

# 1.0 INTRODUCTION

---

This Draft Environmental Impact Report (EIR) has been prepared to provide an assessment of the potentially significant environmental effects of the proposed Solar Energy Research Center project (hereinafter SERC project or proposed project). As required by the California Environmental Quality Act (CEQA), this Draft EIR (1) assesses the potentially significant environmental effects of the proposed project, including cumulative impacts of the proposed project in conjunction with other reasonably foreseeable development; (2) identifies feasible means of avoiding or substantially lessening significant adverse impacts; and (3) evaluates a range of reasonable alternatives to the proposed project, including the No Project alternative. The University of California (the University) is the “lead agency” for the project evaluated in this Draft EIR. The Board of Regents of the University of California (The Regents) has the principal responsibility for approving this project.

## 1.1 PURPOSE OF THIS EIR

The University of California, Lawrence Berkeley National Laboratory (UC LBNL) has prepared this EIR on the SERC project for the following purposes:

- To inform the general public; the local community; and responsible, trustee, and other public agencies of the nature of the proposed project, its potentially significant environmental effects, feasible measures to mitigate those effects, and its reasonable and feasible alternatives;
- To enable the University to consider the environmental consequences of approving the SERC project;
- For consideration by responsible agencies in issuing permits and approvals for the proposed project; and
- To satisfy CEQA requirements.

As described in CEQA and the *State CEQA Guidelines*, public agencies are charged with the duty to avoid or substantially lessen significant environmental effects, where feasible. In discharging this duty, a public agency has an obligation to balance the project’s significant effects on the environment with its benefits, including economic, social, technological, legal, and other benefits. This EIR is an informational document, the purpose of which is to identify the potentially significant effects of the proposed project on the environment and to indicate the manner in which those significant effects can be avoided or significantly lessened; to identify any significant and unavoidable adverse impacts that cannot be mitigated; and to identify reasonable and feasible alternatives to the proposed project that would eliminate any significant adverse environmental effects or reduce the impacts to a less than significant level.

The lead agency is required to consider the information in the EIR, along with any other relevant information, in making its decisions on the proposed project. Although the EIR does not determine the ultimate decision that will be made regarding implementation of the project, CEQA requires the University to consider the information in the EIR and make findings regarding each significant effect identified in the EIR. The Regents would certify the Final EIR prior to taking any action approving the proposed project. Other agencies may also use this EIR in their review and approval processes.

## 1.2 SUMMARY OF THE PROPOSED PROJECT

UC LBNL proposes to construct and operate the Solar Energy Research Center project that would be located in the central portion of the LBNL hill site in Berkeley, Alameda County, California. The proposed project includes an approximately 40,000 gross-square-foot building, reconfiguration of an existing service road and parking spaces, and other utility improvements needed to serve the proposed facility. The proposed building would accommodate both U.S. Department of Energy (DOE) and non-DOE research programs focused on developing fuels from sunlight using nanoscale photovoltaic and electrochemical solar energy systems.

## 1.3 RELATIONSHIP BETWEEN LBNL, UNIVERSITY OF CALIFORNIA, AND THE U.S. DEPARTMENT OF ENERGY

Lawrence Berkeley National Laboratory (LBNL) is a federally funded research and development center operated and managed by the University under a DOE/UC contract. LBNL is located on the LBNL hill site located in the Berkeley-Oakland hills, and a number of leased properties such as the Potter Street facility in Berkeley and the Oakland Scientific Facility in Oakland. The LBNL hill site is an approximately 200-acre site owned by The Regents of the University of California, where the University conducts research, service, and training work within the University's mission.<sup>1</sup> The federal government leases land at the LBNL hill site from The Regents and constructs federally owned buildings on the leased lands.<sup>2</sup>

DOE's overarching mission is to advance the national, economic, and energy security of the United States, and to promote scientific and technological innovation in support of that mission. LBNL's programs advance four distinct goals for the DOE and the nation:

- To perform leading multidisciplinary research in the computing sciences, physical sciences, energy sciences, biosciences, and general sciences in a manner that ensures employee and public safety and protection of the environment;

---

<sup>1</sup> The phrase LBNL hill site is used throughout this EIR to refer to the LBNL 200-acre campus to distinguish it from other properties leased by UC LBNL.

<sup>2</sup> It should be noted that the proposed project would be located on UC-owned land that is not leased to DOE.

- To develop and operate unique national experimental facilities for qualified investigators;
- To educate and train future generations of scientists and engineers by promoting national science and education; and
- To transfer knowledge and technological innovations and to foster productive relationships among the LBNL research programs, universities, and industry in order to promote national economic competitiveness.

