailed carbon emission reporting.

▸ Watch a **recorded webinar with Kirk Conger, UNL's Energy Manager** to learn about the complex nature of energy management at higher ed campuses and how an energy information system can help drive campus sustainability.

Most Creative Energy Project

Winner

University of CINCINNATI

- ▸ Offers "Energy, Environment and Society" course, exploring technologies and energy policies on local, national, and global scales.
- ▸ Capstone project allows students to develop real-world energy solutions and equips students with holistic understanding of energy's impacts.
- ▸ Integration of tools like EnergyCAP UtilityManagement and EnergyCAP CarbonHub for accessing and analyzing campus energy data.

The University of Cincinnati

The University of Cincinnati is dedicated to offering students across disciplines a comprehensive education on energy dynamics. Central to this commitment is the course "**Energy, Environment and Society**," co-led by **Eugene Rutz** and **Sid Thatham**. This course exposes students to diverse technologies and energy policies on local, national, and global scales. Through readings, debates, facility visits, and student-led presentations, students actively engage with the material.

A highlight of the course is its capstone project, where students develop real-world energy solutions presented through written reports and creative presentations. Additionally, a study-abroad component in Scotland broadens students' perspectives on energy issues by immersing them in different cultural and policy contexts. The university recognizes the importance of equipping students with a holistic understanding of energy's environmental, economic, and geopolitical impacts.

By incoporating tools like **EnergyCAP UtilityManagement** and **EnergyCAP CarbonHub**, students will be able to access and analyze campus energy data, fostering informed decision-making. As future leaders in policy, science, engineering, and voting, students' understanding and empowerment in energy issues are vital. Through an interdisciplinary and engaging approach to energy education, the University of Cincinnati aims to cultivate informed leaders capable of addressing the pressing challenges of our global energy landscape.

Most Creative Sustainability Program

Winner

Penn State Sustainability

- ► Penn State's Sustainability Experience Center serves as a hub for sustainability research and education.
- ► Innovative projects like the Eco-Machine™, a sustainable wastewater treatment system utilizing bacteria and plants.
- ► MorningStar Solar Home, a 100% renewable-energy powered residence, is an immersive learning space for sustainability education and research.
- ► Over 800 students and faculty assembled for the 2007 Solar Decathlon, placing fourth among international universities.

Penn State's Sustainability Experience Center

Penn State's **Sustainability Experience Center**, spanning nine acres on the University Park campus edge, serves as a dynamic hub for sustainability research and education. It features various projects exploring food, energy, water, land, and community systems, including the campus Community Garden and ongoing research initiatives from different university departments.

The center boasts innovative projects like the **Eco-Machine**™, a sustainable wastewater treatment system gifted by alumni classes, utilizing bacteria and plants to purify wastewater while fostering the growth of nutrient-rich duckweed.

Additionally, the MorningStar Solar Home, a 100% renewable-energy powered residence, serves as an immersive learning space for sustainability education and research, showcasing sustainable building practices and renewable energy systems. Originally built for the 2007 Solar Decathlon, the Solar Home was assembled by a team of over 800 students and faculty, placing fourth among international universities. It now stands permanently at Penn State, offering tangible examples of sustainable design and energy strategies while serving as a focal point for sustainability initiatives within Pennsylvania communities.

Penn State's Sustainability Experience Center offers in-person tours and virtual tours. virtual tours were incorporated into some course syllabi during 2020–2021.

Most Creative Sustainability Program

Rising star

Youth in Energy Empowerment Program (YEEP)

The internship program, **YEEP**, launched in Kenya on January 19, 2021, in partnership with German Agency for International Cooperation (GIZ) through the Water and Energy for Food (WE4F). It equips energy sector graduates aged 21—30 with essential skills for employment and industry change.

The first cohort of 10 professionals were trained for 4 months, then assessed energy use in Agri-food facilities during a 6-month internship. They made recommendations for water and energy savings by carrying out water and energy audits using smart meters. They utilized EnergyCAP SmartAnalytics for project development. Several host facilities continue to use **EnergyCAP SmartAnalytics** (fka Wattics). The second cohort of 35 from Kenya and Uganda underwent similar training and internships.

Project outcomes guaranteed upon implementation of the identified energy efficiency projects are:

▸ Estimated 9%—40.93% energy savings across all selected Agri-food facilities will be realized.

▸ Total of 846.78 Tonnes of GreenHouse Gas emissions reduction across the 10 Agri-food facilities

▸ A total of 62668581.92 kWh will be saved.

▸ A total of Kshs. 90,237,557.34 will be saved.

The second cohort of YEEP featured 35 youth from Kenya and Uganda who underwent similar training and internship. In 2023, YEEP won the "**2023 AEE International Award for "Innovative Energy Project of the Year"**.

YEEP is currently recruiting applicants for the 3rd cohort 2024 featuring 3 East African countries; Kenya, Uganda and Tanzania. YEEP is an initiation of **Eenovators Limited**.

Best EnergyCAP Dashboard

Winner

St. Johns County School District

- In 2008, the St. Johns County School District adopted an Energy Management Program (EMP)

- By 2020, the district's facility footprint increased by over 35%, serving nearly 50% more students.

- Dashboards display the energy and water/sewer use and cost

Recognizing that energy efficiency and conservation is in the best interest of the St. Johns County School District and the students they serve, the School Board adopted an Energy Management Program (EMP) in September 2008 to control and optimize the cost and consumption of energy and energy related products for all of our facilities.

The St. Johns County School District's building footprint has been steadily expanding since the implementation of the EMP. In 2008 the SJCSD gross facility footprint was 4,977,748 SF (according to Florida Department of Education Annual Energy Reports). By the end of FY 2020, the District's facility footprint went up by **over 35% to 6,746,702 SF**.

These dashboards show the energy and water/sewer use and cost for St. Johns County School District. In total, 40+ school sites and over 180 accounts are represented. Utility bills for natural gas are tracked outside of EnergyCAP, but the school district is working to eventually include all commodities.

- View the **St. Johns County School District dashboard**.

About EnergyCAP

EnergyCAP is the leading Energy and Sustainability ERP, empowering customers with full control and understanding of their energy and sustainability data to reduce their carbon footprint and drive savings. The EnergyCAP suite of solutions comprises an array software solutions that seamlessly integrate and function as your single source of truth.

ENERGYCAP UtilityManagement™

Get best-in-class portfolio-level energy and sustainability reporting. Get accurate and reliable energy and utility data across your entire portfolio and streamline energy and accounting workflows.

Key features

- Accurate utility bill data, always
- Easy facility benchmarking
- Chargebacks and tenant billing
- Integrate with ENERGY STAR
- Measurement and verification

ENERGYCAP CarbonHub™

Get a holistic view of financial-grade scope 1, 2, and 3 carbon emissions data across your entire business with automatically applied factors to meet your ESG reporting needs.

Key features

- Auto GHG conversion
- Market-based emissions factors
- Track progress toward goals
- Sharable reports, charts, and dashboards
- BI tool integration

ENERGYCAP SmartAnalytics™

Get real-time energy and sustainability analytics. Dive deep into real-time performance of assets, devices, and sensors. Make quick, data-driven decisions for high-performance, net-zero buildings.

Key features

- Analyze consumption trends
- Machine learning behavior modeling
- Customizable alerts and alarms
- Formula-based calculations
- Tariff analytics
- Energy facilites

ENERGYCAP Bill CAPture℠

Our comprehensive data capture and managed services seamlessly accurately integrate your data into our platforms.

ENERGYCAP