

The Regents of the University of California

NATIONAL LABORATORIES SUBCOMMITTEE

January 24, 2018

The National Laboratories Subcommittee met on the above date at Mission Bay Conference Center, San Francisco.

Members present: Regents De Le Peña, Mancía, Napolitano, Ortiz Oakley, Pérez, and Tauscher; Chancellor Block

In attendance: Secretary and Chief of Staff Shaw, Vice Presidents Budil and Ellis, Deputy General Counsel Woodall, and Recording Secretary McCarthy

The meeting convened at 3:15 p.m. with Subcommittee Vice Chair De La Peña presiding.

He acknowledged the dedicated service of Committee Chair Pattiz, who for ten years was chair of the Boards of Directors of the Los Alamos National Security LLC and the Lawrence Livermore National Security LLC. He had served in these roles with passion and distinction, affirming the importance of UC's work with the National Laboratories.

1. APPROVAL OF MINUTES OF PREVIOUS MEETING

Upon motion duly made and seconded, the minutes of the meeting of November 15, 2017 were approved.

2. PRESENTATION ON THE STATE OF THE LAWRENCE BERKELEY NATIONAL LABORATORY

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Vice President Budil expressed appreciation for Committee Chair Pattiz' leadership and tireless advocacy over the past decade for the National Laboratories and the University's role in the Los Alamos National Security LLC and the Lawrence Livermore National Security LLC.

Ms. Budil introduced Lawrence Berkeley National Laboratory (LBNL) Director Michael Witherell, who said he had been privileged to lead LBNL for two years. Mr. Witherell emphasized that LBNL was unique in its ability to conduct world-leading research across so many areas of science and technology. LBNL had about 4,000 employees, conducted \$900 million of research each year, and benefited greatly from its connection with UC.

Mr. Witherell stated that the nation needs LBNL for its discovery science, reflected in its 12 Nobel Prize winners; for its scientific solutions addressing national challenges, such as in energy, environment, health, and economic competitiveness, reflected in its 16 winners

of the National Medal of Science or the National Medal of Technology and Innovation; for its unique scientific capabilities, especially user facilities such as the Advanced Light Source; for its ability to manage large research teams that can tackle problems such as bio-energy or plant genomics; for its ability to devise important technologies not ready for industry and with long, risky research and development paths; and for its training a diverse group of highly skilled, creative, and committed scientists and engineers.

Mr. Witherell commented that LBNL had outstanding integration with the University, which directly manages and operates the Laboratory for the Department of Energy (DOE). LBNL provides unprecedented research opportunities for UC students and currently had 263 graduate students and 148 undergraduates on its payroll, in addition to other UC students who use LBNL's facilities. UC brings its public service mission to the management of the Laboratory.

Mr. Witherell cited some of LBNL's recent advances across its broad research spectrum spanning computer science, energy sciences, bioscience, energy technologies, earth and environmental science, and physical sciences. LBNL planned a \$300 million upgrade to its Advanced Light Source. LBNL manages the world's eighth fastest supercomputer, which is used by scientists from around the nation. LBNL's Molecular Foundry is a nanoscience center. Use of these facilities is provided free to university and industry scientists. LBNL would continue to provide great scientific breakthroughs. Future scientific initiatives would involve advanced biogenic chemicals, metagenomics, machine learning for science, quantum computing, and water energy resiliency. Mr. Witherell had started a new LBNL initiative on diversity, inclusion, and equity.

During the past six months, LBNL worked with the DOE's Berkeley site office and UC to draft a significantly reformed management and operations contract. The goals are to rebuild the relationship of trust between the DOE and its contractor, UC. Across the entire DOE system, the original idea of the government-owned, contractor-operated laboratory had been somewhat lost. LBNL was working with the DOE to set a standard to restore responsibility, authority, and accountability of line management to the Laboratory, with the DOE telling the Laboratory what to do, but not exactly how to do it. The DOE Berkeley site office and LBNL were working very well together.

Chair Kieffer asked about industry use of LBNL facilities. Mr. Witherell said large companies such as General Electric and Dow Chemical, as well as startups use LBNL facilities; semiconductor companies such as Intel and Samsung use its Advanced Light Source. Some of these arrangements are research partnerships; some companies make use of LBNL user facilities simply by writing a proposal that is accepted, as other users would. They would pay to capture any intellectual property created. LBNL had more industry engagement than almost any other National Laboratory and benefited greatly from its Bay Area location.