Classified research is not conducted at the LBNL hill site.

Because The Regents may re-acquire full responsibility for the lands should the federal government close the LBNL hill site, and for effective ongoing management, The Regents hold themselves accountable for the stewardship of the LBNL hill site. The Regents require and approve the University-defined Long Range Development Plan (LRDP) and require that its approval be consistent with the University's policy that an LRDP undergo CEQA review and approval. Therefore, in 2004, under the direction of the University, UC LBNL commenced the preparation of an update to its LRDP. The Regents certified the 2006 LRDP EIR and adopted the 2006 LRDP in July 2007; the 2006 LRDP is now the governing land use plan for the LBNL hill site.

## 1.4 ENVIRONMENTAL REVIEW PROCESS

UC LBNL has filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse indicating that this Draft EIR has been completed and is available for review and comment by the public.

This Draft EIR has been made available for review by the public and interested parties, agencies, and organizations for a review period of 45 days, as mandated by California law. In reviewing the Draft EIR, reviewers should focus on the document's adequacy in identifying and analyzing significant effects on the environment and ways in which the significant effects of the project might be avoided or mitigated. To ensure inclusion in the Final EIR and full consideration by the lead agency, comments on the Draft EIR must be received during the public review period at the following address:

Lawrence Berkeley National Laboratory  
One Cyclotron Road, MS 76-234A  
Berkeley, California 94720  
Contact: Jeff Philliber, Environmental Planner  
planning@lbl.gov

UC LBNL will accept e-mail comments in lieu of traditional mailed comments; nevertheless, reviewers are encouraged to follow up on any e-mail comments with letters. Following the close of the review

period, responses to comments on the Draft EIR will be prepared and published as a separate document. The Draft EIR text and appendices, together with responses to comments and any text changes made to the original Draft EIR will constitute the Final EIR.

The Regents, the decision-making body for the University, will review UC LBNL's Solar Energy Research Center Final EIR for adequacy and consider it for certification pursuant to the requirements of Section 15090 of the *State CEQA Guidelines*. If The Regents certify the Final EIR, then The Regents will consider the project separately for approval or denial. If The Regents choose to approve the project, findings on the feasibility of reducing or avoiding significant environmental effects will be made and, if necessary, a Statement of Overriding Considerations will be prepared. If The Regents approve the project, a Notice of Determination (NOD) will also be prepared and will be filed with the State Clearinghouse. The NOD will include a description of the project, the date of approval, an indication of whether the Findings were prepared and a Statement of Overriding Considerations was adopted, and the address where the Final EIR and record of project approval are available for review.

#### 1.4.1 Type of EIR

In accordance with *State CEQA Guidelines* Sections 15152 and 15168 and Public Resources Code Section 21094, this environmental analysis is tiered from the EIR (State Clearinghouse No. 2000102046) that was prepared for the LBNL 2006 LRDP. The 2006 LRDP is a comprehensive land use plan that was adopted by the University to guide physical development at LBNL through 2025. The proposed project is an element of the growth that was anticipated in the 2006 LRDP and evaluated in the 2006 LRDP EIR.

The CEQA concept of "tiering" refers to the evaluation of general environmental matters in a broad program level EIR, with subsequent focused environmental documents for individual projects that implement the program. CEQA and the *State CEQA Guidelines* encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. *State CEQA Guidelines* Section 15168(d) provides for simplifying the preparation of environmental documents on individual parts of the program by incorporating by reference analyses and discussions that apply to the program as a whole. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to potentially significant effects on the environment that were not analyzed as significant in the prior EIR, that are susceptible to substantial reduction or avoidance (*State CEQA Guidelines* Section 15152(d)), or were not adequately addressed in the prior EIR (*State CEQA Guidelines* Section 15152(f)).

Tiering of the environmental analysis for the proposed project pursuant to the *State CEQA Guidelines* allows this tiered Draft EIR to rely on the 2006 LRDP EIR for the following:

- A discussion of general background and setting information for environmental topic areas;
- Overall growth related issues;
- Issues that were evaluated in sufficient detail in the 2006 LRDP EIR (as amended) for which there is no significant new information or change in circumstances that would require further analysis; and
- Assessment of cumulative impacts.

