

**Remarks of Graham Fleming, Deputy Director, Berkeley Lab
California Assembly Committee on Jobs, Economic Growth and the Economy
June 20, 2006**

Mr. Chairman, Mr. Vice Chairman and distinguished members of the committee, thank you for the opportunity to speak with you this morning about the great potential for the State of California of the Joint BioEnergy Institute.

The Joint BioEnergy Institute partnership is very grateful to Assemblyman Houston for introducing HR 29 and for his efforts and those of his staff to support our competition for funding from the US Department of Energy to establish the Institute.

Developing new sources of affordable, carbon-neutral energy is the most pressing scientific and technical challenge of the 21st century. Our grand-children will live in a very different world if we do not meet this challenge.

This morning, I'd like to briefly describe what a Joint BioEnergy Institute based in California would bring to the table to help find solutions to this monumental problem. In short, there is no place better than California as home for this Institute. And, there is no group of partners better placed to help advance our nation's quest to meet the energy challenge.

California is blessed to have world-class research facilities. Leading research universities, such as UC Berkeley and UC Davis, and our three prestigious national labs have broad expertise and scientific leadership in the disciplines that are relevant to solving the energy problem – fields such as chemistry, chemical engineering, plant and microbial biology, synthetic biology, physical sciences, and engineering.

The partnering among California's research universities and our national labs is a large competitive advantage.

By leveraging the strengths of world class research universities and the scientific tools, engineering expertise and scientific brawn of the national labs, partnering gives us the ability to manage large-scale, multidisciplinary "team science" projects that are focused on achieving specific economic, technological and societal objectives. Nowhere in the world do you find California's depth and breadth of scientific resources and brainpower.

The Joint BioEnergy Institute will benefit from California's national laboratories' unique user facilities such as the Molecular Foundry, the Advanced Light Source, and the National Energy Research Scientific Computing Center at Berkeley Lab, and the National Combustion Facility at Sandia National Laboratory.

Additionally, Berkeley Lab and Lawrence Livermore together run the Joint Genome Institute located in Walnut Creek. Sequencing projects such as the poplar tree and termite guts at JGI have accelerated research in energy, agriculture and carbon sequestration.

These types of resources in such close proximity are a tremendous asset, one that holds great promise for our collaborative efforts.

The State of California already has in place cutting edge alternative energy programs and research. The State Legislature, the Governor and other governmental organizations such as the PUC are all proactively working to meet the energy challenge. Likewise, the partner labs and our industry and university collaborators already have research strategies in biofuels that utilize novel biological platforms to address technical challenges such as increasing chemical energy storage in plants and new fuel production pathways.

Finally, we are an active participant in California's innovation ecosystem. Having started the biotech revolution, California still has the largest concentration of life sciences companies, and attracts the most VC investment of any area in the country. Many leading venture capitalists in the region, such as John Doerr and Vinod Khosla, are making large bets in biofuels.

California needs to do all it can to ensure that our State maintains its lead in bioenergy research and development. New industries, new jobs and environmental sustainability are at stake.

The Joint BioEnergy Institute would help propel California's competitive claim as the leader in bioenergy R&D by harnessing the newest and most promising scientific platforms, top scientific minds and scientific resources that only California can bring to the table.

Thank you again for this wonderful opportunity and for your support.