



Letter from the Director

Lawrence Berkeley National Laboratory

December 6, 2010

Dear Friends and Neighbors of Berkeley Lab:

Last March I wrote to introduce myself and to tell about my efforts on behalf of Berkeley Lab to enhance our communication with you. Today, I would like to continue that conversation and encourage the kind of feedback my last letter generated.

Berkeley Lab is a National Laboratory managed by the University of California for the U.S. Department of Energy. Our aim is to provide scientific solutions to some of the world's most urgent challenges; from finding new sources of clean energy and devising tools to offset climate change, to understanding and outwitting human diseases. Innovation and team science are hallmarks of Berkeley Lab, as is a sense of pride that what we accomplish locally has global benefits.

That is certainly true of the following research highlights:

Climate Modeling

Our scientists are using powerful computer models to understand the potential triggers of abrupt climate change. For example, thawing Arctic permafrost could possibly release large amounts of methane into the atmosphere. This could accelerate climate change because methane is one of the more potent greenhouse gases.

Berkeley Lab scientists are also developing a new kind of computer model that will predict interactions among climate, water, and energy on a global scale. The model will allow scientists to forecast climate change's impacts on ecosystems and human health. It could also inform policymakers as they consider strategies to mitigate climate change.

Battery Research

Scientists in Berkeley Lab's Environmental Energy Technologies Division are working on projects to spur significant, global-scale progress on clean energy. Through our battery research, we are helping to make the promise of electric vehicles a reality. We are seeking electrical grid-storage solutions to increase the use of renewable energy technologies, such as wind and solar, in our overall energy mix.

For those who may appreciate a more informal, insider's view of this work, Berkeley Lab scientist Venkat Srinivasan, in his off-hours, keeps a blog with a wealth of information on the latest in battery research. You can find Venkat's blog at www.thisweekinbatteries.blogspot.com.

Berkeley Lab is a major partner in the U.S. Department of Energy Solar Hub

In July, Berkeley Lab became part of a California team awarded up to \$122 million to form an Energy Innovation Hub to develop methods to produce fuels from sunlight. Berkeley Lab and Cal Tech are the major partners in the Joint Center for Artificial Photosynthesis (JCAP). This is an exciting new project to develop and commercialize technologies that will create clean-tech businesses and green jobs in California and across the country.

We have also continued our community-relations efforts. Here are some recent examples:

Open House

On October 2, the Lab hosted thousands of Berkeley and East Bay residents at our first Open House in nearly ten years. We are gratified that so many of you came up the hill to learn more about what we do and to see our science in action.

Reducing Fire Risk

As part of our Wildlife Fire Risk Reduction Program, started in 1992, we routinely cut grasses and remove brush and tree limbs to reduce seasonal fire risks. This year, we are selectively thinning eucalyptus groves on our northern boundary. The benefits of this additional fire-risk-reduction work will help protect both the Laboratory and the neighborhoods beyond.

Community Advisory Group

Since my last letter, the Lab's Community Advisory Group (CAG) has met three times to discuss such issues as the geology of the Berkeley Lab site and future development plans. We also launched a CAG Web site at www.lbnl-cag.org. All CAG meetings are open to the public, and we encourage you to attend.

Second Campus

Earlier this month, we took the first step toward securing proposals for our second campus. We view our expansion to a second campus as an investment in science and the economic development of the East Bay. We hope to develop a short list of possible sites by the end of February and make a final selection by June.

Much more is happening in energy efficiency, clean energy, new materials, photon science, and cosmology than I can share here – and I have only highlighted a few examples. To learn more, please join Friends of Berkeley Lab by visiting their Web site at www.friendsofberkeleylab.gov. Or you can visit our Berkeley Lab Web site at www.lbl.gov.

Sincerely,



Paul Alivisatos
Director
Lawrence Berkeley National Laboratory