Since the certification of the 2006 LRDP EIR, with the exception of one change that is discussed below, there have been no changes in circumstances that could affect the results of the cumulative analysis in the 2006 LRDP EIR. In fact, the actual pace of development at LBNL's hill site and at the UC Berkeley campus since the LBNL 2006 LRDP and UC Berkeley 2025 LRDP were adopted has been slower than anticipated. As a result, the cumulative impacts analysis in the 2006 LRDP EIR is proving to be a conservative estimate of the long-term impacts. The one change in circumstances since the 2006 LRDP EIR certification relates to the City of Berkeley's adoption of new level of service (LOS) thresholds for traffic analysis after the certification of the 2006 LRDP EIR. To address this change, a supplemental traffic study was completed and published by UC LBNL in the Seismic Phase 2 EIR. The Seismic Phase 2 EIR was certified by The Regents in July 2010 and updated the LBNL 2006 LRDP EIR. The supplemental traffic study included all cumulative development identified in this EIR. The baseline and cumulative conditions have not worsened since the 2010 supplemental traffic study. Therefore, this EIR tiers off the conclusions of 2006 LRDP EIR regarding cumulative traffic impacts as updated by 2010 supplemental traffic study. The 2006 LRDP EIR, Seismic Phase 2 EIR, and the referenced traffic study are incorporated by reference in this EIR. Please see **subsection 1.4.2** regarding the availability of the 2006 LRDP EIR and other documents incorporated by reference.

In addition, mitigation measures that were previously adopted for the 2006 LRDP EIR that are related to, and designed to reduce the impacts of this project are identified in this Draft EIR. Since these mitigation measures are already being carried out as part of implementation of the 2006 LRDP, they are included in and made part of the proposed SERC project and would not be readopted. These mitigation measures are listed in each resource subsection of **Section 4.0, Environmental Setting, Impacts, and Mitigation Measures**. The analysis presented in **Section 4.0** evaluates environmental impacts that would result from project implementation after the application of these mitigation measures.

## 1.4.2 Public and Agency Review

On May 13, 2010, a Notice of Preparation (NOP), including an Initial Study, was published for the SERC EIR. The 30-day comment period ended on June 11, 2010. A copy of the NOP and the Initial Study is included in **Appendix 1.0**. All comments received on the NOP are available on file with UC LBNL.

An EIR scoping meeting was held at the North Berkeley Senior Center on May 26, 2010. The purpose of this meeting was to inform the public and interested agencies of the proposed project, solicit comments, and identify areas of concern.

Copies of this Draft EIR, the 2006 LRDP, 2006 LRDP EIR, and the Seismic Phase 2 EIR, all of which are incorporated by reference in this Draft EIR, are available for review online at <http://www.lbl.gov/Community/env-rev-docs.html> or at the following locations:

- Berkeley Public Library, 2090 Kittredge Street, 2nd Floor Reference Desk, Berkeley, California 94704
- LBNL Main Library, One Cyclotron Road, Building 50, Room 4034, Berkeley, California 94720

## 1.4.3 Intended Uses of this EIR

This document serves two purposes. The Regents will use this EIR to evaluate the environmental implications of approving the SERC project for implementation. Secondly, this document may be used as a source of information by responsible agencies with permitting or approval authority over the project.

## 1.5 SCOPE OF THIS EIR

UC LBNL completed a preliminary review of the project, as described in Section 15060 of the *State CEQA Guidelines*, and determined that an environmental review was required. UC LBNL prepared an Initial Study in May 2010 and determined that an EIR was necessary. Based on the Initial Study and the comments received at the scoping meeting and in response to the NOP, it was determined that the EIR would evaluate the following environmental topics in further detail:

- Aesthetics;
- Air Quality;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Noise;
- Transportation and Traffic; and
- Wastewater and Energy Systems.

## 1.6 REPORT ORGANIZATION

This Draft EIR is organized into the following sections:

**Section 1.0, Introduction**, provides an introduction and overview describing the purpose and scope of topics addressed in this EIR and the environmental review process.

**Section 2.0, Executive Summary**, summarizes environmental consequences that would result from the proposed project, provides a summary table that denotes anticipated significant environmental impacts, describes identified mitigation measures, and indicates the level of significance of impacts before and after mitigation.

**Section 3.0, Project Description**, describes the proposed project.

**Section 4.0, Environmental Setting, Impacts, and Mitigation Measures**, describes the environmental setting, including applicable plans and policies; provides an analysis of the potential environmental impacts of the proposed project; and identifies mitigation measures to reduce their significance. It also includes an evaluation of the project's cumulative impacts.

**Section 5.0, Alternatives**, summarizes alternatives to the project and the comparative environmental consequences of each alternative. This section includes an analysis of the No Project Alternative, among others, as required by CEQA.

**Section 6.0, Other CEQA Considerations**, provides a discussion of the project's significant and unavoidable impacts, the potential for growth inducement from the project, and a brief description of the environmental effects that were found not to be significant and, therefore, not evaluated in further detail.

**Section 7.0, Report Preparation**, provides a list of the individuals involved in the preparation of this EIR.