



International Institute for Sustainable Laboratories

Dedicated to Advancing and Decarbonizing Vivarium Labs Globally

The International Institute for Sustainable Laboratories (I2SL) is dedicated to engaging a variety of stakeholders in advancing the safety and sustainability of laboratories and other high-tech facilities globally. All types of laboratories—and vivaria in particular—present significant challenges in terms of sustainable design, ventilation system efficiency, safe operation, and materials disposal. I2SL helps lab professionals that design and operate vivarium space to address sustainability through educational events, building performance tools, and shared resources.



Benchmarking for Animal Research Facilities

I2SL launched the Labs2Zero program in Fall 2022 to create tools to help decarbonize the world's research facilities. For example, participants can benchmark their lab buildings' energy and emissions data for free to see how they compare to peer facilities and access resources to improve their performance. I2SL's Laboratory Benchmarking Tool (LBT) stores data from over 1,200 lab buildings, including facilities with vivarium spaces, and is free to users who enter their utility and facility data.



LBT users can enter data for labs anywhere in the world and can use U.S. or metric units for benchmarking comparisons. Because more vivaria facilities are needed to round out the database, users can help enhance the accuracy of benchmarking for this category by opening an account and entering data at <https://lbt.i2sl.org>.

There are many reasons to use the LBT to benchmark your vivarium building:

- Starting a conversation on vivaria energy consumption
- Evaluating your facility's energy and emissions against peer vivarium facilities
- Identifying actionable insights to save energy and reduce emissions
- Prioritizing energy-saving projects within a campus' building portfolio
- Providing context for public energy disclosure data and completing AIA 2030 reporting, LEED O&M certification, and ASHRAE energy audits
- Setting—and measuring—environmental, social, and governance (ESG) goals

JOIN I2SL

Individual membership dues are \$195 per year. Group memberships for academic institutions, government agencies, nonprofits, and other lab owner categories are available. Learn more at www.i2sl.org/membership.

Labs2Zero Scores

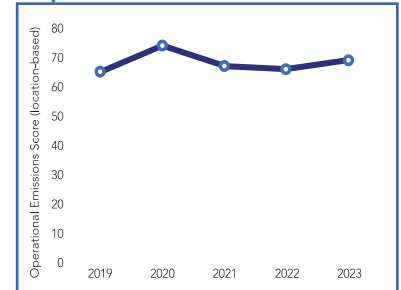
Using data entered into the LBT, users are able to access a pilot Energy Score and pilot Operational Emissions Score. The Energy Score works by rating each building's energy performance from 1 to 100, where 100 represents the highest performance compared to similar facilities. The Operations Emissions Score is a 1 to 100 percentile ranking of a lab building's location-based emissions, which means it is calculated using emissions factors for the building's electric grid and all other energy utilities used at the facility.

I2SL is seeking additional data and feedback from LBT users with vivarium facilities in particular, to help I2SL improve the accuracy of the Labs2Zero Energy and Operational Emissions Scores. The environmental controls and safety demands make vivaria a unique category that I2SL would like to ensure is well represented.

Visit www.i2sl.org/labs2zero for more information on Labs2Zero and check out a [quick-start guide](#) for obtaining a building's Energy and Operational Emissions Scores.



Operational Emissions Score



A Community of Practice Promoting Reuse, Recycling, and Composting

I2SL is an international community of professionals dedicated to advancing laboratory sustainability, many of whom participate in a Lab Waste Landfill Diversion Working Group, which focuses on addressing some of the toughest lab packaging, materials, and disposal challenges, including animal bedding. Coming from a variety of facilities, working group members understand the unique challenges faced when reducing animal research waste, including hazardous waste protocols, the need to segregate animal bedding waste streams for composting, and adhering to campus environmental safety and health policies, and they work together to share best practices in this area.

What's more, I2SL has created a **Circular Economy for Labs Community of Practice** of professionals dedicated to reducing waste from labs and vivaria, recovering materials for reuse, promoting sustainable procurement, and recycling lab packaging and other products. The Community of Practice provides lab users and suppliers with a variety of free webinars, roundtables, blogs, and other shared resources. For example, the University of Alabama at Birmingham provided a talk on lessons learned from its animal bedding composting program; you can [access the recording for free](#) on the Community of Practice website. Join the Circular Economy for Labs Community of practice at www.circulareconomy.i2sl.org.

If you have any questions about I2SL membership, the Circular for Labs Community of Practice, or the Labs2Zero program, please contact info@i2sl.org.



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