Chair Kieffer said a public presentation on the history and work of LBNL should be part of UC's 150th Anniversary events. Mr. Witherell agreed and said he could assist.

3. **ANNUAL REPORT ON FISCAL YEAR 2017 NATIONAL LABORATORY PERFORMANCE RATINGS**

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Committee Vice Chair De La Peña recalled that the National Laboratories receive an annual performance rating from the Department of Energy (DOE). The annual DOE rating determines whether the DOE will extend each Laboratory's management and operating contract for another year and how much fee would be earned by the contractor.

Vice President Budil noted that this year was the 75th anniversary of the founding of Los Alamos National Laboratory (LANL). She reported that the Lawrence Berkeley National Laboratory's (LBNL) rating in fiscal year 2017 was "Excellent." LBNL earned tremendous praise from the DOE for its world-leading science. LBNL is considered in many ways the flagship of the DOE's Office of Science laboratory family and the leading DOE institution in biological and environmental research. LBNL had notable improvements in leadership and stewardship of the Laboratory and tremendous improvements in its operational culture. LBNL's contract was extended to 2023, with the opportunity for additional extensions.

Ms. Budil reported that in 2017 Lawrence Livermore National Laboratory (LLNL) had its best year under its current contract, with results she characterized as extraordinary. LLNL earned 94 percent of available fee and an overall rating of "Excellent" in all four mission areas and "Very Good" in operations and leadership. LLNL had notable successes in all mission areas, and notable improvements in operations and infrastructure. The National Nuclear Security Administration (NNSA) particularly recognized UC's support of the LLNL-initiated Accelerating Therapeutic Opportunities in Medicine (ATOM) initiative, with GlaxoSmithKline, UCSF, and the National Cancer Institute to revolutionize the way drugs are developed. The ratings noted a minor issue involving difficulty in the issuance of a contract for the procurement of fire protection services with the local fire department.

In the University's last full year of performance under the current contract, Los Alamos National Laboratory (LANL) also had an excellent year, earning 90 percent of available fee. There was a two-step process for the LANL review and fee award. The initial performance evaluation review was extremely positive; this was followed by a contracting officer's letter unilaterally reducing LANL's fee because of a shipping incident. LANL was rated "Excellent" in science and mission activities, with successful completion of several projects, restart of operations in LANL's plutonium facility, and notable improvements in other aspects of operations and project management.

The University's net fee income based on these results was \$25.2 million, compared with the \$23 million estimated in July. Any income beyond expenses would go to the UC Laboratory Fees Research Program.

Committee Vice Chair De La Peña congratulated Ms. Budil and the Laboratories' directors on these outstanding results.

4. **UPDATE ON LOS ALAMOS NATIONAL LABORATORY CONTRACT COMPETITION AND LAWRENCE BERKELEY NATIONAL LABORATORY CONTRACT REFORM**

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Vice President Budil said the modified Lawrence Berkeley National Laboratory (LBNL) management and operations contract had been submitted to the Department of Energy (DOE) for review, which she anticipated would be completed in March. The modification process had forged a strong partnership among DOE personnel, Ms. Budil's office, and LBNL Director Witherell's team. Ms. Budil characterized this effort as an extraordinary success.

On December 11, UC had submitted a Los Alamos National Laboratory (LANL) contract proposal, which Ms. Budil said was superior. UC awaited feedback from the National Nuclear Security Administration (NNSA), which would evaluate the proposals to determine if they were within the competitive range and then provide bidders with detailed feedback on their proposals' significant weaknesses and deficiencies, which Ms. Budil anticipated in February. The NNSA would then schedule oral discussions that would include the key personnel team and representatives of the corporate parent companies to discuss the strengths and weaknesses of the proposal. UC would have an opportunity to submit a best and final proposal. If the current schedule is maintained, Ms. Budil expected a decision to be made in late April or early May. Her office was currently preparing for oral discussions.

Regent Tauscher complimented Ms. Budil and her team who developed UC's proposal, which she said was the best, and significant in its creativity and innovation. If the decision was made on the proposals' merits, UC would be awarded the contract. She expressed optimism and great confidence in the outstanding work of Ms. Budil and her team.

The meeting adjourned at 3:45 p.m.

Attest:

Secretary and Chief of Staff